New York City Health and Hospitals Corp.
Community Needs Assessment
Final Report, December 16, 2014

HHC NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

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Prepared by HHC Corporate Planning Services

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EXECUTIVE SUMMARY

The New York State Department of Health's DSRIP Project Application includes guidelines for completing a PPS service area Community Needs Assessment (CNA) to inform the DSRIP project planning process and provide supporting data and community and stakeholder feedback in support of DSRIP project selection. The HHC Performing Provider System (PPS), organized into four borough-based hubs, convened CNA workgroups to work collaboratively with contracted consultants to identify critical health priorities in local communities as well as gaps in health care and social service resources to support the design of meaningful interventions to improve population health and achieve meaningful health system transformation.

Although the aggregate health status of New York City compared to New York State residents overall is fairly comparable, the CNA's analysis of clinical outcomes, disease prevalence, and healthcare utilization patterns, as well as an exhaustive inventory of health and human service resources at the neighborhood level, highlights significant need in many of the City's less affluent communities, or "hot spots" which rely on safety net services.

At first glance, it would appear that adding more health care provider capacity is the answer to closing these gaps, yet the relationship of poverty, education and employment status, literacy and language capacity, immigration status, adverse environmental conditions, and behavioral risk factors point to a complicated set of socioeconomic problems that impact healthcare utilization patterns, allocation of healthcare resources, and the ability of the health care safety net system to improve overall population health and reduce the health disparity between neighborhoods.

While the findings from this comprehensive community needs assessment could support the selection of any of the State's DSRIP interventions, the 11 projects selected by the HHC led PPS reflect the prioritized, aggregated needs across each of the four PPS hubs as well as a HHC's measured determination of what interventions would have the most significant level of impact across the HHC led PPS service delivery system.

PPS Demographics

The HHC PPS four-borough service area population of over 7.9 million constitutes nearly 97% of the total NYC population, and 40% of the overall NYS population. The age breakdown of the population is fairly consistent across each borough, ranging from approximately 22% under age 18, 66% between the ages of 18-64, and 12% age 65 or older. These demographics are similar to NYS as well.

The racial/ethnic makeup in each PPS hub is somewhat distinct. Manhattan is the only PPS hub where the percentage of White, non-Hispanic residents approaches 50%, with higher proportions of residents in Queens, the Bronx, and Brooklyn identifying as Black/African/American, Hispanic/Latino, and Asian. Approximately one in three (34.2%) people in Brooklyn and the Bronx (34.7%) identify as Black or African American, a much larger proportion than in NYC as a whole (25.1%). Over half (54%) of the Bronx population identifies as Hispanic/Latino of any race. Historically, Latinos in New York City were from Puerto Rico, but there are now many more Hispanic/Latino immigrants from the Dominican Republic and Central American countries including Mexico and Ecuador.

The percent of residents who are foreign born ranges from 29% in Manhattan, 35% in Brooklyn, to a high of nearly 48% in Queens. In NYC, approximately 18% of foreign-born residents are not U.S. citizens,

and higher yet in Queens (23%). This rate underestimates the undocumented immigrants who are not represented counted in official census counts.

There are 4,201,907 Medicaid beneficiaries in NYC (2014 estimate). In 2012, 43% of people residing in the PPS service area were covered by Medicaid and 14.2% were uninsured, and largely due to the implementation of the New York Health Exchange in January 2014 Medicaid enrollment increased and uninsured decreased. Up to 85% of residents qualify for Medicaid in areas such as Bushwick, Brownsville and East New York in Brooklyn, and a single large geographic cluster that reaches from the Fordham – Bronx Park area between the Botanical Garden and the Harlem River in the north, and continues southward along both sides of the Grand Concourse through Morris Heights, Mouth Hope, Highbridge – Morrisania, to Mott Haven.

There are roughly equal numbers of males and females across the PPS service area, although health insurance status by gender varies. Higher proportions of females than males are Medicaid beneficiaries (56% v. 44%), and more uninsured males than females (57% v. 43%). NYC Medicaid beneficiaries are primarily Black/African American (21.8%) and Hispanic (41.8%), followed by White (18.2%) and Asian (17.7%), yet rates of Medicaid coverage and lack of health insurance vary by race/ethnicity within each borough. For instance, the Queens' population is 28% white, 18% Black/African American, 23% Asian, 28% Hispanic or Latino of any race,[1] while the Queens population with Medicaid insurance is more likely to be Hispanic (36%) and Asian (27%), and less likely to be Black/African American or White (15%).[2]

Overall, 60% of the uninsured and 35% of Medicaid beneficiaries are foreign born, with large numbers of foreign-born and immigrant populations in distinct communities across each borough. Countries of origin are also distinct at the neighborhood level - for example, large numbers of people of Caribbean background (e.g., Jamaica, Trinidad, Haiti) live in several Brooklyn communities (e.g., Crown Heights, Flatbush, Canarsie/Flatlands); Korean and Chinese populations have settled in Flushing, Queens and Sunset Park Brooklyn, and many Central American Hispanic populations have settled neighborhoods such as Corona and Elmhurst in Queens and Morris Heights in the Bronx.

Some 22% of PPS service area residents report speaking being able to speak English, "less than very well", although this rate increases significantly in those communities where disproportionate numbers of low-income, uninsured, and Medicaid beneficiaries reside, such as Southeast Queens and Crotona/Tremont and Hunts Point/Mott Haven in the Bronx. Populations with no health insurance are more likely to state that they have limited English proficiency (e.g., 47% in Queens, 41% in the Bronx) compared to 31% of Medicaid beneficiaries.

The most prevalent languages other than English spoken by Medicaid beneficiaries across the PPS service area are Spanish (52%), followed by Chinese (10%) and "Other Languages" combined (19%). Spanish is also the most prevalent language spoken by the uninsured (64%).

Median annual household income varies greatly across the PPS service area, from $34,300 in the Bronx to $68,370 in Manhattan, although this range has far higher gaps between some of NYC's most affluent neighborhoods and "hot spot" communities targeted by HHC PPS initiatives, such as Upper Manhattan and Hunts Point/Mott Haven in the Bronx, where between 30% and 50% of residents live at or below the Federal Poverty Level (FPL), compared to the NYC average of 19.9% and 14.9% statewide.

[1] US Census American Community Survey, 2008-2012.

[2] US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Twenty-one percent (21%) of the HHC PPS service area population has less than a high school education compared to 15% statewide, with a far higher proportion (40%) of Medicaid beneficiaries failing to complete high school. The latter statistic is higher in the Bronx (47%), but lower in Queens (35%).

As of September 2014, the unemployment rate in New York City was 6.1%, but 8.5% in the Bronx and 6.6% in Brooklyn. For young adults ages 16 to 24, the unemployment rate was far higher at 18.6% - more than double the citywide average and twice that for any other age cohort. It is important to note that the average unemployment rate for the target population is understated by these general city and borough wide rates. Currently and historically, unemployment rates are higher for persons with less than a college degree[3] and persons of color.[4] Low educational attainment and a high proportion of persons of color in our service areas correlates with high rates of unemployment in groups served by our healthcare system. As there is a focus on Medicaid beneficiaries and the uninsured, it is noted that these populations are more likely to have higher rates of unemployment or employment in low-paying positions, some of which may be "off the books." Employment with insurance benefits is hard to come by for many low income and/or immigrant populations as available jobs are often hourly or seasonal.

Inventory of Healthcare and Community Resources

NYC on the whole has a comprehensive healthcare infrastructure, yet there are communities with significant health disparities that remain underserved. The capacity of the safety net health care system is not uniformly distributed across areas of highest need, leaving many neighborhoods without adequate community-based services.

Hospital Services The four-borough PPS service area includes 39 academic, tertiary, and community hospitals (21,583 certified beds). HHC facilities provide a higher proportion of services to Medicaid beneficiaries and uninsured patients than most voluntary nonprofit hospitals in each borough, and there are many examples of the disproportionate burden that safety net hospitals shoulder in caring for Medicaid and uninsured populations (i.e., safety net population). For example, there are three HHC and four voluntary nonprofit acute care hospitals within the Upper Manhattan PPS Service area, with 6,003 certified beds and an average occupancy rate of 76%;[5] however, these hospitals care for a varying proportion of the defined safety net population, ranging from 26% of discharges at Mount Sinai Hospital to a 74% at HHC's Metropolitan Hospital Center. In Queens, there are two HHC hospitals and seven voluntary nonprofit acute care hospitals where safety net population discharges range from 33% at Long Island Jewish Medical Center, to 67% at HHC's Queens Hospital Center.

Urgent care and ambulatory surgery centers are unequally distributed across the service area, with few located in ZIP codes with high numbers of Medicaid beneficiaries. Based on a review of the Greater New York Hospital Association's HITE SITE database and a web-based search, there are 40 ambulatory surgery and 57 urgent care centers in NYC,[6] yet because these centers target insured patients, urgent care centers tend to be concentrated in higher-income communities, and noticeably absent in many ZIP codes with high proportions of Medicaid beneficiaries and uninsured.

[3] http://www.bls.gov/emp/ep_chart_001.htm
[4] http://www.bls.gov/web/empsit/cpsee_e16.htm
[5] Institutional Cost Reports, 2012. Unable to exclude NYP's Weill Campus which contributes a significant number of beds but is not in our service area.
[6] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October 2014.

Outpatient Services The number of safety net physicians[7] per ZIP code ranges considerably across the PPS service area, although aggregate numbers of providers with significant panels of Medicaid and/or uninsured patients are not consistently accessible in numerous "hot spot" communities. Clusters of safety net physicians are often located in neighborhoods with high numbers of Medicaid beneficiaries and uninsured, but more often than not, they are concentrated near safety net hospitals in specific neighborhoods, and not uniformly across all geographic areas of need.

This phenomenon is consistent across all hubs within the HHC PPS service area, as exemplified by the PPS Upper and Lower Manhattan service areas. The Upper Manhattan PPS service area (which includes parts of South Bronx) has five times the number of pediatric Medicaid beneficiaries than Lower Manhattan service area, and a 50% greater number of Medicaid pediatric physicians[8], leaving the Upper Manhattan communities of Central Harlem-Morningside Heights, Highbridge-Morrisania, and Hunts Point-Mott Haven with a much lower proportion of Medicaid pediatric physicians to Medicaid beneficiaries than other neighborhoods. Upper Manhattan has a median of 12 pediatricians per ZIP code with significant Medicaid panels, yet there is inconsistent geographic coverage - one ZIP code in Washington Heights has 172 such providers and one ZIP code in Morningside Heights had none. Lower Manhattan has a median of three pediatric physicians with a significant Medicaid panel per ZIP code, with one ZIP code in Gramercy Park-Murray Hill (10010, 10016) having 91 physicians and six ZIP codes in the southern-most portion of the service area with none. Other communities exhibiting these disparities include East New York and Williamsburg-Bushwick in Brooklyn, Southeast Queens, as well as sections of the Southeast Bronx and the southernmost portion of Crotona–Tremont.

Hospital and Health Center-sponsored Outpatient Primary Care - there are 335 hospital extension clinics; 76 Federally Qualified Health Centers (FQHCs) and 270 diagnostic and treatment centers (D&TCs), including extension sites; 335 School-based Health Centers, and 7,318 safety net-designated physicians practicing in clinic settings.

Despite the total numbers of individual and hospital-sponsored outpatient services described above, there are still 48 NYC neighborhoods (home to over two million people) in the HHC PPS service area that meet federal designation criteria as Medically Underserved Area/Population (MUA/P) areas. A MUA/P area is a neighborhood or collection of census tracts with inadequate health care coverage, based on four factors: the ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.

A HPSA is a collection of census tracts that has been designated as having a shortage of health professionals. There are three categories of HPSAs: primary care, dental, and mental health. HPSAs are designated using several criteria, including population-to-clinician ratios. Currently, there are 21 primary care, 10 dental, and 12 mental health HPSAs in the PPS service area.

There are 782 safety net **dentists**[9] across the service area, but not always in adequate numbers to meet demand in high need areas (see dental HPSA discussion above). In the Bronx, there are approximately 348 dentists, or 25 per 100,000 population, compared to 74 per 100,000 population in NYC. At a more local level, the Upper Manhattan service area has a median of 5 safety net dentists per ZIP code, with a

[7] NYS DSRIP has defined a “safety net provider” as one whose patient volume consists of at least 35% uninsured and Medicaid.
[8] Physicians whose patient panel is at least 30% Medicaid.
[9] Ibid.

high of 23 in one ZIP code in Washington Heights – Inwood, to one ZIP code in Central Harlem with none, which creates access problems for this crucial service.

Behavioral Health Services - There are 51 CPEP/crisis management programs, 48 inpatient psychiatric facilities, 347 outpatient mental health service providers, and 584 residential treatment facilities, and 354 behavioral support programs serving Medicaid beneficiaries and the uninsured, yet the high hospital readmission rate (correlated with low rates of follow up and medication fill) and high rates of inpatient and ED utilization rate for these patients indicates a need for a more uniformly distributed, comprehensive set of accessible resources for this medically-complex population in all communities within the PPS service area.

For example there are, on average, approximately 49 Medicaid **general psychiatrists** per 100,000 in NYC,[10] yet far lower ratios in Brooklyn (21.1 per 100,000), the Bronx (28.1 per 100,000). Even Queens, which has a high proportion of Medicaid psychiatrists to Medicaid beneficiaries, has a large variation by neighborhood (e.g. Fresh Meadows has no Medicaid psychiatrists, and East New York (included in Queens PPS service area) has 5 Medicaid psychiatrists serving 5,700 beneficiaries, or 0.9 per 1,000.

Lastly, there are 18 **health homes** across the four boroughs, a number driven by the high volume of Medicaid beneficiaries that meet State utilization thresholds for health home enrollment. Health care providers participating in these partnerships have either attained PCMH Level 3 status or have committed to meeting these criteria. It is not clear what percent of individual community-based PCPs meet PCMH standards or have the technical infrastructure to participate in partnership-based efforts to increase the quality of care for the target population, but is important to integrate these vital service providers into systems of care in high-need communities to narrow gaps between resources and need.

Community Resources -There are nearly 2,900 non-government organizations and 165 government and local social service programs that provide a range of community-based social and financial services for persons in need across the PPS service area, including community outreach, services to the homeless, and not-for-profit health and welfare services. Although NYC's social services safety net is extensive, residents in "hot spot" communities continue to struggle with finding adequate housing, jobs, good schools, and other resources that support overall health and well-being. The vast public transportation system allows New Yorkers to have access to supportive services that may lie outside their communities, but the day to day challenges of coping with multiple needs can make these efforts difficult at best. Strained budgets in not for profit agencies limit hours of operation and staffing, as well as limit the impact that scarce resources may have on those in need.

Supportive services are not uniformly located in high need communities For example, there are 163,000 individuals living in the Upper Manhattan service area with incomes at or below 100% of the Federal Poverty Level, more than twice as many as in Lower Manhattan, but has only two-thirds the number of financial assistance services available to them in their communities, with the lowest proportion of services relative to numbers living in Washington Heights. Moreover, many agencies tailor services to specific groups (e.g. immigrants from specific countries, the disabled, seniors, etc.), which does not necessarily provide universal access across all communities.

[10] Patient panel is at least 30% Medicaid.

Population Health

'Diseases of the heart' is the leading cause of death among White, Black and Hispanic populations across NYC,[11] followed by cancer, influenza and pneumonia, diabetes, chronic lower respiratory disease, cerebrovascular disease (stroke), essential hypertension and renal diseases, accidents except drug poisoning, HIV, mental and behavioral disorders due to accidental poisoning and other psychoactive substance use, and all other or censored causes. The leading causes of death in NYC are closely aligned to those in NYS. The top five causes of premature death across NYC are cancer, heart disease, unintentional injury, diabetes, and AIDS,[12] which aligns with the top five causes of premature death in NYS for the same time period.

Of the 1.08 million inpatient discharges by NYC hospitals in 2013, 16% were for patients ages 0 to 17; 27%, ages 18 to 44; 26%, ages 45 to 64, and 30%, age 65 and older. Fifty-five percent of visits were by female patients, with 45% by males. Medicaid was the primary payer for 39% of visits, Medicare 32% Commercial 24%, Uninsured 3.4%, and Other payers 2%. Over the 4 year time period from 2010 to 2013, inpatient discharges decreased 7.4% citywide, and the average length of stay declined 1.1% from 5.69 to 5.63 days. The greatest decrease in the number of discharges occurred in Queens with a decline of 9.6%, while the Bronx had the smallest decline, at 6.6%.

The main causes for hospital admissions were stable between 2010 and 2013, and across boroughs. Newborn and newborn-related were the main reasons for admission in all four boroughs and both time periods. Heart disease, digestive disease, and respiratory disease were the top causes across all boroughs, with the exception of the Bronx, where admission for respiratory disease was more common.

The CNA based its community health analyses on several standard indicators used to measure hospitalizations and ED visits related to Ambulatory Care Sensitive Conditions (ACSC) -- medical problems which could potentially be prevented, or for which early intervention could prevent complications or more severe disease. The number of potentially avoidable ED visits and admissions therefore represents the gap between provider and other community resources, and the needs of the Medicaid community.

The gap between resources and needs among neighborhoods and boroughs can be compared to each other, or to the statewide average by adjusting for population size and demographic differences, such as age, gender, and race / ethnicity. Neighborhoods with greater challenges such as higher disease prevalence and poverty rates, or lower English language proficiency and school graduation rates, will require a greater level of, and different mix of resources to achieve similar population health rates than neighborhoods without these challenges.

Prevention Quality Improvement (PQI) is a set of measures developed by the federal Agency for Healthcare Research and Quality (AHRQ) for identifying inpatient discharges for a specific condition or disease for a given population, The 'Observed / Risk Adjusted Expected rate ratio' is the ratio of "actual" PQI discharges to expected discharges, adjusted for age, sex, and race/ethnicity. Ratio values of 1.00 or less demonstrate expected or better than expected outcomes.

[11] New York City Vital Statistics, "Top Ten Leading Causes of Mortality 2012," Brooklyn, accessed via the EpiQuery interactive tool, August 2014.

[12] Premature deaths (< age 75) for the three years 2010-2012. Vital Statistics Data as of March 2014, New York State Department of Health - Bureau of Biometrics and Health Statistics.

The CNA also uses **Potentially Preventable Visits (PPVs)**, based on proprietary 3M software, to measure emergency visits for ambulatory care sensitive conditions (ACSC) that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or eliminated with adequate patient monitoring and follow up. Unlike with PQIs, which can be disease specific, there is only one PPV indicator which represents all potentially avoidable ED visit regardless of condition or disease. As with PQIs, values of the ratio of 'Observed PPV visits to Risk Adjusted Expected PPV visits (adjusted for age, sex, and race/ethnicity) indicate of 1.00 or less demonstrate expected or better than expected outcomes.

The CNA detailed the total risk-adjusted expected Potentially Preventable ED Visits (PPV) for Medicaid beneficiaries in neighborhoods across NYC. Of the 10 neighborhoods with the highest PPV, five are in the Bronx (Highbridge-Morrisania, Crotona-Tremont, Hunts Point/Mott Haven, Fordham-Bronx Park; and Pelham-Throngs Neck), three are in Brooklyn (Bedford-Stuyvesant-Crown Heights, East New York, and Williamsburg-Bushwick), and two are in Queens (Jamaica, West Queens).

The CNA also provided data for certain risk-adjusted Prevention Quality Indicators (PQIs) rates for Medicaid beneficiaries across NYC neighborhoods. Risk-adjusted PQIs per 100,000 Medicaid beneficiaries with heart failure range from a low of 61 in Manhattan's Greenwich Village-SoHo neighborhood, to a high of 410 in Southwest Queens. More generally, heart failure PQIs are densely clustered in the Bronx, along with smaller clusters in Manhattan (Central Harlem-Morningside Heights, East Harlem), Brooklyn (Bedford-Stuyvesant-Crown Heights, Downtown-Heights-Slope, and Coney Island-Sheepshead Bay), and Southwest Queens. The PQI diabetes composite had the following neighborhood clusters: across the Bronx, Manhattan (Upper West Side, Upper East Side and East Harlem), and Brooklyn (Bedford-Stuyvesant-Crown Heights, Downtown-Heights-Park Slope, Williamsburg-Bushwick).

In sum, the analyses of population health statistics for numerous chronic conditions across the PPS service area points to a group of local communities that consistently top the list of most likely to suffer from ACSCs such as asthma, diabetes, and hypertension, as well as areas with poor access to already-overwhelmed health and social safety net services. While each borough has "hot spot" communities, The Bronx is the least healthy county in NYC as well as New York State overall. The Bronx leads New York State in the percentage of premature deaths in people aged less than 65 years;[13] the leading causes of these deaths in the county are cancer, heart disease, unintentional injury, AIDS and diabetes. The Bronx also ranks highest among all boroughs in NYC in the rate of potentially preventable inpatient admissions, including for chronic conditions overall, and for certain chronic conditions such as circulatory conditions, respiratory conditions, and diabetes.[14] It also ranks second among the NYC boroughs in the rate of preventable emergency room visits (PPV).[15]

[13] The Bronx figure is 33.9% compared to the NYS figure of 23.9%. Source: "Percentage of premature deaths (before age 65 years), 2012" New York State Prevention Agenda Dashboard, using Vital Statistics Data.
[14] 2011-2012 Medicaid Prevention Quality Indicators, New York State Department of Health, Office of Quality and Patient Safety, 2014, as reported by the Office of Health Systems Management.
[15] Ibid.

Additional Health Challenges

New York City's poorest communities are burdened by socioeconomic and environmental circumstances that pose significant health challenges. Neighborhoods that rank consistently poorly in markers of socioeconomic determinants of health, such as household poverty, unemployment, lack of health insurance, low levels of education, as well as high prevalence of disease account, for the highest numbers of preventable admissions and potentially preventable ED visits. In addition, there are a large number of immigrants, including many undocumented, whose literacy and English-speaking capabilities, eligibility for insurance, and familiarity with the US healthcare system result in delayed care.[16]

Behavioral risk factors such as drug and alcohol use, smoking, unsafe sex, poor eating habits, and lack of physical exercise exert strong influence on health status. These behavioral risk factors are strongly correlated with high incidences of diabetes, hypertension, coronary heart disease, respiratory disease, and cancer.

Environmental risk factors such as poorly maintained housing, pest infestation, air pollution, limited access to healthy foods, and lack of recreational space for exercise and outdoor play adversely affect health. Medically vulnerable populations typically face greater environmental risks. For example, data suggest that citywide, 40% of uninsured and 37% of Medicaid beneficiaries reported having seen cockroaches inside their home in the past month. Vermin exacerbate conditions such as asthma, a leading cause of preventable hospital admissions and ED visits in many "hot spot" communities.

Individuals with physical and/or cognitive disabilities are disproportionately in lower income brackets, have higher rates of unemployment, and have a high number of co-morbidities, including obesity, hypertension, and cardiovascular disease. Despite a high need for services, they reportedly delay care because of poor accommodation (e.g., absence of ramps, sign language interpreters) and providers that are insensitive to both their capabilities and their limitations

Access barriers to comprehensive behavioral health services are more pronounced. Key informants and focus group participants report that the system of care is fragmented, with possibly poorer services integration *within* behavioral health services themselves than between physical and behavioral health. Behavioral health services are highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH), with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders.

Overall challenges within the health system include ambulatory care provider capacity (ability to schedule appointments within an acceptable period of time as well as waiting times at the time of the appointment) and linkages and coordination within and between specialty and ancillary services. The data, including responses from large numbers of key informants and focus group participants, also suggest there is a lack of culturally and linguistically competent specialists.[17] Limitations on subspecialty services mean that patients are referred to hospitals settings, impacting continuity of care. Furthermore, the possible need for multiple visits (e.g., for tests), discourages timely use of services and makes the emergency department a rational choice for “one stop shopping.”

[16] NYAM Primary Data
[17] Ibid.

Service Delivery Gaps (Unmet Needs)

The CNA analysis of PQI (potentially preventable admissions) and PPV (potentially avoidable ED visits for ambulatory care sensitive conditions) rates at the City, borough, and neighborhood level juxtaposed with an exhaustive inventory of health care and community resources points to significant levels of unmet need, or gaps in services, across the PPS service area. HHC measured these gaps as a ratio of Risk Adjusted Actual/Expected rate of preventable ED visits and avoidable hospital admissions, with neighborhoods with the highest ratios compared to NYC and NYS averages having the greatest gaps between need and resources. These neighborhoods are home to significant numbers of people whose health and socioeconomic needs are overwhelming existing safety net resources at the local level. Conversely, although it might appear that there are adequate numbers of safety net health care and supportive services some high-need neighborhoods, significant health care disparities persist.

A number of NYC neighborhoods within the PPS service area have PQI rates for an overall composite of chronic conditions that measure from 10% to 47% higher than the observed risk-adjusted expected ratio, as explained above. These include the Upper West Side and Central Harlem/Morningside Heights in Upper Manhattan (47% and 37% respectively), Flatbush/East Flatbush (41%), and Bedford Stuyvesant/Crown Heights (34%) in Brooklyn, Northeast Bronx (31%), and Highbridge/Morrisania (17%) in the Bronx, and Southeast Queens (15%) and Jamaica (10%). This list is not exhaustive however; there are 16 more neighborhoods within the HHC PPS service area where the PQI chronic composite ratios exceed NYC and NYS averages.

PPV visits in many of these same neighborhoods range up to 18% higher than expected; the highest are Bedford/Stuyvesant (18%), Central Harlem/Morningside Heights (17%), Flatbush/E. Flatbush (16%), and Highbridge/Morrisania (13%). The same mix of neighborhoods listed above are included in the 13 other communities that exceed the potentially preventable ED visit ratio (five in both the Bronx and Brooklyn, three are in Manhattan, and one in Queens).

The diagnosed prevalence of many chronic medical conditions that are considered ambulatory care sensitive - that is, responsive to outpatient treatment and self-management strategies that would prevent inpatient admissions and/or ED visits - is higher than expected in a consistent list of neighborhoods across the PPS service area. The diagnosed prevalence of Asthma is highest in Hunts Point/Mott Haven in the Bronx, and East Harlem in Manhattan, and is also common in the same mix of neighborhoods listed above. Asthma in younger adults (18-39 years of age) is highest in three neighborhoods in the South Bronx - Highbridge/Morrisania, Hunts Point/Mott Haven, and Crotona/Tremont, followed by Central Harlem/Morningside Heights (Manhattan), Canarsie/Flatlands, Bedford Stuyvesant, and Flatbush/East Flatbush in Brooklyn, and Jamaica and Southeast Queens.

The Bronx evidences the highest diagnosed prevalence of a composite of Respiratory Conditions (asthma, COPD), followed by East Harlem, Coney Island/Sheepshead Bay and East New York (Brooklyn), and Rockaway (Queens).[18] PQI Diabetes composite scores are highest in Flatbush/E. Flatbush and Bedford Stuyvesant, Central Harlem/Morningside Heights and the Upper West Side, several communities in the South Bronx, and Jamaica and Southeast Queens.

Medicaid beneficiaries with a Cardiovascular related condition are concentrated in somewhat different areas, with Coney Island/Sheepshead Bay, Manhattan's Upper East Side, Kingsbridge/Riverdale in the

[18] Rockaway is not technically included in the PPA service area, although some residents use HHC services.

Bronx, Ridgewood/Forest Hills in Queens, and Bensonhurst/Bay Ridge in Brooklyn at the top of the list. These conditions are the cause of a high volume of inpatient admissions, with rates in Manhattan and the Bronx up to 6% higher than NYC and NYS averages.

There are marked differences in the rates of Medicaid beneficiaries with Mental Health or Substance Abuse Clinical Risk Grouping conditions. Six Manhattan neighborhoods (Chelsea/Clinton, Gramercy Park/Murray Hill, the Upper West Side, Lower Manhattan, the Upper East Side, and East Harlem) are in the top ten areas with diagnosed prevalence, followed by Rockaway, Kingsbridge/Riverdale, and Downtown/Park Slope and Coney Island in Brooklyn. Substance abuse is also prevalent in these same Manhattan communities, as well as Hunts Point/Mott Haven and Crotona/Tremont in the Bronx, and Bedford-Stuyvesant/Crown Heights in Brooklyn.

Perhaps the most disparate statistics are for the prevalence of Medicaid beneficiaries with a HIV/AIDS diagnosis. Seven Bronx neighborhoods have NYC's highest diagnosed prevalence, followed by 10 communities in Brooklyn. Most of these areas have been listed above; however, several communities are unique, including Borough Park, Williamsburg/Bushwick, Greenpoint, and Sunset Park in Brooklyn. The communities with the highest percentage of Persons Living with HIV/AIDS (PLWHA) are Chelsea/Clinton and Central Harlem/Morningside Heights, and East Harlem in Manhattan, and Bedford Stuyvesant/Crown Heights in Brooklyn, as well as those areas in the South Bronx mentioned above.

Gaps were identified at a disease-specific level, although poor outcome measures do not necessarily pinpoint what, specifically, is lacking - for example, a high PQI rate for respiratory conditions in a specific community cannot definitively be attributed to a lack of primary care providers, environmental conditions, or behavioral risk factors such as smoking. It can be one or more of these factors, or a combination of all. The gap analysis is useful in honing in on those communities that consistently demonstrate service delivery gaps over a multiple array of clinical conditions, and implementing DSRIP projects that integrate care, and improve and align health status indicators in high need communities to NYC and NYS norms.

CNA Findings and Implications for Project Selection

As confirmed by the CNA, the health status of NYC is adversely impacted by the absence of integrated approaches to addressing the complex relationship between health care service delivery systems and social determinants of health. The CNA demonstrates a lack of access to primary and behavioral care providers, and a lack of coordination between and among healthcare organizations, providers, and community-based organizations. The CNA also highlights the challenges all providers face in delivering culturally competent care, and in engaging patients and their families – challenges made more difficult by NYC's considerable language, ethnic, and cultural diversity. Finally, the CNA underscores the challenges faced by NYC providers – especially public and safety net delivery systems – in assuring appropriate care to over 1.5 million residents who either appear disengaged from the delivery system (i.e., non- and low-utilizers) or who lack insurance and thus ready access to essential non-emergency services. These challenges will be addressed by Systems Transformation projects that will strengthen the collective impact of the City's safety net service delivery system.

DSRIP Projects

2.a.i Integrated Delivery System

To address these gaps in the context of a wide-range of discrete projects focusing on specific clinical and social needs, we will implement an Integrated Delivery System to accelerate work already underway to develop an integrated delivery system (IDS) capable of providing patient-centered care across the full continuum of care, including essential social and community-based services, and to improve the health of discrete populations and sub-populations. We will enter into formal contractual arrangements with many community-based providers and organizations, and we expect that these contractual arrangements will evolve over time into a more a consolidated and integrated delivery system, well-positioned to accept financial risk for the health of populations under new, value-based payment models.

As part of our planned activities, we will link primary and behavioral health care services and expand our capacity to treat more efficiently treat larger patient populations. In addition, we intend to develop a number of new resources and programs to meet the needs of our communities, including an enhanced care management platform to identify, stratify, and manage the care of patients and populations, and the retrain and hire a large cadre of patient navigators, care managers, and care coordinators to comprehensively address chronic conditions in NYC. This includes expanding the availability of care management services and ensuring that the social determinants of health are addressed in the care of those with chronic diseases, particularly through expanded capacity of and enrollment in our affiliated Health Homes, and to work with our community-based primary care providers (PCPs) to attain 2014 NCQA Level 3 patient centered medical home (PCMH) recognition and to meet meaningful use standards.

During implementation planning and during the operational phase, we intend to continue collaborative approaches to developing an Integrated Delivery System with our PPS partners. Areas of focus include, but are not limited to, selection and adoption of common: screening tools, clinical protocols and care pathways, risk stratification models, core partner contracting vehicles, approaches to workforce issues (e.g., common job descriptions for care management staff) and coordinated health information exchange initiatives.

Post-application, we have agreed to broaden our collaboration efforts to include all PPSs in our service area (e.g., Bronx Lebanon, Mt. Sinai, etc.). We will engage them in the above activities and identify additional areas of collaboration as appropriate.

2.a.iii Health Home At Risk Intervention Program for High Risk Patients

This project will comprehensively address chronic conditions in NYC. The CNA detailed the total risk-adjusted expected Potentially Preventable ED Visits (PPVs) for neighborhoods across New York City (NYC). The 10 neighborhoods with the highest PPVs are located across the HHC service area - five in The Bronx, three in Brooklyn, and two in Queens. The CNA also provided data for certain risk-adjusted Medicaid Prevention Quality Indicators (PQIs)- a set of measures developed by the Agency for Healthcare Research and Quality for use in assessing the quality of outpatient care for a set of ACSC conditions across NYC neighborhoods. Chronic health conditions that are the most frequent cause of preventable hospitalization, including congestive heart failure, COPD and Asthma, and diabetes, is far more prevalent in "hot spot" communities across the PPS service area.

Project 2.a.iii will expand the availability of care management services and ensure that social determinants of health are addressed in the care of those with chronic disease. We will also emphasize patient navigation and establishing linkages to community support services. Our PPS understands that

in a risking risk model, patients who go without these services are likely to having decreased outcomes and increased utilization.

We intend to deploy a set of services including assessment, care plan development, outreach and education, support for patient self-management and action plan development (as indicated by the patient's diagnosis), linkages to community services and social supports, and navigation services. These activities will be supported by a robust IT-enabled care management solution that is currently undergoing procurement. It is expected to expand on existing IT functionality (e.g., registry, care plan, alerts/reminders) within the PPS.

During implementation and operations, we intend to continue our collaboration with Bronx Partners for Healthy Communities (BPHC) and Community Care of Brooklyn (CCB) to focus on: ensuring alignment and coordination of standardized protocols; developing common risk assessment methodologies; adoption of common core partner contracting vehicles; development of workforce strategy, including common job descriptions and functional capabilities; workforce training efforts; data sharing; and selection of culturally competent patient education resources to support this project. Post-application, we also intend to broaden our collaboration efforts to include other PPSs in our service area. We believe this coordination will be crucial to reducing the burden on providers and CBOs, addressing key capacity and workforce needs, improving clinical outcomes and patient experience.

2.b.iii ED Care Triage for At-Risk Populations

The CNA determined that 21 United Hospital Fund neighborhoods, encompassing 61% of the HHC PPS Medicaid population, have observed/risk-adjusted expected ("risk adjusted O/E") ratios of PPV-ED above 1.0 indicating a gap in care. The CNA also found that an estimated 41% of patients who had an ED visit did not have their own primary care provider (PCP). Several of the top 10 diagnoses of patients presenting to HHC EDs could often be treated by a PCP (e.g., viral infections, acute upper respiratory infections). Patients using the ED to obtain prescription refills have, on average, 1.4 ED visits per year for this purpose.

The CNA revealed that patients often do not know how to find a PCP, or how to contact their PCP during/after hours. Appointments with PCPs may not be available for weeks, involve lengthy waits during the visit, and require follow-up visits to complete diagnostic testing. This was also a challenge after being discharged from the ED. To address these gaps, the PPS has developed an approach to ED care management which will strengthen patient relationships with PCPs, provide triage and navigation support for patients with non-emergent illnesses, and care coordination for patients treated and released from the ED.

Based on our existing resources and learnings from pilot projects, we have designed an ED care management program which is broadly defined to include triage for patients with non-emergent illnesses and ED care coordination for patients treated and released from the ED. The program will ensure PPS connectivity to community PCPs, especially patient centered medical homes (PCMHs); provide 24/7 care management support; and, provide at-risk patients with intensive ED care management. At-risk patients, identified using a standardized risk-assessment tool, will be provided with 24/7 local or centralized access to care managers, navigators, and community partners to address their specialized needs, and transitioned with "warm hand-offs" for follow-up care.

2.b.iv Care Transitions Model to Reduce 30-Day Readmissions

Twenty-one UHF neighborhoods have risk-adjusted O/E ratios greater than one (indicating a gap in care) for PQI measures (COPD or Asthma, Respiratory Composite, Chronic Composite, Heart Failure). Data show there is opportunity to reduce Potentially Preventable Readmissions (PPRs) to hospitals for these conditions. Our PPS identified several factors that contribute to patients' lack engagement in follow-up care post discharge. First, HHC analyses estimate that 41% of patients who had an ED visit did not have a primary care provider (PCP), and CNA interviews revealed that care management staff have difficulty contacting a patient's PCP to arrange follow-up. Patients noted having trouble finding and accessing a PCP. PCP appointments may not be available for weeks and may involve lengthy waits during the visit. This contributes to non-adherence with discharge regimens, and how to deal with adverse drug events.

Second, care management programs are often inadequate to address follow-up needs of discharged patients who have complex medical and often socio-economic challenges (homelessness, substance abuse, co-morbid behavioral and physical health conditions). Programs may not adequately engage families in caring for recently discharged patients. CNA interviews revealed that post-discharge issues include difficulties community members have adhering to medical recommendations in under-resourced and stressful home environments.

Our PPS has pilot tested care transition models, including Project RED, and has established an Integrated Care Management Council. MetroPlus's existing care management programs, including the House Calls program, will be leveraged as will expertise gained as part of participation in learning collaboratives on care management and care transitions. Project RED will be expanded to all hospitals in the PPS and will target all at-risk patients (e.g., cardiac conditions, renal failure, diabetes, respiratory conditions, behavioral health, and other socio-economic factors). Tools will be standardized and emphasize patient and family engagement. All PPS hospitals will address the medical conditions targeted for this project; however, each will phase in interventions based on the prevalence of readmission trends they face.

Second, our PPS will enhance Project RED by strengthening coordination of services outside the hospital walls with PCPs, post-acute providers, and other CBOs, including building on our already strong collaboration with the four Health Homes in our PPS (e.g., HHC, CBC, VNSNY, and CHCN) and relationships with CBOs that provide Health Home-related services via subcontract. In addition, we will work closely with PPS- and community physicians, diagnostic testing centers, Collaborative Care PCMHs, skilled nursing facilities, the NYC Department of Homelessness, and other partners.

2.d.i Project 11 Implementation of Patient Activation Activities to Engage, Educate and Integrate the uninsured and low/non-utilizing Medicaid populations into Community Based Care

According to the CNAs, there are approximately 1.3 million uninsured (UI) residents in our PPS service area, with the greatest number residing in Queens and the fewest in Manhattan. In addition, we interpolated that of NYC's 3.82 million Medicaid beneficiaries, 16.21% (619,579) are non-utilizing members and 8.4% (321,106) are low utilizing members.[19]

[19] New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Results from Round #2 of Initial Attribution, October 27, 2014; New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics; New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, DOH/OHIP DataMart (claims paid through 04/2014), as provided by NYS DOH, June 2014.

The Patient Activation Project will be implemented to close CNA-identified gaps and to improve the health outcomes of UI and LU/NU Medicaid beneficiaries in our service area. To achieve these goals, our PPS will employ a multi-pronged approach including: (1) outreach and patient identification; (2) eligibility determination for and enrollment in healthcare coverage; and, (3) patient activation, patient education, and linkages to care for all patients, regardless of insurance status.

The PPS will leverage internal resources (e.g., hospital ED data and hospital-based application counselors) and contract with community-based organizations (CBOs) to provide outreach and assistance with eligibility determination and enrollment in coverage. Our PPS will work with NYS-designated Navigators, MCOs, and other organizations with expertise in providing culturally responsive services and ensuring patients understand available financially accessible resources. In addition, our PPS will coordinate outreach with NYC agency partners including, but not limited to, the NYC Department of Health and Mental Hygiene (DOHMH) and the NYC Human Resources Administration (HRA). Finally, we expect to leverage patient assistance and managed care resources, including those within HHC, SUNY, community partner and managed care organizations (e.g., MetroPlus, HealthFirst).

Once identified, we will connect patients to services – including clinical, care management and care coordination services and linkages to social services and supports to address social determinants – to provide whole-person care. Such programs may include patient centered medical home (PCMH), Health Home, or other relevant programs or services.

3.a.i Integration of Primary Care and Behavioral Health Services -

The CNA documents the prevalence of mental health (MH) and substance abuse (SA) diagnoses across New York City (NYC) neighborhoods. Eight of 10 Manhattan neighborhoods have MH diagnosis rates above city and state averages. SA trends are similar, with the highest prevalence occurring in Manhattan; nine of 10 neighborhoods experience higher than city and state averages. New York's Medicaid beneficiaries with MH and SA diagnoses are high users of inpatient and ED services: 42.3% and 58.4% of MH and SA patients had at least one ED visit and 32.3% and 65% had at least one admission. Readmission rates for individuals with MH diagnoses are high as well; 23.3% in NYC and 20.9% for NYS.

The CNA documents low utilization of BH resources and CNA survey interviewees noted that resources are difficult to access. The CNAs contend that individuals also may not access resources due to stigma, inconvenience, or lack of knowledge. This assertion is supported by CNA data finding that almost one-quarter of the population in the PPS (24.6%) speak English less than very well. In eight neighborhoods across the PPS – which combined represent one-third of the total PPS service area population – more than one-third of the residents speak English less than very well. Immigrant populations may be more likely to experience stigma around mental, emotional, and behavioral (MEB) health, and may be less familiar with their communities' health resources.

To address the needs of individuals with co-morbid physical and behavioral health needs, our PPS will pursue all three models described in the application: physical co-location of behavioral health providers into primary care sites; physical co-location of primary care providers (PCPs) into behavioral health sites; and expanding the implementation of the IMPACT model for depression across the PPS service area.

Our PPS will leverage the extensive experience and expertise of PPS members that have implemented IMPACT and co-location models. Sites participating in the NYS Medicaid Collaborative Care Program, part of the Hospital-Medical Home Demonstration Program, will build on this capacity to add SBIRT, invest in systems that address DSRIP patient tracking requirements, and facilitate the development of

integrated treatment plans and service delivery information between primary care and BH clinicians. Some sites will serve adolescents and/or transition to an on-site service model.

The PPS also includes four Health Homes -- HHC, Coordinated Behavioral Care, Visiting Nurse Service of New York, and Community Healthcare Network. Our PPS worked with these organizations throughout the planning period to lay the foundation of joint development of service, staffing and training standards. Their expertise in care management for individuals with behavioral health issues and co-morbid conditions will be leveraged as needed during implementation planning and throughout the DSRIP performance period. Our PPS will also continue to enhance our relationships with community-based organizations in order to improve social determinants of health.

3.b.i Evidence-Based Strategies for Disease Management in High-Risk/Affected Populations (Cardiovascular Disease)

The prevalence of cardiovascular disease (CVD) among Medicaid beneficiaries in NYC far exceeds that of other chronic diseases. In NYC, 30% of Medicaid beneficiaries have been diagnosed with a cardiovascular related condition. Heart disease is the leading cause of death and the second leading cause of premature death in the four boroughs that comprise our service area. Each borough has hotspots for CVD. Twenty-four UHF neighborhoods have risk-adjusted O/E ratios greater than one (indicating a gap in care) for three Prevention Quality Indicator (PQI) measures related to CVD and risk factors.

To address these gaps, our PPS will pursue a multi-pronged approach, with a focus on the ABCs of the Million Hearts Campaign. This includes improving prescribing and adherence to aspirin prophylaxis among eligible patients, improving blood pressure control by updating and strengthening implementation of HTN guidelines, improving cholesterol control by updating current cholesterol management and treatment guidelines, and increasing smoking cessation by enabling primary care physicians (PCPs) to distribute nicotine replacement therapy at the point-of-care. The PPS will also focus on improving diabetes control using the Collaborative Care Model for Depression. The PPS will leverage and enhance use of clinical patient registries and care coordination/management platform to identify patients to engage based on health risk and socio-economic factors.

3.d.ii Expansion of Asthma Home-Based Self-Management Program

CNAs from the four boroughs revealed an average Medicaid pediatric asthma rate of 412.3 cases per 100,000. The Observed/Risk Adjusted Expected ratio of pediatric asthma across NYC is 1.23 and 1.24 in our service area, and 15 neighborhoods are higher than 1.23.

The CNA indicates that asthma prevalence and associated service utilization is linked to poor environmental conditions (e.g., housing, pollution) and other social determinants of health. The CNA notes that areas with high rates of serious housing violations and rat sightings overlap with high respiratory PQI hospitalizations as well as high asthma-related service utilization among beneficiaries.

Our PPS selected 3.d.ii because of the opportunities to improve health outcomes. The initiative will include the following key elements: development of a uniform, evidence-based approach to ensure that the target population is provided with a range of home-based services (e.g., self-management education, home environmental evaluation and strategies for remediation, linkages to social services); the establishment of procedures to provide, coordinate, or link patients to resources for evidence-based trigger reduction interventions (e.g., changing indoor environment to reduce exposure to asthma

triggers); development of evidence-based curricula for providers and staff; and development of bi-directional care pathways supported by a range of health IT functionality.

Our PPS has a range of assets and resources to support this project. Woodhull Medical and Mental Health Center, a hospital in our PPS, is one of 13 organizations in the country that was selected by the National Asthma Control Initiative – National Institute of Health as a demonstration project for the effectiveness of the most recent national guidelines for asthma management. As part of this project, Woodhull will develop and expand its Physician Asthma Care Education Reinforcement (PACER) Program to serve as a model for overcoming barriers to guidelines-based medical care. Our PPS also intends to enhance existing and develop new collaborations with entities such as the NYC Departments of Education, Aging and House, the NYC Office of School Health, public schools, the YMCA, pharmacies, day care organizations, senior centers, and other CBOs. These relationships will focus on education and training around asthma, promoting awareness, and other areas of collaboration. For each type of organization, our PPS will set standards for communication by including information tailored to specific exchanges (i.e., discharge communication to primary care providers will have a set of required data elements, referral/coordination with Health Homes will have required set of information).

3.g.i Integration of Palliative Care into the PCMH Model

The CNA reports that 47,464 Manhattan residents were hospitalized with at least one chronic disease that could benefit from palliative care services. The majority of hospitalizations were for adults over 65 years old. Palliative care is given to improve the quality of life of patients who have a serious or life-threatening disease, with a goal of prevention or treatment, as early as possible, the symptoms and side effects of the disease and its treatment, as well as related psychological, social, and spiritual problems. The CNA contends that the prevalence of chronic conditions benefitting from palliative services is higher than the availability of palliative care resources. Given the aging of the population, this disparity is likely to worsen. For example, by 2020, 11.7% and 13.6% of Queens and Manhattan residents respectively will be 65 or older. By 2030, those percentages increase to 14.5% and 16.1%. Giving the aging of the population, this disparity will likely worsen as the prevalence of conditions suitable for palliative care increase with age.

This project will increase palliative care services available in the PPS service area by developing and deploying training and education for primary care providers (PCPs) and staff on palliative care. Using evidence-based guidelines, the training will address: the importance of collecting advance directives and health care proxy data from patients; communication with patients around their palliative care needs (e.g., pain management); and, managing the transition from primary palliative care to specialty palliative care, including the establishment of referral criteria.

Our PPS will utilize IT-enabled approaches to developing and implementing an automated data collection and a tracking system regarding palliative care needs and track palliative care activities across the PPS. The PPS will also work with Medicaid Managed Care (MMC) plans to identify issues related to coverage and provider networks, and develop written agreements with MMC plans with regard to coverage and adequacy of palliative care services and networks, including hospice care.

4.a.iii Strengthen Mental Health and Substance Use Infrastructure Across Systems

In New York City (NYC), high rates of substance use, addiction, poor mental health, and serious psychological distress contribute to high, and often preventable, health system costs. Nearly one-third of NYC residents reported moderate or severe psychological distress in the CNA. In six neighborhoods in

Manhattan, three in the Bronx, and two in Brooklyn, more than 9% of Medicaid beneficiaries have been diagnosed with a substance abuse-related condition.

CNA data also show high levels of utilization of MHSA services in NYC, which is also reflected in emergency department (ED) visits and inpatient admissions for MHSA issues. Citywide, 42% and 58% of Medicaid beneficiaries with MH and SA diagnoses had at least one ED visit, with an average of 2.98 and 4.34 ED visits, respectively.

Gaps in care are pronounced, with approximately half of CNA respondents noting that substance abuse services were unavailable. Gaps are compounded by provider shortages, limited provider training in MHSA issues, and silos between provider types and programs that prevent coordination. Patients who have co-occurring MEB conditions often don't receive appropriate diagnosis, treatment, and care coordination. Also of particular concern is the lack of targeted attention to adolescents, a vital group to engage in prevention and early intervention efforts.

To close these gaps, our PPS, together with Community Care of Brooklyn (CCB) and Bronx Partners for Healthy Communities (BPHC), will undertake sector projects 1-3 with the goals of: promoting evidence-based practices in MHSA care; breaking down silos in care to enable health professionals to collaborate and address the population's full range of MHSA needs; and targeting adolescents with MHSA education and outreach. A citywide MHSA Workgroup will bring together a cross-section of MHSA providers to develop appropriate infrastructure and programs to transform MHSA services across NYC, and to develop a methodology to assess programs' impact on MHSA service utilization and care.

The Workgroup will identify and promote evidence-based programs that extend the reach of education, screening, and early intervention into existing health service footprints. In one such program, the Workgroup will adapt or develop culturally-sensitive educational materials that inform adolescents about the nature of and risk factors for MHSA diseases; the fact that diseases frequently co-occur and begin during adolescence; and, early warning signs.

Under Project 2, the PPSs will support the adaptation of the Collaborative Care (CC) model, which was designed to target adults and has demonstrated less clinical efficacy in adolescents, to specifically meet adolescent needs. Under Project 3, all activities and programs will consider cultural and linguistic factors, including: differences in views regarding mental health and use of addictive substances; intra-cultural issues; and circumstances linked to MEB health such as trauma/violence; and, language access-related issues.

Our PPS will also coordinate its activities with work under Project 3.a.i., Integration of Primary Care and Behavioral Health services, and explore more effective ways to deliver services in community-based settings (e.g., withdrawal management).

4.c.ii Increase Early Access to, and retention in, HIV Care

CNAs identified HIV/AIDS as a significant population-wide public health issue across New York City (NYC). Of the 42 UHF neighborhoods in NYC, 23 (55%) of them have HIV prevalence levels at or above the level indicating a generalized HIV epidemic.[20] In 2012, 3,141 persons were newly diagnosed with HIV in NYC.[21] In the same year, 1,889 individuals were diagnosed with late-stage HIV disease, AIDS.

[20] DOHMH HIV Epidemiology and Field Services Semiannual Report Vol. 7. No. 2. October 2012
[21] DOHMH HIV Surveillance Annual Report 2012

Thirty-two percent of these AIDS diagnoses were made within 31 days of the initial HIV diagnosis;[22] indicating that these individuals went undiagnosed and untreated to their personal health detriment and potentially spreading HIV to others. Given the high level of co-morbidity and significant health disparities facing this population, the challenges patients with HIV experience provide a clear example of the need for delivery system redesign.

Given the scope of the issues involved, seven PPSs in NYC are engaged in joint planning to address major gaps in access to, and retention in, HIV care. The PPS HIV collaborative includes HHC, Community Care of Brooklyn, and Bronx Partners for Healthy Communities, Lutheran Medical Center, Bronx-Lebanon Hospital Center, New York Hospital of Queens and Mt. Sinai Hospitals Group. The PPSs, the NYC Department of Health and Mental Hygiene (DOHMH) and community partners are using DSRIP as an opportunity to develop common approaches and resources to achieve project goals and objectives.

NYC is fortunate to have a wealth of CBOs, healthcare agencies, non-profit groups, private industry, and government agencies dedicated to ending the AIDS epidemic. Additionally, NYC benefits from several federally-funded HIV programs, including: Ryan White Part A and CDC prevention programs (71 funded agencies); 8 Ryan White Part C and 10 Part D programs; and the DOH/DOHMH NYLinks project. The PPS HIV Collaborative will utilize these resources, PPS-specific resources, and develop new resources to address the following common sectors of this project:

- Increase peer-led interventions around HIV care navigation, testing, and other services.
- Launch educational campaigns to improve health literacy and patient participation in healthcare, especially among high-need populations, including: Hispanics, lesbian, gay, bisexual, and transgender (LGBT) groups.
- Design all HIV interventions to address at least two co-factors that drive the virus, such as homelessness, substance use, history of incarceration, and mental health.
- Assure cultural competency training for providers, including gender identity and disability issues.
- Empower people living with HIV/AIDS to help themselves and others around issues related to prevention and care.
- Promote interventions directed at high-risk individual patient, such as therapy for depression.

Given the complex nature of this patient population and our PPS's broad list of providers and collaborating partners, there will need to be strong coordination of these project activities with DSRIP Domain 2 and 3 projects, multiple partners and programs. This collaborative work has already begun within our PPS, and as the PPS HIV Collaborative continues to work together effort will be taken to maximize resources and impact.

[22] DOHMH HIV Surveillance Annual Report 2012

INTRODUCTION

Overview

In April 2014, New York State finalized a waiver amendment from the Centers for Medicare and Medicaid Services that allows for reinvestment of approximately $8 billion in projected savings resulting from the State's Medicaid Redesign Team reforms. These funds will be used to support transformation of the health care system in New York State to promote clinical and population health. The majority of the funds will be distributed through the Delivery System Reform Incentive Payment (DSRIP) program. A central part of the DSRIP program is the formation of Performing Provider Systems (PPS) - collaborative partnerships between hospitals, community-based organizations, and other health care providers across the full spectrum of care. Goal of the DSRIP program include promotion of s community-level collaborations and a focus on system reform to reduce avoidable inpatient admissions by 25% over 5 years for the Medicaid populations in New York State.

To inform the health system transformation and to guide project selection, each PPS submitting a DSRIP application is required to complete a comprehensive community needs assessment (CNA). A typical health care focused CNA tends to center on an individual facility and its patients, and the ancillary services provided in the immediate catchment area. In contrast, the DSRIP CNA is to provide an inventory and evaluation of the healthcare and community resources available to the population that potentially will be served by the PPS. Primary and secondary data are used to identify excesses and gaps in services that will need to be corrected to meet the goals of the DSRIP program. The DSRIP CNA also describes the demographics and health needs of the population to be served. The assessment is conducted in partnership with the community based organizations (CBOs) and other local stakeholders that will collaborate with the PPS to achieve DSRIP goals.

The specific aims of the CNA process are to assess health care and community resources, to describe the communities served by the PPS, to identify the main health and health service challenges facing the community, and to summarize the assets, resources, and needs for the DSRIP projects. Components of this report include:

- Exhaustive inventory of health resources and community programs available to Medicaid beneficiaries and uninsured individuals;
- Community demographics, especially as it may affect effective delivery of care;
- Current health status of the community, using official criteria;
- Identification of additional health challenges, such as behavioral and environmental risk factors;
- Comparison of existing community resources and health related needs, factoring in additional health service challenges.

The HHC led PPS includes eleven acute care hospitals, six diagnostic and treatment centers (D&TCs), four skilled nursing facilities and at least 70 small community-based clinics and a Health Home, as well as a

certified Home Health Agency and an insurance plan both covering at least four of the five boroughs. DSRIP projects will be carried out in four boroughs in NYC, Manhattan, Queens, Brooklyn and the Bronx. As such, this comprehensive CNA includes detailed reports for each borough, as well as recommendations based on citywide analysis.

Service Area

In this new paradigm, providers will be increasingly responsible for, and incentivized for not only the health of the individuals presently in their facilities, but also for those that are not – that is, the population at large. The HHC PPS will prioritize its efforts in neighborhoods that have high Medicaid and /or uninsured populations, and where the PPS will have a sufficient range of services and resources to improve population health. This collection of neighborhoods and populations to be served is considered a service area.

Manhattan - HHC defined its Manhattan hub service area by assessing several criteria, including each HHC hospital's primary and secondary service areas (patient origin of 75% of its ambulatory patients), specific geographic areas of high clinical need ("hot spots"), concentrations of Medicaid and uninsured residents, and the reach of its clinical and community-based services partners. The service area encompasses large regions of the borough as well as a number of contiguous ZIP Codes in the Bronx. Neighborhoods in the Bronx included in the Manhattan service area have high levels of need. Residents of these neighborhoods also have easy public transportation access to Manhattan PPS services. The service area does not include several ZIP Codes in the central portion of Manhattan due to the high concentration of voluntary hospitals in these more affluent areas and high rates of private insurance coverage. The hub's service area also does not include several ZIP Codes in the northern and southernmost parts of the borough, as they are not included in HHC's primary or secondary service areas and/or do not meet "hot spot" criteria. A complete list of neighborhoods and ZIP codes included in the Manhattan service area can be found in the CNA report as well as Appendix A., Map 1, UHF Neighborhood Map by ZIP Code.

Queens – The service area for the borough of Queens was defined as a contiguous area that contains the largest concentration of HHC and Medisys Health Network (Jamaica Hospital Medical Center and Flushing Hospital Medical Center) patients who are Medicaid beneficiaries or receive other low income medical support and the uninsured (see below for details regarding this collaboration). In addition, two Brooklyn ZIP Codes from neighborhoods in East New York, 11207 and 11208, were included in the Queens Service Area, as residents from these ZIP Codes often receive care in Queens. Two areas in Queens are not included in the defined service area. First, although the Rockaways meet the "hot spot" criteria (described above), residents do not use PPS clinical services in a significant way. Second, several ZIP Codes at the eastern border of the borough have relatively low numbers of uninsured or Medicaid-covered lives, and high utilization of health care services in neighboring Nassau County. A complete list of neighborhoods and ZIP Codes included in the Queens Service Area can be found in the report as well as Appendix A., Map 1, UHF Neighborhood Map by ZIP Code.

Brooklyn--As the CNA for Brooklyn was conducted for several PPSs (see below), the entire borough was considered the service area. There were no exclusions, and no inclusions of ZIP codes from other boroughs.

Bronx - As the CNA for the Bronx was conducted for several PPSs (see below), the entire borough was considered the service area. There were no exclusions, and no inclusions of ZIP Codes from other boroughs.

To organize the Community Needs Assessment report, the four boroughs – Manhattan, Queens, Bronx, and Brooklyn -- are used as "chapters," however to understand the health and resources disparities within New York City, it is necessary to look at the disparity on the neighborhood and zip code level. To help accomplish this, this CNA report includes:

- An neighborhood level analysis and discussion in each borough-wide report;
- An extensive library of maps for each borough that graphically illustrate the disparity in providers, and community resources against community need between neighborhoods and zip codes. We also created maps to identify zip codes and neighborhoods that may be opportunities for the greatest gains by juxtaposing community need in total volume and as a rate, for example, number of PQI admissions and PQI rate.
- Two appendices – Demographics, and Population Health, which shows much of the same information as the Maps but to make analyses easier, in a tabular format, and on a neighborhood level, for all neighborhoods in New York City.

Although the aggregate health status of New York City compared to New York State residents overall is fairly comparable, the CNA's analysis of clinical outcomes, disease prevalence, and healthcare utilization patterns, as well as an exhaustive inventory of health and human service resources at the neighborhood level, highlights significant need in many of the City's less affluent communities, or "hot spots" which rely on safety net services.

Collaborations and Consultants

The Queens CNA was conducted in collaboration with Jamaica Hospital Medical Center and Flushing Hospital Medical Center of the Medisys Health Network (Medisys). The Bronx CNA was designed and conducted in collaboration with AW Medical (now known as Corinthian) and St. Barnabas Hospital (dba SBH Health System). In Brooklyn, the CNA was completed in collaboration with AW Medical, Lutheran Medical Center, Maimonides Medical Center, and SUNY Downstate Medical Center.

Two consulting firms, The New York Academy of Medicine (NYAM) and Tripp Umbach, Inc., were contracted to collect and analyze primary and secondary data. NYAM conducted primary and secondary data analysis for the Brooklyn and Bronx reports, and all primary data for the Queens report. In addition, they conducted key informant interviews for the Manhattan CNA. Tripp Umbach completed the focus groups and resident surveys in Manhattan. HHC's Corporate Planning Services conducted secondary data analysis for the Queens and Manhattan reports. NYAM submitted their final reports to

the PPSs for the Bronx and Brooklyn in early October. These reports have been updated and amended by HHC's Corporate Planning Services to incorporate newly released data and to reflect HHC's planned DSRIP projects.

Several steering committees, comprised of representatives from HHC and other hospital partners, were formed to govern and monitor the development of the borough-specific CNAs. In addition, HHC's DSRIP Steering Committee contributed to the planning and execution of the CNA process overall and convened numerous meetings to strengthen relationships between PPSs and ensure participation of community partners.

Methods

Unprecedented amount of data were made available by NYS DOH for the CNA. HHC's and NYAM's analyses were drawn from over 70 data sets, including publiclyavailable data resources such as the U.S. Census, NYS Prevention Agenda Tracking Indicators, NYS HIV and STD Surveillance Systems, the NYS DOH PQI and CAHPS data, SPARCS, BRFSS, data sets published by the NYC Department of Health and Mental Hygiene, and other health care and community-based resources. Advanced statistical methods were used to assess resources, describe the communities served by the PPS, document disease prevalence, and identify current rates of avoidable hospital use. In addition, NYAM and HHC created an extensive library of maps for each borough to graphically illustrate the disparity in providers and community sources between neighborhoods and zip codes. (See Section F in the report and Appendices A, B, E and F for a complete list of data sets used, tables and maps, and key quantitative findings.)

To ensure that the perspectives of community members and stakeholders were incorporated into the reported findings and to respond to specific questions that could not be sufficiently addressed through secondary source data alone, primary data collection activities, including key informant interviews, focus group discussions, and a resident survey, were conducted. NYAM developed the primary data protocol in collaboration with the PPSs using standard research methods consistent with DSRIP CNA guidance. These activities were accomplished in partnership with numerous community organizations identified by PPS partners, and represented a range of targeted neighborhoods and populations, e.g., older adults, immigrant populations, and people with disabilities. The data collection materials, which focused on community conditions conducive to health promotion, primary health concerns, available programing and services, disparities in access and use, and recommendations regarding strategies to promote improved health, were translated into ten languages. There were more than 2,500 individuals surveyed, 85 key informants interviewed, and more than 80 focus groups conducted as part of this process across the four-borough HHC PPS service area. (See Section F in the report and Appendices C and D for a detailed description of these activities, the study instruments, and key findings)

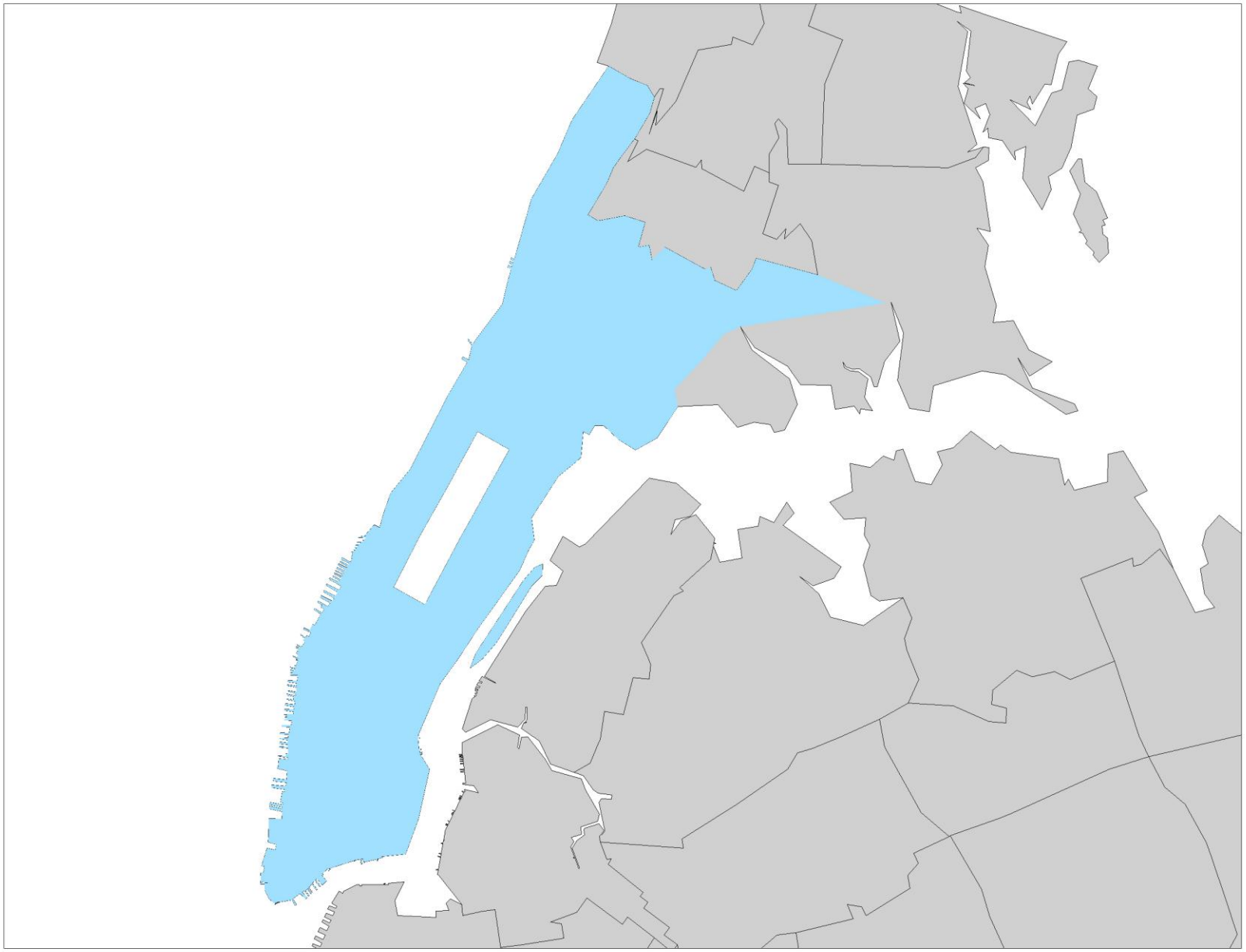
Report Outline

This report follows the New York State Department of Health (DOH) CNA Guidance dated June 6, 2014, and the section headers A-F, therein. HHC PPS hub (Manhattan, Queens, Brooklyn, and the Bronx) is represented in an individual report addressing unique demographics, needs and resources in their service areas. Also attached are several appendices including:

- Appendix A. Maps
- Appendix B. Tables
- Appendix C. Primary Data Collection Instruments and Information
- Appendix D. Primary Data Collection Findings
- Appendix E. Neighborhood Level Gap Analysis
- Appendix F. Key Demographic Factors at Neighborhood Level

New York City Health and Hospitals Corp.
Manhattan Community Needs Assessment

Final Report, December 16, 2014



NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

Prepared by HHC Corporate Planning Services

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OVERVIEW

Summary of Findings

Delivery system reform in the Manhattan PPS service area is crucial to resolving some of the borough's most glaring health disparities. Manhattan as a whole is home to some of the nation's wealthiest individuals and has a high concentration of top-rated hospitals and medical providers, yet the targeted communities in the PPS service area demonstrate socioeconomic characteristics and clinical outcomes that are significantly worse than their more affluent neighbors. According to 2012 NYS Health Department data, nearly 27% of residents in the lower end of the PPS Lower Manhattan Service area are Medicaid beneficiaries and 8.9% have no insurance. The Upper Manhattan service area has even higher need -- 55.6% of residents qualify for Medicaid and 15.8% remain uninsured. A majority of these individuals rely on HHC's hospitals and clinics and other safety net providers for their health care. The secondary data also indicate that these individuals have a high number of potentially preventable hospitalizations and Emergency Department visits. To achieve DSRIP goals of reducing inpatient admissions by 25% over five years and steering patients from emergency departments to community-based care, the health care service delivery system must realign services and care coordination efforts.

Service area Overview

Manhattan's 1.65 million residents comprise nearly 20% of NYC's total population of 8.4 million.[1] Manhattan extends over a densely packed 22.8 square miles, where more than 98% of the borough's housing units are in multi-unit structures ranging from multi-million dollar high rise apartments to subsidized low income apartments operated by the New York City Housing Authority. U.S. Census 2013 data indicates that from 2008-2012, 17.5% of the borough's residents had incomes below poverty level, and an estimated 175,000 persons had no health insurance coverage.[2] Some 333,744 Manhattan residents qualified for Medicaid benefits or other low-income medical assistance. Nearly 15% of Manhattan residents are under 18 years of age, and 14.2% are 65 years of age or older. In 2030, Manhattan's residents ages 65 or older are expected to total about 295,000, or 16.1% of the borough's population. The foreign languages most frequently spoken by Manhattan residents with Medicaid or who are uninsured are Spanish, followed by Chinese.

Service areas Described in This Application

HHC defined its Manhattan hub service area by assessing criteria including each hospital's primary and secondary service areas (patient origin of 75% of its ambulatory patients), specific geographic areas of high clinical need ("hot spots"), concentrations of Medicaid and uninsured residents, and the reach of its clinical and community-based services partners. The service area encompasses large areas of the borough as well as a number of contiguous ZIP codes in the Bronx. The service area does not include several ZIP codes in the central portion of Manhattan due to the high concentration of voluntary

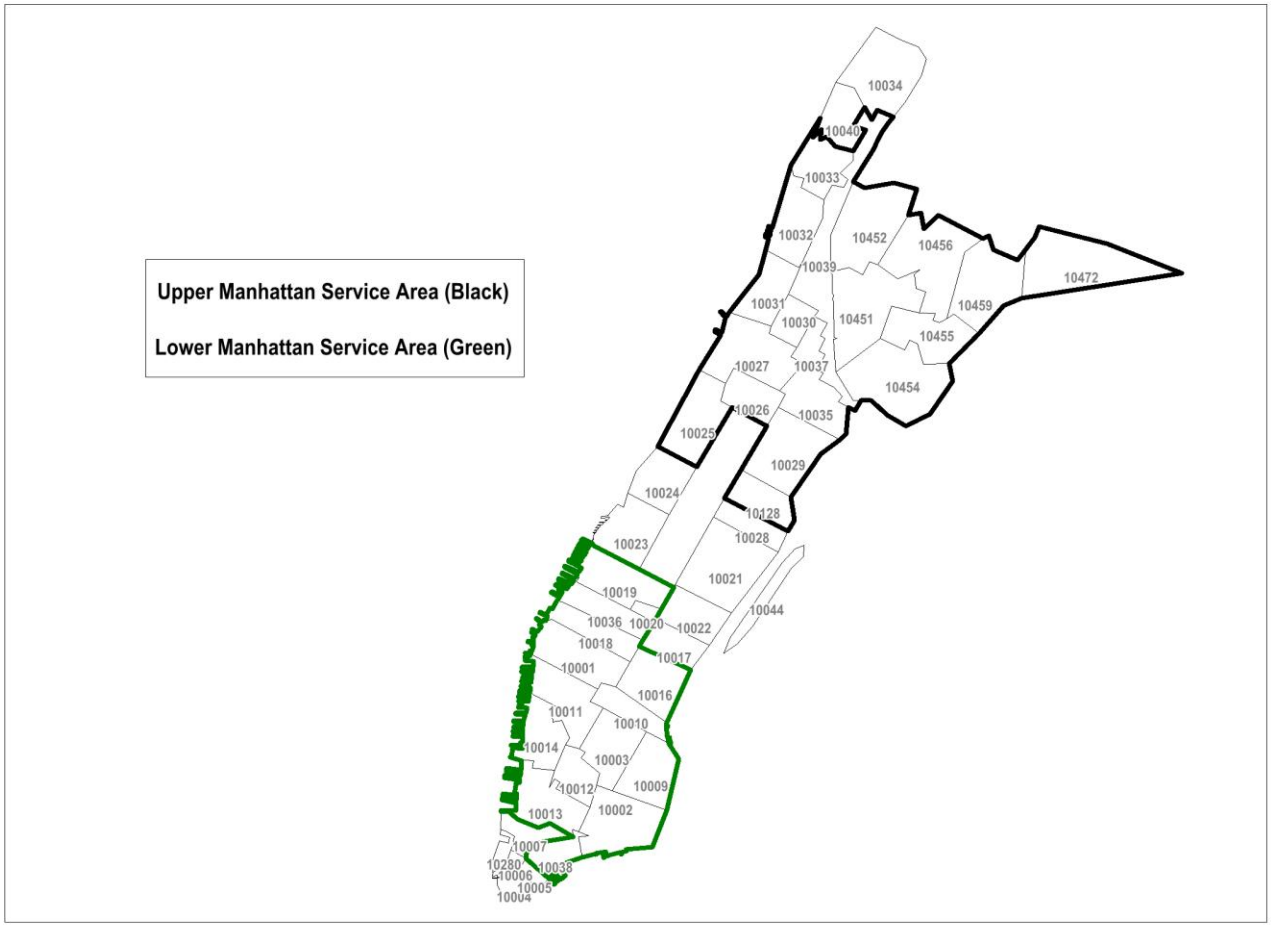
[1] New York County Quick Facts from the U.S. Census Bureau, downloaded September 4, 2014.
[2] 2013 U.S. Census, New York County QuickFacts, accessed September 4, 2014.

hospitals in these more affluent communities that demonstrate good health outcomes and high rates of private insurance coverage. The hub's service area also does not include several ZIP codes in the northern and southernmost parts of the borough, as they are not included in HHC's primary or secondary service areas and/or do not meet "hot spot" criteria. The hub's service area does include a number of Bronx ZIP codes with high levels of need and whose residents have easy public transportation access to Manhattan PPS services.

- Upper Manhattan service area: 14 ZIP codes north of 90th Street on the East and West sides to the northern tip of Manhattan (excluding two ZIP codes in Riverdale that do no utilize hub services), and seven Bronx ZIP codes —10451, 10452, 10454, 10455, 10456, 10459 and 10472--which constitute a significant part of the South Bronx. These Bronx ZIP codes are included in the Upper Manhattan Service area because a significant number of residents access services at Manhattan facilities.
- Lower Manhattan service area: 15 ZIP codes ranging from those slightly north of Manhattan's southern tip to approximately 58th Street on the West Side and 40th Street on the East Side.

Several ZIP codes omitted from the Manhattan hub service areas are in the mostly commercial areas in the southern tip of Manhattan, ZIP code 10023 and 10024 on the West Side of Manhattan, and several ZIP codes on the Upper East Side of Manhattan, all which have few uninsured or Medicaid beneficiaries, and fewer still who use HHC for health care services (table 1).

Map 1: Manhattan Hub Service Area



SECTION A. DESCRIPTION OF HEALTH CARE RESOURCES AND COMMUNITY RESOURCES

An analysis of Manhattan provider patient origin data, confirmed by CNA survey analysis, clearly indicate that residents from all over New York City boroughs and, to a lesser extent, surrounding metropolitan areas and foreign countries, obtain health care services in Manhattan. This pattern holds true for tertiary inpatient care, surgeries, and elective procedures as well, as patients opt to be treated at some of the nation's most prestigious medical institutions.

It would appear that there are adequate health care resources for the service area population, measured against community need, however the adequacy of resources must take into account the use of Manhattan health care services by non-Manhattan residents, as well as some "hot spot" areas in the Upper Manhattan service area that have significant medical and psychosocial needs.

i. Description of Health Care Resources

Hospitals

There are 12 general acute care facilities, three specialty hospitals, and one long-term acute care hospital in the service area (Table 1).

Upper Manhattan PPS

Within the Upper Manhattan Service area are three HHC and four voluntary nonprofit general acute care hospitals. In addition, HHC operates the Henry J. Carter Specialty Hospital, a Long Term Acute Care Hospital in East Harlem, and is participating in the Manhattan hub of HHC's PPS. These hospitals provide 6,003 certified beds, and have an average occupancy rate of 76%.[3] These hospitals care for a varying proportion of the defined safety net population (Medicaid beneficiaries and uninsured patients) ranging from 26% of discharges at Mount Sinai Hospital to a high of 74% at HHC's Metropolitan Hospital Center.

Lower Manhattan PPS

There is one HHC and three voluntary nonprofit general acute care hospitals in this part of the Manhattan PPS hub. These facilities have 2,935 certified beds, and an occupancy rate of 65%. These facilities care for varying proportions of the defined safety net population (Medicaid beneficiaries and uninsured patients) ranging from 13% of discharges at NYU-Langone Medical Center to a high of 63% at HHC's Bellevue Hospital Center.

This service area also includes the U.S. Department of Veteran Affairs' New York Harbor Healthcare System, which includes one acute care hospital and a network of outpatient services. Lastly, there is one large acute care hospital and three specialty hospitals in the borough that lie outside of the Upper and Lower Manhattan service areas.

[3] Institutional Cost Reports, 2012. Unable to exclude NYP's Weill Campus which contributes a significant number of beds but is not in our service area.

Table 1 - Manhattan Hospitals

Hospital Name	Hospital Type	Certified Beds	Occupancy Rate	Safety Net Payer Mix (Medicaid+SP)
Upper Manhattan Service area				
Harlem	HHC	286	65%	68%
Metropolitan	HHC	356	65%	74%
Lincoln	HHC	347	71%	68%
St. Luke's - Roosevelt	Voluntary	1,028	65%	33%
Mount Sinai	Voluntary	1,107	78%	26%
New York-Presbyterian	Voluntary	2,292	83%	28%
Bronx Lebanon	Voluntary	587	78%	71%
Lower Manhattan Service area				
Bellevue	HHC	912	74%	63%
Beth Israel	Voluntary	856	75%	39%
Lower Manhattan Hospital	Voluntary	180	63%	40%
NYU Langone Medical Center	Voluntary	987	49%	13%
Other Manhattan Hospitals				
Lenox Hill	Voluntary	653	58%	14%
Memorial	Specialty			
Hospital For Special Surgery	Specialty			
New York Eye And Ear Infirmary	Specialty			

Source: New York State Department of Health: HCRA Provider List, October 2014.

Ambulatory Surgical Centers

Fifteen DSRIP-defined safety net ambulatory surgery centers operate in the borough of Manhattan; two in the Upper Manhattan service area and seven in the Lower Manhattan service area. The remainder are located in Manhattan but physically located outside of the two service areas, although they are available as resources for all patients. As in other boroughs, these services are sparse in ZIP codes with high numbers of Medicaid beneficiaries.

Urgent Care Centers

In 2014, the NYS Department of Health Planning Council noted “the shift to ambulatory care is giving rise to new delivery structures, such as retail clinics and urgent care centers",[4] with a proliferation of urgent care centers and retail clinics appearing in community storefronts and within pharmacy chains such as CVS. Because there is no state-standardized definition or regulation of "urgent care centers," a definitive count of these providers is difficult, and the Planning Council made recommendations to formalize a description of these providers, which it defined as being “for the treatment of acute episodic illness or minor traumas” in order to differentiate them from standard community-based primary care services.

[4] NYS Public Health and Planning Council: Oversight of Ambulatory Care Services, accessed September 15, 2014, http://www.health.ny.gov/facilities/public_health_and_health_planning_council/meetings/2014-01-07/docs/ambulatory_care_services_recommendations.pdf.

Based on a review of the HITE SITE database and a web-based search, there are 17 urgent care centers in Manhattan,[5] however because these centers target insured patients, urgent care centers tend to be concentrated in higher-income communities. Twelve of the 17 urgent care centers in Manhattan are in the service areas, but not proximate to "hot spot" communities.

Health Homes

There are six Manhattan State Department of Health-designated “health homes” providing care management and service integration to the borough's Medicaid beneficiaries with complex chronic medical and behavioral health conditions. They are Community Care Management Partners, Mount Sinai Health Home, Heritage Health Home Network, Pathways to Wellness, HHC, and the New York Presbyterian Hospital. In addition, there are five designated health homes serving residents of the Bronx: Bronx Lebanon Hospital Center, Bronx Accountable Healthcare Network Health Home, Community Care Management Partners, Community Healthcare Network, and HHC.

Federal Designations as a Medically Underserved Area/Population (MUA/P) and Health Professional Shortage Area (HPSA)

The federal Health Resources and Services Administration (HRSA) uses two methodologies to determine whether there are adequate health care resources for specific geographical areas. Aggregate ZIP codes or census tracts can be designated as a MUA/P based on an analysis of four criteria: the ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over. A medically underserved population faces economic barriers (e.g. low-income or Medicaid-eligible populations), or cultural and/or linguistic access barriers to primary medical care services, and population specific information is assessed according to the above criteria to achieve MUP designation.

A HPSA is a collection of census tracts that has been designated as having a shortage of health professionals. There are three categories of HPSAs: primary care (shortage of primary care clinicians), dental (shortage of oral health professionals), and mental health (shortage of mental health professionals). HPSAs are designated using several criteria, including population-to-clinician ratios. This ratio is usually 3,500 to 1 for primary care, 5,000 to 1 for dental health care, and 30,000 to 1 for mental health care (HRSA).

According to a report prepared for HHC by the Center for Health Workforce Studies, November 2013, Manhattan has eight (8) MUA neighborhoods with a combined population of approximately 750,000. Most of the areas are located north of Central Park in the neighborhoods of East Harlem, Central Harlem, West Harlem, and Washington Heights/Inwood. Areas in and around HHC’s Gouverneur Diagnostic and Treatment Center are also MUA-designated.

[5] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.

Manhattan has four (4) Primary Care HPSA designated neighborhoods (East Harlem, Alphabet City/Lower East Side, Washington Heights/Inwood, and West Central Harlem), three (3) Mental Health HPSAs (Upper Manhattan, Lower East Side, and Washington Heights/Inwood), and five (5) Dental HPSAs (East Harlem, Lower East Side, Central/West Harlem, Upper West Side, and Central Manhattan).

Primary Care Services

Independent Primary Care Providers

An analysis of Medicaid claims data by the Center for Health Workforce Studies identified 1,923 primary care physicians in the Upper Manhattan service area, 40% Pediatrics, 14% OB/GYN, and 45% in other primary care practice such as family practice and internal medicine.[6] In the Lower Manhattan service area, there are 1,911 primary care physicians, 20% Pediatrics, 17% OB/GYN, and 63% in other primary care practice such as family practice and internal medicine.[7] (See Table 2).

In both the Upper and Lower Manhattan service areas, roughly half (from 39% to 54%) of primary care physicians have patient panels where at least 10% have no health insurance.

In Upper Manhattan, 70% of Pediatricians, 44% of OB/GYN physicians, and 55% of all other PCP physicians have a significant Medicaid panel (at least 30% of total patients in panel). In Lower Manhattan, 58% of Pediatric physicians, 27% of OB/GYN physicians, and 37% of all other PCPs have a significant Medicaid panel.[8]

Table 2 - Number of Primary care Physicians with Significant Self-Pay and Medicaid Panel

	Pediatrics	OB/GYN	All other PCP	Sum
Upper Manhattan Service area				
Physicians Self-pay≥10%	320	147	343	810
Physicians Medicaid≥30%	543	120	478	1,141
Total Physicians (does not sum)	778	274	871	1,923
Lower Manhattan Service area				
Physicians Self-pay≥10%	181	131	573	885
Physicians Medicaid≥30%	218	89	443	750
Total Physicians (does not sum)	377	330	1,204	1,911

Source: Center for Health Workforce Studies, Analysis of Physician Re-registration Data. 2008-2013 Blended.

The Upper Manhattan service area has a median of 12 pediatricians per ZIP code with significant Medicaid panels, yet there is inconsistent geographic coverage - one ZIP code in Washington Heights has 172 such provider and one ZIP code in Morningside Heights with none. Lower Manhattan has a median of three pediatric physicians with a significant Medicaid panel per ZIP code, with one ZIP code in Gramercy Park-Murray Hill (10010, 10016) having 91 and six ZIP codes in the southern-most portion of the service area with none.

[6] Percentages do not sum to 100% due to practice overlap for certain providers.
[7] Center for Health Workforce Studies, Analysis of Physician Re-registration Data. 2008-2013 Blended.
[8] Ibid.

The Upper Manhattan service area has five times the number of pediatric Medicaid beneficiaries than Lower Manhattan service area, and a 50% greater number of Medicaid pediatric physicians, yet the Upper Manhattan communities of Central Harlem-Morningside Heights, Highbridge-Morrisania, and Hunts Point-Mott Haven have a much lower proportion of Medicaid pediatric physicians to Medicaid beneficiaries than other neighborhoods.

Upper Manhattan also has a median of 19 primary care providers (not OB/GYN) per ZIP code, with one ZIP code in East Harlem having 82 providers and one ZIP code in Central Harlem having none. Lower Manhattan has a median of 10 primary care providers (not OB/GYN) per ZIP code, with one ZIP code in Gramercy Park-Murray Hill having 88 and one ZIP code in Lower Manhattan having none.

The Upper Manhattan Service area has a 2.7 times greater number of adult Medicaid beneficiaries than the Lower Manhattan Service area, and a 14% greater number of Medicaid primary care physicians (excluding pediatrics and OB/GYN), however the Upper Manhattan communities of East Harlem, Highbridge-Morrisania, and Hunts Point-Mott Haven each have a much lower ratios of Medicaid physicians to Medicaid beneficiaries than other neighborhoods.

Federally Qualified Health Centers and Other Institutional Primary Care Providers

There are three main types of institutional providers that provide comprehensive primary care: federally qualified health centers (FQHCs), freestanding diagnostic and treatment centers (D&TCs), and hospital-based extension clinics (Table 3).

Table 3 - Institutional Primary Care Providers by Service area

	FQHC (incl.Satellites)	D&TC (incl. Satellites)	Hospital Based Ext. Clinics
Upper Manhattan Service area	18	83	43
Lower Manhattan Service area	15	30	57
Manhattan Borough	26	79	103

Source: HRSA: FQHC And FQHC-Look-alike Site Directory, November 2014.

In the Lower Manhattan Service area, FQHCs can be found in nearly all ZIP codes. Combined with local D&TCs and hospital based extension clinics, there are one or more primary care clinics located in virtually all ZIP codes in the Lower Manhattan service area. In the Upper Manhattan service area, FQHCs are less prevalent, based in only five Manhattan ZIP codes, however all Manhattan neighborhoods have at least one FQHC satellite clinic. Adding the capacity of local D&TCs and hospital based clinics, there is at least one primary care access point in all but three ZIP codes in the Upper Manhattan service area.[9]

The Upper Manhattan service area, including the South Bronx, is home to 690,000 Medicaid beneficiaries and uninsured individuals, 253% higher than in the Lower Manhattan service area, yet this high need area has only 41% more sites (FQHCs, other D&TCs, and hospital based clinics combined). Among all neighborhoods in the Manhattan PPS hub, Washington Heights-Inwood in Northern Manhattan has the lowest population to health center ratio, with 132,000 individuals and 10 clinics, and

[9] HRSA: Health Centers And Look-alike Sites Site Directory, November 2014.

Gramercy Park-Murray Hill in the lower service area with the highest, with 13,000 individuals and 15 clinics.[10]

Physician Extenders

There are 138 nurse practitioner, 14 nurse midwives, and 22 physician assistants in the Upper Manhattan service are whose patient base consists of at least 35% uninsured patients and Medicaid beneficiaries. The Lower Manhattan Service area has 86 nurse practitioners, 22 nurse midwives, and 33 physician assistants caring meeting these criteria.[11]

School Based Health Centers

The Upper Manhattan Service area has 56 school based health centers in all but two ZIP codes. The Lower Manhattan Service area has 16 school based health centers, nearly all of which are located in Union Square and Lower East Side ZIP codes.

Specialty Care Services

Table 4 presents the number of specialty physicians by borough:

Table 4 - Specialty Physicians by Borough

	Bronx	Brooklyn	**Manhattan**	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

In addition, New York City has the following number of non-MD (or non-DO) specialty providers, as shown in Table 5:

Table 5 - Medical Specialists by Borough

	Bronx	Brooklyn	**Manhattan**	Queens
Acupuncturist	4	16	36	24
Audiologist	23	46	71	26
Chiropractor	59	101	104	121
Occupational Therapist	51	114	67	43
Physical Therapist	370	539	231	306

[10] Ibid.
[11] New York State Department of Health, DSRIP Eligible Safety Net Providers, 2011-2014.

Speech-Language Pathologist	25	142	100	49
Optometrist	100	215	325	214
Durable Medical Equipment Supplier	36	117	59	67
Hospital and Clinic Based Labs	14	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm

Dental Providers

There are 115 independent dentists in the Upper Manhattan service area and 75 in Lower Manhattan whose patient volume consists of at least 35% uninsured and Medicaid (a "safety net" dentist).[12] The Upper Manhattan service area has a median of 5 safety net dentists per ZIP code, with a high of 23 in one ZIP code in Washington Heights – Inwood to one ZIP code in Central Harlem with none. The Lower Manhattan service area has a median of 4 safety net dentists per ZIP code, with one ZIP code in Greenwich Village having 10 and two ZIP codes in Lower Manhattan with none.

The Upper Manhattan service area 2.5 times more Medicaid beneficiaries and uninsured residents than the Lower Manhattan service area and 60% more safety net dentists, however Highbridge-Morrisania has the lowest ratio of safety net dentists to residents than other neighborhoods. In Lower Manhattan, Union Square-Lower East Side has the lowest ratio of dentists to residents, comparable to the average proportion found in Upper Manhattan neighborhoods.

Rehabilitative Services, Including Physical Therapy, Occupational Therapy, Speech Therapy, and Inpatient Rehabilitation

There are approximately 14 physical therapy/rehabilitative service providers in the Manhattan PPS service areas, four of which focus on caring for seniors and seven who focus on people with development disabilities. Many providers are concentrated in the lower Manhattan area (Gramercy Park, Chelsea and the Lower East Side); however, six of the providers are located in East Harlem and the Upper West Side.[13]

ii. Description of Community Based Resources

According to HITE SITE, a database by the Greater New York Hospital Foundation, the following organizations or programs are available in Manhattan. Note that the categories used are not mutually exclusive—for example, a facility or community-based organization may primarily provide housing services, but have an on-site food pantry or run financial education programs as well. Due to the complexity of aggregating this data at the ZIP code level, this inventory includes Manhattan-based resources only.

[12] New York State Department of Health, DSRIP Eligible Safety Net Providers, 2011-2014.
[13] Greater New York Hospital Foundation Health Information Tool for Empowerment (HITE) data, as of October 2014.

Housing Services, Including Homeless and Shelter Services

The Upper Manhattan service area has 106 such programs, with a high of 44 in Central Harlem-Morningside Heights. The Lower Manhattan service area has 185 programs, ranging from 14 in Gramercy Park-Murray Hill to 73 in Chelsea-Clinton.

Financial Assistance

The Upper Manhattan service area has 97 programs, with the highest number (46) in Central Harlem-Morningside Heights. The Lower Manhattan service area has 159 such programs, ranging from 12 in Gramercy Park-Murray Hill to 59 in Chelsea-Clinton. There are 163,000 individuals living in the Upper Manhattan service area with incomes at or below 100% of the Federal Poverty Level, more than twice as many as in Lower Manhattan, but has only two-thirds the number of financial assistance services available to them in their communities, with the lowest proportion of services relative to numbers living in Washington Heights.

Food Banks, Community Gardens, Farmer's Markets

Manhattan has 103 food pantries and 61 soup kitchens, according to the Food Bank Locator for New York City.[14] The borough also has 42 farmers' markets that accept food stamps. Farmers' markets are regularly scheduled, with some held at health care facilities.[15]

Educational Services for Special Needs Children

The NYC Department of Education's District 75 provides citywide educational, vocational, and behavior support programs for students who are on the autism spectrum, have significant cognitive delays, are severely emotionally challenged, sensory impaired and/or have multiple disabilities. District 75 services are delivered through 56 schools, home and hospital instruction programs, and vision and hearing services for students in need. Schools and programs are located at more than 310 sites in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island.[16]

[14] Food Bank for New York City, Accessed Oct. 15, 2014, http://www.foodbanknyc.org.
[15] New York City Department of Health and Mental Hygiene Farmers' Market Listing, Accessed Oct. 15, 2014, http://www.nyc.gov/html/doh/html/living/cdp-farmersmarkets.shtml.
[16] The New York City Department of Education, Accessed October 22, 2014, http://schools.nyc.gov/Academics/SpecialEducation/D75/AboutD75/default.htm.

Community Outreach/Social Service Agencies

A review of HITE Site yielded over 293 organizations that provide a variety of social services to Manhattan residents, including educational and recreational activities, cultural events, employment referrals and assistance, eviction prevention support, financial support and health education. They serve many different populations including but not limited to low-income children and families, seniors, LGBT individuals, immigrants and people who speak English as a second language (ESL), active and former drug users, people living with mental illness, PLWHA and victims and survivors of domestic violence.[17]

Transportation Services

There are approximately 18 organizations in Manhattan that provide transportation services to individuals whose medical and/or social needs make them eligible for these services.[18] In most cases, the purpose of the Medicaid transportation program is to enable qualifying individuals to attend medical appointments, but there are additional circumstances where individuals are entitled to transportation services to social service appointments and personal errands.

The majority of Manhattan-based Medicaid transportation programs focus on supporting the transportation needs of seniors and/or the disabled. Sixteen of these programs are operated by non-profit organizations, including senior centers and disease-specific advocacy groups. There are guidelines in place for arranging needed transportation.[19] For example, the healthcare facility must be located at least 10 blocks away from the patient's home. Access-a-Ride is the Metropolitan Transit Authority's (MTA) para-transit service, available to those certified as eligible due to mobility restrictions. These types of services are important as many individuals, especially seniors and the disabled, who find navigating the City's public transit system to be an arduous task and/or unaffordable.

Religious Service Organizations

New York City may have one of the most diverse array and number of faith-based organizations anywhere, many of which are committed to many forms of charity care and community service. There is no single database that lists all places of worship and affiliated service organizations, but according to the Bureau of Labor Statistics, 33% of all adults who volunteer for community service do so for through a religious service organization.

The New York State Department of Health catalogued various self-reported programs and services provided by faith-based organizations in a 2012 resource directory,[20] yet this is by no means a comprehensive listing of faith-based services or ministries in New York City. Based on this survey, there are 25 Christian churches of various denominations, several Buddhist organizations, two Interdenominational churches and one Muslim mosque that provide a variety of services, including emergency financial assistance, employment and housing referrals, food pantries, counseling, job training and HIV care support. A review of UJA-Federation of New York website found that there are

[17] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[18] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[19] LogisticCare, aaccessed October 29, 2014, http://www.nycmedicaidride.net/en-us/enrollees.aspx.
[20] Faith-based Ministries and Services Resource Directory, accessed October 28, 2014, https://www.health.ny.gov/diseases/aids/consumers/faith_communities/directory_instruction.htm.

over 20 Jewish community-based organizations throughout New York City that provide relief services and support.[21]

Not for Profit Health and Welfare Agencies

Not for profit health and welfare agencies provide a variety of free social services and disseminate essential information to the community, including recreational activities for various age groups, direct services (meals, clothing and toiletries), printed materials about specific illnesses or risk factors, health workshops, space for hosting support groups, and legal and medical referrals. Examples of voluntary health and welfare organizations are the YMCA, the United Way, and the American Heart Association. There are nearly 500 non-profit community-based health and welfare organizations that run some 912 programs throughout Manhattan.[22]

Specialty Community-based and Clinical Services for Individuals with Intellectual or Developmental Disabilities

In the Upper Manhattan service area (excluding The Bronx) there are 40 programs and organizations that offer transportation services and other services for persons with disabilities (including the developmentally disabled), with at least five in each neighborhood. In Lower Manhattan, there are 98 programs and organizations for persons with disabilities with at least nine in each neighborhood. While there are a higher number of people living with a developmental disability or ambulatory difficulty in Upper Manhattan, there is a higher concentration of dedicated services in Lower Manhattan. The Upper Manhattan service area appears to be the residence of twice as many individuals with ambulatory difficulty but half as many services available for the disabled than the Lower Manhattan service area, with the smallest proportion in Washington Heights.

Self-Advocacy and Family Support Organizations for Individuals with Disabilities

Individuals with disabilities and their families often need specific services and support to enable them to live independently and achieve self-care goals. Those services may include linkages to organizations that can assist with education, care services and other resources. The New York State Department of Health has four councils, three offices and a number of workgroups dedicated to policymaking and the development of resources and networks of organizations with similar missions, including early intervention programs and developmental and physical disabilities. New York State also operates four centers, staffed by experienced parents and professionals. These centers provide information and

[21] UJA-Federation of New York, accessed October 28, 2014, http://www.ujafedny.org/who-we-are/our-network-of-agencies/network-agencies-directory/.
[22] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October, 2014.

training to families with children with disabilities, professionals working with said families and other community members.[23]

A number of nonprofit organizations provide support to individuals with disabilities and their families. AHRC, Inc. has 33 offices throughout New York City that serve individuals of all ages with developmental disabilities. The types of services offered include psychological testing, vocational rehabilitation, educational and recreational services, counseling and adult day care and home care services, if needed. There are seven programs in Manhattan, eight in the Bronx, four in Queens and four in Brooklyn.[24] In addition, there are web-based resources, such as Access New York, for individuals seeking information about accessible travel options as well as other inquiries.[25]

In Manhattan, there are 21 nonprofit organizations that offer said services. The listing is not exhaustive, but captures from HITE site the various resources available to residents with disabilities, including transportation services, adult day care, primary and specialty care and therapy (e.g., art, speech and physical).

Youth Development Programs

There are approximately 240 organizations including public libraries, social service organizations, community centers, recreation centers, and other types of community-based organizations that offer tutoring, family support and after-school and/or youth group services in Manhattan.[26]

There are 222 Department of Youth and Community Development funded programs located in the Manhattan Service area, including but not limited to: 118 after-school programs; 9 literacy, reading and writing programs, 29 family support programs, 34 employment and/or internship programs; 22 immigration legal aid organizations, and 10 runaway and homeless youth programs. [27] The New York City Department of Education (DOE) operates Passage Academy, a full time educational program that tailors its curriculum to the needs of youth in detention.

The New York City Administration for Children's Services (ACS) and the Department of Juvenile Justice merged on December 7, 2010. The Division of Youth and Family Justice (DYFJ) was formed as a result of this merger to provide juvenile justice services. DYFJ offers case management services for youths in secure detention and chapel services. The DOE and Administration for Children's Services (ACS) partnered to create FirstStepNYC, an early childhood center and leadership institute for infants up to children aged five years old which is open to all New York City residents. The New York City Housing

[23] The New York State Health Department, accessed on October 30, 2014, www.health.ny.gov/community/infants/early_intervention/related_links.html.
[24] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[25] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[26] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October, 2014.
[27] The Department of Youth and Community Development, accessed October 31, 2014, www.nyc.gov/html/youthlanding/youthlanding.shtml.

Authority (NYCHA) has committed to working with the DOE and the Mayor's Office to increase the literacy skills of children ages 6 - 8 years old that live in NYCHA housing.[28]

LGBT Resources

Manhattan is home to a large number of Lesbian, Gay, Bisexual and Transgender persons, as well as individuals who self-identify as gender queer or questioning. Healthcare resources in the borough that are designed to meet the needs of this broad population include the Callen-Lorde Community Health Center and facilities that have earned the Human Rights Campaign's designation of "leader in LGBT healthcare equality," a list of which can be accessed at http://www.hrc.org/hei/leaders-in-lgbt-healthcare-equality#.VE_lMDTF98E. Nineteen facilities in the city are listed as "leaders" for 2014, including 10 from the New York City Health and Hospitals Corporation.

Other resources available in the borough (but are accessible for all NYC residents) include the Transgender Legal Defense and Education Fund, the LGBT Community Center, Lambda Legal (the nation's oldest and largest legal organization working for the civil rights of lesbians, gay men, and people with HIV/AIDS) and various community organizations such as SAGE for older LGBT persons, and PFLAG NYC which provides information for parents, family, friends, schools and teachers of lesbian, gay, bisexual, transgender people children and adults.

A resource list for LGBT and questioning youth can be accessed at http://www.nyc.gov/html/acs/downloads/pdf/lgbtq/LGBTQ-Youth-Community-Resource-Guide.pdf

Libraries with Open Access Computers

All New York City public libraries provide open access computers to visitors, enabling users to access a myriad of websites that provide health care and other local service information. Access requires that the individual be a resident of the borough in which library is located and have a library card and PIN to log onto a computer. In some cases, individuals can purchase a daily pass in order to log onto a computer. The Manhattan PPS service area contains approximately 27 libraries, which are operated by the New York Public Library.[29]

Community Service Organizations

A review of the New York City Service website yielded over 43 organizations that provide a variety of services and volunteer opportunities to Manhattan residents, including music, art and other cultural events, employment referrals and assistance, financial support and environmental and animal advocacy.

[28] NYC Resources, accessed November 5, 2014, www.nyc.gov.
[29] New York Public Library, www.nypl.org, accessed October 24, 2014.

Education

There are approximately 384 public and charter schools in Manhattan, including 173 public elementary schools, 113 public middle schools and 98 public high schools.[30] There are also 89 private/parochial schools.[31] In addition, there are five public colleges located in Manhattan: the City College of New York, Hunter College, Baruch College and the John Jay College of Criminal Justice. The City University of New York Graduate Center is located in Manhattan as well.

There are also 265 community-based organizations in Manhattan providing education services such as GED/High School Equivalency (HSE) preparation, ESL, career counseling, cultural programming, health education and tutoring and recreational activities. Some of these organizations offer educational services to special populations including children with serious emotional disturbances, children with cerebral palsy, at-risk youth, and immigrants, and refugees.[32]

Local Governmental Social Service Programs

New York City has in place numerous programs and offices to assist its citizens in obtaining essential services. For example, New York City has a website, *Access New York* which assists users in completing screening questionnaires for over 30 support programs.[33] The New York City Human Resources Administration has a number of satellite offices throughout Manhattan to meet the needs of local residents.

There are nine job centers in Harlem, Chelsea, Union Square and Midtown which assist individuals in securing essential cash assistance and identifying work opportunities. Workforce 1 provides individuals living in Manhattan with job referrals if their employment was affected by Hurricane Sandy. There are two Workforce1 Career Centers in Manhattan in the neighborhoods of Harlem and Midtown.[34] There are 4 SNAP centers in Harlem and Washington Heights where families can apply for financial support for groceries. Residents can apply for Medicaid benefits at two Manhattan Medicaid offices staffed with Certified Application Counselors (CACs).[35] The New York City Housing Authority (NYCHA) provides information about education and training opportunities for its residents through Resident Employment Services (RES) program.

Although broadband service is almost universally available in the entire city and particularly in Manhattan, there is still a digital divide exists in terms of broadband adoption.[36] This divide is especially evident among lower-income residents and seniors. A number of community-based organizations, such as senior centers, the Parks Department and NYCHA community centers are working

[30] The New York City Department of Education, accessed October 29, 2014, http://schools.nyc.gov/default.htm.
[31] New York State Association of Independent Schools, accessed on October 29, 2014,
, http://www.nysais.org/page.cfm?p=923.
[32] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[33] AccessNYC, accessed October 29, 2014, https://a858-ihss.nyc.gov/ihss1/en_US/IHSS_homePage.do.
[34] New York City Workforce1, accessed October 29, 2014, http://www.nyc.gov/html/sbs/wf1/html/home/home.shtml.
[35] The New York City Human Resources Administration, accessed October 29, 2014, http://www.nyc.gov/html/hra/.
[36] The New York City Department of Information Technology & Telecommunications, accessed October 29, 2014, http://www.nyc.gov/html/doitt/html/home/home.shtml.

with the Department of Information Technology and Telecommunications to ensure that broadband capacity is built.

Community-based health Education Programs, including Health Professions Studies

There are more than 118 health education programs offered in Manhattan, ranging from HIV/AIDS prevention to diabetes education and prevention workshops.[37] In addition, there are three licensed practical nursing degree programs, five baccalaureate degree nursing programs, and three community health worker training programs in the borough.[38]

Family Support and Training

The Mental Health Association of New York City operates five Family Resource Centers citywide that provide individual and group-based family support services to parents/caregivers of children and youth (birth to age 24) identified as having or at risk for developing emotional, behavioral or mental health challenges. Services include emotional support, assistance with navigating systems, and skill development through educational workshops. Services are provided in English, Spanish, Mandarin and Cantonese.

NAMI

The National Alliance on Mental Illness of New York City, Inc. (NAMI-NYC Metro) is a grassroots organization that provides support, education, and advocacy for families and individuals of all ethnic and socioeconomic backgrounds living with mental illness. It is the largest affiliate of the National Alliance on Mental Illness and to educate the public, advocate for legislation, reduce stigma and improve the quality of the mental health system. It offers free support, education, and advocacy services throughout the New York metropolitan area.

Individual Employment Support Services

These programs include services that provide employment, skills training, and education services. The Upper Manhattan Service area has 283 programs, with 98 in Central Harlem-Morningside Heights alone. The Lower Manhattan Service area has 438 such programs ranging from 42 programs in Gramercy Park-Murray Hill to 155 in Chelsea-Clinton.

Approximately 100,000 residents in the Upper Manhattan service area did not complete high school, nearly twice as many as in Lower Manhattan, and fewer education-related services available for remedial services such as GED tutoring. The lowest proportion of resources compared to need is in

[37] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[38] New York State Education Department, Office of the Professions, accessed October 29, 2014, http://www.op.nysed.gov/prof/nurse/nurseprogs-lpn.htm.

Washington Heights-Inwood. Among Lower Manhattan neighborhoods, Union Square-Lower East Side has the fewest number of services in proportion to the number of individuals who would benefit from such services.

Peer Supports (Recovery Coaches)

Peer supports (recovery coaches) provide assistance to individuals managing a chronic health condition (e.g., substance abuse recovery, diabetes, HIV/AIDS or hepatitis C), helping them remain engaged in treatment over time and resolving psychological, physiological or logistical obstacles that may interfere with their progress. From a review of the GNYHA HITE database, we have identified institutions, which vary from healthcare facilities to community-based organizations, that facilitate or offered peer support services. Although these organizations operate from a particular borough, many of the organizations serve clients regardless of where they reside. In Manhattan, there are approximately 63 organizations that connect clients with recovery coaches, peer groups and mentoring to assist the clients in managing their health condition

Alternatives to Incarceration

There are approximately 45 organizations in Manhattan that offer criminal justice offender services, including civic engagement, linkage to employment, educational and no-cost legal services, transitional and supportive housing, job skills training, recreational events, mental health care, HIV/AIDS services, peer education, peer support, case management and substance use treatment.[39] Many of the programs are tailored to assist youthful offenders.

HIV-Related Services

There are numerous HIV/AIDS related services located in Manhattan. A comprehensive search of the GNYHA HITE site using the keyword HIV/AIDS identified 28 non-profit organizations in the Upper Manhattan Service area which provide housing support, substance abuse and mental health counseling, legal assistance, health education, benefits assistance and case management services.[40] An additional 28 organizations providing similar services are located in the Lower Manhattan service area. Many of the organizations focus on a specific population based on racial or ethnic identity or sexual orientation. This review also identified 27 large-scale Ryan White and CDC Prevention-funded HIV programs in the borough. These programs include HIV Prevention and Outreach efforts such as sexual and behavioral health for HIV prevention, condom distribution, harm reduction, testing and linkage to care, and syringe exchange. Additionally there are programs to support HIV positive patients such as supportive counseling, home care, housing services, food and nutrition support, and care coordination. These Ryan

[39] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[40] Ibid.

White and CDC Prevention programs are provided at 420 service sites in the borough by 55 individual agencies. All of the HHC hospitals in the Service area receive Ryan White Part A grant funding.[41]

Resources for Aging Populations

These programs include services for the elderly, and those with dementia and Alzheimer's disease. The Upper Manhattan service area has 56 programs, with the fewest number (2) located in the Upper West Side, and the most (17) in Washington Heights-Inwood. The Lower Manhattan service area has 101 such programs, with seven programs in Gramercy Park-Murray Hill and at least 20 in all other neighborhoods.

Taking into account the elderly population by neighborhood (age 65+), Upper Manhattan has half the number of community services for the elderly than in Lower Manhattan. With the exception of East Harlem, all Upper Manhattan neighborhoods have fewer elder services in proportion to its elder population.

Immigrant Resources

These programs include services for immigrants including education, advocacy, health care information, health insurance enrollment, and legal services. The Upper Manhattan service area has 46 programs for this group, ranging from one in the Upper East Side to 22 in Central Harlem-Morningside Heights. The Lower Manhattan Service area has 108 such programs ranging from six in Gramercy Park-Murray Hill to 35 in Chelsea-Clinton.

There are approximately 209,000 foreign-born residents in the Upper Manhattan service area, 39% more than in Lower Manhattan, with the fewest number of services in proportion to the immigrant population residing in the Upper West Side and Washington Heights-Inwood.

iii. Domain 2 Metrics

A. Create Integrated Delivery System

Over the course of DSRIP, PPSs are expected to reduce potentially preventable hospitalizations visits by 25% over a five-year period. The performance benchmarks are based on 2012 data and contained in tables in this section.

[41] HIV Health and Human Services Planning Council of New York, DOHMH. Needs Assessment for HIV Services New York Eligible Metropolitan Area Ryan White Part A 2014. http://www.nyhiv.org/pdfs/Needs%20Assessment_Full%20Final.pdf.

Table 6 - Potentially Avoidable ER Visits and Readmissions

Measure Name	NYS	NYC	Manhattan	Lower Manhattan Service area (LMSA)	Upper Manhattan Service area (UMSA)	Total Admissions, Manhattan
Potentially Avoidable Emergency Room Visits: ED Visits for Ambulatory Sensitive Conditions, Potentially Preventable Visits (PPV), *per 100 Recipients*	36	33	42	38	44	203,340
Potentially Avoidable Readmissions, by Hospital Location, 2012*	1.00	0.94	1.17	1.31	1.11	

Source: HHC analysis of Potentially Preventable Readmissions data by hospital, New York State Department of Health

Table 6 shows that in 2012, the Manhattan PPS service areas demonstrated higher rates of avoidable ED visits than NYS and NYC averages, although Lower Manhattan did better than the borough overall. Potentially avoidable readmissions performance in the Manhattan PPS service areas was higher than NYS and NYC overall, but Upper Manhattan did slightly better than the borough overall.

Data is not yet available from the New York State Department of Health for the other Domain 2 metrics relating to Provider Reimbursement, System Integration, Primary Care, and Medicaid Spending for Projects Defined Population on a PMPM Basis, which will be used for Domain 2 metrics.

B. Implementation of Care Coordination and Transitional Care Programs

Performing Provider Systems will be required to address the PPR and PPV metrics with the addition of the following:

Among adults with a discharge in NYC who responded to a recent H-CAHPS survey, 34% strongly agreed with the following: hospital staff took a patient-centered approach to their health care needs post-discharge; that they had a good understanding to managing their health; and they had a clear understanding of the purpose of their medications. This percentage was slightly lower than NYS' response rate of 36%, although this data does not adjust for any patient, hospital or market factors. Data at the aggregate Manhattan level is not currently available.

Connecting Settings, Part C, will require that Performing Provider System meet all of the above metrics for A and B.

SECTION B. DESCRIPTION OF THE COMMUNITY TO BE SERVED

i. Demographics of the Medicaid and Uninsured Population in Manhattan

Manhattan's 1.65 million residents comprise nearly 20% of NYC's total population of 8.4 million. Over 41% of Manhattan borough residents are either covered through Medicaid or other low-income medical assistance, or have no health insurance at all. This statistic is far higher in hot spot areas within the Manhattan PPS service area - these individuals are the focus of HHC's DSRIP efforts in the borough (table 7).

Table 7 - Total Population by Insurance Status

	Total Population	No health insurance		Medicaid/low income medical assistance	
		Total	%	Total	%
New York City	8,199,221	1,160,829	14.2	3,588,107	43.8
Manhattan	1,596,735	172,790	10.8	485,833	30.4
Upper Manhattan Service area (includes 295,276 from The Bronx)	1,011,230	159,401	15.8	562,215	55.6
Lower Manhattan Service area	546,292	48,701	8.9	146,505	26.8

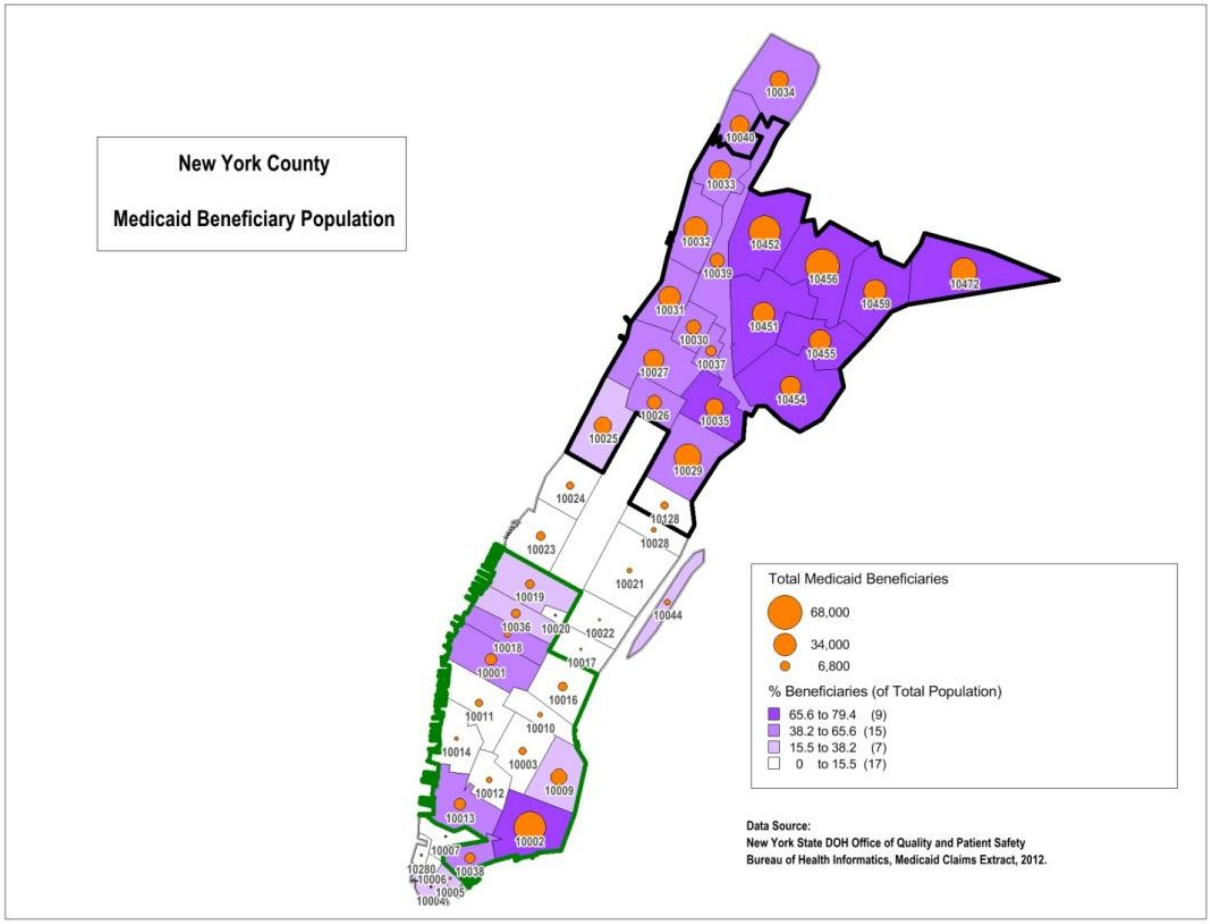
Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Largely due to the establishment of the New York State Health Exchange in January 2014, more than 660,000 New York City residents enrolled in Medicaid, and an additional 157,000 enrolled in a Qualified Health Plan (QHPs) with the assistance of premium subsidies.[42] Given that 93% of Medicaid enrollees and 63% of QHP enrollees were uninsured at the time of enrollment, current estimates are that the total number of uninsured citywide is approximately 450,000.[43],[44]

Maps 2 and 3 illustrate the geographic distribution of Medicaid beneficiaries and persons without insurance in Manhattan and the Manhattan PPS service areas by zip code. Map 2 illustrates two types of information. The circles show, by size, how many Medicaid beneficiaries reside in each ZIP code. The color shading, from light to dark, indicates the proportion of Medicaid beneficiaries relative to the total population of that ZIP code. The Upper Manhattan service area clearly demonstrates the highest numbers of Medicaid beneficiaries per ZIP code as well as the highest density of beneficiaries relative to the ZIP's total population.

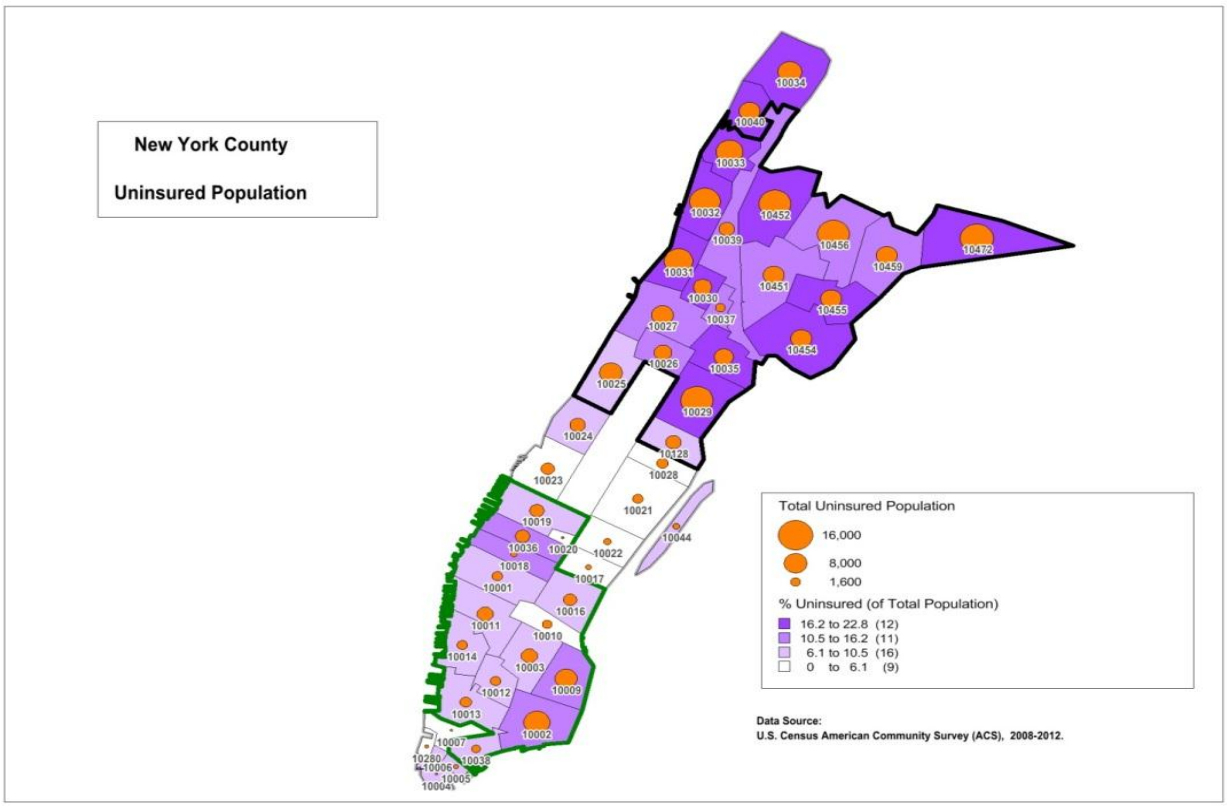
[42] Goldberg, Dan. "Mapping Obamacare by New York City ZIP code," *Capital New York*, October 20, 2014, accessed October 30, 2014.
[43] New York State Department of Health: The Official Health Plan Marketplace 2014 Open Enrollment Report, June 2014.
[44] Goldberg, Dan. Mapping Obamacare by New York City ZIP code," *Capital New York*, October 20, 2014, accessed October 30, 2014.

Map 2: Geographic Distribution of the Medicaid Population in Manhattan Service Areas



Map 3 displays information about uninsured persons. The size of the circles represent the number of insured by zip code, and the shading represent the proportion of uninsured to the population by ZIP code.

Map 3: Geographic Distribution of Uninsured in Manhattan and Service areas



Gender

A higher proportion of men than women are uninsured across all types of coverage, with a larger proportion of women covered by Medicaid/low income medical assistance (Table 8).

Table 8 - Total Population by Gender and Insurance Status

	Total Population	No Health Insurance Coverage			Population with Medicaid/Low Income Medical Assistance			Other Insurance		
		%	% Male	%Female	%	% Male	%Female	%	% Male	%Female
New York City	8,198,393	14.4%	57.2%	42.8%	29.3%	44.0%	56.0%	56.3 %	46.9%	53.1%
Manhattan	1,593,807	11.0%	55.7%	44.3%	20.9%	43.2%	56.8%	68.1 %	46.9%	53.1%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Age

About 71% of the older adult population is dually eligible for Medicaid and Medicare in the Upper Manhattan PPS service area, whereas 48% of the older adult population is dually eligible for Medicaid

and Medicare in the Lower Manhattan PPS service area.[45] Manhattan "duals" account for approximately 20% of all dually eligible individuals in NYC, and approximately 11% in the state (Table 9).[46]

Table 9 - Age by Insurance Status

	Total	Ages 0-19	Ages 20-39	Ages 40-64	Ages 65 and older
Medicaid/low Income Medical Assistance	100%	31.1%	20.8%	29.9%	18.2%
No Health Insurance	100%	8.9%	56.8%	32.8%	1.6%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Race/Ethnicity

Manhattan's population is 47.7% white, 13% black or African American, 11.1% Asian, 25.6% Hispanic or Latino of any race, with the balance falling within other categories. The rates of "no health insurance" or "Medicaid/low income medical assistance" by race/ethnicity are shown in Tables 10 and 11.

Table 10 - Race/Ethnicity of Those with No Health Insurance

	% White	% Black	% Asian	% Other/ Multi-Racial	*% Hispanic*
NYC	18.2%	21.8%	15.7%	2.5%	*41.8%*
Manhattan	26.2%	15.7%	13.1%	2.5%	*42.5%*

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-12

Table 11 - Race/Ethnicity of Those with Medicaid and Other Low Income Medical Support

Region	Population with Medicaid/Low Income Medical Assistance				
	% White	% Black	% Asian	% Other/ Multi- Racial	% Hispanic
NYC	17.6%	25.7%	13.7%	2.3%	40.8%
Manhattan	11.1%	22.8%	10.7%	2.1%	53.3%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-12

Income and Poverty

Manhattan's relatively high median household income, approximately $68,370 per year, is bolstered by the many high earners who live in the borough. In fact, 30% of households in the Upper Manhattan PPS service area are below the federal poverty level, while 15% of households in the Lower Manhattan area are below the federal poverty level. The Hunts Point-Mott Haven area of the South Bronx (Hunts Point-

[45] New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.
[46] Ibid.

Mott Haven) included in the Upper Manhattan service area has nearly one-half of households below the federal poverty level while the Bronx area of High Bridge-Morrisania has about 30% of households below the federal poverty level.[47] The highest poverty rate found in the Lower Manhattan PPS service area is in the Union Square/Lower East Side area, at 25%. These are also the areas with the highest rates of unemployment and largest foreign-born populations.

When responding to the survey question "Do you ever worry you will not have enough money to pay for food or housing?," the majority of the respondents indicated "always" (31.7%) or "sometimes" (35.4%).

Disabilities and Mobility Difficulties

According to the city's Department of Planning[48] persons 65 or older comprised 12.2% of Manhattan's population in 2010 but will be 16.1%--one out of six persons--of the borough's population by 2030. Persons age 65 or older unsurprisingly have the highest percentage of difficulties in mobility, sensory perception and cognition, and planning will be necessary to accommodate the needs of greater numbers. The four most significant difficulties for this age group and the percent reporting issues are represented in Table 12.

Table 12 - Percent of Specific Disabilities in Persons Age 65 or Older In Service Areas

	% Hearing Difficulty	% Ambulatory Difficulty	% Cognitive Difficulty	% Vision Difficulty
Upper Manhattan	9.0	32.3	11.7	8.8
The Bronx	10.8	40.2	16.4	13.6
Lower Manhattan	11.0	25.4	11.0	7.3

Source: U.S. Census American Community Survey (ACS), 2008-2012

Although all percentages are concerning, of particular concern are the relatively high percentages of difficulties in ambulation and cognition. These data are underlined by responses to the CNA survey. Overall, 16.7% of Upper Manhattan survey respondents answered affirmatively to the question "Mobility impairment is a health concern that they face." Sixteen percent (16.0%) of Lower Manhattan survey respondents indicated mobility difficulties. Given the burgeoning senior population in the city, these data point to the need for specialty health care attentive to the difficulties seniors may have in navigating their environments.

Educational Attainment

Educational levels in Manhattan are substantially higher compared to citywide averages, independent of insurance status. Citywide, the uninsured have higher rates of completion of some college or higher relative to the Medicaid population (41% compared to 31%). This relationship is stronger in Manhattan. Fifty-seven percent of the uninsured in Manhattan have completed some college, compared to 32% for

[47] Ibid.
[48] City of New York Department of City Planning (2006). Population projections by age/sex & borough, 2000-2030 Report.

those with Medicaid insurance. Within NYC, this finding may be explained by a sizable proportion of immigrants completing higher education credentials in their native lands. This may suggest that more educated immigrant groups may be migrating to Manhattan. Still, in context, these education figures are still far lower when compared to other types of insurance, with 85% of this population completing some college in Manhattan.

Table 13 - Educational Attainment for Population with No Health Insurance

Region	No Health Insurance Coverage			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	30%	29%	20%	21%
Manhattan	24%	19%	21%	36%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 14 - Educational Attainment for Population with Medicaid/Low Income Medical Assistance

Region	Medicaid/Low Income Medical Assistance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	40%	29%	19%	12%
Manhattan	42%	26%	18%	14%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 15 - Educational Attainment for Populations with Other Insurance

Region	Other Insurance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	11%	22%	22%	45%
Manhattan	6%	9%	13%	72%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Housing: Types and Environment

NYC has 852,575 housing units in 2013, about 22.6% of which are rented.[49] In addition to rental units, a major source of housing for low-income city residents is the New York City Housing Authority, which has 334 developments that house about 400,000 New Yorkers. The wait list for an apartment extends to

[49] http://quickfacts.census.gov/qfd/states/36/36061.html

some 247,000 families and individuals.[50]. The city reports that about 56,500 persons spend the night in shelters daily. Further, New York City's jails house an estimated 12,000 inmates, who may require intensive health care upon discharge.

Census data reports 738,131 households in Manhattan. Fifteen percent (15%) of all households are comprised of a single parent with children. Nearly half (47.8%) of all households in Manhattan are comprised of a single person living alone. Key neighborhoods for single parent households include Harlem/Morningside Heights (30.8%), East Harlem (36.6%), Washington Heights/Inwood (32.2%), and areas in the South Bronx, which include Highbridge/Morrisania (45.9%), Hunts Point/Mott Haven (48.5%) and ZIP codes in Pelham/Throgs Neck (43.1%).

One group of residents, the elderly, has special housing needs as incomes become fixed and they age. A significant number of the burgeoning population of seniors in the city may live in rent controlled apartments that may be deteriorating or in walkups whose stairs are more difficult to negotiate with increasing mobility issues.

Manhattan has a lower rate of severe crowding than New York City overall, yet there are disparities by neighborhood.[51] Neighborhoods with high rates of severe crowding are also the neighborhoods with high rates of foreign born, recent immigrant, non-US citizen, uninsured and Medicaid populations. East Harlem (4.8%), Highbridge/South Concourse (6.4%), Lower East Side/Chinatown (3.6%), and Chelsea/Clinton/Midtown (3.6%) neighborhoods have the highest rates of overcrowding, but the data are considered to be underreported in U.S. Census data due to this population's reluctance to disclose personal information. These conditions can be a significant source of stress, particularly when there are adults living in close quarters with unrelated children.[52]

Table 16 - Severe Crowding Rate by Neighborhood 2005-2009

	Severe Crowding Rate - Percentage of Renter Households with 1.5 Occupants per Room or More (Severe Crowding), by PUMA, Census ACS				
Region	**2005**	**2006**	**2007**	**2008**	**2009**
New York City	3.01	3.41	3.17	4.67	4.04
Manhattan	2.14	3.01	2.44	3.16	2.83
Central Harlem	2.34	2.87	2.30	2.71	3.13
Chelsea/Clinton/Midtown	1.58	2.25	2.10	2.37	3.55
East Harlem	1.95	6.06	3.95	3.72	4.78
Greenwich Village/Financial District	1.23	3.83	2.46	3.75	1.78
Lower East Side/Chinatown	2.89	4.33	4.81	4.24	3.58
Morningside Heights/Hamilton Heights	1.57	2.69	1.59	3.61	2.85
Stuyvesant Town/Turtle Bay	1.83	2.59	1.46	3.37	2.44
Upper East Side	0.72	1.85	1.52	2.20	1.91
Upper West Side	1.89	2.01	2.07	2.66	1.43
South Bronx:					

[50] http://www.nyc.gov/html/nycha/html/about/factsheet.shtml
[51] The Furman Center New York City Neighborhood Information, 2005-2009.
[52] Tripp Umbach Primary Data findings (September 2014).

	Severe Crowding Rate - Percentage of Renter Households with 1.5 Occupants per Room or More (Severe Crowding), by PUMA, Census ACS				
Region	**2005**	**2006**	**2007**	**2008**	**2009**
Mott Haven/Hunts Point	3.15	3.44	3.54	4.97	3.80
Morrisania/Belmont	3.31	2.65	2.89	2.70	2.74
Highbridge/South Concourse	6.03	5.02	5.63	5.05	6.39

Source: The Furman Center New York City Neighborhood Information, 2005-2009

Many lower income populations live in apartments with poor maintenance, vermin and mold, but given the limited alternatives, they have little leverage when advocating for improvements. High rates of serious housing violations per 1,000 units are found Morningside Heights/Hamilton Heights and Washington Heights, as well as neighborhoods in the South Bronx, including Highbridge/Concourse and Morrisania/Crotona (See Table 13 below).[53] Poor environmental conditions in many homes contribute to a high prevalence of asthma in particular communities, including East Harlem, Upper West Side and the South Bronx.

> A focus group participant noted, "*people have breathing issues because principally these buildings are old and dirty. The building where I live is very dirty, having all kinds of insects".*

Concerns about housing, including high rents and poor conditions, are a significant source of stress for lower income residents. According to one key informant:

> *I would say there's not nearly enough attention given to the way housing impacts people's health. Our office and others in the Health Department increasingly [and] so many affordable housing groups around the city are getting more and more interested in quote "healthy housing"--green cleaning products, getting mold out of – you know, getting these pests taken care of, getting better ventilation.*

Affordable housing was consistently identified as the least accessible service among all survey respondents, suggesting a need for additional housing capacity in these areas.

Table 17 - Serious Housing Violations per 1,000 Rental Units by Neighborhood, 2008

Serious Housing Violations by Community District, 2008	Rate/1,000
New York City	53.79
MN01: Financial District	1.45
MN02: Greenwich Village/Soho	15.02
MN03: Lower East Side/Chinatown	14.35
MN04: Clinton/Chelsea	12.73
MN05: Midtown	6.00
MN06: Stuyvesant Town/Turtle Bay	4.07
MN07: Upper West Side	11.44
MN08: Upper East Side	8.68
MN09: Morningside Heights/Hamilton	103.87

[53] The Furman Center New York City Neighborhood Information, 2008.

Serious Housing Violations by Community District, 2008	Rate/1,000
MN10: Central Harlem	43.53
MN11: East Harlem	25.31
MN12: Washington Heights/Inwood	120.73
BX01: Mott Haven/Melrose	68.57
BX03: Morrisania/Crotona	97.68
BX04: Highbridge/Concourse	146.35

Source: The Furman Center New York City Neighborhood Information, 2008

Unemployment

The unemployment rate, not seasonally adjusted, for New York City was 6.1% in September 2014, according to the state Department of Labor.[54] The Queens rate was 5.4%; Bronx, 8.5%; Brooklyn, 6.6%, and Manhattan, 5.1% .[55] For young adults, the employment situation is dire. According to one expert:

> *There's little doubt that New York is facing a youth employment crisis. In 2012, the unemployment rate for young adults ages 16 to 24 was 18.6 percent—more than double the citywide average, and twice as high as for any other age cohort. Last year, only 29 percent of 16 to 24 year olds were employed or seeking work. In 2012, among the nation's 100 largest metro areas, New York City ranked 92nd in the rate of 16-19 year olds employed, and 97th for 20-24 year olds.*[56]

Interpretation of labor statistics is made difficult by a number of factors. Since unemployment rates count only persons still in the labor forces, a disproportionate number of persons of color who no longer seek work would lower those groups' unemployment rates. Also, there is no accurate count of employment by informal arrangement such as day labor, domestic labor and child care.

It is noteworthy that, currently and historically, unemployment rates are higher for persons with less than a college degree[57] and persons of color.[58] Low educational attainment and a high proportion of persons of color in our service areas can correlate to high unemployment in groups served by our healthcare system. Underlining this is our focus on Medicaid beneficiaries and the uninsured, who are likely to have higher rates of unemployment or employment in low-paying positions, some of which may be "off the books." Employment with insurance benefits is hard to come by for many low income and/or immigrant populations as jobs are hourly or seasonal.

[54] New York State Department of Labor. http://labor.ny.gov/stats/laus.asp. Accessed November 7, 2014.
[55] http://www.labor.ny.gov/stats/PressReleases/county_rates.pdf
[56] Gonzalez-Rivera, C., (September 2014) *Bridging the Disconnect. https://nycfuture.org/research/publications/bridging-the-disconnect. Accessed November 7, 2014.*
[57] http://www.bls.gov/emp/ep_chart_001.htm
[58] http://www.bls.gov/web/empsit/cpsee_e16.htm

Language Spoken at Home

In Manhattan, one out of three residents (32%) who are uninsured, are beneficiaries of Medicaid or other low income medical assistance, have low English proficiency. Among the Medicaid population with low English proficiency, the most common languages spoken at home are Spanish, 69%, followed by Chinese, 12%. For uninsured persons, the most common languages spoken at home are Spanish, 72%, and Chinese, 8%.

Country of Origin

The most frequent places of birth for Medicaid beneficiaries residing in the Manhattan PPS service areas are: the Dominican Republic (36%); China (15%); and Mexico and Ecuador (3% each). Those without insurance were most frequently born in the Dominican Republic (24%); Mexico (18%); China (9%), and Ecuador (6%). Table 19 describes where the top foreign born nationalities with no health insurance and with Medicaid/Low Income Medical Assistance reside by PUMA neighborhood in Manhattan.

Table 18 - Top Places of Birth among Foreign Born With No Health Insurance

PUMA Name	Total	Mexico	Dominican Republic	China	Ecuador	Jamaica	Korea
New York City	724,452	131,000	74,765	60,385	56,982	32,639	23,941
Manhattan	84,642	15,272	20,571	7,705	4,846	1,209	2,951
Washington Heights, Inwood & Marble Hill	26,963	6,450	13,619	275	1,716	34	155
Hamilton Heights, Manhattanville & West Harlem	9,956	2,101	2,906	324	1,167	397	474
Central Harlem	6,896	396	1,170	84	542	452	74
East Harlem	9,856	5,090	999	515	603	54	159
Upper East Side	4,260	200	402	250	-	20	435
Upper West Side & West Side	4,856	316	325	236	284	54	390
Chelsea, Clinton & Midtown Business District	5,036	269	379	382	230	53	516
Murray Hill, Gramercy & Stuyvesant Town	3,448	313	89	423	95	-	385
Chinatown & Lower East Side	9,689	137	667	4,520	209	138	-
Battery Park City, Greenwich Village & Soho	3,682	-	15	696	-	7	363

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Residency Status

According to the latest census figures, 15% of Manhattan residents are non-citizen. In the PPS service area, 19% of Upper Manhattan residents and 14% in the Lower Manhattan residents are non-citizens. These figures may be an underrepresentation as U.S. census data may fail to include non-citizens that do not respond to formal census requests.

Homeless Population

The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed, and which may be, in turn, further exacerbated by homelessness.
According to a key informant that works with the homeless:

> *A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients.*
>
> *I think on the Families with Children side, there is a very significant proportion of our families coming in because they are domestic violence [DV] victims. And, they may not qualify for a DV shelter. That's something that's determined at our intake center. Or, they may decline going to a DV shelter – even though they qualify for it. Of course, the psychological and sometimes physical ramifications of having been a DV victim – for both the Head of Household – the responsible parent – and for the kids is very, very significant.*

Homeless New Yorkers tend to be disconnected from primary care and a medical home and are reportedly frequent users of emergency departments. According to the key informant cited above:

> *Our clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street.*

She attributes a portion of this lack of coordination to hospital and provider practice:

> *If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not happening. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our Family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the*

shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient.

Key informants in multiple fields emphasized the importance of supportive housing for high need homeless. Other recommendations included improved coordination of care, more efficient use of services, and improved health focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service.

Group Quarters

In Manhattan, there are approximately 67,000 residents living in Group Quarters with 12,100 residing in institutional settings. In total, 2,000 live in Adult Correctional Facilities, 750 live in Juvenile Facilities, 8,200 live in nursing facilities (including skilled nursing facilities) and 1,100 live in other institutional facilities (comprises hospital, inpatient hospice, psychiatric hospital, military treatment facilities and residential schools for people with disabilities)[59]. There are another 20,000 residents living in other non-institutionalized facilities (comprises shelters, adult group homes, adult residential treatment facilities, and religious or work group quarters) in the county. The PUMA neighborhoods with the largest institutional populations include – Central Harlem North-Polo Grounds (400), Morningside Heights (500), Upper West Side (1,200), Chinatown (1,700), Lenox Hill-Roosevelt Island (2,200), East Harlem South (1,200) and Washington Heights North (900).

Crime and Jail Admissions

The incarceration rate is higher in the Upper Manhattan PPS Service area compared to the Lower Manhattan PPS Service area (table 20).

Table 19 - Jail and Prison Admissions by Area 2007-2009[a]

	NYS	NYC	Manhattan	Lower Manhattan.	Upper Manhattan
NYC DOC Jail admissions (2007-2012), Avg.	94,951	71,929	13,710	3,014	17,181
NYC DOC Jail Admissions Rate per 100,000 Population (2007-2012), Avg.	489	877	859	552	1,699
NYS Prison Admissions (2008)[a]	21,141	9,640	2,393	22	93

Source: NYC Department of Corrections, 2012, as cited in http://gothamist.com/2013/05/01/these_interactive_charts_show_you_w.php and http://www.justiceatlas.org/.

[59] Source: U.S. Census Bureau, 2010 Census, Population Division - New York City Department of City Planning (July 14, 2011).

The most recent data available for NYS prison admissions is from 2008; it is likely that more recent figures would be significantly Lower.

Additionally, survey respondents in the Upper Manhattan PPS service area were more than three times more likely than respondents in Lower Manhattan to identify arrests and incarceration as one of the biggest health concerns in their community.[60] As a community resident explained:

> *Living in a community where you might see crime. You might see gang activity…And, then when you have to walk, you have to be so careful, you have to look where you going. You going to take the elevator, you going to be like [looking over shoulder]. You know, you have to be so careful because when you're old and you see the things that happen to old people. These young men just punch you in the face, and take your stuff, and keep on moving. They don't care that you are old…So, that's a lot when you walk and you have to take these elevators, you got to be so careful, look around. That's stressful…That's to get from point one to point two, you are nervous, and you want to hurry up for the elevator to get to your floor, so you could open your door, so you could go inside, so you could close your door, and you are going to listen. That is a stressful situation.*

Domestic Violence

Domestic violence is a topic that resonated with several interviewees and focus group participants as a significant community concern that has received inadequate attention. Of Bronx survey respondents, 31% reported that health education or programs on domestic violence are needed in their community. Although not necessarily more prevalent, domestic violence issues were particularly relevant in immigrant communities, due to possibly different standards in their home country as compared to the US, stigma, lack of linguistically and culturally appropriate resources, and fear of deportation—particularly in mixed immigration status families. Immigrant groups coming from war-torn countries may also perpetuate the violence they experienced. Examples of comments from key informants and focus group participants include:

> *There are these young men in his community that the image that they have always seen when they were growing up was the way that their fathers would treat their mothers, right? And then they realized later on when they were kind of able to unpack it and get treatment was really, when you come from communities who have been just so devastated by war and by trauma, that what was happening to the fathers and their uncles is that a lot of times they didn't get treatment. They were totally traumatized, and they were taking it out on the mothers. So that's how – so these young men were growing up thinking, well, that's how you treat women. (key informant, immigrant focused organization)*

[60] Tripp Umbach primary data findings (September 2014).

A provider, working for many years with low-income children, described the perceived pervasiveness of domestic violence:

> *Our psychologist in our early childhood program I asked him what percentage of kids in our early childhood program he thought has [observed] domestic violence and he said 100 percent (key informant, provider)*

Population Trends

New York City is projected to grow from 8.2 million persons to 8.5 million by 2020, an increase of 308,000, or 3.7%. Between 2020 and 2030, the growth rate in New York City is projected to increase by an additional 3.2 %. Manhattan's population is projected to grow from 1,586,000 in 2010 to 1,638,000 in 2020, an increase of 3.3%. From 2020 to 2030, the growth rate will slow to 2.3%, adding another 38,000 Manhattan residents. The only high-growth male age groups (defined as a 20% increase or higher) over the period 2010 to 2020 are those ages 70-74 years, while there is a projected population decline (defined as 5% or more) among 15-19, 20-44 and 45-49 year old males. Among females over the same time period, high growth age groups include ages 30-34, 35-39, 70-74 and 75-79 years, and a projected decline among females aged 15-19, 20-24, 45-49, 50-54 and 55-59 years.

Manhattan is expected to have a 3.2% increase in school-age children from 2010-2020, growing from 158,000 in 2010 to 163,000 in 2020. From 2020-2030, the growth rate is expected to grow to 8.9%, adding another 15,000 school-age children in Manhattan. The population aged 65 years and older in Manhattan is expected to grow 17.1% from 2010 to 2020, expanding by 37,000 (from 214,000 to 251,000). The growth rate is expected to slow to 11% from 2020 to 2030, adding an additional 27,000 seniors to the Manhattan population.[61] These trends will impact local investment in public infrastructure, including health care resources and capacity.

[61] New York City Department of City Planning, New York City Population Projections by Age/Sex and Borough, 2010-2040 (Updated from the original PlaNYC Projections, 2000-2030), Accessed November 6, 2014.

Mortality and Premature Mortality

In New York City in 2012 the leading causes of death were diseases of the heart, which included coronary artery disease (CAD) and myocardial infarction, malignant neoplasms (cancer) and influenza and pneumonia. Heart disease and cancer accounted for 57% of all deaths in New York City (table 20).

Table 20 - Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%
2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%
8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

In Manhattan the top three causes of death mirrored those of the city overall: heart disease, cancer, and influenza/pneumonia. These were followed by chronic lower respiratory diseases and cerebrovascular disease. In this borough, Alzheimer's disease was the eighth leading cause of mortality, followed by accidents (excluding drug poisoning), and death by use of - or poisoning by - psychoactive substance, typically a drug overdose (Table 21).

Table 21 - Top 10 Leading Causes of Death, Manhattan, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	2,674	28.9%
2	Malignant Neoplasms	2,409	26.1%
3	Influenza (Flu) and Pneumonia	353	3.8%
4	Chronic Lower Respiratory Diseases	320	3.5%
5	Cerebrovascular Disease	307	3.3%
6	Diabetes Mellitus	265	2.9%
7	Essential Hypertension and Renal Diseases	206	2.2%
8	Alzheimer's Disease	200	2.2%
9	Accidents Except Drug Poisoning	159	1.7%
10	Use of or Poisoning By Psychoactive Substance	149	1.6%

	All Other Causes	2,196	23.8%
	Total	9,238	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Causes of Death by Age

Table 24, Appendix B provides the leading causes of death for City residents in 2012 by age groupings that include persons from less than one year old to age 85 and older. It is notable that assault ranked as the number one cause of death for age group 15-24; malignant neoplasms were the leading cause of death in age group 1-14 and all age groups 35-74. In the latter age groups, diseases of the heart was the second most common cause of death and the most common cause of death for persons 75 and older. For City residents ages 25-54, use of/accidental poisoning by psychoactive substances was the first leading cause of death, accounting for 27% of deaths in that age group.

Causes of Death by Gender

The three leading causes of death in 2012 were the same for men and women, with similar percentages of mortality. For men, the fourth and fifth leading causes of death were the same as for the City as a whole—diabetes and chronic lower respiratory diseases. For women, the fourth leading cause of death was cerebrovascular disease, followed by diabetes mellitus. Among men, accidents (except for drug poisoning) were a prominent cause of death, ranked at number 6; for women it was the ninth leading cause of death. Death by use of - or poisoning by - psychoactive substance exposure, typically a drug overdose, was the eight leading cause of death for men in the City, followed by essential hypertension and renal disease, and HIV disease. Among women, Alzheimer's disease was the eighth leading cause of death, followed by accidents (except drug poisoning) and septicemia (Table 22).

Table 22 - Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total Reported	%	Causes of Mortality	Total Reported	%
	Males			**Females**		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%
4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory Diseases	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and Renal Diseases	562	2%

8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Causes of Death by Race

Diseases of the heart and malignant neoplasms were the first two leading causes for Hispanics, White non-Hispanics and Black non-Hispanics in 2012. Among Asians and Pacific Islanders, the order of these two causes was reversed. For non-Hispanic Whites, the two leading causes accounted for 62% of mortality, while the two leading causes accounted for 51% of deaths in Hispanics and 57% of deaths for Asians and Pacific Islanders. The remaining leading causes of death varied by racial group. Altogether, the 10 leading causes of death account for 74% of mortality in Hispanics, 80% in non-Hispanic Whites, 79% in non-Hispanic Blacks, and 81% in Asians and Pacific Islanders (Table 23).

Table 23 - Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			White, Non-Hispanic			Black, Non-Hispanic			Asian and Pacific Islander		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Trends in Mortality Causes in New York City

From 2002 to 2012 the three leading causes of death in the City overall have remained the same: diseases of the heart, malignant neoplasms, and influenza and pneumonia. In 2002, HIV disease was the fifth leading cause of death; in 2012 it is no longer in the top 10. In 2002, cerebrovascular disease, diabetes and chronic lower respiratory disease each accounted for 3% of deaths; the percentages did not change in 2012 although their relative rankings varied. The percentages of deaths from hypertension and renal disease rose one point in 2012 relative to 2002 and 2007, from 1% to 2%. In 2012 Alzheimer's disease appeared in the top ten causes for the first time in 2012 (at number 10), accounting for 1% of deaths that year. Percentages of deaths due to accidents (except for drug poisoning and use of - or poisoning by -psychoactive substance) did not change from 2002 through 2012 (Table 24).

Table 24 - Leading Causes of Death, New York City, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			2007			2012		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Premature Deaths

In New York City in 2012 the leading cause of premature deaths, that is, deaths before the age of 65, was cancer, followed by diseases of the circulatory system (including heart disease), and accidents. Overall, 14,407 premature deaths were recorded in 2012, with 224,047 years of life lost (Table 25).

Table 25 - Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drownings	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010
Homicide and Legal Intervention	400	14,196	341	12,356	59	1,840
All Other Causes	2,324	39,249	1,357	22,315	967	16,934

Premature death is defined a death before age 65. Years of Life Lost (YLL) is calculated by subtracting the age of death from age 65.
Source: The New York State Department of Health, Vital Statistics, 2012, accessed December 2, 2014

Leading causes of death by payer

Table 26 below compares decedents who were enrolled in Medicaid in the year before their deaths and those who were not enrolled. The top four leading causes are the same: heart disease, cancer, chronic lower respiratory disease (CLDR) and cerebrovascular disease. Suicide is ranked in the top ten causes of death for non-enrollees, but not for Medicaid enrollees. Alzheimer's disease ranks higher among those enrolled in Medicaid, and while hypertension is among the top ten causes of death for enrollees, it is not ranked among non-enrollees.

Table 26 - Ten Leading Causes of Death by Medicaid Status, New York State, 2012

	Non-Medicaid		Medicaid*	
Rank	Underlying Cause of Death	Deaths	Underlying Cause of Death	Deaths
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

*Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.

Hospital Utilization by Beneficiaries

Table 27 below describes hospital admissions rates by type of beneficiaries--persons with Medicaid and persons with both Medicaid and Medicare, known as dual eligible.

Table 27 - Hospital Admissions – Medicaid and Dual-Eligible Beneficiaries

	NYS	NYC	Manhattan	LMSA	UMSA
Dual Beneficiaries Admitted at Least Once	149,622	89,093	16,860	5,359	14,936
Total Dual-Eligible Admissions	207,893	125,358	23,565	7,586	21,050
Non-Dual Beneficiaries Admitted at Least Once	515,821	315,132	41,628	11,948	53,961
Total Non-Dual Admissions	746,996	468,005	72,647	23,679	86,352
Total Beneficiaries Admitted	665,443	404,225	58,488	17,307	68,897
Total Admissions	954,889	593,363	96,212	31,265	107,402
% Beneficiaries Admitted	11%	11%	12%	11.8%	12.3%

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Hospitalizations by Age and Payer Group

Of the 1.08 million inpatient discharges by NYC hospitals in 2013, 16% were age 0 to 17; 27% were age 18 to 44; 26% were age 45 to 64, and 30% were age 65 and older. Fifty-five percent of visits were by female patients, and 45% by males. Medicaid was the primary payer for 39% of visits, Medicare 32% Commercial 24%, Uninsured 3.4%, and Other payers 2%. Over the four-year time period (2010 to 2013), inpatient discharges decreased 7.4% city wide and the average length of stay declined 1.1%, from 5.69 to 5.63 days. The greatest decrease in the number of discharges occurred in Queens, with a decline of 9.6%, while the Bronx had the smallest decline, at 6.6%.[62]

Causes for hospital admissions – Diagnoses and Trends

The main causes for hospital admissions were consistent from 2010 and 2013, and across all boroughs (Table 28). Newborn and newborn related was the main reason for admission in all four boroughs and both time periods. Hospitalization rates for heart disease, digestive disease, and respiratory disease were consistent across all boroughs, with the exception of The Bronx, where respiratory disease was more common.

[62] New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 28 - Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive Disease	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	**1,160,53**	**1,075,15**	**199,603**	**185,181**	**223,597**	**208,937**	**353,202**	**325,700**	**210,057**	**189,945**

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Emergency Department Visits by Age and Payer Group

Of the 2.9 million ED visits by city residents in 2013 (excluding Staten Island), 24% were by patients ages 0 to 17; 44%, ages 18 to 44; 23%, ages 45 to 64, and 9%, age 65 and older. Fifty-four percent of visits were female patients, and 46% by males. Medicaid was the primary payer for 46% of ED visits, Commercial 19%, Medicare 10%, Uninsured 19%, and Other payers 4%.[63]

Causes for ED Visits – Diagnoses and Trends

In Manhattan, the leading diagnosis for ED visits in 2013 was Symptoms and Signs at 23%, an increase from 20% in 2010. This was followed in 2013 in descending order with Injury, Respiratory disease, and musculoskeletal disease (Table 29).

[63] Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2013.

Table 29 - ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC	NYC	Manhattan	Manhattan	Bronx	Bronx	Brooklyn	Brooklyn	Queens	Queens
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Compl. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Respondents to the CNA Manhattan survey question, “If yes (1 or more ED visits in past 12 months), why did you go?” 28.8% of respondents said their problem was too serious for a doctor’s office or clinic; 22.9% said their doctor’s office or clinic wasn’t open; 17.3% specified "other" reasons; 11.1% said they got most of their health care at the ER; 10% did not have insurance; and 2.2% said they had no transportation to a doctor's office or clinic.

In a focus group, one participant reported:

> *If you're sick, really sick, you need to go and they can't turn you away. They know this. I don't have insurance yet, I tend to go to the emergency room and they can give me pain medication, they can give me a needle in the back but when you look at it, I don't have money for insurance but now you tell me I'm getting into this big hole, debt from going to get care. (Participant from a focus group conducted with residents without continuous health care)*

ED Visits – Medicaid and Dual Eligibles

Medicaid and Dual Eligibles ED use by state, city, borough, and upper and lower Manhattan service areas are indicated in table 30.

Table 30 - ED visits - Medicaid and Dual-Eligibles

	NYS	NYC	Manhattan	LMSA	UMSA
Dual Beneficiaries who used the ED at Least Once	138,965	67,499	15527	4,854	13,660
Total Dual Beneficiaries' ED visits	276,130	117,640	29320	9,733	24,607
Total Non-Dual Beneficiaries who used the ED at	1,324,449	773,479	110,705	24,202	153,623
Total Non-Dual Beneficiaries ED visits	2,607,918	1,470,587	236,845	58,815	306,441
Total Beneficiaries who used the ED	1,463,414	840,978	126,232	29,056	167,283
Total ED visits by Both Groups	2,884,048	1,588,227	266,165	68,548	331,048
% Beneficiaries with ED Visit	25%	23%	26.0%	19.8%	29.8%
ED Visits per Beneficiaries with at least one visit	1.97	1.89	2.11	2.36	1.98

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

POTENTIALLY PREVENTABLE ED AND INPATIENT UTILIZATION

Access to an adequate amount, and mix of outpatient care and other community resources can reduce hospitalizations and ED visits related to Ambulatory Care Sensitive Conditions (ACSC) -- medical problems which could potentially be prevented, or for which early intervention could prevent complications or more severe disease.

The Gap Between Community Resources and Needs

The number of potentially avoidable ED visits and admissions therefore represents the Gap between community resources (provider and non-provider) and the needs of the Medicaid community, or unmet need. The Gap between resources and needs among neighborhoods and boroughs can be compared to each other, or to the Statewide average after adjusting for demographic differences, such as age, gender, and race / ethnicity. Neighborhoods with greater challenges such as higher disease prevalence, poverty rate, or English language proficiency may require a greater level of and perhaps different mix of resources.

The following categories of potentially avoidable hospital utilization are discussed throughout this section:

1. Medicaid Potentially Avoidable ED visits (PPV)
2. Medicaid Adult Overall Conditions Composite Hospitalizations (PQI 90)
3. Medicaid Adult Acute Conditions Composite Hospitalizations (PQI 91)
4. Medicaid Adult Chronic Conditions Composite Hospitalizations (PQI 92)
5. Medicaid Adult Respiratory Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Medicaid Adult Respiratory Conditions Composite Hospitalizations (PQI S03)
        i. Asthma Prevalence and percent with a hospital admission and ED visit
        ii. COPD and Asthma in Older Adults Hospitalizations (PQI 05)
        iii. Asthma in Younger Adults Hospitalizations (PQI 15)

iv. Pediatric Asthma ages 2-17 Hospitalizations (PDI 14)

6. Medicaid Adult All Circulatory / Cardiovascular Disease Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Circulatory Conditions Composite Hospitalizations (PQI S02)
        i. Hypertension Hospitalizations (PQI 07)
        ii. Heart Failure Hospitalizations (PQI 08)
7. Medicaid Adult All Diabetes Composite
    a. Prevalence; Percent with a hospital admission and ED visit
    b. All Diabetes Composite Hospitalizations (PQI S01)
8. Medicaid Behavioral Health
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Mental Health Prevalence and percent with a hospital admission and ED visit
    c. Substance Abuse Prevalence and percent with a hospital admission and ED visit
9. Total Population HIV/AIDS
    a. People living with HIV/AIDS (PWHA)
    b. Prevalence; Percent with a hospital admission and ED visit

Note that a limitation in this way of measuring the gap between resources and needs is that while it does allow comparison across diseases and across geographic areas, it does not identify the amount and type of resources needed to reduce the gap, for example additional primary care providers and which type; language and cultural sensitivity; patient education; and transportation.

The terms used to measure ambulatory care sensitive conditions are as follows:

- Prevention Quality Improvement (PQI) is a set of measures developed by the federal Agency for Healthcare Research and Quality (AHRQ) for use in assessing the quality of outpatient care for a set of ACSC conditions. The PQIs are measured as a number of discharges or a discharge rate for a specific condition or disease for a given population. See Appendix E for a list of all condition (disease) specific PQI discharges and rates by neighborhood.
    - Observed PQIs may be described as the "actual" number of discharges. The Observed PQI rate (per 100,000 people) is the number of PQI discharges divided by the population. Lower rates represent better results.
    - Expected PQIs are Observed PQI discharges adjusted for age, gender, and race / ethnicity. The expected PQI rate (per 100,000 people) is the number of PQI discharges divided by the population.
    - Risk Adjusted PQI rate (per 100,000 people) is calculated by dividing the observed PQI rate by the expected PQI rate, multiplied by the statewide PQI rate. This has the effect of adjusting for demographic and case mix factors.
    - Observed to Risk Adjusted Expected gap quantifies the gap in absolute numbers of potentially avoidable hospital encounters.
    - Observed / Risk Adjusted Expected rate ratio is the ratio of "actual" PQI discharges to expected discharges, adjusted for age, sex, and race/ethnicity. Lower number is better.

- Potentially Preventable Visits (PPVs), based on proprietary 3M software, are emergency visits for ambulatory care sensitive conditions (ACSC) that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or eliminated with adequate patient monitoring and follow up. Unlike with PQIs, which can be disease specific, there is only one PPV indicator which represents all potentially avoidable ED visit regardless of condition or disease.
    - PPV Events are observed or "actual" ED visits that meet the criteria of an ACSC visit as defined by the 3M software. The Observed Rate is the number of PPV events divided by the population.
    - Risk Adjusted Expected Visits are PPV visits adjusted by age, gender and race/ethnicity. The Expected rate is the number of Expected visits divided by the population.
    - Risk Adjusted Expected Rate is the observed PPV rate divided by the expected PPV rate, multiplied by the statewide PPV rate. A lower number is better.

While not considered in this analysis an ambulatory care sensitive condition, Potentially Preventable admissions are included in this section due to their nature of being avoidable.

- Potentially Preventable Readmission (PPR), is based on proprietary 3M software and as used in this report, identifies hospital admissions clinically related to an initial admission within a 30-day time period from the discharge date of the initial admission. A PPR approximates admissions that may have resulted from a deficiency in the process of care and treatment at the initial hospitalization or lack of post discharge follow up, and exclude unrelated admissions such as admissions for trauma. Therefore, PPR readmissions are linked to the initiating hospital regardless of whether the readmission is to the same or different hospital.
    - At-Risk Admissions are the total number of admissions at a hospital that could be followed by a PPR readmission as defined the software.
    - Observed PPR Chains are the number admissions at the initiating hospital followed by a readmission. Observed PPR Rate is the ratio of observed chains (readmissions) to At Risk admission.
    - Expected PPR Chains are the number of admissions at the initiating hospital followed by a readmission, adjusted for patient severity of illness (APR-DRG) and age. Expected PPR rate is the ratio of expected chains (admissions) to at-risk admissions.
    - Risk Adjusted Expected PPR Rate is the ratio of the Observed rate to the Expected rate, multiplied by the Statewide PPR rate. A lower number is better.

Source:
New York State DOH Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Data Update

The PQI and PPV data used in this Appendix E reflects the most current updates, November 26, 2014 and may not match exactly comparable statistics in the report, which used original data as of June and

August, 2014. Any changes resulting from the November update have not affected the findings of the report.

Potentially Preventable Visits (PPV)

Manhattan as a whole, as well as both the Upper and Lower Manhattan service areas have a higher rate of potentially preventable ED visits per 100 Medicaid beneficiaries, after adjusting for population differences, than New York City and New York State. The lower Manhattan service area rate is 40% higher (1.40) and the upper Manhattan service area is 18% higher (1.18) than the City (Table 31).

Table 31 – Potentially Preventable ED visits (PPVs) by Service area, Borough, City and State

			Risk-Adjusted Expected Rate Ratios*	
Area	Observed PPV Events	Risk- Adjusted Expected Rate per 100 Beneficiaries	to NYC	to NYS
Lower MH SA	55,217	47.26	1.40	1.31
Upper MH SA	249,414	39.93	1.18	1.11
Manhattan (MH)	203,340	42.12	1.25	1.17
NYC	1,191,549	33.78	1.00	0.94
NYS	2,111,519	36.08	1.00	1.00

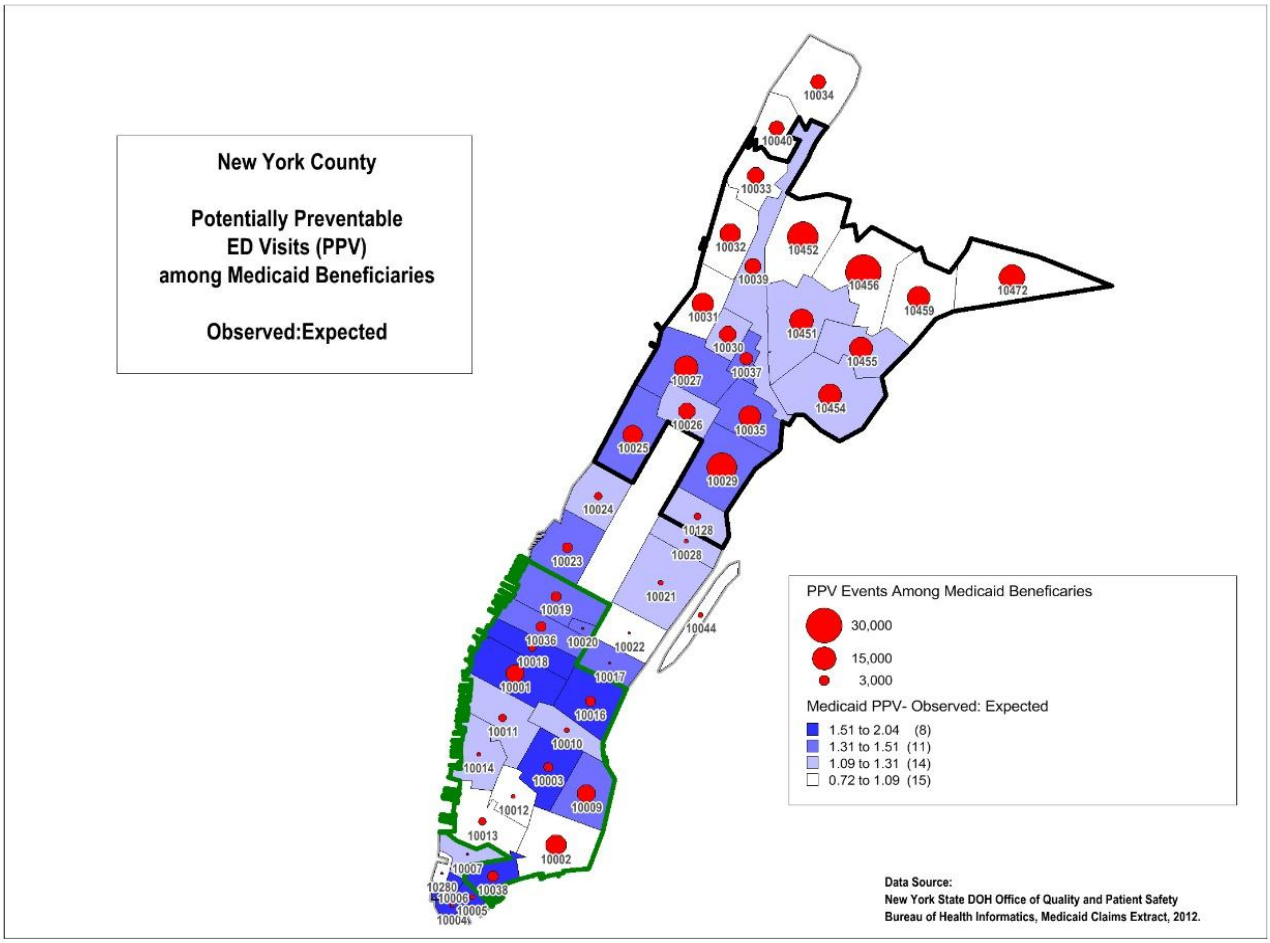
* Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Within both service areas the disparity between neighborhoods and zip codes is reflected in the observed / risk adjusted expected ratio. As mentioned previously, neighborhoods and zip codes with the highest ratio have the greatest gap between provider and non-provider resources available and community need. There is also disparity between zip codes and neighborhoods in the number of potentially preventable ED visits. Neighborhoods and zip codes with both high ratios and high numbers of PPVs may have the greatest need and with interventions may yield the greatest overall outcomes.

Map 4 shows the size of the gap between community need and resources as an absolute number for each zip code and adjusted for population size, by comparing the number of PPV visits by Medicaid beneficiaries, represented by the relative size of the red circles, and the ratio of observed to expected PPV visits, represented by shading.

Map 4: Potentially Preventable ED Visits (PPVs) among Medicaid Beneficiaries by ZIP code



Potentially Preventable Readmissions (PPR)

PPR readmissions represent admissions that may have resulted from a deficiency in the process of care and treatment at the initial hospitalization or lack of post discharge follow up. Manhattan hospitals had 6,002 PPR readmissions in 2012, 3% higher than expected. (Table 32).

Table 32 - Potentially Preventable Readmissions, Manhattan Hospitals, 2012

Facility Name	At Risk Admissions	Observed PPR Chains	Observed PPR Rate	Risk Adjusted Expected PPR Chains	Risk-Adjusted Expected PPR Rate	Observed / Risk Adjusted Expected PPR
Beth Israel Medical Center	191	6	3.14	4	2.17	1.45
Bellevue Hospital Center (HHC)	10,626	1,171	11.02	923	8.68	1.27
Harlem Hospital (HHC)	6,411	624	9.73	516	8.04	1.21
Coler Goldwater Specialty Hospital (HHC)	82	4	4.88	4	4.29	1.14
Metropolitan Hospital (HHC)	7,684	686	8.93	605	7.88	1.13
Mount Sinai Hospital	17,206	1,253	7.28	1,242	7.22	1.01
NYU Hospitals Center	2,989	193	6.46	191	6.37	1.01
Lenox Hill Hospital	3,702	293	7.91	305	8.23	0.96
New York Presbyterian	30,552	1,752	5.73	1,900	6.22	0.92
NYU Hospital For Joint Diseases	392	11	2.81	20	4.99	0.56
Hospital For Special Surgery	405	3	0.74	6	1.44	0.51
N Y Eye And Ear Infirmary	221	6	2.71	16	7.01	0.39
Manhattan Hospitals Total	80,461	6,002	7.46	5,824	7.24	1.03
New York City Total	345,073	23,981	6.95	24,823	7.19	0.97
New York State Total	604,308	40,687	6.73			

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

CHRONIC DISEASES PREVALENCE AND POTENTIALLY AVOIDABLE UTILIZATION

In comparing five chronic conditions among Medicaid beneficiaries -- respiratory, cardiovascular (CVD)/circulatory, diabetes, mental health, and substance abuse related – CVD/circulatory has the highest prevalence across the state, and is even higher across the city, and higher still within Manhattan at 33.5%.

While the prevalence of substance abuse among Medicaid beneficiaries is less than CVD/circulatory, the percent of individuals with at least one hospitalization and ED visit within a 12 month period is higher than for the other chronic conditions. (Table 33).

Table 33 - Chronic Diseases Prevalence and Potentially Avoidable Utilization

	Prevalence Medicaid Beneficiaries	Percent w/ Hospitalization	Percent w/ ED Visit	Observed PQI Hospitalizations per 100,000 Beneficiaries
NYS				
Respiratory	9.6%	35.3%	47.3%	486
CVD/Circulatory	26.4%	40.0%	31.3%	412
Diabetes	9.6%	32.5%	31.2%	368
Mental Health	22.8%	30.9%	45.8%	n/a
Substance Abuse	6.4%	59.6%	59.9%	n/a
NYC				
Respiratory	9.7%	35.3%	47.3%	507
CVD/Circulatory	30.2%	40.4%	28.1%	461
Diabetes	11.4%	32.3%	28.6%	388
Mental Health	19.5%	32.3%	42.3%	n/a
Substance Abuse	6.2%	65.0%	58.4%	n/a
Manhattan				
Respiratory	10.8	38.2	48.7	550
CVD/Circulatory	33.5	41.6	31.5	486
Diabetes	12.5	33.5	31.8	411
Mental Health	26.8	35.1	46.5	n/a
Substance Abuse	11.2	68.1	60.8	n/a

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Composite PQIs combine hospitalizations within a broad illness category. In Manhattan, observed total PQI hospitalizations (PQI 90), which includes acute (other than chronic) hospitalizations per 100,000 Medicaid beneficiaries declined 12% from 2009 to 2012. Hospitalizations for circulatory conditions declined by 18%, respiratory conditions declined by 15%, and diabetes related conditions fell by 7% from 2009 to 2012 (Table 34).

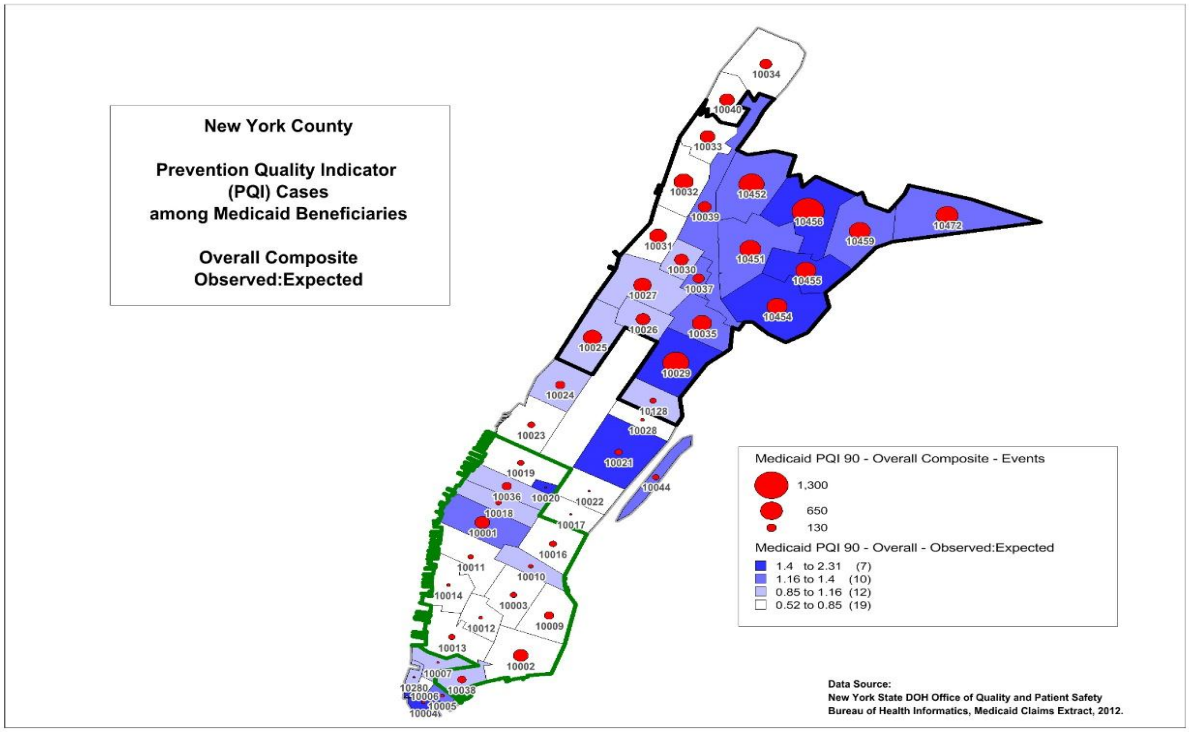
Table 34 - Total Potentially Avoidable Hospitalizations (Composite PQI 90), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	2012	2009	2012	2009	2012	2009	2012
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	**1,547**	**1,360**	1,453	1,318
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	**1,615**	**1,398**	1,874	1,641
	Observed/Expected	1.46	1.38	0.99	1.06	**0.96**	**0.97**	0.78	0.80
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	**246**	**230**	243	225
	Expected Rate Per 100,000	369	336	337	289	**250**	**227**	296	272
	Observed/Expected	1.50	1.47	1.15	1.20	**0.99**	**1.01**	0.82	0.83
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	**357**	**304**	289	269
	Expected Rate Per 100,000	493	437	458	378	**365**	**319**	426	374
	Observed/Expected	1.69	1.60	0.96	1.04	**0.98**	**0.95**	0.68	0.72
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	**425**	**350**	427	386
	Expected Rate Per 100,000	590	499	590	464	**456**	**380**	543	462
	Observed/Expected	1.40	1.31	1.04	1.08	**0.93**	**0.92**	0.79	0.83

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Map 5 shows the number of total PQI hospitalizations (PQI 90) by Medicaid beneficiaries by zip code of residence represented by the red circles, and the ratio of observed to expected hospitalizations. Darker shades represent a higher ratio of observed to expected, indicating poorer performance.

Map 5: Overall Composite conditions PQI for Medicaid Beneficiaries by ZIP code, 2012



Acute Potentially Avoidable Hospitalizations

The rate of potentially avoidable PQI hospitalizations with acute conditions (PQI 91) in the Lower Manhattan service area outperforms NYC and NYS while the Upper Manhattan service area underperforms relative to the City and the State signifying a gap in Upper Manhattan between available resources and need (Table 35).

Table 35 - Acute Conditions PQI Risk-Adjusted Expected Hospitalization Rates and Rate Ratios, 2012 *

			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk- Adjusted Expected Rate per 100k	to NYC	to NYS
Lower MH SA	572	481	0.91	0.91
Upper MH SA	2,313	592	1.13	1.12
Manhattan	2,140	527	1.00	0.99
NYC	12,328	525	1.00	0.99
NYS	20,521	530	1.00	1.00

Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS.Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Chronic Potentially Avoidable Hospitalizations

Among chronic conditions in the aggregate, the gap between existing resources and need for all of NYC is 3% greater than the statewide average (1.03), and is 22% greater for the Upper Manhattan service area (1.22) (Table 36).

Table 36 - Chronic Conditions PQI 92 Risk-Adjusted Expected Hospitalizations, 2012

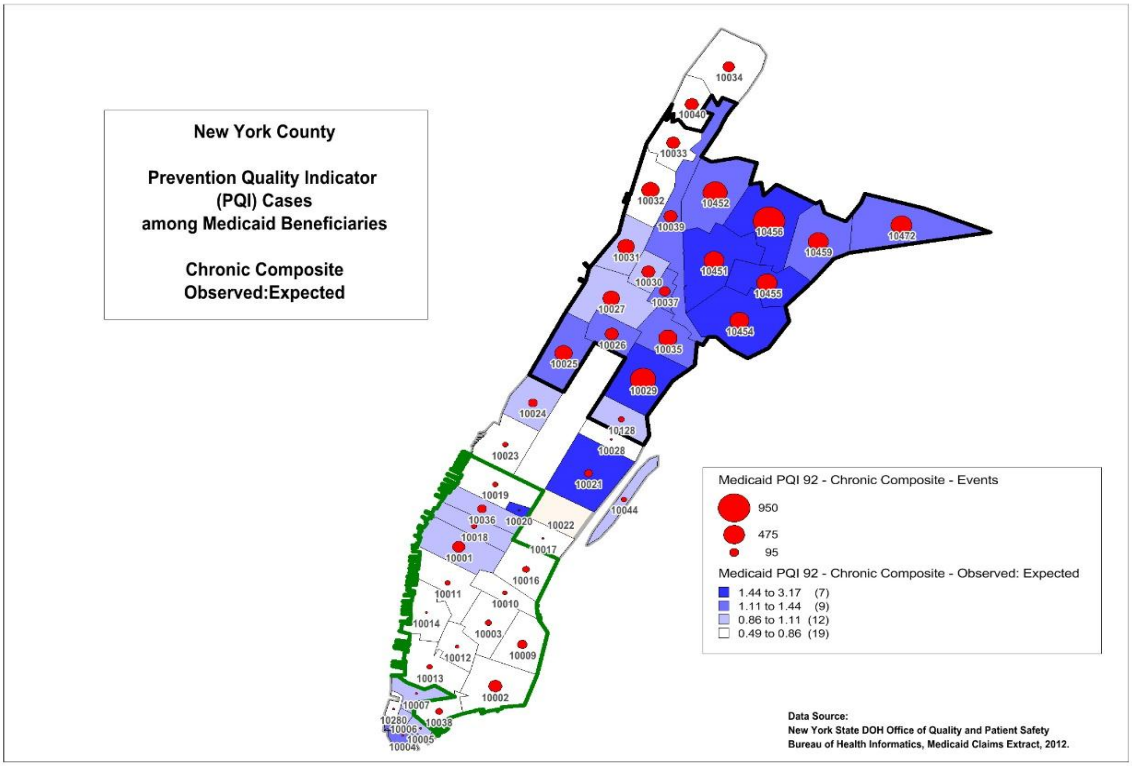
			Risk-Adjusted Expected Rate Ratios	
Area	**Observed Cases**	**Risk- Adjusted Expected Rate/100k**	**to NYC**	**to NYS**
Lower MH SA	1,048	887	0.68	0.71
Upper MH SA	7,081	1,536	1.19	1.22
Manhattan (MH)	5,236	1,191	0.92	0.95
NYC	32,619	1,295	1.00	1.03
NYS	48,568	1,254	1.00	1.00

Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Map 6 shows the number of chronic PQI hospitalizations (PQI 92) by Medicaid beneficiaries by zip code of residence represented by the red circles, and the ratio of observed to expected hospitalizations. Darker shades represent a higher ratio of observed to expected hospitalizations, indicating greater gaps. The pattern for numbers of hospitalizations and ratio of observed to expected hospitalizations is similar to the total composite and acute composite PQIs. The Upper Manhattan service area underperforms relative to the city and state while the Lower Manhattan service area outperforms the City and State.

Map 6: Chronic Conditions Composite PQI for Medicaid Beneficiaries by ZIP code, 2012



RESPIRATORY CONDITIONS / ASTHMA

Prevalence

There are 349,000 Medicaid beneficiaries in NYC diagnosed with a respiratory related condition, or 9.7%; the Lower Manhattan service area and Upper Manhattan service area prevalence exceeds that, at 10.1% and 12.1%, respectively (Table 38). Among Medicaid beneficiaries diagnosed with a respiratory related condition, in both service areas 38% had at least one hospital admission over a 12 month period, higher than the statewide rate of 35%. Statewide, 47% had at least one ED visit over a 12 month period, greater than the rate in the Lower Manhattan service area, but higher than the Upper Manhattan service area.

Table 37 - Respiratory Related Prevalence and Hospital Utilization

	NYS	NYC	Manhattan	Lower Manhattan SA	Upper Manhattan SA
Beneficiaries with Condition	558,700	348,955	70,576	14,838	68,204
Diagnosed Prevalence (Per 100)	9.57	9.73	10.79	10.13	12.13
% with at least one Admission	35.28	36.00	38.18	38.31	37.80
% with at least one ED Visit	47.29	44.93	48.73	42.92	52.13
Average # of Admissions	1.98	2.06	2.23	2.47	2.15
Average # of ED Visits	2.86	2.69	3.10	3.55	2.79

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Of the 349,000 NYC Medicaid beneficiaries diagnosed with a respiratory related condition, 69% or 240,000 are asthma related. Medicaid beneficiaries diagnosed with asthma in the Lower Manhattan service area exceeds the statewide rate of beneficiaries with at least one admission but has a smaller proportion than the state of beneficiaries with at least one ED visit. The Upper Manhattan service area exceeds the statewide rate for beneficiaries with admissions and ED visits (Table 38).

Table 38: Respiratory Conditions Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	9,803	6.69	31.43	46.42	2.39	3.41
UMSA	50,874	9.05	29.69	53.81	1.95	2.69
Manhattan	47,526	7.55	30.20	52.03	2.09	2.98
NYC	240,241	6.70	27.57	48.34	1.90	2.63
NYS	375,170	6.43	26.78	50.26	1.86	2.79
Rate Ratio						
LM/NYC		1.00	1.14	0.96	1.25	1.29
LM/NYS		1.04	1.17	0.92	1.28	1.22
UM/NYC		1.35	1.08	1.11	1.02	1.02
UM/NYS		1.41	1.11	1.07	1.05	0.97
MANHATTAN /NYC		1.13	1.10	1.08	1.10	1.13
MANHATTAN/NYS		1.18	1.13	1.04	1.12	1.07
NYC/NYS		1.04	1.03	0.96	1.02	0.94

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Composite Respiratory Potentially Avoidable Hospitalizations (PQI S03)

The respiratory composite PQI (SO3) includes chronic obstructive pulmonary disease and asthma in adults. In the Upper Manhattan service area, the risk adjusted expected rate is 30% greater than NYC (1.30), while the Lower Manhattan service area is 23% lower than the statewide rate (0.77) (Table 39).

Table 39 - Respiratory PQI Risk-Adjusted Expected Hospitalization Rates (PQI S03), 2012

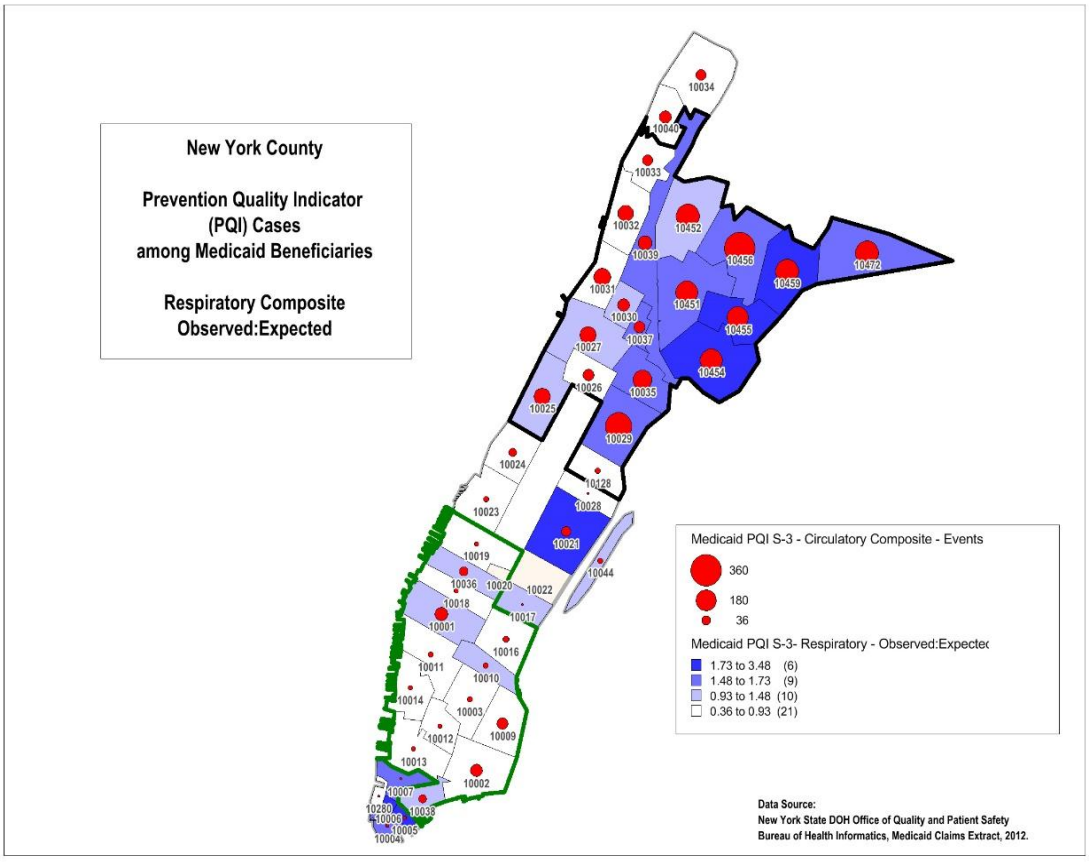
			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk- Adjusted Expected Rate/100k	to NYC	to NYS
Lower MH SA	417	371	0.75	0.77
Upper MH SA	2,862	628	1.27	1.30
Manhattan (MH)	1,991	466	0.94	0.97
NYC	12,216	493	1.00	1.02
NYS	18,654	482	1.00	1.00

Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Map 9 shows the number of respiratory PQI hospitalizations (PQI S03) by Medicaid beneficiaries by zip code of residence represented by the red circles, and the ratio of observed to expected hospitalizations, represented by shading. Darker shades represent a higher ratio of observed to expected hospitalizations, indicating zip codes with greater gaps between need and resources.

Map 7: Respiratory Composite PQI (SO3) Hospitalizations by Medicaid Beneficiaries, 2012



Asthma PQI Hospitalizations by Age Group

Potentially avoidable asthma hospitalization rates for children, adults ages 18-39, and adults 40 and older all show the same general pattern in the two Manhattan service areas: The Upper Manhattan Service area PQI hospitalization rate is higher than the state rate for all three age groups, and the Lower Manhattan service area rate is lower than the state rates (Table 40).

Table 40 - Observed and Risk-Adjusted Asthma Related Hospitalizations, 2012

			Risk-Adjusted Expected Rate Ratios	
Area	**Observed Cases**	**Risk- Adjusted Expected Rate/100k**	**to NYC**	**to NYS**
Pediatric Asthma (PDI 14)				
Lower MH SA	51	239	0.61	0.75
Upper MH SA	1,213	566	1.45	1.77
Manhattan (MH)	490	407	1.04	1.27
NYC	4,282	391	1.00	1.22
NYS	5,384	321	1.00	1.00
Young Adult Asthma Ages 18-39 (PQI 15)				
Lower MH SA	30	92	0.62	0.68
Upper MH SA	515	225	1.51	1.67
Manhattan (MH)	262	164	1.10	1.21
NYC	1,730	149	1.00	1.11
NYS	2,410	135	1.00	1.00
COPD and Asthma Ages 40 and Above (PQI 055)				
Lower MH SA	387	606	0.77	0.78
Upper MH SA	2,347	968	1.23	1.24
Manhattan (MH)	1,729	731	0.93	0.94
NYC	10,486	788	1.00	1.01
NYS	16,244	779	1.00	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Asthma Healthcare Related Challenges

Respondents from the Upper Manhattan PPS service area (35.7%) indicated asthma is one of the biggest health concerns in their community compared to 23.9% for Lower Manhattan service area respondents. The link between asthma and air quality was identified in a CNA interview:

> *"...in some of the housing, the conditions are just terrible, just the environmental hazards, the mold, the asthma irritants, the pests. There's this [unclear] area that we call – me and my fiancé call Rat Alley because it's just you walk down a certain time of day and it's just giant ... Giant rats. And you're just like, what is going on in people's homes, right? And then the droppings and whatever does the rat carry, which is everything, so thinking about how that exacerbates asthma and certain kinds of conditions." (Key informant)*

Heart disease is the leading cause of death and Stroke ranks as the fifth leading cause of death in Manhattan.[64] Heart disease is also the second leading cause of premature death (age 65 and below) in the borough.

Prevalence and Hospital Utilization of Cardiovascular Related Conditions

The prevalence of cardiovascular disease among Medicaid beneficiaries in New York City far exceeds that of other chronic diseases. In NYC, 30% of Medicaid beneficiaries have been diagnosed with a cardiovascular related condition, while only 10% have been diagnosed with a respiratory related condition, 11% with a diabetes related condition, and 20% with a mental health related condition (Appendix E).

In New York City and Manhattan, the prevalence of cardiovascular disease exceeds the statewide rate. In the Lower Manhattan service area, the prevalence is 35%, or 32% greater than the statewide rate of 26%, and in the Upper Manhattan service area the prevalence is 28%, or 8% greater than the State (table 41).

In addition to having a higher prevalence than other chronic conditions, a higher percent of individuals diagnosed with cardiovascular disease have hospitalizations than other chronic conditions, however they have a smaller percent of ED visits relative to other chronic conditions. In NYC, of Medicaid beneficiaries diagnosed with a cardiovascular related condition 40% had at least one hospital admission and 28% at least one ED visit over a 12 month period; while for individuals diagnosed with a respiratory related condition 36% had an admission and 45% an ED visit; for diabetes related, 32% had an admission and 29% an ED visit; for mental health related conditions 32% had an admission and 42% an ED visit (Appendix E).

While both the Lower and Upper Manhattan service areas have a higher prevalence than the statewide rate, only the Upper Manhattan service area has a higher utilization rate than the State, where individuals diagnosed are more likely to have a hospital admission and an ED visit over a 12 month period (Table 41).

Table 41 - Cardiovascular Conditions Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	50,978	34.79	37.05	26.11	2.25	3.06
UMSA	160,194	28.49	44.56	36.39	2.22	2.54
Manhattan	271,388	33.55	41.59	31.51	2.12	2.70
NYC	1,085,013	30.24	40.44	28.09	2.03	2.37
NYS	1,543,129	26.44	40.00	31.28	1.97	2.57

[64] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data, 2000-2012, accessed September 2014, http://nyc.gov/health/epiquery.

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
Rate Ratio						
LM/NYC		1.15	0.92	0.93	1.11	1.29
LM/NYS		1.32	0.93	0.83	1.14	1.19
UM/NYC		0.94	1.10	1.30	1.09	1.07
UM/NYS		1.08	1.11	1.16	1.13	0.99
Manhattan/NYC		1.11	1.03	1.12	1.05	1.14
Manhattan /NYS		1.27	1.04	1.01	1.08	1.05
NYC/NYS		1.14	1.01	0.90	1.03	0.92

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Circulatory Condition Related Potentially Avoidable Hospitalizations (PQI S02)

The risk-adjusted expected rates for potentially preventable hospitalization rate among Medicaid beneficiaries for circulatory conditions (PQI SO2) is higher in the Upper Manhattan PPS service area, and lower in the Lower Manhattan service area when compared to both the citywide and statewide rate (See Table 42).

Table 42 - Observed and Risk-Adjusted Circulatory Related Hospitalizations (PQI SO2), 2012

			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk- Adjusted Expected Rate/100k	to NYC	to NYS
Lower MH SA	340	262	0.61	0.64
Upper MH SA	2,247	489	1.13	1.20
Manhattan (MH)	1,759	379	0.88	0.93
NYC	11,116	432	1.00	1.06
NYS	15,795	408	1.00	1.00

Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Hypertension Prevalence and Hospital Utilization

In New York City, of the 1.1 million Medicaid beneficiaries diagnosed with a circulatory related condition, Hypertension accounts 564,000 or 51%. Hospital utilization rates and ED visit rates are parallel to that of circulatory related conditions, with the percent of individuals with at least one hospital admission and one ED visit in the Upper Manhattan service area exceeding the statewide rate, and lower than the statewide rate in Lower Manhattan service area (Table 43).

Table 43 - Hypertension Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

	NYS	NYC	Manhattan	LMSA	UMSA
Beneficiaries with Condition	846,221	564,716	148,171	26,793	88,258
Diagnosed Prevalence (Per 100)	14.50	15.74	18.07	18.28	15.70
% With at Least one Admission	23.11	22.02	23.39	22.04	24.72
% With at Least One ED Visit	30.24	26.41	29.63	24.44	34.20
Average # of Admissions	1.79	1.83	1.95	2.14	1.95
Average # of ED Visits	2.39	2.15	2.42	2.81	2.27

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Hypertension Related Potentially Avoidable Hospitalizations (PQI 07)

As with Circulatory related PQI hospitalizations, The risk-adjusted expected rates for potentially preventable hospitalization rate among Medicaid beneficiaries for hypertension (PQI 07) is higher in the Upper Manhattan PPS service area, and lower in the Lower Manhattan service area when compared to both the citywide and statewide rate (table 44).

Table 44 - Observed and Risk-Adjusted Hypertension Related Hospitalizations (PQI 07), 2012

			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk- Adjusted Expected Rate/100k	to NYC	to NYS
Lower MH SA	96	75	0.67	0.74
Upper MH SA	646	130	1.16	1.27
Manhattan (MH)	475	99	0.89	0.98
NYC	2,991	112	1.00	1.10
NYS	3,938	102	1.00	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Reflecting the higher prevalence rates in the Lower Manhattan service area, CNA surveys demonstrated that respondents from the Lower Manhattan service area were more likely to select heart disease (31.0%) as one of the biggest health concerns in their community than respondents from the Upper Manhattan service area (15.6%). There are gender differences in respondent self-reporting of disease status for both heart diseases and hypertension in the Lower Manhattan area. Females (69.2%) are more likely than males (30.8%) to indicate that heart disease is a health condition they face.

Diabetes Mellitus is the fifth leading cause of death in Manhattan for years 2009-2011, and particularly affects persons age 35 and older.[65] Manhattan respondents were more likely to select diabetes (51.0%) as one of the biggest health concerns in their community than respondents residing in other boroughs (38.1%).

Prevalence and Hospital Utilization of Diabetes Related Conditions

The prevalence of diabetes for all New Yorkers is 10.5%, with Black, Hispanic, and Asian New Yorkers having diabetes rates twice that of Whites.[66] Neighborhoods with the highest poverty rate were among those with the highest diabetes rates across the city. Diabetes prevalence rate was nearly 70% greater in high-poverty neighborhoods than low-poverty neighborhoods (12.7% vs. 7.5%). Racial/ethnic disparities in prevalence persist regardless of income levels. Prevalence was greater among men than women in New York City (11.2% and 10.0%).[67] Among Medicaid beneficiaries, the prevalence of diabetes is 12% in both the Upper and Lower Manhattan service area, which is higher than the statewide rate of 10% (Table 45).

Hospital use by Medicaid beneficiaries diagnosed with diabetes is greater in the Upper Manhattan service area exceeds that of the Lower Manhattan service are, NYC, and NYS. In the Upper Manhattan service area, 36% had at least one hospitalization, and 36% at least one ED visit over a 12 month period (Table 45).

Table 45 - Diabetes Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

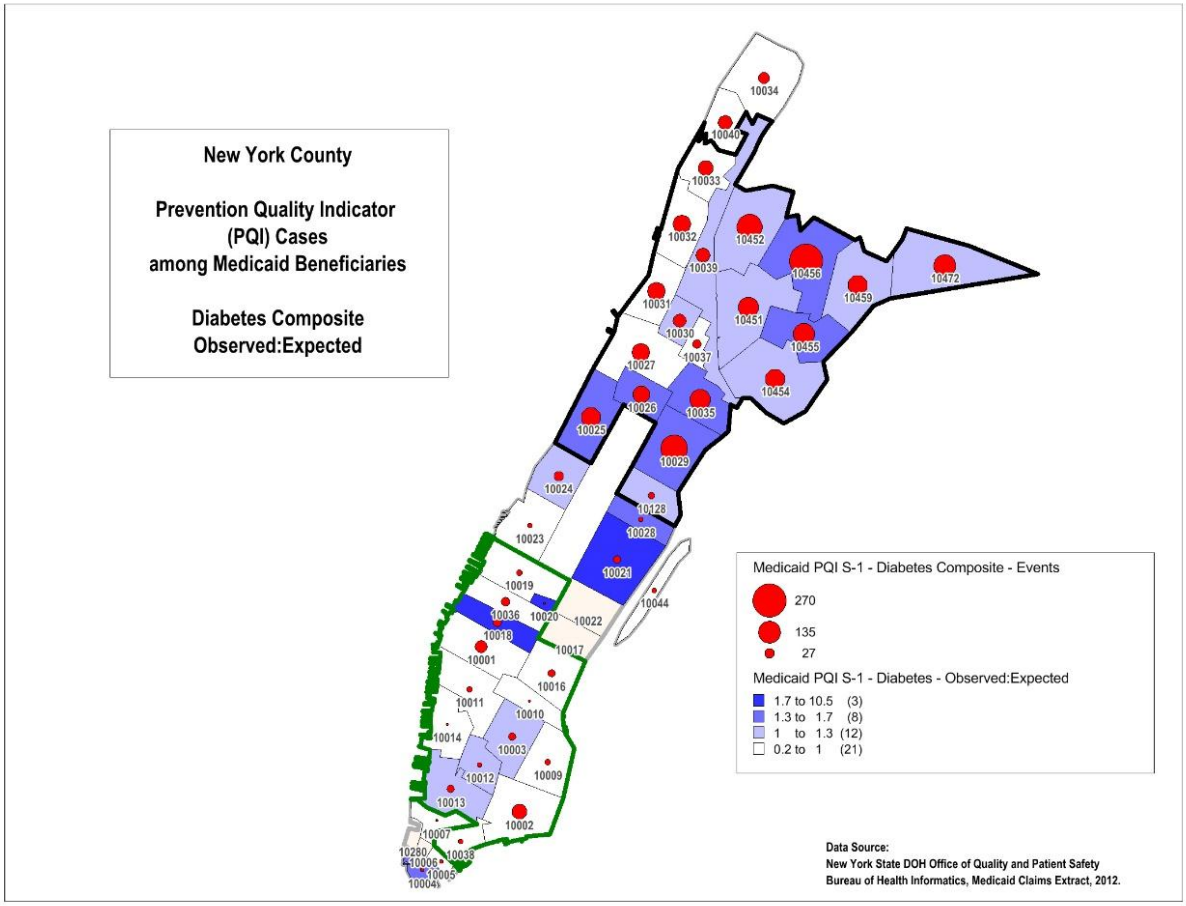
	NYS	NYC	Manhattan	LMSA	UMSA
Beneficiaries with Condition	562,637	409,227	105,074	17,746	66,088
Diagnosed Prevalence (Per 100)	9.64	11.41	12.48	12.11	11.75
% With at Least One Admission	32.52	32.27	33.51	29.90	36.35
% With at Least One ED Visit	31.23	28.55	31.80	27.13	36.12
Average Admissions	1.89	1.93	1.98	2.01	2.06
Average ED Visits	2.43	2.25	2.56	2.78	2.43

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Map 8 shows the number of diabetes PQI hospitalizations (PQI S01) by Medicaid beneficiaries by zip code of residence represented by the red circles, and the ratio of observed to expected hospitalizations, represented by shading. Darker shades represent a higher ratio of observed to expected hospitalizations, indicating zip codes with greater gaps between need and resources.

[65] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [Death/Mortality Data 2000-2012]. [4 September 2014]. http://nyc.gov/health/epiquery
[66] New York City Department of Health and Mental Hygiene. Epi Data Brief, April 2013, no. 26.
[67] Ibid.

Map 8: Diabetes Composite PQI (SO1) Hospitalizations by Medicaid Beneficiaries, 2012



Diabetes Related Potentially Avoidable Hospitalizations (PQI S01)

As with Circulatory related PQI hospitalizations, The risk-adjusted expected rates for potentially preventable hospitalization rate among Medicaid beneficiaries for diabetes related conditions (PQI S01) is higher in the Upper Manhattan PPS service area, and lower in the Lower Manhattan service area when compared to both the citywide and statewide rate (table 46). The Upper Manhattan service area risk adjusted expected rate was 14% greater than NYC as whole, while the Lower Manhattan area was 30% lower than the city.

Table 46 - Observed and Risk-Adjusted Diabetes Related Hospitalizations (PQI S01), 2012

			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk-Adjusted Expected Rate/100k	to NYC	to NYS
Lower MH SA	291	258	0.70	0.71
Upper MH SA	1,972	420	1.14	1.15
Manhattan (MH)	1,486	348	0.94	0.95
NYC	9,289	370	1.00	1.01
NYS	14,121	365	1.00	1.00

Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.
Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

MENTAL HEALTH AND SUBSTANCE ABUSE

Prevalence and Hospital Utilization for Mental Health Related Conditions

Nearly 20% (703,000) of all NYC Medicaid beneficiaries have a mental health related diagnosis, 15% higher than the NYS rate of 17%. The prevalence in the upper and lower Manhattan services areas is 24% and 29%, respectively.

While the upper and lower Manhattan service areas have a higher prevalence than the state, Medicaid beneficiaries in the Queens service area with a mental health diagnosis have fewer hospital admissions and ED visits. In the upper and lower Manhattan service areas, 33% and 37% of Medicaid beneficiaries had a hospital admission over a 12 month period, less than the statewide rate of 41%. In addition, 49% and 46% had an ED visit over a 12 month period, respectively, less than the statewide rate of 61% (Table 47).

Table 47 – Mental Health Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	42,466	28.98	36.85	45.90	3.13	3.83
UMSA	136,998	24.37	33.29	48.61	2.64	3.02
Manhattan	133,250	26.77	35.05	46.52	2.79	3.37
NYC	702,585	19.58	32.34	42.33	2.43	2.98
NYS	997,306	17.09	41.21	60.98	2.24	3.19
Rate Ratio						
LM/NYC		1.48	1.14	1.08	1.29	1.28
LM/NYS		1.70	0.89	0.75	1.40	1.20
UM/NYC		1.24	1.03	1.15	1.08	1.01

UM/NYS		1.43	0.81	0.80	1.18	0.95
MANHATTAN /NYC		1.37	1.08	1.10	1.14	1.13
MANHATTAN/NYS		1.57	0.85	0.76	1.25	1.06
NYC/NYS		1.15	0.78	0.69	1.09	0.94
<1: Outperforms NYC/NYS; >1 Needs Improvement						

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

The average number of hospital admissions and ED visits among Medicaid beneficiaries with a Mental Health related diagnosis is higher in Manhattan than the statewide average, with an average of 2.8 admissions and 3.4 visits in Manhattan, respectively, and 2.2 admissions and 3.2 ED visits, statewide, respectively.

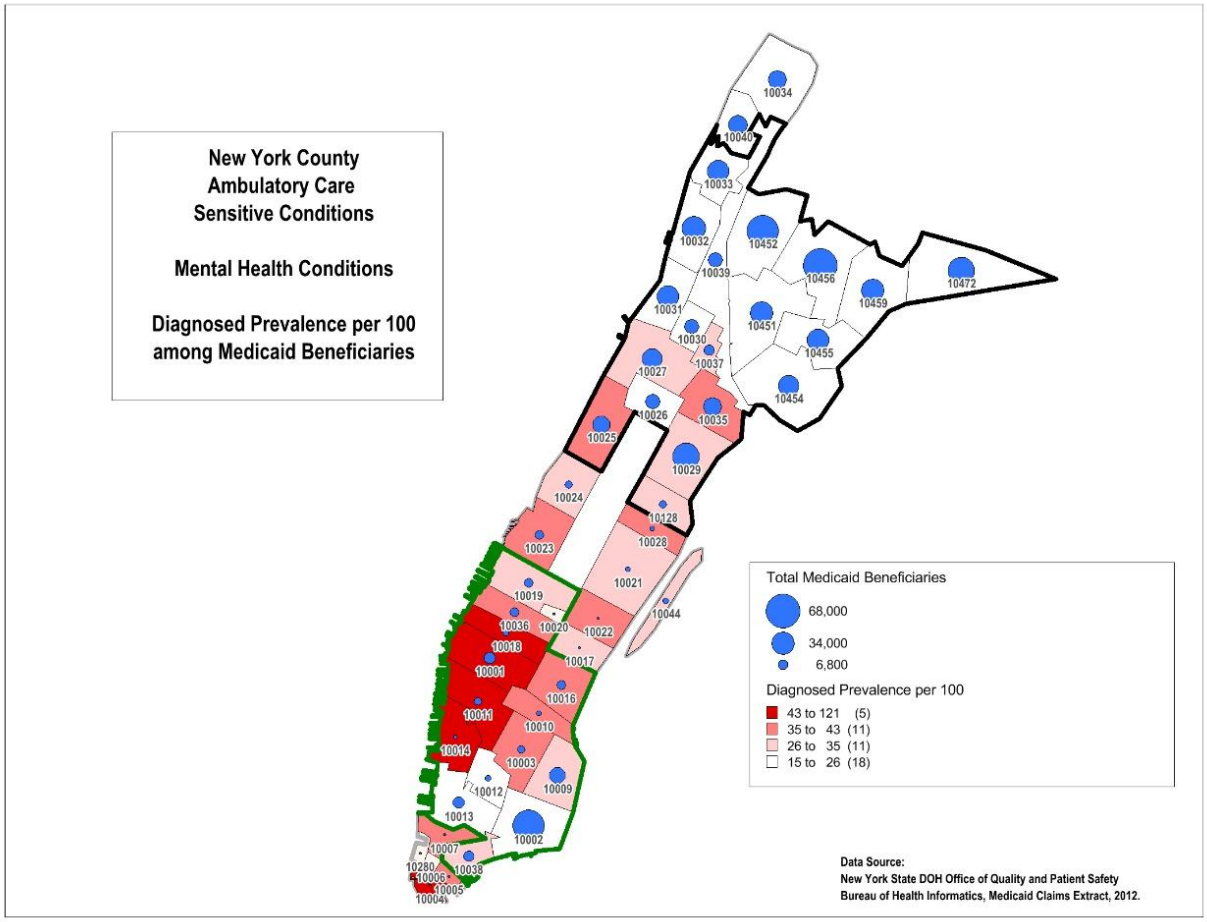
Table 48 - Average numbers of Admissions, Medicaid Beneficiaries with a Mental Health Condition

	NYS	NYC	Manhattan	LMSA	UMSA
Average # of Admissions	2.24	2.43	2.79	3.13	2.64
Average # of ED Visits	3.19	2.98	3.37	3.83	3.02

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

The Manhattan zip code map shows the number of Medicaid beneficiaries with a mental health related condition, represented by the size of the blue circles, and the percent with at least one hospital admission, represented by shading. Zip codes with both the large blue circles and darker shading may represent greater opportunities for significant gains (map 9). It should be noted that diagnoses are listed only for those who received psychiatric assessments—it may be that many who sought primary care were never assessed for psychiatric conditions, or that persons avoided psychiatric screenings.

Map 9: Prevalence of Diagnosed Mental Health Related Conditions, 2012



Among Medicaid beneficiaries in Manhattan, 15.6% (76,000) have a depression diagnosis (includes "Depression"; "Depressive and Other Psychoses "; and "Depressive Psychosis - Severe"), ,led by Chelsea/Clinton (27.3%), Gramercy Park/Murray Hill (20.8%), Lower Manhattan (20.8%), Upper East Side (18.6%) and Upper West Side (20.6%). Manhattan prevalence rate overall is nearly forty percent higher than the NYC rate of 11.3%.[68]

Our survey also reflects the prevalence of depression in our Manhattan service areas. In the Upper Manhattan PPS service area slightly more than half, 53.7% of Black or African American respondents residing indicated "depression or anxiety" is a health concern they face, followed by Whites at 18.5%. In the Lower Manhattan PPS service area, one out of three Asians and about one in four Whites indicated "Depression or anxiety" is a health concern. Among low income respondents with household incomes of less than $10,000, 48.3% of those from Upper Manhattan and 62.2% of those from Lower Manhattan

[68] New York State Dept. of Health, 2012. https://health.data.ny.gov/Health/Medicaid-Chronic-Conditions-Inpatient-Admissions-a/wybq-m39t.

reported facing depression or anxiety. For both Upper and Lower Manhattan, persons ages 45-66 have the highest rate of reporting depression or anxiety. In Upper Manhattan, the rate was 52.7%; in Lower Manhattan, 33.3%.

The prevalence of serious psychological distress (SPD), a composite measure of 6 questions regarding symptoms of anxiety, depression, and other emotional problems citywide in the general population is 5.1%, and in Manhattan is 5%. Neighborhoods with the highest rates of SPD in Manhattan include Union Square/Lower Manhattan (6.8%) and Upper East Side/Gramercy (5.3%).[69]

Co-Morbidity of Behavioral and Physical Health

There is a clear association between mental health conditions and substance abuse, and significant correlations between these two conditions and the prevalence of concurrent chronic physical conditions.

The Medicaid Redesign Team Behavioral Health Reform Work Group has noted that people with serious mental illness die 15-25 years earlier on average than the rest of the population, and that "The majority of preventable admissions paid for by fee-for-service Medicaid to Article 28 inpatient beds are for people with behavioral health conditions, yet the majority of expenditures for these people are for chronic health conditions."[70] Data previously presented indicate a high incidence of hospital admissions and ED visits for these populations, bolstering DSRIP's commitment to supporting interventions aimed at improving these outcomes.

Data emerging from Medicaid health homes show a correlation between behavioral health conditions and chronic physical illness, with each condition typically treated in a silo with little service integration or communication among providers. The data indicate that of health home eligible individuals age 21 or older with a severe mental illness,[71] there is a high prevalence of chronic health conditions - hypertension (39.1%), high cholesterol (41%), diabetes (35.3%), asthma (52.4%), congestive heart failure (22.1%), and cardiovascular disease (33.2%).

An internal conservative proxy to estimate of the comorbidity rate between behavioral health and physical chronic conditions using HHC internal data, 44.5% of patients with one or more hospitalizations to an HHC acute care hospital for a behavioral health related condition in 2013 also had a hospitalization for a chronic related condition in the same year.[72]

Mental Health Readmissions

The 30-day readmission rate among Manhattan Medicaid Fee for Service (MC FFS) adult beneficiaries for mental health inpatient encounters is 23%, greater than both the statewide rate of 21% and equal to the

[69] Community Health Survey 2012 data, as reported on Epiquery http://nyc.gov/health/epiquery, accessed August 2014.
[70] New York State Department of Health Medicaid Redesign Team Behavioral Health Reform Work Group *Final Recommendations,* at page 3.
[71] Public Health Committee of the Public Health and Planning Council, New York State (Sept. 10, 2014) *Health homes improving health outcomes for women of reproductive age.*
[72] Unpublished internal analysis of HHC patient data, 2013.

the NYC rate of 23%. The readmission rate among Manhattan hospitals ranges from 18% at Mount Sinai Hospital to 30% at Lenox Hill Hospital (Table 49).

Table 49 - Mental Health Readmissions Within 30 Days, Medicaid Fee For Service, 2012

Region	All Ages				
	Discharges	Readmissions within 30 Days to Any Region	Rate of Readmission within 30 Days to Any Region	Readmissions in <= 30 Days to the Same Region	Rate of Readmission within 30 days to the Same Region
Manhattan	6,040	1,392	23.0%	1,283	21.2%
New York City	21,653	5,047	23.3%	4,672	21.6%
Statewide	**41,814**	**8,754**	**20.9%**	**7,953**	**19.0%**
Hospitals					
Bellevue Hospital Center	1535	383	25.0%	364	23.7%
Beth Israel Medical Center	624	122	19.6%	115	18.4%
Harlem Hospital Center	702	188	26.8%	179	25.5%
Lenox Hill Hospital	106	32	30.2%	29	27.4%
Metropolitan Hospital Center	1173	303	25.8%	284	24.2%
Mount Sinai Hospital	810	145	17.9%	128	15.8%
NY Hospital	513	103	20.1%	82	16.0%
NYU Hospitals Center	47	14	29.8%	12	25.5%
St Luke's Roosevelt Hospital Center	530	102	19.2%	90	17.0%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Mental Health Post Discharge Interventions

Prescription fill rates are an indicator of compliance with post-discharge interventions. The 30-day fill rate post hospitalization for psychotropic medication is 51% in Manhattan and 64% statewide. The 30 day post discharge fill rate for antipsychotic medications is 46% in Manhattan and 60% statewide. The 30 day post discharge fill rate for mood stabilizer medications is 43% in Manhattan and 56% statewide (Table 50).

Table 50 - Medication Fill post Mental Health Discharge, Medicaid Fee For Service, 2012

Event	Manhattan	New York City	New York State
30 Day MH Rx Fill (1st Psychotropic Rx)	51.0%	57.6%	63.9%
100 Day MH Rx Fill (Refill Psychotropic Rx)	85.6%	86.5%	88.2%
30 Day MH Rx Fill, w/ Psychosis (1st Antipsychotic Rx)	45.6%	54.3%	59.6%
100 Day MH Rx Fill, w/ Psychosis (Refill	80.1%	83.0%	84.4%

Antipsychotic Rx)			
30 Day MH Rx Fill, w/ Mood Disorder (1st Mood Stabilizer Rx)	43.4%	47.0%	55.8%
100 Day MH Rx Fill, w/ Mood Disorder (Refill Mood Stabilizer Rx)	82.5%	83.1%	84.8%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Substance Abuse

Prevalence and Hospital Utilization of Substance Abuse Related Conditions

The prevalence of substance abuse related conditions among Medicaid beneficiaries in both the upper and lower Manhattan service areas exceeds the city and statewide rate. The prevalence in the lower Manhattan service area is 14.4%, and in the upper Manhattan service area 10.1%, compared to 6.4% statewide (Table 51).

In addition to a higher prevalence, Medicaid beneficiaries diagnosed with a substance abuse disorder in Manhattan are more likely to use inpatient services than statewide rate. In the lower and upper Manhattan service areas, 71% and 65%, of those diagnosed had an admission over a 12 month period, respectively, compared to 60% statewide.

Table 51 – Substance Abuse Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	21,158	14.44	70.85	61.09	4.44	5.57
UMSA	56,799	10.10	65.46	59.24	3.76	4.22
Manhattan	26,264	11.17	68.12	60.84	4.04	4.94
NYC	222,198	6.19	65.03	58.37	3.58	4.34
NYS	370,898	6.36	59.56	59.86	3.13	4.18
Rate Ratio						
LM/NYC		2.33	1.09	1.05	1.24	1.28
LM/NYS		2.27	1.19	1.02	1.42	1.33
UM/NYC		1.63	1.01	1.01	1.05	0.97
UM/NYS		1.59	1.10	0.99	1.20	1.01
MANHATTAN /NYC		1.80	1.05	1.04	1.13	1.14
MANHATTAN/NYS		1.76	1.14	1.02	1.29	1.18
NYC/NYS		0.97	1.09	0.98	1.14	1.04
<1: Outperforms NYC/NYS; >1 Needs Improvement						

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

In addition, as the table below shows, persons with substance use diagnoses have a high average number of hospital admissions and ED visits. Across the state, the average number of admissions is 3.13

and the average number of ED visits is more than four in the year. The city's rates are slightly higher. The Lower Manhattan service area rate for average number of admissions is higher still, 4.44 per person. In that area, each person has an average of 5.57 ED visits in the year.

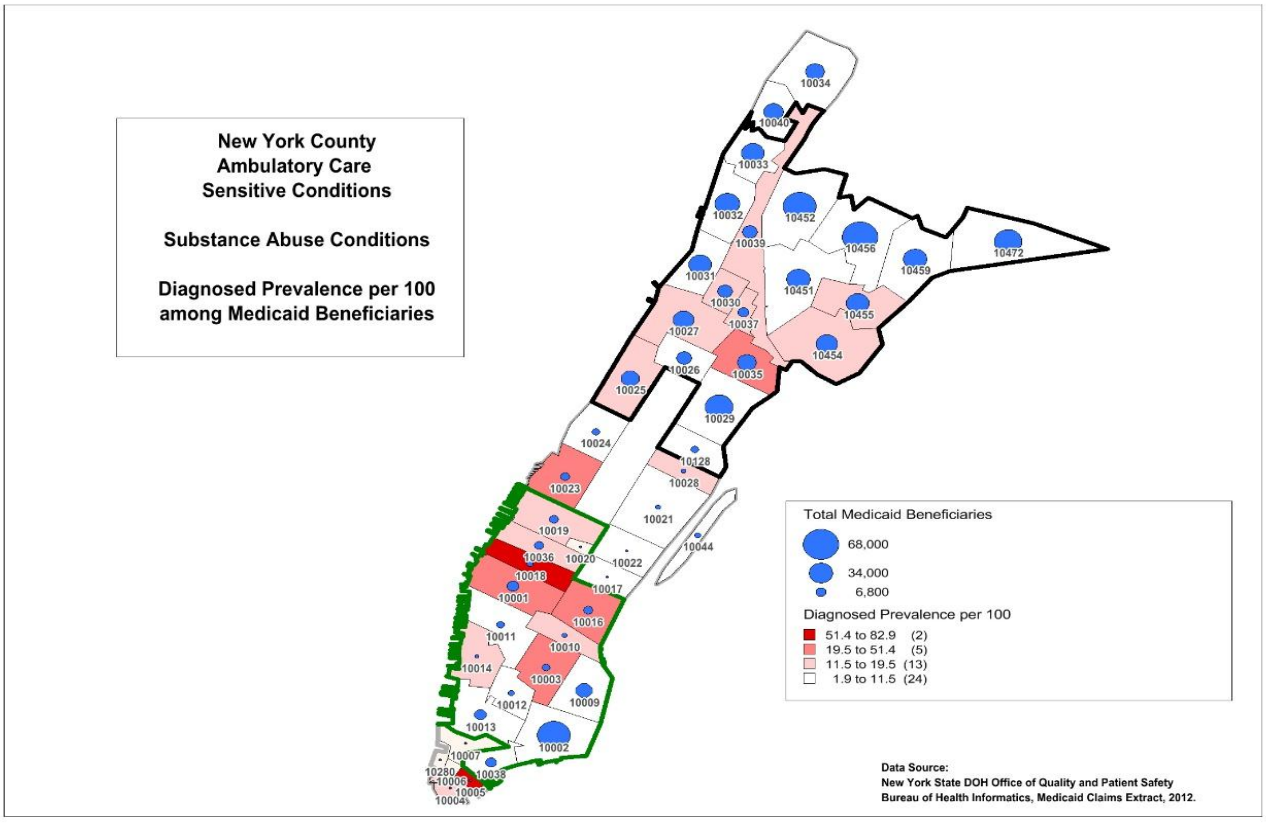
Table 52 - Hospital Utilization among Medicaid Beneficiaries with a Substance Abuse Condition

	NYS	NYC	Manhattan	LMSA	UMSA
Average # of Admissions	3.13	3.58	4.04	4.44	3.76
Average # of ED Visits	4.18	4.34	4.94	5.57	4.22

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

The zip code map shows the number of Medicaid beneficiaries with a substance abuse related condition, represented by the size of the blue circles, and the percent with at least one hospital admission, represented by shading. Zip codes with both the large blue circles and darker shading may represent greater opportunities for significant gains (map 10).

Map 10: Diagnosed Prevalence of Substance Abuse Conditions per 100 Medicaid Beneficiaries, 2012



Information gleaned from our survey of community residents and interviews with key informants indicates that 63.7% of respondents from the Upper Manhattan PPS service area and 35.3% of Lower

Manhattan residents selected drug and alcohol use as one of the biggest health concerns in their community. When substance use was analyzed, residents of the Upper Manhattan PPS service area are more likely to acknowledge drug and alcohol abuse (19.1%) than residents in the Lower Manhattan PPS service area (4.3%).

HIV/AIDS and STDs

Manhattan is home to more people living with HIV/AIDS (31,067)[73] than any other New York City borough or New York State county.[74] The fourth leading cause of premature death in Manhattan is AIDS, accounting for approximately 14.6 % of all such deaths in the city.[75]

As detailed in Table 53, in 2011, the HIV/AIDS prevalence rate in various Manhattan's neighborhoods ranged from 0.7% for the Upper East Side, to 4.5% in Chelsea-Clinton, the neighborhood with the consistently highest rate over subsequent years.

Table 53 - Rates of HIV diagnoses, People With HIV/AIDS (PWHA), and deaths among PWHA by United Hospital Fund (UHF) neighborhood, New York City 2011

UHF Neighborhood	HIV Diagnoses per 100,000 Population	Reported PWHA as Percent of Population	Age-Adjusted Death Rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Manhattan	**54.9**	**2.2**	**12.5**	**1,577,279**
Central Harlem Morningside Heights	92.8	2.9	16.4	162,652
Chelsea Clinton	126.3	4.5	10.0	144,896
East Harlem	76.4	2.9	24.8	109,972
Gramercy Park Murray Hill	40.1	1.7	8.8	134,520
Greenwich Village SoHo	46.6	2.7	5.9	83,749
Lower Manhattan	22.6	1.0	6.3*	53,159
Union Square Lower East Side	45.3	1.7	12.6	198,781
Upper East Side	15.8	0.7	8.6	220,962
Upper West Side	30.9	1.5	11.9	220,080
Washington Heights Inwood	56.3	1.7	14.4	248,508

Rates based on numerators ≤10 are marked with an asterisk(*) and should be interpreted with caution.
Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs Semiannual Report. October 2012

The relationship between HIV and poverty is suggested by neighborhood comparisons of the age-adjusted death rates listed in Table 53, and is directly shown in Table 54 which highlights the

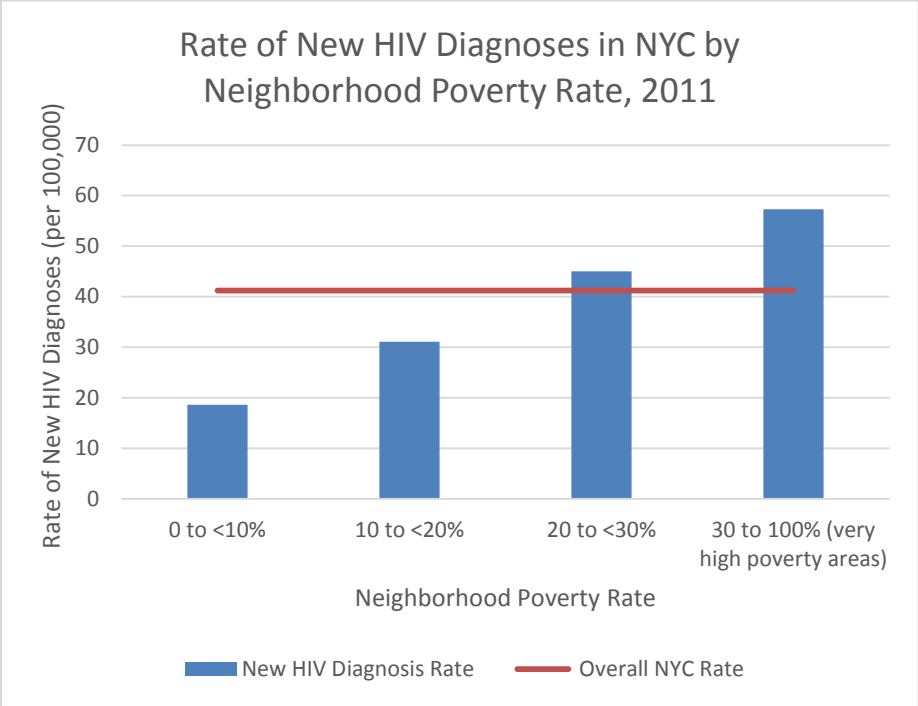
[73] New York City Department of Health. *HIV Surveillance Annual Report, 2012*. http://www.nyc.gov/html/doh/downloads/pdf/dires/surveillance-report-dec-2013.pdf

[74] New York State Department of Health, Bureau of HIV/AIDS Epidemiology, AIDS Institute. *HIV/AIDS Surveillance Annual Report For Cases Diagnosed Through December 2012*. July 2014 http://www.health.ny.gov/diseases/aids/general/statistics/annual/2012/2012_annual_surveillance_report.pdf

[75] "County Number of three-Years Premature [< age 75] Deaths" Vital Statistics Data as of March, 2014, New York State Department of Health - Bureau of Biometrics and Health Statistics.

correlations between poverty and new HIV diagnoses. As these data imply, HIV continues to be unevenly distributed across New York City with most high-burden areas also having a high proportion of impoverished residents.[76]

Table 54 - Rate of New HIV Diagnoses in NYC by Neighborhood Poverty Rate, 2011



Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [HIV/AIDS Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

As Table 55 shows, people with HIV have a high rate of hospital admissions and ED visits. The percentage of diagnosed beneficiaries who have at least one admission ranges from 22.18 to 30.82, depending on geographic area. In the Lower Manhattan service area, almost one of three persons with HIV/AIDS had at least one ED visit in 2012, while the rates are higher in the other geographic areas. In Upper Manhattan, two out of five persons with HIV/AIDS had at least one ED visit in 2012. The lower half of the table indicates that Upper Manhattan performs 23% worse regarding admissions and 15% worse regarding ED visits, relative to the city as a whole.

Table 55 - Medicaid Beneficiaries with HIV/AIDS-Prevalence, at Least One Admission and One ED Visit by Service area

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
Lower Manhattan	3,972	2710.56	22.18	29.38	2.34	2.75

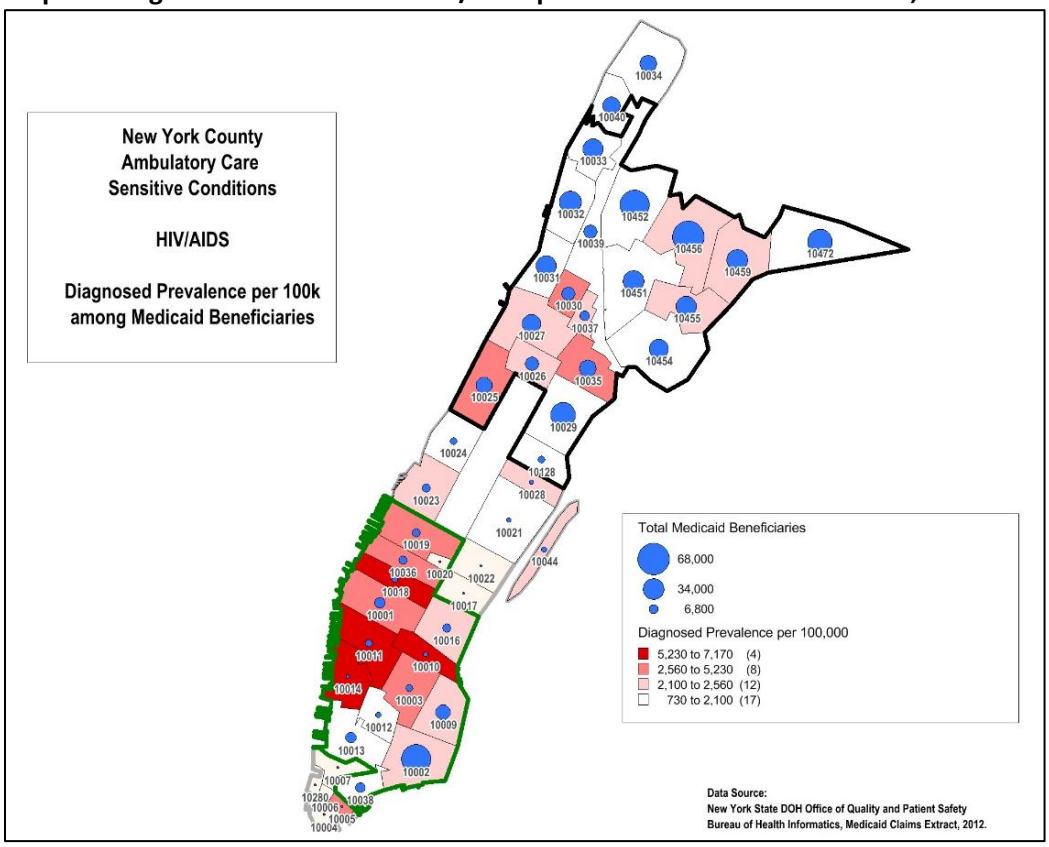
[76] New York City Department of Health. *HIV Surveillance Annual Report, 2012*. http://www.nyc.gov/html/doh/downloads/pdf/dires/surveillance-report-dec-2013.pdf

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
Upper Manhattan	11,494	2044.41	30.82	40.83	2.42	2.51
Manhattan	6,984	2062.03	25.92	35.72	2.36	2.71
NYC	49,984	1393.05	25.12	35.44	2.22	2.43
NYS	53,901	923.63	25.33	36.43	2.20	2.49
Rate Ratio						
Lower Manhattan / NYC		1.95	0.88	0.83	1.05	1.13
Lower Manhattan / NYS		2.93	0.88	0.81	1.06	1.10
Upper Manhattan / NYC		1.47	1.23	1.15	1.09	1.03
Upper Manhattan / NYS		2.21	1.22	1.12	1.10	1.01
Manhattan/NYC		1.48	1.03	1.01	1.06	1.11
Manhattan/NYS		2.23	1.02	0.98	1.07	1.09
NYC/NYS		1.51	0.99	0.97	1.01	0.98
<1: Outperforms NYC/NYS; >1 Needs Improvement						

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

The prevalence rate for Medicaid beneficiaries is illustrated in Map 11. This map shows the number of Medicaid beneficiaries in each ZIP code by size of circles. Using shading the map shows prevalence of diagnosed HIV/AIDS per 100 Medicaid beneficiaries in each ZIP code, with the color darkening as prevalence increases.

Map 11: Diagnosed Prevalence of HIV/AIDS per 100 Medicaid Beneficiaries, 2012



HIV care is costly – in 2009, 27,673 recipients with HIV/AIDS had $1.42 billion in fee-for-service claims in 2009, according to the state Public Health and Health Planning Council. Increasing the number of patients with HIV who know their status, have access and are retained in care has the opportunity for reducing avoidable hospitalizations by improving the overall health of HIV patients, reducing the impact of opportunistic infections, and reducing the ability for individuals to transmit HIV to others.

Results from the community survey indicate that respondents from the Upper Manhattan service area were more likely to select HIV (41.1%) as one of the biggest health concerns in their community than respondents from the Lower Manhattan PPS service area (18.0%).

Table 56 - HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1
20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361
High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

Sexually Transmitted Diseases

The testing and treatment of sexually transmitted diseases (STDs) can be an effective tool in preventing the spread of HIV, the virus that causes AIDS. Individuals who are infected with STDs are at least two to five times more likely than uninfected individuals to acquire HIV infection if they are exposed to the virus through sexual contact. The incidence rates for chlamydia and gonorrhea are detailed in Tables 57 and 58.

Table 57 - Chlamydia Incidence Rate, by Neighborhood

Neighborhood	Chlamydia Rate per 100,000	Absolute Totals
New York City	697.7	58,353
Manhattan	646.5	10,521
Washington Heights	899.1	2335
Central Harlem	1419.1	2028
East Harlem	1152.5	1231
Upper West Side	258.6	634
Upper East Side	120.6	298
Chelsea	672.5	947
Gramercy Park	263.4	360
Greenwich Village	587.3	554
Union Square	459.5	996
Lower Manhattan	489.7	182
Manhattan- neighborhood unknown	n/a	956

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

The neighborhoods with the highest Chlamydia rate per 100,000 are Harlem and Washington Heights, both in the Upper Manhattan Service area. In the Lower Manhattan area, Greenwich Village, Chelsea, Union Square, and Lower Manhattan each have comparatively high rates of this STD. Table 58 shows that Gonorrhea rates are similarly high in these same neighborhoods.

Table 58 - Gonorrhea Incidence Rate, by Neighborhood

Neighborhood	Gonorrhea Rate per 100,000	Absolute totals
New York City	130.3	10,898
Manhattan	144.8	2,356
Washington Heights	131.7	342
Central Harlem	347.1	496
East Harlem	244.4	261
Upper West Side	71.8	176
Upper East Side	31.2	77
Chelsea	261.3	368
Gramercy Park	66.6	91

Neighborhood	Gonorrhea Rate per 100,000	Absolute totals
Greenwich Village	135.7	128
Union Square	103.8	225
Lower Manhattan	96.9	36
Manhattan- neighborhood unknown	n/a	156

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Hepatitis C

Hepatitis C is typically spread when infected blood from one person is transferred to another, commonly through intravenous drug use. While possible, the CDC notes that risk of transmission from sexual contact is believed to be low. This risk increases for those who have multiple sex partners, have a sexually transmitted disease, engage in rough sex, or are also infected with HIV.

When asked about Hepatitis C, survey participants' data indicated that residents of the Upper Manhattan PPS service area are more likely to indicate that they have Hepatitis C (10.6%) than residents in the Lower Manhattan PPS service area (3.2%). When responding to the question, "Which of the following health concerns do you face?" 56.5 % of the respondents residing in the Upper Manhattan PPS service area who indicated that "Hepatitis C is a health concern that they face" were Black or African American. This response rate was notably higher than any other racial or ethnic group, with the second highest rate being among residents who indicated they were White (26.1%). Males in the Upper Manhattan PPS service area (59.3%) are more likely than females (37.0%) or transgendered persons (3.7%) to indicate that Hepatitis C is a health condition they face. For residents of Upper Manhattan who report Hepatitis C as a health condition that they face, 52.0 % fall in the 46-55 age range (the highest age-group rate for Upper Manhattan).

In the Lower Manhattan PPS service area, 28.6% of Whites and 28.6% of Asians indicated "Hepatitis C is a health concern that they face." 15.4% of three racial groups, White, African American, and "Other," indicated that Hepatitis C was a concern. Females residing in the Lower Manhattan service area (62.5%) are more likely than males (37.5%) to indicate that Hepatitis C is a concern. The age distribution of those reporting Hepatitis C as a concern is even across the age ranges of 26 and older.

MATERNAL/CHILD HEALTH

Over the period 2010-2012, Manhattan averaged 18,616 live births per year, representing 15.7% of the births in New York City and 7.9% of the births in NYS. The Upper Manhattan service area averaged 14,914 births annually while the Lower Manhattan service area averaged 6,132 births over the same time period.[77]

[77] 2010-2012 New York State Vital Statistics Perinatal Data, March 2014.

The percentage of all Medicaid-covered or self-pay births in Manhattan is 37.6%, compared to 59.7% in NYC and 50.1% in the State; however, the percentage is substantially higher in the Upper Manhattan service area (69.4%). The percentage of Medicaid or self-pay births across both Manhattan service area neighborhoods ranges from 6.5% (Greenwich Village/Soho) to 84.9% (Hunts Point/Mott Haven). The highest rates of Medicaid or self-pay births are clustered in Central Harlem, Morningside Heights, East Harlem, Washington Heights, Inwood, and all neighborhoods in the South Bronx service area. The highest fertility rates in the Manhattan service area are found in these same neighborhoods.

Teen pregnancy and childbearing result in substantial social and economic costs, and have immediate and long-term impact on teen parents and their children – teen pregnancy is associated with higher rates of poverty and incarceration and lower rates of educational attainment. The teen birth rate is 36.7 per 1,000 in the Upper Manhattan service area, nearly twice the city rate (20.2 per 1,000). Areas that have high teen birth rates include Central Harlem (30 per 1,000), East Harlem (41 per 1,000), Washington Heights (34 per 1,000) and each of the South Bronx neighborhoods in the service area range from 43 to 48 teen births per 1,000 population.

Low birth-weight babies are at high risk for respiratory infection, blindness, learning disabilities, cerebral palsy, and heart infection, and have higher rates of sudden infant death syndrome and infant mortality.[78] The Low Birth Weight (LBW) rate for the Upper Manhattan and Lower Manhattan service areas over similar time periods is 9.6% and 7.9%, respectively, compared to 8.5% for NYC and 8.1% for the State. The highest rates of LBW births are found in Central Harlem/Morningside Heights (11.3%), East Harlem (10.4%), Highbridge/Morrisania

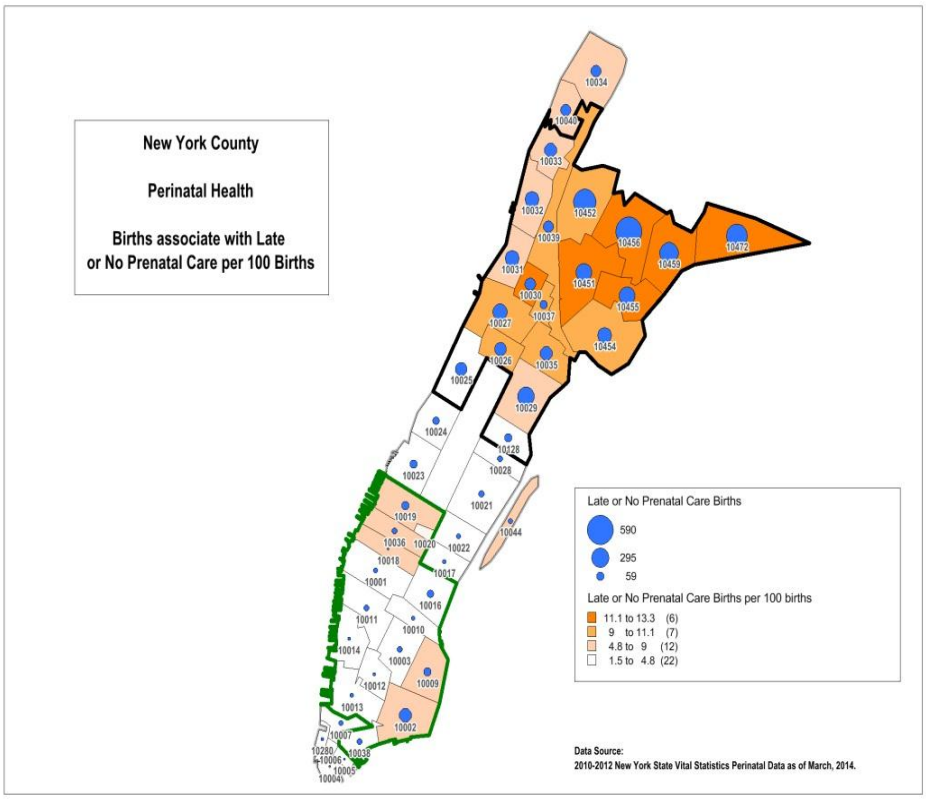
Map 12: Low Weight Birth per 100 Births, 2010-2012

[78] AHRQ, 2014

(9.8%), Hunts Point/Mott Haven (9.7%) and Pelham/Throgs Neck (9.1%).

Preterm birth, defined as a birth of an infant at or before 37 weeks gestation, accounts for a large proportion of infant deaths, and is a leading cause of long-term neurological disorders. Over 12% of births in the Upper Manhattan service area are preterm compared to the city rate of 10.9%. In contrast, the Lower Manhattan service area rate is slightly lower - 9.8%. Neighborhoods with high rates of preterm birth include Central Harlem/Morningside Heights (14%), East Harlem (13%), Washington Heights (11%) and each of the South Bronx neighborhoods (each at 12.5%). Finally, the infant mortality rate per 1,000 population is 5.3 in the Upper Manhattan service area, 22% higher than the city rate (4.4 per 1,000). Neighborhoods with high rates of infant mortality include Central Harlem/Morningside Heights (8 per 1,000), East Harlem (5 per 1,000), Washington Heights (4 per 1,000) and each of the South Bronx neighborhoods (ranging from 3 per 1,000 in Pelham/Throgs Neck to 7 per 1,000 in Hunts Point/Mott Haven).

Map 13: Births Associated with Late or No Prenatal Care per 100 Births, 2010-2012



Regular and early prenatal care provides an opportunity for women to discuss their pregnancy and their behaviors (e.g. healthy diet, use of vitamin supplements, smoking cessation) with their care provider, as well as identify maternal risk factors (genetic, hypertension, diabetes, etc.) and health promotion opportunities. It is essential to have these visits in the first trimester of pregnancy to have an optimal effect on pregnancy outcomes, and to reduce the risk of serious complications.[79] The areas in Manhattan and South Bronx with the poorest birth outcomes (low birth weight, preterm birth and infant mortality) also have highest rates of late (defined as later than first trimester) or no prenatal care. The incidence of late or no prenatal care across the borough varies widely by neighborhood, ranging from

[79] AHRQ, 2014

1.5% to 13.3%. Rates in the Upper Manhattan service area and Lower Manhattan service area over the study time period were 9.5% and 3.5%, compared to 7.0% for NYC and 5.5% across the state. The Manhattan and the South Bronx neighborhoods with the highest rates of late or no prenatal care include Central Harlem/Morningside Heights (9.8%), East Harlem (9.1%), Highbridge/Morningside Heights (11.4%), Hunts Point/ Mott Haven (11.4%) and Pelham/Throgs Neck (11.8%). The South Bronx neighborhoods have a rate of late or no prenatal care twice that of the state rate.

CANCER

Incidence data for colorectal, breast, lung or bronchus and prostate cancer, as of 2007-2011, is available at the zip code level and has been mapped and analyzed. The New York State Cancer Registry provides actual and expected rate, with the latter rate controlling for the local age distributions, relative to the state age distribution.

Colorectal

There are 3,479 colorectal cancer cases in Manhattan, 13% lower than the state rate, when comparing actual to expected (age-adjusted) Statewide rates. Rates vary by neighborhoods. For example, Central Harlem/Morningside Heights (373 cases; 5% higher), East Harlem (269 cases; 6% higher), and Highbridge / Morrisania (362 cases, 14% higher) are neighborhoods with higher than expected rates of colorectal cancer over this time period, while Washington Heights/Inwood (499 cases; 14% lower) has an expected rate below State average.

Breast

There are 6,217 breast cancer cases in Manhattan, 4% higher than the state rate, when comparing actual to expected (age-adjusted) Statewide rates. Central Harlem/Morningside Heights (589 cases; 4% higher) has higher than expected rates of breast cancer over this time period, while Highbridge / Morrisania (362 cases, 14% lower), Washington Heights/Inwood (713 cases; 27% lower), and East Harlem (393 cases; 9% lower) have expected rates below State average.

Lung or Bronchus

There are 4,458 lung or bronchus cancer cases in Manhattan, 17% lower than the state rate, when comparing actual to expected (age-adjusted) State wide rates. Highbridge / Morrisania (436 cases, 11% higher) has higher than expected rates of lung or bronchus cancer over this time period, while Washington Heights / Inwood (466 cases; 40% lower), East Harlem (315 cases; 8%lower), and Central Harlem / Morningside Heights (460 cases; 3% lower) have expected rates below State average.

Prostate

There are 5,774 prostate cancer cases in Manhattan, 6% lower than the state rate, when comparing actual to expected (age-adjusted) Statewide rates. Highbridge / Morrisania (459 cases, 40% higher),

Washington Heights / Inwood (890 cases; 4% higher), East Harlem (358 cases; 2% higher), and Central Harlem/Morningside Heights (592 cases; 18% higher) all have higher than expected rates of prostate cancer over this time period.

PAIN MANAGEMENT AND PALLIATIVE CARE

The need for palliative care services will increase significantly as the population of New York City ages, and the prevalence of conditions suitable for palliative care increases. In Manhattan in 2020, 13.6% of the residents will be age 65 or older. In 2030, the percentage will be 16.1, or almost one person in six.[80] At least 80% of the elderly have at least one chronic condition.[81]

Clinicians are warning that, as the population ages, it will be accompanied by, "a marked increase in patients requiring care for disorders with a high prevalence in the elderly. As cancer incidence increases exponentially with advancing age, it is expected that there will be a corresponding surge in older cancer patients that will challenge both healthcare institutions and healthcare professionals (p. 147)".[82] Moreover, healthcare professionals will face an increase in patients with multiple age-related conditions.

Within the HHC PPS service areas, there are a high number of hospitalizations related to chronic conditions, particularly among older age groups. For example, there were 47,464 Manhattan residents hospitalized with at least one of nine chronic conditions (arthritis, CHF, COPD, ESRD, HIV, hypertension, mental health, obesity and diabetes). Although the majority of these individuals are age 65 and older, a significant percentage is between ages 45 and 64.[83] The lower Manhattan service area had 7,176 residents hospitalized who had at least three chronic conditions and the upper Manhattan service area had 21,768 residents.

Pain management is particularly needed among residents of nursing home residents. The percentage of nursing home short-stay residents who self-report moderate-to-severe pain is 19% and 14%, nationally and statewide, respectively. Among long-stay patients, the percentage self-reporting moderate-to-severe pain is 8% and 3%, nationally and statewide, respectively.[84]

Federal data from eight Upper Manhattan skilled nursing facilities finds the percentage of short-stay residents who self-report moderate to severe pain is 0-19%. Self-report of moderate to severe pain among long-stay residents in these facilities ranges from 0-4%. In five SNFs in Lower Manhattan, the percentage of short-stay residents who self-report moderate to severe pain is 0-11%, while the percent of long-stay residents who self-report moderate to severe pain is 0-24%. These are subject to self-report bias and are percentages are likely conservative as patients with dementia who experience pain may be

[80] City of New York Department of City Planning (2006). *New York City Population Projections by Age/Sex & Borough 2000-2030.*
[81] Centers for Disease Control and Prevention (2011). Healthy Aging: Helping People to Live Long and Productive Lives and Enjoy a Good Quality of Life. At: www.cdc.gov/chronicdisease/resources/publications/aag/aging.htm.
[82] Berger et. al (2006). Cancer in the elderly. *Transactions of the American Clinical and Climatological Association, 117,* 147-156.
[83] Unpublished analysis by the Healthcare Association of New York State, 2013.
[84] Nursing Home Compare website, accessed September 2014. A sample based dataset of individuals receiving community-based long-term care services.

unable to self-report their conditions. A secondary literature review indicates that 50% of persons with dementia experience regular pain, which can be the underlying cause of behavioral symptoms.

DRUG OVERDOSE

About 9,000 city residents died of an unintentional drug poisoning (overdose) from 2000-2012, an average of 700 overdose deaths per year.[85] In 2012 nearly all unintentional drug poisoning deaths involved more than on substance, including alcohol, licit and illicit drugs, most commonly identified as heroin, cocaine, benzodiazepines, prescription opioid analgesics and methadone, according to DOHMH.

Access to and Quality of Health Care in New York State by Insurance Status

Compared with commercially insured populations, Medicaid Managed Care adult beneficiaries are less satisfied with their primary care providers and specialists, and generally rate the quality of their health care lower. Adult Medicaid Managed care populations are also less likely to have received care when needed. Child Medicaid beneficiaries appear to receive care at a rate on par with commercial plans.[86] The following discussion notes differences in access to and quality of health care between Medicaid Managed Care and commercially insured populations in New York State.

Overall Satisfaction

High ratings on patient satisfaction measures are directly correlated with better patient engagement in clinical decision-making and more interaction between patients and their physicians[87]. Engaged patients are more likely to manage their health and health care, which is correlated with lower health care costs.[88]

Fewer Medicaid Managed Care beneficiaries reported satisfaction with healthcare services when compared to beneficiaries of commercial Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) in New York State. “Satisfaction with Communication” is the percent of members who responded “usually” or “always” when asked how often their doctors listened to them carefully, explained things in a way they could understand, showed respect for what they had to say, and spent enough time with them. “Satisfaction with Personal Doctor” and the “Satisfaction with Specialist” measures are the percentage of members who rated their doctors 8, 9 or 10 (on a scale of 0-1, where 0 is the lowest). Additionally, patients were asked a series of questions to determine if they received necessary care and if they were able to get an appointment for routine care as soon as desired. “Received Needed Care” reflects the percent of members who responded “usually” or “always” in regard to receiving urgent care, and “Got Care Quickly” represents the percentages of members who

[85] New York City Department of Health and Mental Hygiene. *Unintentional Drug Poisoning (overdose) Deaths in New York City, 2000-2012.* Epi Data Brief, Sept. 2013, No. 33
[86] “2013 Health Plan Comparison in New York State,” New York State Department of Health
[87] “The CAHPS Improvement Guide,” AHRQ, June 17, 2012.
[88] “Health Policy Brief: Patient Engagement,” Health Affairs, February 14, 2013.

responded “usually” or “always” in regard to expediency. Commercial organizations performed better than Medicaid Managed Care organizations across all measures (Table 59).

Table 59 - Selected Patients’ Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

** Data is for 2011. Source: 2013 Health Plan Comparison in New York State, New York State Department of Health.*

“Satisfaction with Communication” is the percent of members who responded “usually” or “always” when asked how often their doctors listened to them carefully, explained things in a way they could understand, showed respect for what they had to say, and spent enough time with them. “Satisfaction with Personal Doctor” and the “Satisfaction with Specialist” measures are the percentage of members who rated their doctors 8, 9 or 10 (on a scale of 0-1, where 0 is the lowest). Additionally, patients were asked a series of questions to determine if they received necessary care and if they were able to get an appointment for routine care as soon as desired. “Received Needed Care” reflects the percent of members who responded “usually” or “always” in regard to receiving urgent care, and “Got Care Quickly” represents the percentages of members who responded “usually” or “always” in regard to expediency. Commercial organizations performed better than Medicaid Managed Care organizations across all measures.

Access to Care for Adults

Compared to commercial organizations, adult Medicaid Managed Care populations are often less likely to have received care when needed. Table 61 presents selected quality of care measures for several illnesses by payer.

Table 60 - Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care
Controlling High Blood Pressure	59%	57%	63%
Poor HbA1c Control in Diabetics* (Lower is better)	27%	42%	33%
Use of Appropriate Medications for People with Asthma	89%	90%	82%

	Commercial HMO		Commercial PPO		Medicaid Managed Care	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

** Data is from 2011*

Source: 2013 Health Plan Comparison in New York State," New York State Department of Health.

"Controlling High Blood Pressure" represents the percent of Medicaid beneficiaries, ages 18 to 85 years, with hypertension whose blood pressure was adequately controlled (below 140/90). Medicaid Managed Care beneficiaries generally fared better than other payer types. "Poor HbA1c Control" is the percentage of members with diabetes whose most recent HbA1c level (a measure of long-term glucose control) indicated poor control (>9.0%). Commercial HMOs performed best in this category. "Use of Appropriate Medications for People with Asthma" is the percentage of members, ages 19 to 64 years, with persistent asthma who received at least one appropriate medication to control their condition during the measurement year. Medicaid Managed Care on average performed worst, 7% lower than the average of Commercial PPOs. "Behavioral Health: Follow-up after Hospitalization for Mental Illness" concerns members, ages 6 years and older, who were hospitalized for treatment of selected mental health disorders and has two time-based components. The first column is the percentage of members who were seen on an ambulatory basis or who were in intermediate treatment with a mental health provider within 7 days of discharge. The second column is the percentage of members who were seen in the same settings within 30 days.

Access to Care for Children and Adolescents

There is less variation between Medicaid Managed Care to Commercial organizations in regard to access to care for children and adolescents, as demonstrated in Table 61.

Table 61 - Access and Quality Measures for Children and Adolescents, Statewide Average by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83
Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

*Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. *Data is from 2011*

The measure “Well-Child and Preventive Care Visits in the first 15 months” is the percentage of children who had five or more well child visits with a primary care provider in their first 15 months of life. Both types of commercial groups on average performed at about the same rate, seven to eight percentage points higher than the average of Medicaid Managed Care organizations. The “Well-Child and Preventive Care Visits 3-6 measure is the percentage of children in those ages who had one or more well-child visit with a primary care provider during the measurement year. There is little variation between payer types (range 79%-84%). The “Adolescent Well-Care Visit” measure is the percentage of youth, ages 12-21, who had at least one comprehensive well-care visit to a PCP during the measurement year. Medicaid managed care organizations and commercial HMOs performed about equally, with commercial PPOs on average performing several points lower. “Appropriate Treatment for Upper Respiratory Infection” is the percentage of children ages 3 months to 18 years who were diagnosed with an upper respiratory infection (common cold) and were not given a prescription for an antibiotic. Medicaid Managed Care plans performed on average four points higher than the average of commercial HMO and PPO providers.

iii. Domain 3 and 4 Metrics

Domain 3 Metrics: Clinical Improvement

Table 62 - Behavioral Health

Select Clinical Improvement Measures, 2012*	NYS	NYC	Manhattan
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management: Effective Continuation Phase Treatment Effective Acute Phase Treatment*	 37% 50%	 47%	 48%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	73%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	80%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up Care for Children Prescribed ADHD Medications: Initiation Phase* Continuous Phase	 56% 63%	 64%	 67%
Follow-up After Hospitalization for Mental Illness: Within 7 Days Within 30 Days*	 65% 55%	 51%	 48%
Screening for Clinical Depression and Follow-up			
Adherence to Antipsychotic Medications (at least 80% of treatment time) for People with Schizophrenia (aged 19-64 yrs.)*	64%	63%	61%
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	79%
Additional Behavioral Health Measures for Provider Systems Implementing the Behavioral Interventions Paradigm in Nursing Homes (BIPNH) project:			
PPR for SNF patients	[No known public source]		
Percent of Long Stay Residents who have Depressive Symptoms**	12.23%	[See source note]	[See source note]

*Sources:*Health care Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*
*** Source: Nursing Home Quality Initiative 2012 (this source does not provide data at the city or county level).*

Table 63 - Domain 3 Metrics, Cardiovascular Disease

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
Cholesterol Management for Patients with CV Conditions	[No known public source]	35.9% (33.3-38.7)	32.5% (26.8-38.7)
Controlling High Blood Pressure (Provider Responsible for Medical Record Reporting)[a,b]	63%*	67.0% (63.3-70.5)	[No known public source]
Aspirin Discussion and Use [b] Discussion of Aspirin Risks and Benefits(HMO/PPO) Aspirin Use(HMO/PPO)	 49%/43% 39%/39%	[No known public source]	[No known public source]

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
Medical Assistance with Smoking Cessation	[No known public source]	5.8% (4.3-7.8)	8.8% (5.1-14.9)
Flu Shots for Adults Ages 50 – 64[a]	[No known public source]	43% (40 – 45.9)	39% (33.4-45)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse)	[No known public source]	[No known public source]	[No known public source]

Source:
[a] NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)
[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)
[c] QARR 2011(Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 64 - Domain 3 Metrics, Diabetes Mellitus

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
Comprehensive Diabetes Screening (HbA1c, lipid profile, dilated eye exam, nephropathy) [a]	51%	[See source note]	[See source note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing*	80%	82%	82%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) [a]	33%	[See source note]	[See source note]
Comprehensive Diabetes Care - LDL-c control (<100mg/dL): Lipids Controlled (<100 mg/dL) Monitoring Diabetes - Lipid Profile[a]	47% 87%	[See source note]	[See source note]
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	8.8% (5.1-14.9)
Flu Shots for Adults Ages 50 – 64[b]	[See source note]	43% (40.0-45.9)	39% (33.4-45)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse)	[No known public source]	[No known public source]	[No known public source]

*Sources: * Health care Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*
[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)
[b] NYC DOHMH Community Health Survey, 2012 (NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)

Behavioral Risk Factors

Tobacco use, alcohol consumption, physical activity and diet, sexual practices, and disease screenings exert strong influences on health. These behavioral risk factors contribute to numerous diseases, and have long been viewed a major contributors to deaths in the United States. For example, a World Health Organization (WHO) report shows the burden of disease and death attributed to tobacco use in developed countries was substantially higher than that attributable to any other risk factor including alcohol use, unsafe sex, hypertensions, and physical inactivity.[89] Second to tobacco use, the combination of inactivity and poor diet has been ranked as the second leading factor contributing to mortality in the US.[90] Overweight adults are at risk for diabetes, and increased risk for hypertension, coronary heart disease, several forms of cancer, and run the risk of developing gallbladder disease, osteoarthritis, sleep apnea, and respiratory problems (Table 65).[91]

Table 65 - Risk Factors by Select Manhattan Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current or Past Smoker
NYC	24.1%	13.4%	21.6%	15.6%
UM: Washington Heights	21.7%	13.5%	22.4%	13.0%
UM: Central Harlem	30.8%	14.1%	24.9%	16.1%
UM: East Harlem	25.8%	21.4%	31.5%	18.6%
UM: Upper West Side	18.3%	14.8%	15.2%	12.6%
LM: Chelsea/Village	7.6%	20.2%	14.7%	18.4%
LM: Union Sq./Lower Manhattan	7.8%	20.6%	20.8%	22.8%

Values are not adjusted for age. Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012.

Tobacco

[89] Murray C, Lopez A. "The Global burden of disease." Geneva: World Health Organization. 1996.
[90] McGinnis, JM, Foege WH. "Actual Causes of Death in the United States. " *Journal of the American Medical Association:* 270, pg. 2207-2212. 1993.
[91] USDHHS (US Department of Health and Human Services), "Healthy People 2010: Understanding and Improving Health." Washington, DC. 2000.

The percentage of persons smoking in 2012 was the same in New York City and Manhattan. Several neighborhoods in Manhattan, which are in our Service areas, had higher rates. These included East Harlem and Central Harlem (table 66).

Table 66 - Current Smokers, Percent by Neighborhood

Neighborhood	% Current Smoker*	Absolute #
New York City	15.6	981,000
Manhattan	15.6	202,000
UM: Washington Heights	13.0	25,000
UM: Central Harlem	16.1	18,000
UM: East Harlem	18.6	13,000
UM: Upper West Side	12.6	23,000
Upper East Side-Gramercy	12.8	38,000
LM: Chelsea-Village	18.4	37,000
LM: Union Square-Lower Manhattan	22.8	46,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012.

Community members spoke regarding age groups who smoke, and the seeming ubiquity of smoking.

> *Everywhere you go you see people of all ages smoking cigarettes, no matter what age group from 12 to 90, everybody's smoking cigarettes and that has to raise some real serious concerns. (Participant from a focus group conducted with residents that have a history of substance abuse)*

> *Just the other day I was in the park and there were people smoking cigarettes, they have no respect. Second hand smoke also affects our children. (Participant from a focus group conducted with residents with limited English proficiency)*

Obesity and Diet

The overall obesity rate (defined as a Body Mass Index of over 30) in New York City is 24.1%. In Central Harlem in the Upper Manhattan Service area, 30.8% of respondents to a city wide community health survey administered by the city Department of Health and Mental Hygiene reported a BMI in the obese category. Almost 22% of New Yorkers reported to city officials that they were inactive or had low physical activity in the past 30 days when interviewed in 2012, with community patterns similar to that of the weight category. [92]

[92] Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012. Values are not adjusted for age.

SECTION D: SUMMARY OF THE ASSETS AND RESOURCES THAT CAN BE MOBILIZED

Manhattan's health and human services infrastructure provides a solid base for launching collaborative programs to reduce the over utilization of acute care services and support public health interventions. The borough has an extensive array of public and private hospitals, hospital outpatient extension clinics, FQHCs, community health centers, independent community based primary care providers, and community based organizations (CBOs) that are coming together to establish targeted care coordination, health prevention, and disease management strategies through initiatives such as DSRIP, the Interboro and Healthix RHIOS, the HHC and Community Care Management Partners Health Homes and Health Center Controlled Networks. Bellevue, Metropolitan and Harlem hospitals in Manhattan as well as most of the borough's acute care providers also accommodate physician residency programs which spur the growth of community-based primary and specialty care capacity in medically underserved areas. Expanded capacity, enhanced quality, technological linkages to broader health care delivery systems and operating hours adjusted to patient need are crucial in medically underserved areas in Upper Manhattan and the Lower East Side.

This approach is supported by the New York State Department of Health, which is leveraging the policy objectives and financial resources from the federal Affordable Care Act and New York State's Medicaid Redesign strategy to invest in primary care service delivery funding for community health center development and capacity expansion, as well as increasing the number of insured individuals and families who will have greater access to community-based health care services. In addition, funding for establishing Patient Centered Medical Homes and EHR Meaningful Use are significant incentives to attain care coordination and quality outcome goals that are so integral to the success of DSRIP.

New York City is fortunate in that its local health department, the New York City Department of Health and Mental Hygiene (NYC DOHMH), has been led by visionary public health experts who, with Mayoral support, have established trailblazing population health programming and policy initiatives. These efforts include broad anti-smoking campaigns, a ban on transfats in local restaurants, targeted efforts to increase physical activity (e.g. City Share bike share program, incentivizing active design in new building developments) and healthy eating initiatives such as expanding the presence of local farmers markets in low-income neighborhoods and establishing nutritional standards in schools and other public institutions. These are just a few examples of the broad impact that DOHMH has on improving the health of local communities.

DOHMH is also supporting new initiatives such as the new Center for Health Equity, which will focus on reducing health disparities citywide, and a new community health worker program that is being piloted in East Harlem. Overall, there may be greater opportunities for synergies between the NYC DOHMH and the health systems in Manhattan to replicate these programs across the borough.

Community-based organizations (CBOs) such as Bailey House, the Lesbian, Gay, Bisexual and Transgender (LGBT) Community Center, Pathways to Housing and the Northern Manhattan Perinatal Partnership provide crucial social and enabling services to neighborhoods and specific constituencies, and will continue to be vital resources for culturally and linguistically targeted health education and chronic disease management, health insurance enrollment, treatment adherence and linkages to

additional community resources. CBOs also encompass faith-based organizations and religious institutions that are often the initial, trusted source of referrals for local community services.

Manhattan CBOs are potent activists in advocating for social and regulatory change that will positively impact on health outcomes in areas including but not limited to:

- Supportive housing and increased affordable housing development.
- Behavioral health care reform, including integration with primary care and other behavioral service providers.
- Immigration, education, and correctional services reform.
- Legal assistance in multiple languages related to immigration and housing issues, domestic violence, and emergency financial assistance from organizations such as Asian Americans for Equality, the New York Immigration Coalition, and the New York City Housing Authority.
- Social services programs including SNAP, Medicaid and subsidized child care (NYC Human Resources Administration, the NYC Administration for Children's Services and Catholic Charities).

GLOSSARY OF KEY TERMS

Avoidable Hospital Use: "This term is used to designate all avoidable hospital service use including avoidable emergency department use, avoidable hospital admissions and avoidable hospital readmissions within 30 days. This can be achieved through better aligned primary care and community based services, application of evidence based guidelines for primary and chronic disease care, and more efficient transitions of care through all care settings." (New York State Department of Health, "NYS DSRIP Glossary")

Clinical Improvement Milestones: "Noted under Domain 3, these milestones focus on a specific disease or service category, e.g., diabetes, palliative care, that is identified as a significant cause of avoidable hospital use by Medicaid beneficiaries. Milestones can either relate to process measures or outcome measures and can be valued either on reporting or progress to goal, depending on the metric. Every Performing Provider System must include one strategy from behavioral health. Payment for performance on these outcome milestones will be based on an objective demonstration of improvement over baseline, using a valid, standardized method." (New York State Department of Health, "NYS DSRIP Glossary")

Community District (CD): New York City has 59 community districts: 12 in Brooklyn, 12 in the Bronx, 12 in Manhattan, 14 in Queens and three in Staten Island. Each community district appoints a community board, an advisory group that is comprised of 50 volunteers to assist neighborhood residents and to advise on local and city planning, as well as other issues.

Community Needs Assessment (CNA): As defined in the NYS DOH CNA guidance, "this process includes a description of the population to be served, an assessment of its health status and clinical care needs, and an assessment of the health care and community wide systems available to address those needs." (New York State Department of Health, "Guidance for Conducting Community Needs Assessment Required for DSRIP Planning Grant and Final Project Plan Applications," as of June, 2014).

The specific aims of the CNA process are to:

- ✓ Describe health care and community resources,
- ✓ Describe communities served by the PPSs,
- ✓ Identify the main health and health service challenges facing the community, and
- ✓ Summarize the assets, resources, and needs for the DSRIP projects.

Delivery System Reform Incentive Payment (DSRIP): As defined by NYS DOH, "DSRIP is the main mechanism by which New York State will implement the Medicaid Redesign Team (MRT) Waiver Amendment. DSRIP's purpose is to fundamentally restructure the health care delivery system by reinvesting in the Medicaid program, with the primary goal of reducing avoidable hospital use by 25% over 5 years. Up to $ 6.42 billion dollars are allocated to this program with payouts based upon achieving predefined results in system transformation, clinical management and population health." (New York State Department of Health, "DSRIP FAQs")

District Public Health Office: Three DPHOs were established by NYC DOHMH in 2002 to reduce health disparities in the highest need neighborhoods of the city. They are located in the following neighborhoods:

- East/Central Harlem
- North/Central Brooklyn
- The South Bronx

Domain: "Overarching areas in which DSRIP strategies are categorized. Performing Provider Systems must employ strategies from the domains two through four in support of meeting project plan goals and milestones. Domain one is encompasses project process measures and does not contain any strategies. The Domains are:

- Domain 1: Overall Project Progress
  Domain 2: System Transformation
  Domain 3: Clinical Improvement
- Domain 4: Population-wide Strategy Implementation"

(New York State Department of Health, "NYS DSRIP Glossary")

DSRIP Project Toolkit: "A state developed guide that will provide additional information on the core components of each DSRIP strategy, how they are distinct from one another, and the rationale for selecting each strategy (i.e. evidence base for the strategy and it's relation to community needs for the Medicaid and uninsured population). In addition, the strategy descriptions provided in the toolkit will be used as part of the DSRIP Plan Checklist and can serve as a supplement to assist providers in valuing projects." (New York State Department of Health, "NYS DSRIP Glossary")

MRT Waiver Amendment: "An amendment allowing New York to reinvest $8 billion in Medicaid Redesign Team generated federal savings back into NY's health care delivery system over five years. The Waiver amendment contains three parts: Managed Care, State Plan Amendment and DSRIP. The amendment is essential to implement the MRT action plan as well as prepare for ACA implementation." (New York State Department of Health, "NYS DSRIP Glossary")

New York City Department of Health and Mental Hygiene (NYC DOHMH): New York City's local health department responsible for: disease control, mental hygiene, environmental health, epidemiology, health care access and improvement, health promotion, planning and program analysis and disease prevention and emergency preparedness and response.

Performing Provider Systems (PPS): "Entities that are responsible for performing a DSRIP project. DSRIP eligible providers, which include both major public general hospitals and safety net providers, collaborating together, with a designated lead provider for the group." (New York State Department of Health, "NYS DSRIP Glossary")

Population-wide Project Implementation Milestones: "Also known as Domain 4, DSRIP performing provider systems responsible for reporting progress on measures from the New York State Prevention Agenda. These metrics will be measured for a geographical area denominator of all New York State residents, already developed as part of the Prevention Agenda: http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/index.htm" (New York State Department of Health, "NYS DSRIP Glossary")

Potentially Preventable Emergency Room Visits (PPVs): "Part of the nationally recognized measures for avoidable hospital use. The measures identify emergency room visits that could have been avoided with adequate ambulatory care." (New York State Department of Health, "NYS DSRIP Glossary")

Potentially Preventable Readmissions (PPRs): "Part of the nationally recognized measures for avoidable hospital use. PPRs measure readmissions to a hospital following a prior discharge from a hospital and that is clinically-related to the prior hospital admission." (New York State Department of Health, "NYS DSRIP Glossary")

Prevention Agenda: "As Part of Domain 4, Population-wide Strategy Implementation Milestones, the Prevention Agenda refers to the "blueprint for state and local action to improve the health of New Yorkers in five priority areas and to reduce health disparities for racial, ethnic, disability, socioeconomic and other groups who experience them", as part of New York State's Health Improvement Plan . Further information: http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/index.htm" (New York State Department of Health, "NYS DSRIP Glossary")

Prevention Quality Indicators – Adults (PQIs): "Part of the nationally recognized measures for avoidable hospital use PQIs are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. The PQIs are population-based and can be adjusted for covariates for comparison purposes. Additionally there are similar potentially preventable hospitalization measures for the pediatric population referred to as PDIs." (New York State Department of Health, "NYS DSRIP Glossary")

Prevention Quality Indicators – Pediatric (PDIs): "Part of the nationally recognized measures for avoidable hospital use that can be used with hospital inpatient discharge data to provide a perspective on the quality of pediatric healthcare. Specifically, PDIs screen for problems that pediatric patients experience as a result of exposure to the healthcare system and that may be amenable to prevention by changes at the system or provider level. Similarly the PDIs are population based and can be also be adjusted for covariates for evaluation." (New York State Department of Health, "NYS DSRIP Glossary")

Project Progress Milestones: "Also known as Domain 1, measures the investments in technology, tools, and human resources that strengthen the ability of the performing provider systems (PPS) to serve target populations and pursue DSRIP project goals. The Project Progress milestones include monitoring of the project spending and post-DSRIP sustainability. In addition, submission of quarterly reports on project progress specific to the PPS DSRIP project and it's Medicaid and low-income uninsured patient population." (New York State Department of Health, "NYS DSRIP Glossary")

Safety Net Provider (SNP): "Entities that provide care to underserved and vulnerable populations. The term 'safety net' is used because for many low-income and vulnerable populations, safety net providers are the 'invisible net of protection' for individuals whose lack of health coverage or other social and economic vulnerabilities limits their ability to access mainstream medical care.

Below is the DSRIP specific definition of safety-net provider:
The definition of safety net provider for hospitals will be based on the environment in which the performing provider system operates. Below is the safety net definition:

- A **hospital** must meet one of the three following criteria to participate in a performing provider system:
    1. Must be either a public hospital, Critical Access Hospital or Sole Community Hospital, or
    2. Must pass two conditions:
        A. At least 35 percent of all patient volume in their outpatient lines of business must be associated with Medicaid, uninsured and Dual Eligible individuals.
        B. At least 30 percent of inpatient treatment must be associated with Medicaid, uninsured and Dual Eligible individuals; or
    3. Must serve at least 30 percent of all Medicaid, uninsured and Dual Eligible members in the proposed county or multi-county community. The state will use Medicaid claims and encounter data as well as other sources to verify this claim. The state reserves the right to increase this percentage on a case by case basis so as to ensure that the needs of each community's Medicaid members are met."
- **Non-hospital based providers**, not participating as part of a state-designated health home, must have at least 35 percent of all patient volume in their primary lines of business associated with Medicaid, uninsured and Dual Eligible individuals.
- **Vital Access Provider Exception**: The state will consider exceptions to the safety net definition on a case-by-case basis if it is deemed in the best interest of Medicaid members. Any exceptions that are considered must be approved by CMS and must be posted for public comment 30 days prior to application approval. Three allowed reasons for granting an exception are:
    - A community will not be served without granting the exception because no other eligible provider is willing or capable of serving the community.
    - Any hospital is uniquely qualified to serve based on services provided, financial viability, relationships within the community, and/or clear track record of success in reducing avoidable hospital use.

    - Any state-designated health home or group of health homes.
- **Non-qualifying providers** can participate in Performing Providers Systems. However, non-qualifying providers are eligible to receive DSRIP payments totaling no more than 5 percent of a project's total valuation. CMS can approve payments above this amount if it is deemed in the best interest of Medicaid members attributed to the Performing Provider System. (New York State Department of Health, "NYS DSRIP Glossary")

System Transformation Milestones: "Also known as Domain 2, these are outcomes based on a community needs assessment, which reflect measures of inpatient/outpatient balance, increased primary care/community-based services utilization, rates of global capitation, partial capitation, and bundled payment of providers by Medicaid managed care plans and measures for patient engagement." (New York State Department of Health, "NYS DSRIP Glossary")

United Hospital Fund (UHF) Neighborhood: There are 42 UHF neighborhoods in NYC, 11 of which are in Brooklyn, and each is comprised of adjoining zip codes to approximate community planning districts. (34 neighborhoods are sometimes used to increase the statistical power of the sample size).

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Queens Community Needs Assessment

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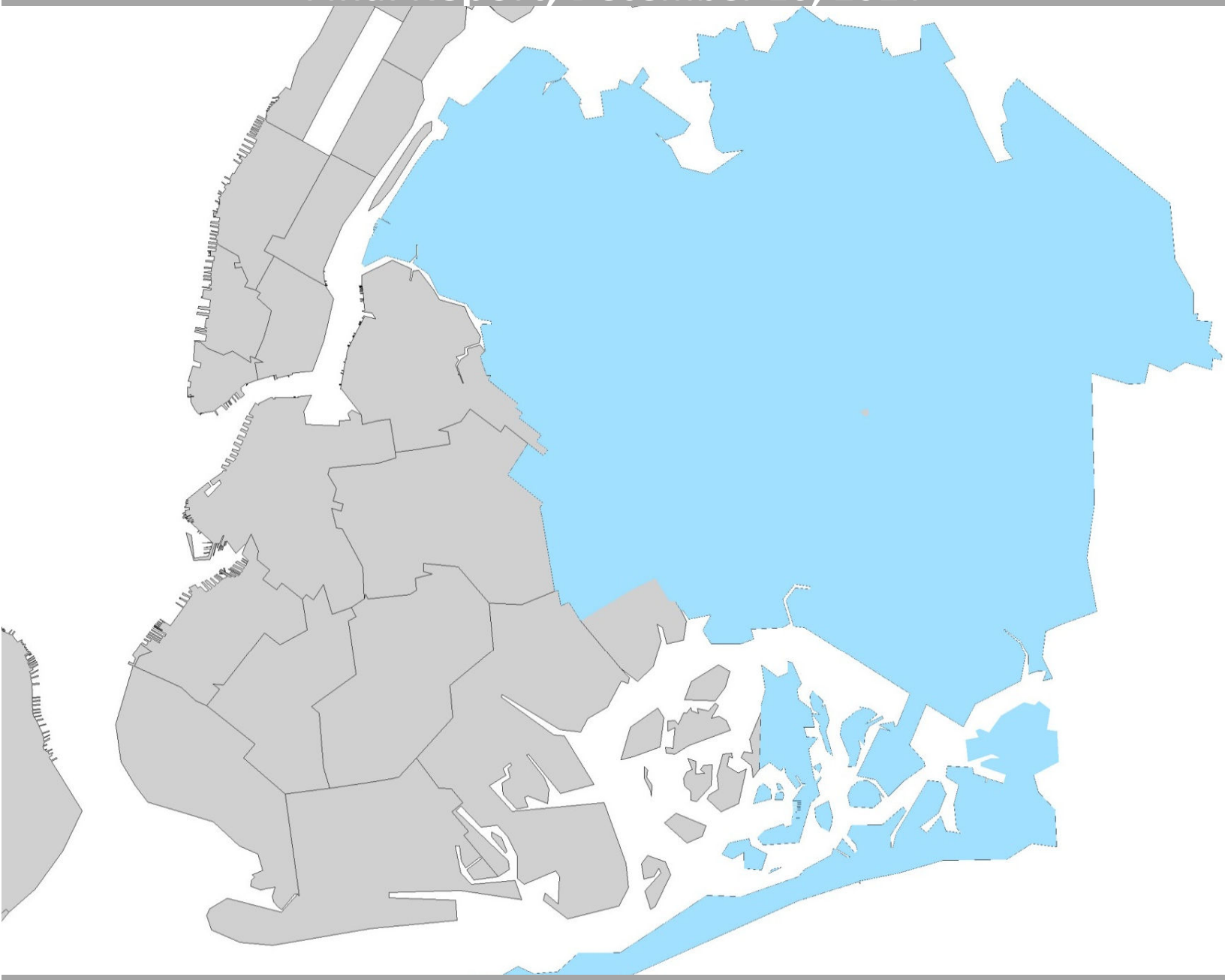

HHC NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

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OVERVIEW

Summary of Findings

The borough of Queens is the second most populous borough in New York City and is considered one of "the most diverse places on Earth."[1] If each borough were an independent city, Queens would be the nation's fourth most populous city, following Los Angeles, Chicago and Brooklyn.

Queens has 2.3 million residents that reflect a myriad of cultures and backgrounds--48% are foreign born and 56% speak languages other than English at home, including but not limited to Spanish, numerous Chinese and Southeast Asian dialects, Korean, Greek, Tagalog, Polish and Russian. The highest proportion of non-White residents identify as Hispanic (28%) and Asian (25%). There are also significant numbers of recent immigrants from Eastern European countries, including Poland, Latvia, the Ukraine and Russia.[2]

While Queens may not demonstrate some of the clear-cut socioeconomic and health disparities evident in other city boroughs, its vast racial and ethnic diversity and high concentrations of recent immigrants in smaller, concentrated neighborhoods within the borough pose difficult challenges to health care access and to attaining positive health outcomes. There are vast cultural and linguistic barriers as well as legal issues relating to immigration status that preclude easy access to health care services. Many recently arrived residents are unfamiliar with the health care service delivery system—American concepts of health insurance, co-pays, covered benefits and scheduled appointments for routine care are alien to many people who may have had minimal contact with formal health care systems.

The geography of Queens often isolates communities within the borough. Queens is the city's largest borough geographically, incorporating 112 square miles of both densely populated urban neighborhoods in the west to more expansive, suburban-style areas in the east. Its subway system runs primarily east/west across the northern part of the borough and only as far east as Jamaica. For users of public transportation not in the subway corridors, there is a network of buses. While the Queens PPS hospitals are located along subway lines, residents face challenges trying to access more local, community-based providers that lie geographically north, south or east of the subway corridor.

People who rely on safety net providers for health care are typically eligible for Medicaid or are uninsured. Forty-one percent of Queens residents, or 916,000 individuals, are covered by Medicaid, and the borough's uninsured rate (18%, or 393,995) far exceeds the city's overall rate of 14%. More striking is the fact that 72% of the uninsured are foreign born, and 47% have Limited English proficiency (LEP), adding to barriers faced when attempting to access health care services. It is not clear if the extent of the uninsured rate is due to a lack of proper documentation to qualify for publicly funded health insurance, a lack of understanding of available benefits, or a combination of both. The fact remains that there are specific communities where, despite high numbers of residents whose incomes would qualify

[1] *From Africa to Astoria by Way of Everywhere,* National Geographic*,* August 17, 2009.
[2] 2013 U.S. Census, Queens County QuickFacts, accessed September 9, 2014.

them for Medicaid[3] or subsidized coverage available through the NYS Health Exchange, the uninsured rate remains high.

Overall, Queens residents are not glaringly more unhealthy than city boroughs overall. Nevertheless, many neighborhoods included in the Queens PPS Service Area have chronic disease prevalences (e.g., diabetes, cardiovascular disease, respiratory diseases including asthma/COPD, cancer, and high rates of obesity[4]) as well as utilization rates of Emergency Department and Inpatient services similar to other medically underserved communities in the city. Medicaid beneficiaries who account for the largest proportion of preventable admissions are concentrated in the areas of West Queens, Jamaica, and East New York, although pockets of health disparities exist at sub-ZIP Code levels in other neighborhoods throughout the borough.[5] These areas also account for the highest proportion of potentially preventable emergency room visits (PPV), with rates 10-50% higher than in Queens overall. These areas in the borough consistently have higher rates of household poverty, unemployment, and low levels of education insurance.

Health utilization statistics point to several UHF neighborhoods in Queens where there are disproportionately high rates of chronic illness that are considered ambulatory care sensitive (ACS) conditions--that is, responsive to treatment in a primary care setting that emphasizes self-management and control of environmental and lifestyle factors that contribute to these conditions. Jamaica, Southeast Queens, the Rockaways and East New York generally have higher rates of utilization related to Respiratory, Cardiovascular, Diabetes and Behavioral Health Clinical Risk Group diagnoses than in the rest of the borough or the city overall, which supports the need for DSRIP Domain 3 interventions aimed at clinical improvement in these areas.

Moreover, residents in targeted Queens communities exhibit higher rates of population risk factors that contribute to poor health. These risk factors include smoking, poor diet and lack of exercise, overweight/obesity, and alcohol and substance use.

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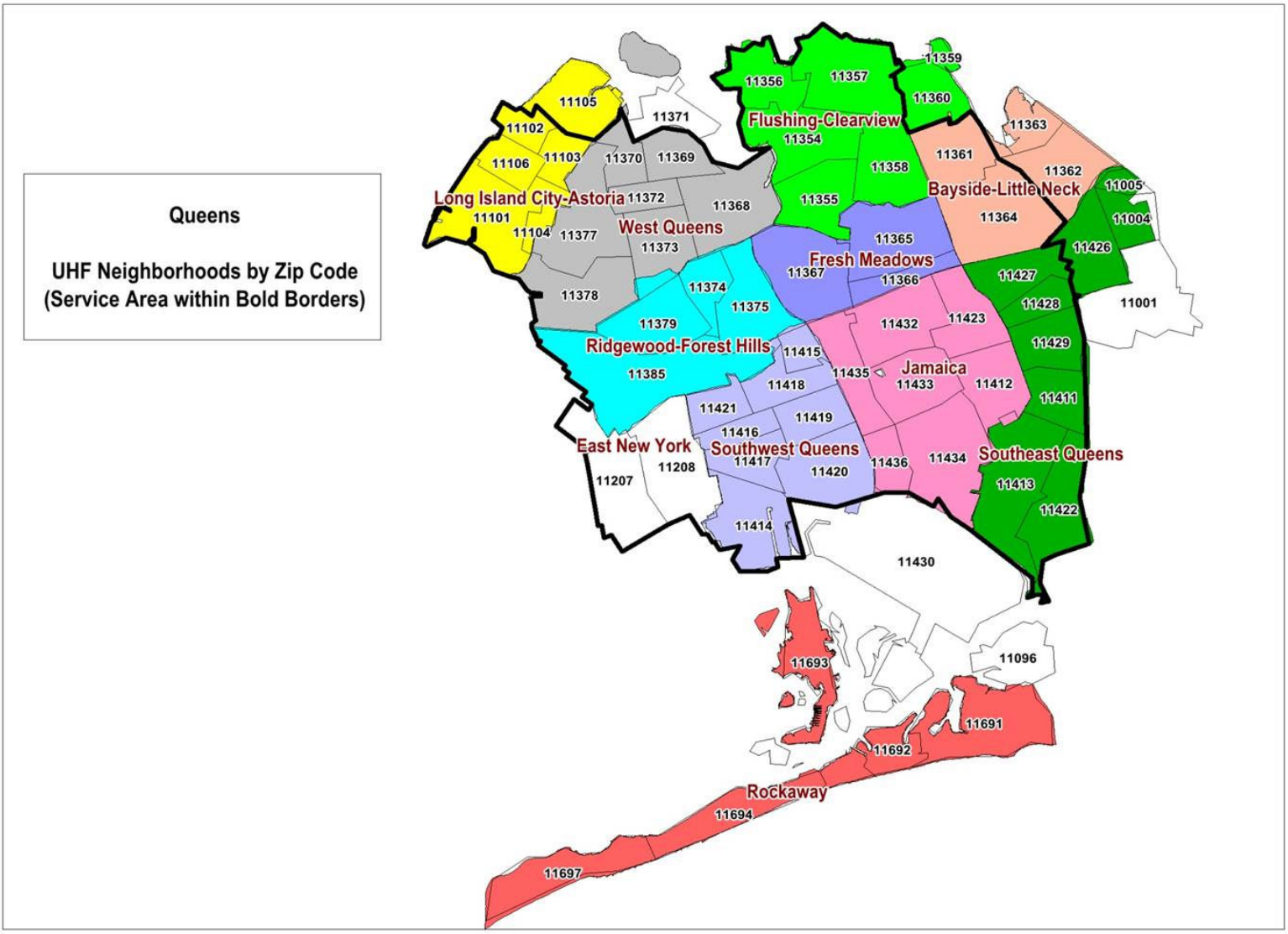
[3] 30% of Queens residents have incomes at or below 200% of the Federal Poverty Level (2010 U.S. Census)

[4] RWJ County Health Rankings, 2014, available at http://www.countyhealthrankings.org/sites/default/files/state/downloads/CHR2014_NY_v2.pdf , accessed September 2014.

[5] HHC data analysis is at the ZIP Code level, the smallest boundary level for which data is available. The neighborhood names cited are United Hospital Fund (UHF) neighborhood designations, commonly used by the New York City Department of Health and Mental Hygiene, including as the reporting boundaries for their Community Health Survey. For more information, see http://www.nyc.gov/html/doh/downloads/pdf/survey/uhf_map_100604.

Map 1: Queens Neighborhoods and Queens service area



SECTION A. DESCRIPTION OF HEALTH CARE RESOURCES AND COMMUNITY RESOURCES

Section i. Description of Health Care Resources

In Queens, a large proportion of community members that were surveyed appear to be engaged regularly in primary and preventive care (Appendix C, Primary Data). Nearly 77% of survey respondents reported having a primary care provider or personal doctor, and 77% reported that there's a place they usually go to for health care, when it is not an emergency. Of those that reported having a place they usually go for health care, 64% received primary care at a doctor's office, 7% went to a hospital outpatient clinic, 4% went to a community/family health center, and 12% went to a specialist physician office. Eighty-seven percent of respondents reported that they typically receive care within Queens, while nearly 7% reported that they receive care in Manhattan. Within the last year, 76% of respondents reported having a routine check-up and 58% had seen a dentist. More than one-quarter of respondents (27.5%) reported they had visited the hospital emergency room at least once in the past year.[6]

Access to health care continues to be a factor for a large percent of the Queens population. Nearly one quarter (24%) of the respondents reported that there was a time in the last 12 months when they needed, "health care or health services but did not get it." The most common reasons were lack of insurance (41%), "couldn't get an appointment soon or at the right time" (17%), cost of co-pays (13%), conflicting or competing responsibilities, such as work, family (8%), and concerns about language and translation issues (6.5%).[7]

Hospitals

Within the Queens service area there are two HHC and five voluntary nonprofit, general acute care hospitals (Table 1). Combined, these seven hospitals have 2,522 certified beds and an occupancy rate of 82%. HHC facilities account for 792 of these certified beds, with an average occupancy rate of 86%. The safety net payer mix for these hospitals (proportion of Medicaid beneficiaries and uninsured discharges to total discharges) ranges from 30% and 32% of discharges at Forest Hills and New York Hospital Queens, respectively, to 66% and 67% at HHC's Elmhurst and Queens Hospitals, respectively.[8]

Also located in Queens but outside of the PPS Queens service area are two additional voluntary hospitals, St. John's Episcopal and Long Island Jewish Medical Center. Four other general acute care hospitals in Queens closed over the past decade (Peninsula Hospital, Mary Immaculate and St John's Hospital, Parkway Hospital, and St. Joseph's Hospital), which has reduced not only the number of inpatient beds in the borough but affiliated outpatient and ancillary services.

[6] Survey data collected and analyzed by NYAM, Sept., 2014.
[7] Ibid.
[8] Hospital Institutional Cost Report, 2012.

Table 1. Queens Hospitals

Hospital Name	Hospital Type	Certified Beds	Occupancy Rate	Safety Net Payer Mix
Elmhurst Hospital	HHC	545	84%	66%
Queens Hospital	HHC	247	90%	67%
Flushing Hospital	Voluntary	293	84%	53%
Jamaica Hospital	Voluntary	424	75%	53%
Mt. Sinai Queens	Voluntary	192	82%	31%
Forest Hills Hospital	Voluntary	302	63%	30%
NY Hospital Queens	Voluntary	519	92%	32%
St. John's Episcopal	Voluntary	224	93%	49%
L.I. Jewish	Voluntary	983	80%	33%

Note: Safety Net payer mix as used in this table is the ratio of Medicaid and uninsured discharges to total discharges.
Source: Hospital Institutional Cost Reports, 2012

Ambulatory Surgical Centers

There are eight DSRIP-defined safety net sites in the Queens service area.[9]

Urgent Care Centers and Retail Clinics

With the proliferation in New York City of urgent care centers and retail clinics, including those in pharmacies, the state of New York in January 2014 noted, "the shift to ambulatory care is giving rise to new delivery structures, such as retail clinics and urgent care centers."[10] The council made recommendations regarding both retail clinics and urgent care, which it defined as, "for the treatment of acute episodic illness or minor traumas."

Because there is no state standardized definition or regulation of "urgent care centers," a definitive count is difficult to complete. A review of HITE SITE database and a web-based search identified nine urgent care centers in Queens. Because the centers target insured patients, urgent care centers tend to be concentrated in higher-income communities.[11]

Health Homes

There are three New York State Department of Health-designated health homes in Queens that provide care management and service integration to Medicaid beneficiaries with complex chronic medical and

[9] DSRIP defines non-hospital based safety net providers that are not participating as part of a state-designated health home as having at least 35% of all patient volume in their primary lines of business and associated with Medicaid, uninsured and Dual Eligible individuals.
[10] NYS Public Health and Planning Council: Oversight of Ambulatory Care Services, accessed September 15, 2014, http://www.health.ny.gov/facilities/public_health_and_health_planning_council/meetings/2014-01-07/docs/ambulatory_care_services_recommendations.pdf
[11] Greater New York Hospital Foundation Health Information Tool for Empowerment (HITE), as of August 2014.

behavioral health conditions. They are affiliated with North Shore-Long Island Jewish, Queens Coordinated Care Partners, and HHC.

Federal Designation as an Underserved Area

The federal Health Resources and Services Administration (HRSA) has two types of designations to identify an area as being an underserved area or having a shortage of providers, Medically Underserved Area (MUA) and Healthcare Provider Shortage Area (HPSA).

A MUA designation applied to a neighborhood or collection of census tracts is based on four factors: the ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.

A HPSA is a collection of census tracts that has been designated as having a shortage of health professionals. There are three categories of HPSAs: primary care (shortage of primary care clinicians), dental (shortage of oral health professionals), and mental health (shortage of mental health professionals). HPSAs are designated using several criteria, including population-to-clinician ratios. This ratio is usually 3,500 to 1 for primary care, 5,000 to 1 for dental health care, and 30,000 to 1 for mental health care (HRSA).

According to a report prepared for HHC by the Center for Health Workforce Studies, November 2013, New York City has 51 neighborhoods with the MUA designation with a combined population of 3.1 million. Queens has seven MUA neighborhoods with a combined population of less than 100,000. These neighborhoods are in Elmhurst, Jamaica, Long Island City, and Rockaway. Queens also has four Primary Care HPSA designated neighborhoods (Rockaway, Elmhurst, Long Island City, and South Jamaica, one Mental Health HPSA (Long Island City/Woodside). There is no Dental HPSA in Queens.

Primary Care Providers

Institutional Primary Care Providers, including FQHCs

There are three main types of institutional providers ("clinics") offering primary care: hospital-based extension clinics, Federally Qualified Health Centers (FQHCs), and comprehensive care Diagnostic and Treatment Centers (D&TCs). In the Queens service area there are 109 total clinics: 30 D&TCs including extension sites, 12 FQHCs including extension sites (FQHCs offer sliding fee discounts to individuals based on income, with no or nominal fee to individuals with incomes below 100% of the federal poverty level), and 67 hospital-based clinics (including extension sites).

The number of clinics per neighborhood ranges from one in Bayside-Little Neck, to 20 in East New York, and 32 in Jamaica. Sixteen of the 49 zip codes in the Queens SA have no clinics, including one of two ZIP Codes in Bayside-Little Neck (11364), one of seven 7 ZIP Codes in Jamaica (11412), two of the five ZIP Codes in Flushing-Clearview (11357, 11358), four of six 6 ZIP Codes in Southeast Queens (11411, 11422, 11427, 11428), three of nine ZIP Codes in Southwest Queens (11419, 11420, 11421), and three of seven ZIP Codes in West Queens (11369, 11370, 11378).

In proportion to the number of Medicaid beneficiaries and uninsured residents, of the 10 neighborhoods in the Queens SA, the three with the lowest ratio of clinics to residents, in order are: West Queens, Bayside-Little Neck, and Flushing-Clearview. The top three neighborhoods are East New York, Jamaica, and Fresh Meadows (table 2).

Table 2: Queens service area Clinics (includes FQHCs, D&TCs, Hospital Based, and their Extension Sites), Medicaid Beneficiaries, and Uninsured Populations by Neighborhood

	Clinics	Medicaid Beneficiaries	Uninsured	Sum Medicaid and Uninsured	Ratio Clinics to Medicaid + Uninsured
West Queens	13	229,864	122,803	352,667	10.6
Bayside-Little Neck	1	15,741	7,311	23,052	13.7
Flushing-Clearview	7	114,149	48,068	162,217	14.6
Southwest Queens	7	118,100	46,120	164,220	15.2
Southeast Queens	3	50,703	19,418	70,121	15.4
Ridgewood-Forest Hills	9	76,645	35,403	112,048	25.4
Long Island City-Astoria	11	62,149	30,486	92,635	36.1
Fresh Meadows	6	34,868	11,065	45,933	54.2
Jamaica	32	134,200	44,132	178,332	72.5
East New York	20	117,543	26,339	143,882	75.9
Queens service area	109	953,962	391,145	1,345,107	27.9

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012

Primary Care Private Providers

An analysis of Medicaid claims data by the Center for Health Workforce Studies has identified 2,315 primary care physicians in the Queens service area, of which 26% are pediatricians, 12% Obstetricians/gynecologists, and 62% other categories of primary care physicians (such as family practice and internal medicine).[12]

Among pediatric physicians, roughly half (54%) have a significant Medicaid panels (at least 30% of patients) and 26% have a significant uninsured panel (at least 10%). Among other PCPs (excluding OB/GYN), 33% have a significant Medicaid panel and 27% have a significant uninsured panel.[13]

The number of pediatricians serving Medicaid beneficiaries below age 17 vary by neighborhood, with East New York and Southeast Queens having fewer than 35 pediatricians per 100,000 Medicaid beneficiaries under age 17. The greatest proportion of pediatricians to pediatric population is in Flushing-Clearview, followed by Ridgewood-Forest Hills and Southwest Queens, which all have in excess of 112 Medicaid pediatricians per Medicaid beneficiaries under age 17, a factor of 3.3 greater than the lowest Queens SA neighborhood. The proportion of Significant Medicaid Other PCPs to total Medicaid

[12] Physician Data: Center for Health Workforce Studies, Analysis of Physician Re-registration Data, 2009-2012.
[13] Ibid. Note that these two categories, significant Medicaid and significant uninsured, are not mutually exclusive.

beneficiaries is the lowest in East New York with 25 Medicaid Other PCPs per 100,000 Medicaid beneficiaries, and the highest in West Queens, Flushing-Clearview, and Jamaica, which all have in excess of 50 Medicaid Other PCPs per 100,000 Medicaid beneficiaries, a factor more than 2 times greater than East New York.

Physician Extenders

In the Queens service area, there were 47 DSRIP-defined safety net Nurse Practitioners and Physician Assistants and 16 certified Nurse Midwives who served a minimum of 35% uninsured and Medicaid beneficiaries.[14]

Specialty Medical Providers

The number of specialty physicians by borough is as follows (table 3):

Table 3: Specialty Physicians by Borough

	Bronx	Brooklyn	Manhattan	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO, and is based on primary specialty. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

In addition, Queens has a variety of non-MD (or non-DO) specialty providers (table 4).

Table 4: Medical Specialists by Borough

	Bronx	Brooklyn	Manhattan	Queens
Acupuncturist	4	16	36	24
Audiologist	23	46	71	26
Chiropractor	59	101	104	121
Occupational Therapist	51	114	67	43
Physical Therapist	370	539	231	306
Speech-Language Pathologist	25	142	100	49
Optometrist	100	215	325	214

[14] New York State Dept. of Health website, accessed Sept. 2014.

	Bronx	Brooklyn	Manhattan	Queens
Durable Medical Equipment Supplier	36	117	59	67
Hospital and Clinic Based Labs	14	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm.

Dental Providers

There are 195 DSRIP defined safety net dentists serving the 953,000 Medicaid beneficiaries in the Queens service area. East New York has 6 dentists per 100,000 beneficiaries while West Queens and Long Island City-Astoria each have 30 dentists per 100,000 beneficiaries. There is at least one DSRIP defined safety net dentist in 40 of the 49 Queens service area ZIP Codes.[15]

Rehabilitative services, including physical therapy, occupational therapy, speech therapy and inpatient rehabilitation

In the Queens service area, there are approximately 26 physical therapy/rehabilitative service providers, 17 of which focus on caring for seniors and six who focus on people with development disabilities.[16]

Behavioral Health Services: Mental Health

Psychiatrists

The Queens service area has 336 psychiatrists, of which 46% have a patient panel consisting of at least 10% uninsured and 56% have a panel of at least 30% Medicaid (categories are not mutually exclusive) serving 28,300 Queens service area Medicaid beneficiaries diagnosed with a mental disease and disorder.[17] The proportion of high Medicaid psychiatrists to Medicaid beneficiaries has a large variation by neighborhood. Fresh Meadows (ZIP Codes 11365, 11366, 11367) has no Medicaid psychiatrists, and East New York has 5 Medicaid psychiatrists serving 5,700 beneficiaries or 0.9 per 1,000 beneficiaries. Ridgewood-Forest Hills, and Southeast Queens both have in excess of 10 psychiatrists per 1,000 beneficiaries.

Emergency Services

Emergency services provide rapid psychiatric and/or medical stabilization, and ensure the safety of persons who present a risk to themselves or others. Queens has three Comprehensive Psychiatric

[15] New York State Dept. of Health website, accessed Sept. 2014.
[16] Greater New York Hospital Foundation Health Information Tool for Empowerment (HITE) data, as of August 2014.
[17] Center for Health Workforce Studies, Analysis of Physician Re-registration Data, 2009-2012.

Emergency Programs (CPEP), one Crisis Intervention program, and three Home Based Crisis Intervention programs.[18]

Inpatient

Six Queens general care hospitals have inpatient psychiatric units. Queens also has two state psychiatric hospitals (Creedmoor Psychiatric Center, New York City Children's Center), and one residential treatment facility for children (Ottilie Home for Children).[19]

Outpatient

Queens has eight Assertive Community Treatment programs (ACT). ACT Teams provide mobile intensive treatment and support to people with psychiatric disabilities, with a focus on improving quality of life. It also has 52 Clinic Treatment programs (including 36 offering services for families or children), five Continuing Day Treatment programs, four Day Treatment programs, four partial hospitalization programs, two Intensive Psychiatric Rehabilitation Treatment programs, and six Personalized Recovery Oriented Services.[20]

Residential

These programs maximize offer access to housing opportunities, particularly for persons with a history of repeated psychiatric hospitalizations, homelessness, involvement with the criminal justice system, and co-occurring substance abuse. Residential programs are also offered to children to provide short-term residential assessment, treatment, and aftercare planning.[21]

Queens has 34 licensed residential treatment programs in congregate, apartment and single room residences where on-site interventions are goal-oriented, intensive, and usually of limited duration. This includes seven programs offering apartments, six programs for children and youth community residence, 12 programs offering congregate residencies, and nine programs offering Single Room Occupancy (SRO) residences. Queens also has 58 unlicensed supported housing programs that offer long term or permanent housing in a setting where residents can access support services. This includes 54 programs that are community services that do not provide rental assistance and four that are SRO.[22]

Support

[18] New York Office of Mental Health website, accessed Oct., 2014.
[19] Ibid.
[20] Ibid.
[21] Ibid.
[22] Ibid.

Queens has 32 Care Coordination programs, three School based mental health programs, one prison-based forensics mental health program, 12 General Support, 17 Self-Help programs, and 12 Vocational programs.[23]

Behavioral Health Services: Alcohol and Substance Abuse

Prevention

Queens has 14 providers of Prevention services, including eight that are by the NYC Department of Education. These providers offer a range of services including evidence-based education programs, skills development workshops, training sessions for parents, teachers, and other professionals, positive alternative activities for youth, and policy change and enforcement efforts to reduce underage drinking.[24]

Inpatient and Residential

Queens has two providers of inpatient treatment programs offering rehabilitation services, seven intensive residential programs, one supportive living program, and two community residential programs.[25]

Outpatient

Queens has 39 outpatient clinics, five crisis programs, and five methadone treatment programs.[26]

Primary data collected for the CNA, however, suggest that access to mental health services, particularly culturally competent care, is limited, as is mental health services for children and adolescents. In the words of one primary care provider:

> *We often throw our hands up because it is so difficult to find [adolescent mental health] providers.*

According to some providers, services that are available might also be unknown to community organizations and residents—or they might be unaware of processes for accessing them. In addition, behavioral health issues generally carry greater stigma than other health concerns, which tends to limit use of services. Key informants and focus group participants both reported that many affected individuals and families try to address problems internally—or not at all.

According to providers interviewed as part of the primary data collection activities, the system is fragmented, with possibly poorer integration within behavioral health services than between physical

[23] Ibid.
[24] New York State Office of Alcoholism and Substance Abuse Services (OASAS) website. Accessed Oct. 2014.
[25] Ibid.
[26] Ibid.

and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies including the Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and the Office of Mental Health (OMH). Patient care was described as being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. As a result, a mental health provider may be limited by the severity of illness that can be treated, the age of the patient, and other factors. As one key informant explained:

> *Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I mean really become integrated in treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (Key informant, multiservice organization).*

According to some providers, available services may be simply unknown to community organizations and residents—or they might be unaware of processes for accessing them.

Specialty Medical Programs

Autism Spectrum Early Diagnosis/Early Intervention

The New York State Early Intervention Program offers a variety of therapeutic and support services to eligible infants and toddlers with disabilities and their families including: service coordination, screening and evaluation, family education and counseling, psychological services, occupational, speech and physical therapy, vision, audiology, assistive technology services and social work.[27] There are 97 unique providers throughout New York City, with the largest number of providers in Queens (72), followed by Brooklyn (71), Manhattan and the Bronx (65 each) and Staten Island (50) (table 5).

Table 5: Early Intervention Program Providers

	Brooklyn	Bronx	Manhattan	Queens	Staten Island	NYC Total (Unique)
Number of Providers	71	65	65	72	50	97
Services:						
Service Coordination	39	39	39	42	27	56
Screening	34	35	34	36	29	48
Evaluation	49	49	48	53	36	69
Psychological Services	7	5	7	11	7	16
Family Education	32	21	26	31	21	41

[27] New York City Department of Health and Mental Hygiene Directory of New York City Early Intervention Providers, available at http://www.health.ny.gov/community/infants_children/early_intervention/, Accessed December 8, 2014.

Family Counseling	14	13	13	14	9	20
Speech Therapy	34	29	30	37	24	45
Occupational Therapy	35	30	30	37	21	48
Physical Therapy	36	30	31	37	22	49

New York City Department of Health and Mental Hygiene Directory of New York City Early Intervention Providers, available at http://www.health.ny.gov/community/infants_children/early_intervention/, Accessed December 8, 2014.

Eating Disorder Providers

New York City has 109 providers (which includes a mix of practitioners including medical doctors, psychotherapists, nutritionists, social workers) that offer services related to eating disorders (including anorexia, bulimia or binge eating disorder specialties), with the vast majority located in Manhattan (Table 6).[28]

Of the 109 total providers, 89 are licensed specialists in treating anorexia, of which 58 offer a sliding fee scale payment system, and 6 accept Medicaid or Medicare as insurance payer. Eighty-six providers also specialize in treating bulimia, of which 58 offer a sliding fee scale payment system, and 6 accept Medicaid or Medicare as insurance payer. Eighty –seven of the 109 total providers specialize in treating binge eating disorder, of which 60 offer a sliding fee scale payment system, and seven accept Medicaid or Medicare as insurance payer (table 6).

Table 6: Eating Disorder Providers by Borough

	Brooklyn	Manhattan	Queens	Staten Island	Grand Total
Number of Providers	5	101	2	1	109

Source: National Eating Disorder Association (NEDA) Directory of Facilities and Treatment Providers, available at http://www.nationaleatingdisorders.org/find-treatment, Accessed December 5, 2014.

Pain Management Services

There are five facilities in Queens that provide specialty pain management services to the uninsured and persons with Medicaid and other low income medical supports.[29] The facilities include health centers hospitals, home health agencies, and nursing homes. In addition, there are 67 physicians, three nurse practitioners and one person in an unspecified "other" category who offer pain management services for the uninsured and those persons with Medicaid or other low income medical support.[30] However, only seven provide services in their offices 40 hours a week or more. Additional organizations or other individuals providing pain management services in the borough may exist, but no exhaustive directory of such services could be identified.

Hospice Care

[28] National Eating Disorder Association (NEDA) Directory of Facilities and Treatment Providers, available at http://www.nationaleatingdisorders.org/find-treatment, Accessed December 5, 2014.
[29] Greater New York Hospital Foundation. Accessed Oct. 7, 2014 from www.hitesite.org.
[30] New York State Department of Health Provider Network Data System. July 2013.

There are eight hospice programs serving residents of Queens: Calvary Home Health Agency and Hospice Care, Caring Hospice Services of New York, Comprehensive Community Hospice of Parker Jewish Institute, Hospice Care of Long Island- Queens South Shore, Hospice of New York, MJHS Hospice and Palliative Care, Staten Island University Hospital University Hospice, and VNS of New York Hospice and Palliative Care.[31] In addition, there are six programs in Queens offering palliative care services that include Jamaica Hospital Medical Center, St. Mary Hospital for Children, VNSNY Pediatric Palliative Care, Calvary Home Health Agency and Hospice Care, MJHS Hospice and Palliative Care, and VNS of New York Hospice and Palliative Care.

School Based Health Centers

The Queens service area has 13 school-based health centers.

Skilled nursing homes, Assisted Living

There are 59 nursing homes with a total bed capacity of 12,326 throughout Queens.[32] Within the Queens service area, there are 45 nursing homes and a total bed capacity of 9,721. In addition, there are a total of 645 home health and hospice care agencies serving Queens County, including 36 certified health home agencies, 12 long-term home health care programs, eight hospices and 589 licensed home care services agencies.[33] Sixteen adult care facilities are also located in the Queens service area with a total bed capacity of 2,755.

Seven of these facilities have Assisted Living Programs (ALP), with a total capacity of 1,054 beds. Individuals, who are medically eligible for nursing home placement but do not require continual nursing care, can be served via an ALP. ALPs primarily serve residents who are also Medicaid beneficiaries although private-pay patients can also be admitted to such programs. ALPs provide personal care, room, board, housekeeping and a range of home health and medical services. Assisted Living Residencies (ALRs) provide services similar to ALPs, but Medicaid and Medicare will not pay for an individual to reside in an ALR.[34] There is one ALR in Queens with a bed capacity of 175, enhanced ALR bed capacity of 25 and special needs ALR bed capacity of 21.[35] The majority of the ALRs, ALPs and nursing home facilities appear to be concentrated in Forest Hills, Kew Gardens and Rego Park. There is only one adult care facility in Western Queens, located in Long Island City.

Home Care Services

[31] Hospice and Palliative Care Association of New York State. Accessed Oct. 7, 2014 at www.hpcanys.org.
[32] New York State Department of Health, "New York State Nursing Home Profile," as of October, 2014
[33] Ibid.
[34] New York State Office for the Aging, http://www.aging.ny.gov/LivableNY/ResourceManual/Housing/III1s.pdf, accessed November 3, 2014
[35] New York State Department of Health, "Adult Day Care Centers in Queens County," as of October, 2014.

There are 38 certified home health agencies (CHHAs) providing residents of Queens with part-time, intermittent health care and support services.[36]

Specialty Developmental Disability Services

The borough of Queens has 392 developmental disability services programs. One hundred are non-residential and the 292 are residential.[37]

Specialty Providers such as Vision Care and Durable Medical Equipment

Please see Table 4.

Pharmacies

Queens has 97 DSRIP defined safety net pharmacies, whose total prescriptions are at least 35% Medicaid. These pharmacies account for 5.0 million prescriptions, with 53% being Medicaid. Total prescriptions for these pharmacies range from to 2,300 to 283,106 (average 90,188) per year.[38]

Local Health Departments

The New York City Department of Health and Mental Hygiene is the local health department for New York City including Queens. The department's offices are based in Queens. The department has district public health offices (DPHO) in the Bronx, Brooklyn and in Manhattan. These are local health offices dedicated on working to promote health equity and reduce health disparities across New York City by targeting resources, programs, and attention to high-need neighborhoods.

Managed care organizations

Twenty plans service serve residents of Queens, including eight commercial plans, 13 Medicaid plans, 11 Child Health Plus plans, 10 Family Health Plus plans, and three HIV SNPs Health Plans.[39]

Foster Children Agencies

Queens has 90 Administration for Children's Services (ACS) Community Partners providing preventive and family treatment and rehabilitation services throughout the borough, and one ACS Child Protective Borough Office, located in Jamaica.[40]

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[36] New York State Dept. of Health website. Accessed Oct. 2014.
[37] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). October, 2014.
[38] New York State Dept. of Health website. Accessed Oct. 2014.
[39] NYSDOH County Directory of Managed Care Plans.
[40] Administration for Children's Services (ACS) "ACS Community Partners" http://www.buildingcpi.org/. Accessed November 7, 2014.

Area Health Education Centers (AHECs)

The Queens Long Island Area Health Education Center (BQLI-AHEC), is located in Downtown Queens and hosts the following programs: Community Health Experience, a summer program for medical school students interested in gaining exposure to community and public health experiences through placement in a community organization and specialized lecture series; the Medical Academy of Science and Health (MASH), a camp promoting health professions to students in grades 6 to 9; the Summer Health Internship Program, a summer internship placement program for high school and college students; Student/Resident Experiences and Rotations in Community Health (SEARCH), a program for health profession students and residents; and the Nursing Club, which exposes high school students to health professions including, but not limited to nursing.[41]

Section ii. Description of Community Based Resources

Regarding community resources in Queens, respondents expressed concern about capacity (small staff and budgets), quality and health care linkages to those services that might benefit their patients.

Housing services, including advocacy groups and housing providers, including those for the homeless population

Queens has approximately 82 non-profit or public agencies and community based organizations that provide housing services of varying types. These include intake and community centers; housing programs including emergency shelters, transitional housing programs, temporary housing, community residences, SROs and supportive housing programs; case management agencies; public and non-profit clinics; and advocacy, empowerment and counseling/support organizations. Many of these agencies provide housing services to special populations, including but not limited to pregnant teens, people with mental illness, disabilities and/or substance use, people living with HIV/AIDS (PLWHA), homeless mothers with children, homeless veterans, older adults, and adolescents aging out of foster care.[42] There are 22 NYCHA developments and 13 NYCHA community centers in the Queens service area.[43]

Financial Assistance and Support Including Food and Clothing

Queens has 91 programs that provide some type of financial assistance and information to their participants, including the 284,000 Queens residents whose income is below 100% of the federal poverty level (FPL). Some of these organizations serve special populations that include but is not limited to: people with developmental disabilities, low-income homeowners, people with mental illness, older adults, pregnant women, mothers and children, immigrants, families at risk of eviction and older

[41] Brooklyn- Queens-Long Island Area Health Education Center. Accessed Oct. 2014.
[42] Ibid.
[43] New York City Housing Authority (NYCHA) "NYCHA Development Data Book," as of 2014. New York City Housing Authority "Directory of NYCHA Community Facilities," as of 2013.

adults.[44] Southeast Queens and West Queens have fewer than 20 programs per 100,000 residents with incomes below 100% of Federal Poverty Level (FPL), and Jamaica and Long Island City-Astoria both have greater than 60 programs per 100,000. Bayside-Little Neck and Fresh Meadows do not have any such programs and both have more than 18,000 residents in poverty.

Queens has six Financial Empowerment Centers offer free individual, professional financial counseling, located in Jamaica, Jackson Heights, Woodside and Long Island City, and 17 WIC programs.[45]

Food pantries, community gardens, farmer's markets

There are 69 food banks, food pantries, and/or soup kitchens in Queens.[46] CNA respondents noted an increase in farmers markets and more nutritious food available through food pantries, as well as nutrition and exercise programs, with 76% of survey respondents overall reporting that healthy food was "available" or "very available." This observation, however, varied by neighborhood, with residents in Jamaica least likely to report great availability of healthy food (62%). As one health care provider in Jamaica explained, "We preach to our patients and they go home and they don't have much in the way of good options." Despite a perception of food availability, health education is still needed for Queens residents; 39% of respondents reported a need for nutrition education, and 46% reported a need for education regarding exercise and physical health.

Primary data collected suggests that access to healthy affordable food may be challenging for certain at-risk populations, include ethnic groups and/or the elderly, as these key informant interviews demonstrate:

> *We actually got many outreach programs in the communities especially in Asian…. We used to give them diet and all those and we went to the India day parades and all, so basically what happened was after they took our pamphlet and all, they just went and ate fried food and all that. (Key Informant, Primary Care Providers)*

> *[The] community also is facing this kind of assumption that Asians are healthier than others because our food eating patterns are different, but in fact, actually Korean food is very spicy and salty. So, I think that's another kind of health concern… very, very high sodium, salty, spicy food, that's the Korean food, but it involves a lot of vegetables and good mix of meat and fish and things like that, I think. (Key Informant, Korean CBO)*

> *And also one of the issues on the physical side that have, that are connected with isolation is poor nutrition. A person oftentimes when they're alone has no incentive to cook or to eat. And we find that many of the clients are nutritionally compromised. And*

[44] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). Oct. 2014.
[45] New York City Housing Authority (NYCHA) "NYCHA Development Data Book," as of 2014. New York City Housing Authority "Directory of NYCHA Community Facilities," as of 2013.
[46] Food Bank for New York City "Food Bank Locator," Accessed July 2014.

we also have identified that there's a food insecurity because of lack of available funds to maybe buy the groceries that they need, you know, so people are making those decisions every day about, "Well, what can I buy, what can I afford with my limited amount of income for this month?" And oftentimes nutrition suffers in that mix because they'll get their medication instead of buying the food. And sometimes we found they won't get their medication either. (Key Informant, Older adults)

Specialty Educational Programs for Special Needs Children

The city's Department of Education's District 75 provides citywide educational, vocational, and behavior support programs for students who are on the autism spectrum, have significant cognitive delays, are severely emotionally challenged, sensory impaired and/or have multiple disabilities. District 75 consists of 56 school organizations, home and hospital instruction and vision and hearing services. Schools and programs are located at more than 310 sites in the Bronx, Brooklyn, Manhattan, Queens and Staten Island.[47]

Community Outreach Agencies

Queens has 19 organizations including community service organizations, health centers, public colleges and care management agencies, among others, that conduct outreach activities ranging from mobile food programs to medication management outreach to at-risk individuals with mental health concerns. They serve many different populations including but not limited to: at-risk youth including youthful offenders, low-income children and families, older adults, immigrants and people who speak English as a second language (ESL), active and former drug users, people living with mental illness, PLWHA and victims and survivors of domestic violence.[48]

Transportation services

There are approximately 21 organizations in Queens that provide varying types of transportation services. Four of these organizations provide transportation for seniors and one provides transportation services for the disabled.[49] Access-a-Ride is the Metropolitan Transit Authority's (MTA) para-transit service, available to those certified as eligible due to mobility restrictions. Transit services are particularly important in Queens as large portions of the borough are not accessible by subway and there are no trains that travel north-south, meaning that many trips outside a particular neighborhood require both bus and subway travel. As suggested in several key informant interviews, securing or providing appropriate transportation is critical to ensure that vulnerable populations receive healthcare services:

[47] The New York City Department of Education website. Accessed October 22, 2014.
[48] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). Oct. 2014.
[49] Ibid.

We have transportation services that allow many seniors access to the centers because otherwise they'd have no other way of getting here. We provide transportation to medical appointments. And not only do we provide the transportation, but right as I came in to the agency last October, we launched an escort program. So in addition to providing the actual transportation, we now will assist by providing a companion to travel with the senior because what we were finding was that both in physical frailty as well as cognitive frailty, seniors needed more assistance because they often became disoriented or needed that help in navigating through the holes … and even in medical buildings, you know, it's very difficult. And even though you may have been there before, sometimes it looks different. So what was happening is that the drivers, because they are very kind, compassionate human beings, although they were told never to leave the vehicle, were leaving their vehicles because seniors were like having major anxiety, um, not knowing where they were going, not knowing how they were going to get there, and a little unsteady and feeling insecure. So to alleviate the burden on the driver because that's not really their role and to better serve our clients, we instituted this escort service which has been an overwhelming success. (Key informant, older adults)

Queens is a very large borough, and it's connected well with the public transportation, but still, if it's going to take you one bus ride and then the subway and then something, right? You are discouraged. You won't go...and especially if you're feeling sick. (Key Informant, South Asian community)

Religious Service Organizations

New York City contains tremendous diversity in the numbers of faith-based organizations, many of which provide charity care and volunteer services. According to the Bureau of Labor Statistics, 33 percent of all adults who volunteer do so for a religious service organization. While there is no single database that lists all locales of worship and connected service organizations, The New York State Department of Health catalogued the various programs and services provided by faith-based organizations in a 2012 resource directory, though this is not a comprehensive listing of faith-based services or ministries in New York City as the organizations have to request a listing.[50] In Queens, there are 29 Christian churches of various denominations, four Interdenominational churches and one Muslim organization that provide a variety of services which include emergency assistance funding, employment and housing referrals, food pantries and HIV care support. A review of UJA-Federation of New York

[50] Faith-based Ministries and Services Resource Directory, https://www.health.ny.gov/diseases/aids/consumers/faith_communities/directory_instruction.htm, accessed October 28, 2014.

website found that there are over 20 Jewish community-based organizations throughout New York City that provide relief services and support.[51]

Not for Profit Health and Welfare Agencies

Not for profit health and welfare agencies provide a variety of social services and disseminate essential information to the community at no fee, including recreational activities tailored for various age groups, direct service delivery (meals, clothing and toiletries), printed materials about specific illnesses or risk factors, health workshops, hosting of support groups and legal and medical referrals. Examples of voluntary health and welfare organizations are the YMCA, the United Way, and the American Heart Association. There are approximately 350 non-profit health and welfare programs throughout Queens.[52]

Disability-related resources

Serving individuals with developmental disabilities is considered to be challenging in the changing healthcare environment, as they may also have multiple co-morbidities, providers are not trained to recognize or address behaviors associated with developmental disabilities, and special accommodations may be required (e.g., to visit length) due to issues around comprehension and caregiver involvement. Among the agencies that provide specialized services is AHRC NYC, with offices in all five boroughs that provide a host of services to persons with disabilities that include developmental and intellectual disorders, autism spectrum disorders and traumatic brain injury. The services include medical care integrated with social and other supports. For persons with other types of disabilities, including mobility-related and neurological disabilities, an important agency in Queens is the Center for Independence of the Disabled. An additional 12 sites in Queens provide educational, mental health, employment/vocational training and general health services for disabled individuals.

Self-Advocacy and Family Support Organizations for Individuals with Disabilities

Individuals with disabilities and their families are often in need of specific services and support in ensuring they are able to live independently and achieve any and all goals. Those services may include linkages to other organizations that can assist with education, care services and other resources. The New York State Department of Health has four councils, three offices and a number of workgroups dedicated to policymaking and the development of resources and networks of organizations with similar missions, including early intervention programs and developmental and physical disabilities. New York State also operates four centers, staffed by experienced parents and professionals. These centers

[51] UJA-Federation of New York, http://www.ujafedny.org/who-we-are/our-network-of-agencies/network-agencies-directory/, accessed October 28, 2014.
[52] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October, 2014.

provide information and training to families with children with disabilities, professionals working with said families and other community members.[53]

There are a number of nonprofit organizations that provide support to individuals with disabilities and their families. The types of services offered include psychological testing, vocational rehabilitation, educational and recreational services, counseling and adult day care and home care services, if needed. AHRC, for example, has 33 offices throughout New York City that serve individuals of all ages with developmental disabilities, including seven programs in Manhattan, eight in the Bronx, four in Queens and four in Brooklyn.[54] In addition, there are web-based resources, such as Access New York, for individuals seeking information about accessible travel options as well as other inquiries.[55]

Youth Development Programs

Two hundred and seven Department of Youth and Community Development funded programs are located in the Queens service area. They are of the following types: 127 after-school programs; 11 literacy, reading and writing programs, 17 family support programs; 28 employment and/or internship programs; 21 immigration legal aid organizations, and 3 runaway and homeless youth programs, among others.[56]

The New York City Department of Education (DOE) operates Passage Academy, a full time educational program that tailors its curriculum to the needs of youth in detention. The New York City Administration for Children's Services (ACS) and the Department of Juvenile Justice merged on December 7, 2010. The Division of Youth and Family Justice (DYFJ) was formed as a result of this merger to provide juvenile justice services. DYFJ offers case management services for youths in secure detention and chapel services. The DOE and Administration for Children's Services (ACS) partnered to create FirstStepNYC, an early childhood center and leadership institute for infants up to children aged five years old which is open to all New York City residents. The New York City Housing Authority (NYCHA) has committed to working with the DOE and the Mayor's Office to increase the literacy skills of children who live in NYCHA housing.[57]

There are approximately 82 organizations including public libraries, social service organizations, community centers, recreation centers, and other types of community-based organizations that offer

[53] NYSDOH. www.health.ny.gov/community/infants/early_intervention/related_links.html, accessed on October 30, 2014
[54] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October, 2014.
[55] Ibid.
[56] The Department of Youth and Community Development, www.nyc.gov/html/youthlanding/youthlanding.shtml, accessed October 31, 2014.
[57] NYC Resources, www.nyc.gov, accessed November 5, 2014.

tutoring, family support and after-school and/or youth group services in Queens. The majority of the programs and organizations are located in Flushing, Corona, Jamaica and Long Island City.[58]

LGBT Resources

New York City has a large number of Lesbian, Gay, Bisexual and Transgender persons, as well as individuals who self-identify using other categories such as gender queer or questioning. Healthcare resources include facilities that have earned the Human Rights Campaign's designation of "leader in LGBT healthcare equality," a list of which can be accessed at http://www.hrc.org/hei/leaders-in-lgbt-healthcare-equality#.VE_lMDTF98E. Nineteen facilities in the city are listed as "leaders" for 2014, including 10 from the New York City Health and Hospitals Corporation.

Other resources available in the city include the Callen-Lorde Community Health Center, the Transgender Legal Defense and Education Fund, the LGBT Community Center; Lambda Legal, the nation's oldest and largest l*egal* organization working for the civil rights of lesbians, gay men, and people with HIV/AIDS, various community centers in the boroughs, SAGE for older LGBT persons, and PFLAG NYC which provides information for parents, family, friends, schools and teachers of lesbian, gay, bisexual, transgender people children and adults.

A resource list for LGBT and questioning youth can be accessed at http://www.nyc.gov/html/acs/downloads/pdf/lgbtq/LGBTQ-Youth-Community-Resource-Guide.pdf.

Libraries with Open Access Computers

All New York City public libraries provide open access computers to its customers, enabling users to access a myriad of websites including health information. Access requires that the individual be a resident of the borough in which library is located and have a library card and PIN to log onto a computer. In some cases, individuals can purchase a daily pass in order to log onto a computer. The Queens PPS service area contains approximately 54 libraries, all operated by the Queens Library and offering customers open access to computers.[59]

Community Service Organizations

Queens has 234 organizations or programs that provide a variety of social services to Queens residents, including faith-based fellowship, support to seniors in areas such as housing, recreational activities and nutrition, assistance to at-risk youth, employment referrals and career development help, and health-related support (e.g, fitness classes). Many are also ethnic community-based organizations which

[58] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE), as of October, 2014.
[59] Queens Library, http://www.queenslibrary.org/services/computers-wifi/computers, accessed October 24, 2014

provide specific populations with critical services as well as facilitate applications for residency and/or citizenship.[60]

Education

There are approximately 332 public and charter schools in Queens, including 204 public elementary schools, 49 public middle schools and 79 public high schools.[61] Queens also has 171 private/parochial schools.[62] In addition, there are five public colleges located in Queens: LaGuardia Community College, Queens College, Queensborough Community College, York College, and the School of Law at Queens College.

There are also 115 community-based organizations in Queens providing education services such as GED/High School Equivalency (HSE) preparation, ESL, career counseling, cultural programming, health education and tutoring and recreational activities. Some of these organizations offer education services to special populations including children with serious emotional disturbances, children with cerebral palsy, at-risk youth, and immigrants, refugees and asylees.[63]

Local Governmental Social Service Programs

New York City has in place numerous governmental social service programs and offices to assist its residents obtain essential services. For example, New York City has a website, *Access New York* which assists users in completing screening questionnaires for over 30 support programs.[64] The New York City Human Resources Administration has a small number of offices throughout the Queens service area to meet the needs of Queens residents. There are five job centers in Long Island City and Jamaica which are available to assist individuals in providing essential cash assistance and identifying work opportunities, including public assistance recipients over the age of 60 and families in need of cash assistance. The job center located on Honeywell Street serves homeless individuals and families citywide, by conducting application interviews; executing eligibility determinations; offering employment services; affording linkages to employment; and, working collaboratively with the Department of Homeless Services (DHS). Two Supplemental Nutrition Assistance Programs (SNAP) centers in Long Island City and Jamaica are available to assist families in need with their applications for financial support with groceries. A third center is located in Arverne which outside of the DSRIP Queens service area. For those residents who would like to apply for Medicaid benefits, there is a Medicaid office with Certified Application Counselors (CACs) available to assist with the Medicaid application in Long Island City.[65]

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[60] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE), as of October, 2014

[61] New York City Department of City Planning "Selected Facilities and Program Sites," as of October, 2014.

[62] Ibid.

[63] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October, 2014.

[64] AccessNYC, https://a858-ihss.nyc.gov/ihss1/en_US/IHSS_homePage.do, accessed October 29, 2014

[65] The New York City Human Resources Administration, http://www.nyc.gov/html/hra/, accessed October 29, 2014

Through Resident Employment Services (RES), the New York City Housing Authority (NYCHA) provides information about education and training opportunities for its residents. Moreover, there are 55 senior centers throughout Queens which are operated by community-based organizations but are funded in part by the New York City Department for the Aging.[66] Seniors are able to participate in exercise classes and other recreational activities, are served a hot lunch or join a health discussion group. Workforce 1 provides individuals living in Queens with job referrals if their employment was affected by Hurricane Sandy. There are two Workforce1 Career Centers in Queens in the areas of Jamaica and Far Rockaway.[67] The latter center is not located in the Queens DSRIP Service Area. Although broadband service is almost universally available in the entire city and particularly in Manhattan, there is still a digital divide exists in terms of broadband adoption.[68] This divide is especially evident among lower-income residents and seniors. A number of community-based organizations, such as senior centers, the Parks Department and NYCHA community centers are working with the Department of Information Technology and Telecommunications to ensure that broadband capacity is built.

Family Support and Training

The Mental Health Association of New York City operates five Family Resource Centers citywide that provide individual and group-based family support services to parents/caregivers of children and youth (birth to age 24) identified as having or at risk for developing emotional, behavioral or mental health challenges using a family or youth peer model. Services include emotional support, assistance with navigating systems, and skill development through educational workshops. The Manhattan offices are on West 125th Street and pm Broadway in Lower Manhattan. Services are provided in English, Spanish, Mandarin and Cantonese.[69]

NAMI, a peer and family mental health advocacy organization

The National Alliance on Mental Illness of New York City, Inc. (NAMI-NYC Metro) is a grassroots organization that provides support, education, and advocacy for families and individuals of all ethnic and socioeconomic backgrounds who live with mental illness. It is the largest affiliate of the National Alliance on Mental Illness and works with state and national affiliates, and with other stakeholders in the community, to educate the public, advocate for legislation, reduce stigma and improve the mental health system. It offers free support, education, and advocacy services throughout the New York metropolitan area.[70]

Individual Employment Support Services

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[66] New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[67] Workforce1, http://www.nyc.gov/html/sbs/wf1/html/home/home.shtml, accessed October 29, 2014
[68] The New York City Department of Information Technology & Telecommunications, http://www.nyc.gov/html/doitt/html/home/home.shtml, accessed October 29, 2014
[69] Mental Health Association of New York City website, accessed Oct. 2014. http://www.mhaofnyc.org.
[70] NAMI. Accessed Oct. 2014. http://www.nami.org.

Queens has 317 programs that provide employment/vocational support services (skill training and certification, education services) to varying populations including but not limited to: people with developmental disabilities, people who are homeless or formerly homeless, people who are homebound, high-risk adolescents, unemployed women and people with mental illness. The ratio of programs to the number of residents with less than a high school education range varies by neighborhood, ranging from Bayside-Little Neck, and Southwest Queens at 5.6 programs per 10,000 individuals to Jamaica and Long Island City-Astoria with an excess of 20 programs per 10,000 individuals.[71]

Peer Support (Recovery Coaches)

Peer supports (recovery coaches) provide assistance to individuals managing a chronic health condition (e.g., substance abuse recovery, diabetes, HIV/AIDS or hepatitis C) in staying engaged in treatment over time and in resolving obstacles that may arise. These obstacles can be psychological, physiological or structural; without the support of trained said recovery coaches, these obstacles may impede individuals' ability to succeed in handling their conditions. Queens has approximately 19 organizations, including healthcare facilities and community-based organizations that connect clients with recovery coaches, peer groups and mentoring to assist the clients in managing their health condition.[72]

Reentry Organizations and Alternatives to Incarceration

There are approximately 40 organizations that offer criminal justice offender services located in Queens. These services include: civic engagement, linkage to employment and educational services, transitional and supportive housing, recreational events, mental health care, HIV/AIDS services, peer education, peer support, case management and substance use treatment.[73]

HIV-Related Services

Queens has 25 agencies with 180 service sites that offer HIV related services, including Ryan White and CDC Prevention programs. These services include HIV Prevention and Outreach efforts such as sexual and behavioral health for HIV prevention, condom distribution, harm reduction, testing and linkage to care, and syringe exchange.[74], [75]

Resources for Aging Population

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[71] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE), as of October, 2014.
[72] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE). Oct. 2014
[73] Ibid.
[74] Public Health Solutions Service Site Locator. http://www.healthsolutions.org/hivcare/?event=page.locations Services as of August 2014.
[75] HIV Health and Human Services Planning Council of New York, DOHMH. Needs Assessment for HIV Services New York Eligible Metropolitan Area Ryan White Part A 2014, http://www.nyhiv.org/pdfs/Needs%20Assessment_Full%20Final.pdf

Queens has 93 programs serving its 244,000 older population (over age 65) with services for people with conditions that include dementia and Alzheimer's disease. The ratio of programs to older population varies by neighborhood, ranging from Bayside-Little Neck having 2 programs and an elderly population of 9,400, to Long Island City-Astoria having 12 programs and a population of 18,200.[76]

Resources for Immigrants

Programs for immigrants include services such as education, advocacy, health care information, health insurance enrollment, and legal services. Queens has 91 programs serving its 991,000 foreign born population.[77] The ratio of programs to foreign born residents range by neighborhood from Southeast Queens and Southwest Queens with fewer than 2 programs per 100,000 foreign born population to Flushing-Clearview, and Long Island City-Astoria with an excess of 20 programs per 100,000 population.

[76] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[77] *Ibid.*

Domain 2 System Transformation Metrics

A. Create Integrated Delivery System

Table 7 - Potentially Avoidable ER Visits, Admissions, and Re-Admissions, 2012

Measure Name	NYS	NYC	Queens	QSA
Potentially Avoidable Emergency Room Visits per 100 Medicaid beneficiaries	36	34	27	28
PQI Suite – Composite of All Measures: Adult, per 100,000 Medicaid Beneficiaries	1,784	1,822	1,482	1,579
Acute Conditions Composite (PQI 91), per 100,000 Medicaid Beneficiaries	530	525	474	503
Chronic Conditions Composite (PQI 92), per 100,000 Medicaid Beneficiaries	1,254	1,295	1,008	1,078
PDI Suite – Composite of All Measures: Pediatric, per 100,000 Recipients	323	383	235	245
Acute Conditions Composite (PDI 91), per 100,000 Medicaid Beneficiaries	75	87	79	77
Chronic Conditions Composite (PDI 92), per 100,000 Medicaid Beneficiaries	248	296	154	166

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012. Rates are risk-adjusted expected (controlling for race/ethnicity, gender, age and case mix.

Data is not yet available from the New York State Department of Health for the Domain 2 metrics relating to Provider Reimbursement, System Integration, Primary Care, and Medicaid Spending for Projects Defined Population on a PMPM Basis.

B. Implementation of Care Coordination and Transitional Care Programs

Performing Provider Systems will be required to meet all of the above metrics with the addition of a set of Care Transitions metrics, including those defined below and CAHPS metrics, forthcoming.

Among adults with a discharge in NYC who responded to a recent H-CAHPS survey, 34% strongly agreed of the following: hospital staff took a patient-centered approach to their health care needs post-discharge; that they had a good understanding to managing their health; and they had a clear understanding of the purpose of their medications. This percentage was slightly lower than NYS, though this data does not adjust for any patient, hospital or market factors.

C. **Connecting Settings (Performing Provider Systems will be required to meet all of the above metrics for A and B)**

SECTION B. DESCRIPTION OF THE COMMUNITY TO BE SERVED

Section i: Demographics of the Medicaid and Uninsured Populations in Queens

Population by Neighborhood and and Insurance Status

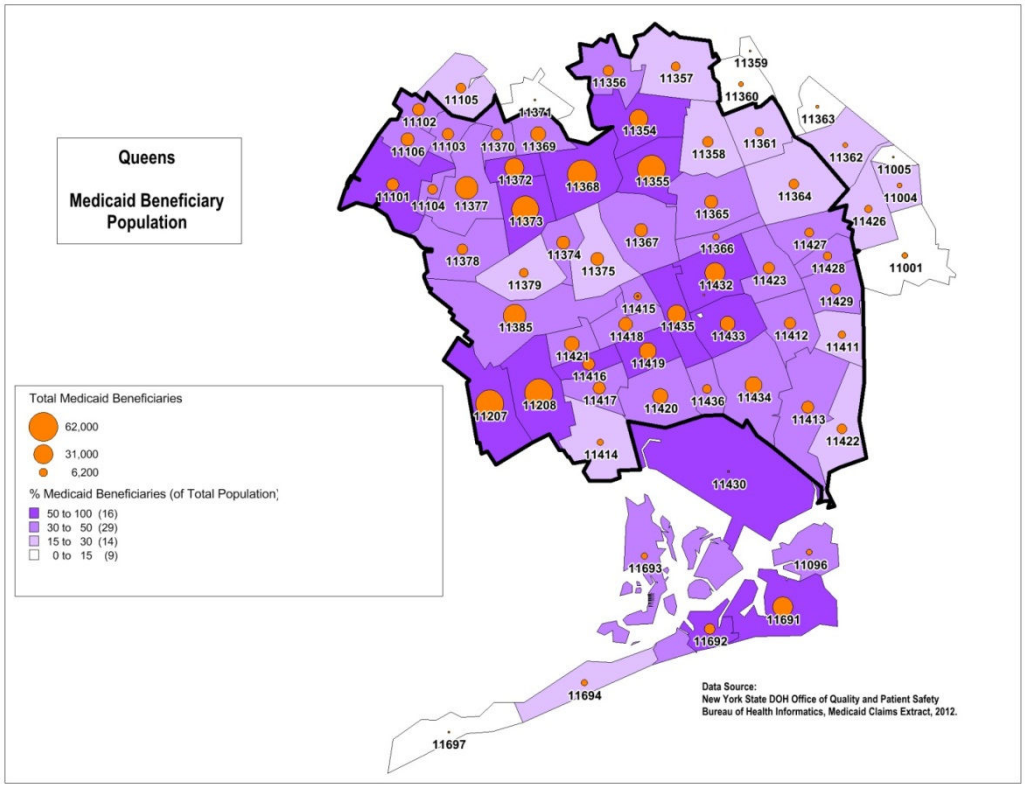
Queens' 2.2 million residents comprise approximately 27% of NYC's total population of 8.2 million. Over 41% of Queens county residents have Medicaid insurance, while 18% of the Queens population is uninsured, with higher rates in neighborhoods within the Queens service area -- West Queens (51% Medicaid, 27% Uninsured); Flushing/Clearview (45% Medicaid, 19% uninsured); Jamaica (47% Medicaid; 15% uninsured) and East New York (63% Medicaid; 14% uninsured).[78]

It is important to note that the uninsured rate utilizing the most recent Census American Community Survey, as cited in this CNA, is overestimated due to recent policy events. Largely due to the establishment of the New York State Health Exchange in January 2014, more than 660,000 New York City residents enrolled in Medicaid, and an additional 157,000 enrolled in a Qualified Health Plan (QHPs) with the assistance of premium subsidies.[79] Given that 93% of Medicaid enrollees and 63% of QHP enrollees were uninsured at the time of enrollment, it has been estimated that the total number of uninsured citywide declined by approximately 60%.[80,81] The greatest increase in recent Medicaid enrollees occurred in neighborhoods that had the highest uninsured rates.

The geographic distribution of the number and percent of Medicaid beneficiaries and persons without insurance by zip code are depicted in Maps 2 and 3. Map 2 illustrates two types of information. The circles show, by size, the number of Medicaid beneficiaries by Zip Code. The color shading, from light to dark, indicates the proportion of Medicaid beneficiaries relative to the total population of that ZIP code. Zip codes with the largest number and percent of Medicaid beneficiaries are prime target areas.

[78] US Census American Community Survey, 2008-2012.
[79] Goldberg, Dan. "Mapping Obamacare by New York City ZIP code," *Capital New York*, October 20, 2014, accessed October 30, 2014.
[80] New York State Department of Health: The Official Health Plan Marketplace 2014 Open Enrollment Report, June 2014.
[81] Goldberg, Dan. Mapping Obamacare by New York City ZIP code," *Capital New York*, October 20, 2014, accessed October 30, 2014.

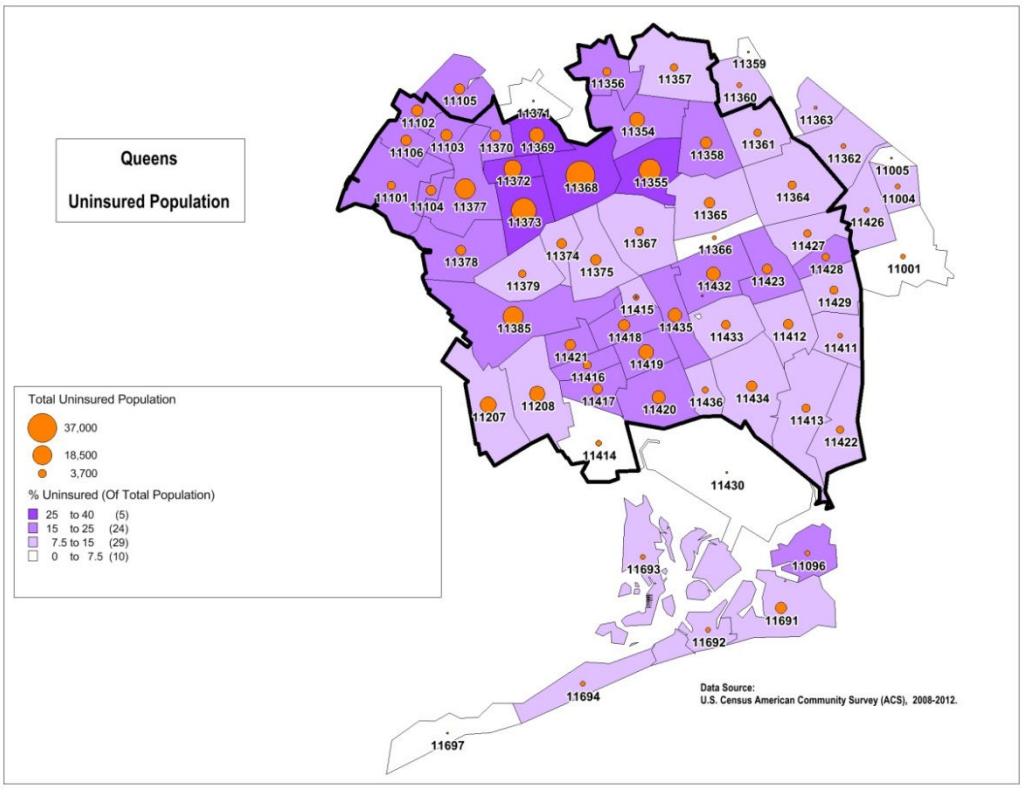
Map 2: Medicaid Beneficiaries by Zip Code



Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Map 3 visually describes the geographic distribution of uninsured populations. The circles show how the number of uninsured by ZIP Code, and the shading shows the proportion of uninsured to the total population of that ZIP code.

Map 3: Uninsured Population by Zip Code



Source: US Census American Community Survey, 2008-2012.

Gender Distribution by Insurance Status

A greater proportion of men are uninsured, and a larger proportion of women enrolled in Medicaid (table 8).

Table 8: Total Population by Gender and Insurance Status

	Total Population	Uninsured			Medicaid			Other Insurance		
		%	% Male	%Female	%	% Male	%Female	%	% Male	%Female
New York City	8,198,393	14.4%	57.2%	42.8%	29.3%	44.0%	56.0%	56.3%	46.9%	53.1%
Queens	2,233,483	17.6%	56.8%	43.2%	25.4%	44.9%	55.1%	57.0%	47.4%	52.6%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Race/Ethnicity

Queens' population is 28% white, 18% black or African American, 23% Asian, 28% Hispanic or Latino of any race, with the balance falling within other categories[82]. The Queens population with Medicaid insurance is more likely to be Hispanic (36%) or Asian (27%), while less likely to be White (15%)[83]. The Queens population with no health insurance is more likely to be Hispanic (41%) or Asian (27%), while less likely to be White (16%) or Black (12%)[84].

Age

Queens residents by age and insurance status is on tables 9 through 11.

[82] US Census American Community Survey, 2008-2012.
[83] US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.
[84] *Ibid.*

Table 9: Age Distribution for Uninsured Population

	Total	Under 5	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over
NYC	100%	1.5%	1.5%	2.0%	4.9%	14.6%	16.5%	13.3%	10.7%	9.3%	8.1%	6.7%	5.4%	3.9%	0.8%	0.3%	0.2%	0.1%	0.1%
NYC	100%	9.9%				55.1%				33.5%					1.5%				
Queens	100%	1.3%	1.3%	1.8%	4.5%	13.4%	15.5%	13.3%	11.0%	10.4%	8.6%	7.4%	5.7%	4.1%	0.9%	0.2%	0.2%	0.2%	0.1%
Queens	100%	8.9%				53.2%				36.3%					1.6%				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 10: Age Distribution for Medicaid Beneficiaries

	Total	Under 5	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over
NYC	100%	11.4%	10.1%	9.7%	9.3%	7.1%	5.4%	4.9%	4.7%	5.2%	5.6%	5.1%	4.5%	4.0%	3.2%	3.0%	2.5%	2.2%	2.3%
NYC	100%	40.4%				22.1%				24.4%					13.1%				
Queens	100%	16.6%	14.9%	14.2%	13.1%	9.5%	7.0%	6.7%	7.1%	7.8%	8.2%	7.5%	6.6%	5.6%	4.7%	4.2%	3.4%	3.0%	3.6%
Queens	100%	58.9%				30.2%				35.8%					18.9%				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 11: Age Distribution for Population with Other Insurance

	Total	Under 5	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over
NYC	100%	5.1%	4.5%	4.7%	5.2%	6.4%	8.9%	8.5%	7.5%	7.5%	7.3%	7.3%	6.7%	5.9%	4.7%	3.4%	2.6%	1.9%	1.8%
NYC	100%	19.5%				31.4%				34.6%					14.5%				
Queens	100%	5.0%	4.6%	4.8%	5.1%	5.6%	7.6%	7.8%	7.2%	7.4%	7.7%	7.8%	7.2%	6.1%	5.0%	3.8%	3.0%	2.3%	2.2%
Queens	100%	19.5%				28.1%				36.1%					16.3%				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Income and Poverty

The median household income in Queens is approximately $56,780, somewhat higher than that of NYC ($51,865) as a whole, with tremendous variation by neighborhood. The eastern part of the borough tends to be more affluent, while the neighborhoods of Corona, Elmhurst and Jackson Heights have a lower average household income.[85]

The percentage of households living below the Federal Poverty Level (FPL) in Queens is 14.4%, compared to the NYC rate of 19%; however, poverty rates are highest in Elmhurst/Corona, Astoria, Sunnyside/Woodside, Jackson Heights and Flushing, which range from 30% to 43%.[86]

Although the health related implications of poverty may vary by population, common themes were evident in our surveys and interviews: poverty was described as directly affecting health; affecting the prioritization (or de-prioritization) of health behaviors; and as affecting access to health related resources, including nutritious food, stable and well-maintained housing, health care coverage, and medical services. Community members and providers interviewed referred to the impact that poverty and lack of community resources have on health and well-being:

> *We also have identified that there's food insecurity because of lack of available funds to maybe buy the groceries that they need. So people are making those decisions every day about, "Well, what can I buy, what can I afford with my limited amount of income for this month?" And oftentimes nutrition suffers in that mix, because they'll get their medication instead of buying the food. And sometimes we found they won't get their medication either. (key informant, CBO)*

Low-income Queens residents describe very stressful lives, with concerns that include, but are not limited to, employment, access to healthy food and appropriate resources for children and teens.[87]

> *Most of us parents are constantly working, and many times we don't have the time to commit to cooking a healthy meal every night – and so, we resort to fast food. (focus group participant)*

> *"People [are] literally working, you know, 18 to 20 hours a day. Some of our people are working two to three jobs. So either by the priorities they set, or just what they have time for – you know, accessing health services is one of the last things that is on the list of priorities. And there's also the issue of the work situations they're in, and how stressful they can be, and how they're not safe workplaces, healthy workplaces (*Key informant).[88]

[85] U.S. Census, DP03: SELECTED ECONOMIC CHARACTERISTICS, New York City Community Districts 2010-2012 American Community Survey 3-Year Estimates.
[86] Neighborhood Poverty Status by Sub-borough, NYC DOHMH, http://nyc.gov/health/tracking. 12/19/2011
[87] NYAM Primary Data.
[88] NYAM Primary Data.

A common complaint is that providers fail to recognize and address the connection between social issues and health, looking instead to the quick but often ineffective medical "fix." A focus group respondent stated:

> *I feel like when it comes to health and the services that are being provided, providers need to start looking at underlying issues as to why people are doing certain behaviors. Like, dig deeper. Don't just prescribe a medication to subside the pain or whatever. Dig deeper. See why the person is choosing to have an unhealthy diet. Maybe it's mental issues. And address those things. Don't just see a patient and give him medication.*

Disabilities and Mobility Difficulties

According to the New York City Department of Planning, persons 65 or older comprised 12.9% of Queens' population in 2010 but will be 14% – one out of seven persons– of the borough's population by 2030.[89] Of the population aged 65 years or older in the Queens service area, 7.7% have vision difficulty, 10.3% have hearing difficulty, 10% have cognitive difficulty and 25% have ambulatory difficulty.[90] There appears to be a relationship between high rates of ambulatory or cognitive difficulty, uninsured, and Medicaid enrollees.

There are 30,000 Queens and East New York residents over the age of 65 with a cognitive disability. The Rockaways (14.4%), East New York (12.6%), Jamaica (11%), Southwest Queens (11%), West Queens (10.2%) and Ridgewood/Forest Hills (10%) experience the highest prevalence of cognitive disability for this age group. There are an additional 39,000 Queens and East New York residents, between the ages of 18 to 64, with cognitive disabilities. A similar mix of neighborhoods has the highest rates of cognitive disabilities among this age group. The Rockaways (4.5%), East New York (3%), Jamaica (2.9%), Southwest Queens (2.8%), and Southeast Queens (2.8%) are the neighborhoods with the highest prevalence.

Education

Educational levels are higher among the uninsured relative to the Medicaid population. Forty-two percent of the uninsured in Queens have completed some college, compared to 35% for those with Medicaid insurance, but are lower than individuals with other types of insurance, at 61% (tables 12 through 14).

Table 12 - Educational Attainment for Population with No Health Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York	30%	29%	20%	21%
Queens	28%	30%	21%	21%

[89] New York City Department of City Planning, New York City Population Projections by Age/Sex and Borough, 2010-2040 (Updated from the original PlaNYC Projections, 2000-2030), Accessed November 6, 2014.
[90] US Census American Community Survey, 2008-2012.

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 13: Educational Attainment for Population with Medicaid/Low Income Medical Assistance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York	40%	29%	19%	12%
Queens	35%	30%	20%	15%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 14: Educational Attainment for Populations with Other Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York	11%	22%	22%	45%
Queens	13%	26%	24%	37%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Housing: Types and Environment

More than one in five (22.8%) households in Queens is a single parent householder, and accounting for 11% of all such households in NYS.[91] East New York (44.7%), Jamaica (32.5%), Southeast Queens (30.6%) and Rockaway (28.7%) have the highest rates among the Queens neighborhoods. Sufficient financial, employment and family resources are necessary to ensure that these residents avoid unnecessary hospital-based health care utilization.

More than one-quarter (26.2%) of all households in Queens are comprised of a single person living alone, accounting for approximately 10% of such households in NYS.[92] Long Island City/Astoria (35.7%), Ridgewood/Forest Hills (32.1%) and Rockaway have the highest rates among Queens neighborhoods.

Housing: Overcrowding

Citywide, 4.04% of renter households and in Queens 4.42% of renter households are overcrowded, defined as having 1.5 occupants or more per room.[93] Neighborhoods with high rates of severe crowding rate are also the neighborhoods with high rates of foreign born, uninsured and Medicaid populations. Elmhurst/Corona (10.74%), Jackson Heights (9.7%), Sunnyside/Woodside (6.1%) and East New York (4.7%) neighborhoods have the highest rates of overcrowding in Queens (table 13). Note that crowding cited here may be understated due to people's reluctance to disclose this sort of information. Primary

[91] US Census American Community Survey, 5 year data table, 2008-2012.
[92] Ibid.
[93] The Furman Center New York City Neighborhood Information, 2005-2009.

data collection revealed that household composition was described as problematic as there might be adults living in close quarters with unrelated children (table 15).[94]

Table 15 - Percentage of Renter Households with 1.5 Occupants per room or more

	Percent of Renter Households with 1.5 Occupants or More per Room				
Region	**2005**	**2006**	**2007**	**2008**	**2009**
New York City	3.01	3.41	3.17	4.67	4.04
Queens	3.70	4.10	3.83	5.69	4.42
Astoria	3.68	2.85	3.53	3.10	2.96
Bayside/Little Neck	2.17	2.76	0.89	2.06	0.42
Elmhurst/Corona	7.09	8.13	7.45	13.19	10.74
Flushing/Whitestone	3.98	3.98	4.11	4.78	4.25
Hillcrest/Fresh Meadows	2.24	3.46	6.50	3.77	2.21
Jackson Heights	8.57	7.20	9.33	12.52	9.68
Jamaica	5.15	4.13	3.70	5.15	3.81
Middle Village/Ridgewood	1.30	1.10	1.04	1.97	3.76
Ozone Park/Woodhaven	3.26	2.39	2.66	2.93	3.29
Queens Village	0.36	1.38	1.25	0.99	1.85
Rego Park/Forest Hills	2.45	2.74	0.98	2.25	3.77
Rockaways	2.55	6.04	1.04	9.80	2.17
South Ozone Park/Howard Beach	0.94	1.59	2.31	3.46	0.56
Sunnyside/Woodside	2.15	6.66	4.35	8.28	6.13
East New York/Starrett City	0.86	2.30	0.81	6.26	4.64

Source: The Furman Center New York City Neighborhood Information, 2005-2009.

A key informant from the Asian community reinforced the notions of crowding:

> *We're taught to take a pretty thorough social history … I thought that some of [the patients] were a little taken aback and didn't want to be so open about those things in the beginning. And then I realized why. Because, here there's a lot of housing issues and things that they don't really want people to know about, you know. And, we room together in like a two, three bedroom, you know, three or four families living together, these kinds of things.*

A key informant (school-based provider) added that when families stay with friends and relatives, they move a lot, which makes reaching parents or guardians difficult when a child is ill. It also presents challenges to maintaining a relationship with a primary care provider, who may not be accessible after a move.

Housing: Condition and Violations

High rates of serious housing violations per 1,000 units are found in East New York, Jamaica/Hollis, Kew Gardens/Woodhaven and South Ozone Park (table 16).[95]

[94] NYAM Primary Data

Poor housing conditions appear to be related to asthma prevalence as described by a focus group participant, "*people have breathing issues because principally these buildings are old and dirty. The building where I live is very dirty, having all kinds of insects".*

Table 16 - Serious Housing Violations by Community District, 2008

Community District	Serious Housing Violations per 1,000 Rental Units
New York City	53.79
QN01: Astoria	11.10
QN02: Woodside/Sunnyside	21.25
QN03: Jackson Heights	33.60
QN04: Elmhurst/Corona	16.09
QN05: Ridgewood/Maspeth	22.78
QN06: Rego Park/Forest Hills	7.68
QN07: Flushing/Whitestone	11.79
QN08: Hillcrest/Fresh Meadows	11.57
QN09: Kew Gardens/Woodhaven	26.45
QN10: South Ozone Park/Howard	33.61
QN11: Bayside/Little Neck	5.95
QN12: Jamaica/Hollis	51.34
BK05: East New York/Starrett City	101.10

Source: The Furman Center New York City Neighborhood Information, 2008.

Employment/Unemployment

As of September 2014, the unemployment rate in New York City was 6.1%; 5.4% in Queens, 8.5% in Bronx, 6.6% in Brooklyn and 5.1% in Manhattan (not seasonally adjusted).[96,97] For young adults, the employment situation is higher. In 2012, the unemployment rate for young adults ages 16 to 24 was 18.6 percent—more than double the citywide average, and twice as high as for any other age cohort.[98]

It is important to note that the unemployment rate for the target population is understated by these general city and borough wide rates. Currently and historically, unemployment rates are higher for persons with less than a college degree[99] and persons of color.[100]

Access to Regular Source of Care

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[95] The Furman Center New York City Neighborhood Information, 2008.
[96] New York State Department of Labor. http://labor.ny.gov/stats/laus.asp. Accessed November 7, 2014.
[97] http://www.labor.ny.gov/stats/PressReleases/county_rates.pdf
[98] Gonzalez-Rivera, C., (September 2014) *Bridging the Disconnect. https://nycfuture.org/research/publications/bridging-the-disconnect. Accessed November 7, 2014.*
[99] http://www.bls.gov/emp/ep_chart_001.htm
[100] http://www.bls.gov/web/empsit/cpsee_e16.htm

Medical services: Approximately one quarter of respondents reported that there was a time in the last year when they needed healthcare but didn't get it.[101]. The most commonly noted reasons for that were "not insured" (41% of the subsample), "could not get an appointment soon or at the right time" (17%), and "cost of copays" (13%). They did, however, report relatively good access to most types of medical care. Approximately 80% of survey respondents reported that primary care was available or very available, 77% reported that they had a primary care provider or personal doctor, and 76% reported that had a routine check-up in the last 12 months.

Seventy-three percent of survey respondents reported that pediatric and adolescent services were available/very available. Seventy-two percent reported that medical specialists are available/very available, although there was significant variability in responses according to neighborhood (e.g., 57% in northwest Queens, compared to 85% in north Queens). Several key informants and focus groups participants reported on relatively poor access to specialist services (table 17).

> *There's still a ton of people in the community that we've served that have chronic illnesses that are the result of a whole bunch of different factors that primary and preventative care are just not going to be able to address. And so there's a gap in primary care providers' ability to find specialists who are accepting Medicaid or different kinds of insurance. (key informant, health advocacy)*

Table 17: Service Availability as Reported by Survey Respondents

Table 4: Service Availability	
	(N=605)
Accessible transportation	86.9%
Affordable housing	34.1%
Dental services	71.2%
Healthy food	76.2%
Home health care	66.4%
Job training	38.4%
Medical specialists	72.4%
Mental health services	54.6%
Pediatric and adolescent services	73.4%
Places to exercise, walk, and play	79.1%
Primary care medicine	79.8%
Social services	67.3%
Substance abuse services	39.1%
Vision services	69.4%
*Percentage reflects participants who responded very available or available	

Source: CNA Survey. 2014.

[101] NYAM Primary Data Collection.

Behavioral Health Services: Survey respondents reported that behavioral health services are less available than other types of care: 55% reported that mental health services were available/very available (range: 30% in northwest Queens, 79% in central Queens) and 39% reported that substance abuse services were available/very available.[102]. Mental health services for children and adolescents were described as particularly limited, as well as culturally and linguistically competent services.

Dental Care: Seventy-one percent of survey respondents felt that dental services are available or very available in their community; 58% reported having been to the dentist in the prior 12 months. Although focus group participants with good coverage reported using dental services consistently, a number of participants described dissatisfaction with services, commonly due to the high cost.[103]

Immigration and Citizen Status

Nearly 48% of people residing in Queens are foreign born, with the highest rates in Elmhurst, Corona, Jackson Heights and Flushing.[104] Of those with no health insurance, 72% are foreign born, compared to 45% for population with Medicaid/Low Income Medical Assistance and 41% for those with other health insurance coverage (table 18).

Table 18: Nativity by Insurance Status

	Uninsured		Medicaid		Other Insurance	
	% Foreign Born	% Native	% Foreign Born	% Native	% Foreign Born	% Native
New York City	62%	38%	35%	65%	32%	68%
Queens	72%	28%	45%	55%	41%	59%
Astoria & Long Island City	60%	40%	42%	58%	37%	63%
Jackson Heights & North Corona	87%	13%	48%	52%	57%	43%
Flushing, Murray Hill & Whitestone	81%	19%	60%	40%	44%	56%
Bayside, Douglaston & Little Neck	67%	33%	50%	50%	37%	63%
Queens Village, Cambria Heights & Rosedale	58%	42%	35%	65%	40%	60%
Briarwood, Fresh Meadows & Hillcrest	71%	29%	47%	53%	42%	58%
Elmhurst & South Corona	86%	14%	53%	47%	62%	38%
Forest Hills & Rego Park	68%	32%	58%	42%	46%	54%
Sunnyside & Woodside	77%	23%	56%	44%	50%	50%
Ridgewood, Glendale & Middle Village	60%	40%	34%	66%	31%	69%
Richmond Hill & Woodhaven	73%	27%	47%	53%	45%	55%
Jamaica, Hollis & St. Albans	63%	37%	35%	65%	39%	61%
Howard Beach & Ozone Park	68%	32%	49%	51%	39%	61%
Far Rockaway, Breezy Point & Broad Channel	52%	48%	23%	77%	23%	77%

[102] *Ibid.*
[103] *Ibid.*
[104] U.S. Census ACS 2007-2011

East New York & Starrett City	58%	42%	27%	73%	32%	68%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Citizenship

Some 23% of Queens residents are not U.S. citizens, compared to 18% in NYC and 11% in NYS.[105]

Limited English Proficiency

Nearly 600,000 Queens residents, 50% of the population, report that they speak English, "less than very well". Half of Spanish speakers, 42% of Indo-European speakers and 61% of Asians report that they have limited English proficiency (LEP).[106] Populations with no health insurance are more likely to report LEP, at 47% in Queens, compared to 31% for Medicaid/Low Income Medical Assistance and 18% for Other Insurance (table 19).

Table 19: Limited English Proficiency by Insurance Status

	No Health Insurance	Medicaid	Other Insurance
NYC	40%	29%	14%
Queens	47%	31%	18%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Languages Spoken

There are nearly 30 languages other than English spoken in Queens.[107] Fifty-six percent of borough residents speak a language other than English at home. Spanish is the most prevalent, followed by Chinese (several dialects) and a number of Southeast Asian dialects. There is some variance in the languages spoken by the uninsured and Medicaid populations (table 20). Citywide, 88% of LEP uninsured populations speak one of the 12 languages, with the vast majority, 72%, speaking Spanish or Chinese.[108] There is a wider spread of languages among the NYC Medicaid population, given that the population that speaks Spanish or Chinese is 62%, 10% lower than the uninsured proportion. However, there is a larger concentration of all languages within the top languages among the LEP Medicaid population. The top languages among the LEP Medicaid population comprise 92% of all languages spoken in this group.

Table 20: Language Spoken at Home by Insurance Status

Uninsured	Medicaid Beneficiaries

[105] U.S. Census American Community Survey, 5-year table, 2008-2012
[106] Ibid.
[107] Source: American Community Survey Aggregate Data, 5-Year Summary File, 2006–2010
[108] US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

	NYC		Queens			NYC		Queens	
	Total	**Percent**	**Total**	**Percent**		**Total**	**Percent**	**Total**	**Percent**
Spanish	299,759	64%	104,469	57%	Spanish	355,732	52%	63,550	36%
Chinese	36,616	8%	13,958	8%	Chinese	67,666	10%	19,737	11%
Korean	17,497	4%	11,793	6%	Russian	48,401	7%	4,773	3%
Mandarin	15,807	3%	6,376	3%	Cantonese	30,822	5%		
Russian	12,272	3%	1,182	1%	Bengali	24,008	4%	10,928	6%
Polish	7,923	2%	1,978	1%	Mandarin	21,487	3%	5,843	3%
French Creole	7,811	2%	1,067	1%	Yiddish	18,246	3%		
Bengali	7,219	2%			French Creole	16,225	2%	2,139	1%
Cantonese	7,137	2%			Korean	10,998	2%	6,293	4%
Arabic	5,771	1%			Arabic	10,446	2%		
French	5,256	1%			Urdu	8,764	1%		

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

In interviews with key informants in Queens, respondents consistently noted the ethnic mix within the borough, emphasizing the unprecedented diversity of communities like Elmhurst and surrounding neighborhoods. While Hispanics/Latinos, Korean, Chinese and Indian immigrants have long settled in Queens, newer immigrant groups from Southeast Asian countries such as Nepal and Bangladesh add to the diverse mix of language and culture in the borough. This cultural divide is further emphasized by the places of birth among the foreign born and the variance in country and neighborhood lived in comparing those with no health insurance and those with Medicaid. The top countries among those with no health insurance include Mexico, Dominican Republic, China, Ecuador, Jamaica, Guyana, Korea, Trinidad &Tobago, Colombia, India, El Salvador and Bangladesh.[109] The same nations are represented among those with Medicaid/Low Income Medical Assistance, but the geographic distribution among those *with* Medicaid is more varied. For example, among those residents who are Chinese foreign born with no health insurance, the majority live in a particular central neighborhood - Flushing, Murray Hill and Whitestone (tables 21 and 22).

[109] US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 21 - Top Places of Birth Among Foreign Born With No Health Insurance

PUMA Name	Total	Mexico	Dominican Republic	China	Ecuador	Jamaica	Guyana	Korea	Trinidad & Tobago	Colombia	India	El Salvador	Bangladesh
New York City	724,452	131,000	74,765	60,385	56,982	32,639	25,737	23,941	20,659	17,511	15,482	13,230	11,487
Queens	284,315	39,103	10,360	27,947	34,350	7,831	15,958	18,254	6,788	14,331	12,911	7,242	7,450
Astoria & Long Island City	19,874	4,655	578	586	2,285	16	310	942	7	660	328	297	571
Jackson Heights & North Corona	47,885	15,763	2,662	1,213	13,357	168	132	378	164	3,668	1,660	1,162	990
Flushing, Murray Hill & Whitestone	38,540	1,103	342	16,093	988	16	193	8,727	-	1,721	1,160	1,751	370
Bayside, Douglaston & Little Neck	9,640	280	96	1,400	384	-	1	4,206	-	89	189	215	-
Queens Village, Cambria Heights & Rosedale	13,933	106	179	124	434	2,866	2,011	63	660	283	1,875	177	368
Briarwood, Fresh Meadows & Hillcrest	13,713	602	539	1,495	264	88	1,040	1,061	391	500	932	208	967
Elmhurst & South Corona	32,748	8,529	1,310	3,076	6,817	82	52	692	59	3,087	887	312	535
Forest Hills & Rego Park	8,478	102	16	770	164	14	16	444	24	595	882	13	60
Sunnyside & Woodside	22,335	3,009	374	1,508	2,833	30	108	1,595	-	1,661	971	80	1,037
Ridgewood, Glendale & Middle Village	16,911	1,579	1,116	824	3,569	-	130	41	79	650	146	279	105
Richmond Hill & Woodhaven	18,379	1,491	1,290	491	1,758	93	2,777	14	1,094	868	2,533	252	643
Jamaica, Hollis & St. Albans	20,839	684	723	267	934	3,687	3,793	7	1,542	407	344	1,082	1,469
Howard Beach & Ozone Park	14,438	1,107	869	12	473	363	4,888	84	2,559	112	977	490	324
Far Rockaway, Breezy Point & Broad Channel	6,602	93	266	88	90	408	507	-	209	30	27	924	11

Table 22: Top Places of Birth Among Foreign Born with Medicaid/Low Income Medical Assistance

PUMA Name	Total	Dominican Republic	China	Jamaica	Mexico	Ecuador	Guyana	Haiti	Bangladesh	Trinidad & Tobago	Colombia	India	Korea	Pakistan	Philippines
New York City	1,280,549	223,746	152,430	62,456	54,940	54,338	54,137	41,369	40,962	32,125	29,990	28,705	24,217	21,156	16,828
Queens	416,706	27,182	53,617	15,234	15,645	27,733	30,352	9,553	24,542	9,919	22,062	20,729	17,843	9,220	9,131
Astoria & Long Island City	26,032	1,851	923	137	1,711	2,257	256	19	1,702	88	1,508	907	703	779	307
Jackson Heights & North Corona	45,300	6,558	3,424	344	5,142	7,925	438	294	2,840	178	5,566	1,633	397	1,648	456
Flushing, Murray Hill & Whitestone	58,597	1,328	24,146	288	742	934	155	171	709	105	2,484	2,253	8,370	744	619
Bayside, Douglaston & Little Neck	17,147	171	4,221	-	197	116	8	40	28	192	519	493	4,440	298	34
Queens Village, Cambria Heights & Rosedale	25,775	502	348	5,312	84	479	2,328	4,376	674	1,102	407	4,126	92	629	712
Briarwood, Fresh Meadows & Hillcrest	28,020	1,000	4,053	292	401	600	943	653	3,707	506	1,063	2,152	1,376	1,391	1,327
Elmhurst & South Corona	37,869	3,724	6,791	146	3,045	5,128	303	350	2,484	259	3,287	1,431	674	494	1,529
Forest Hills & Rego Park	17,837	80	2,061	65	194	453	185	47	560	46	980	1,095	195	27	353
Sunnyside & Woodside	29,683	825	3,401	46	1,585	2,304	32	115	4,146	58	2,057	1,383	1,336	605	1,514
Ridgewood, Glendale & Middle Village	22,304	2,335	1,658	34	623	2,460	60	15	16	136	919	331	101	242	571
Richmond Hill & Woodhaven	32,992	3,652	1,524	51	867	2,551	6,713	146	2,717	1,214	2,019	2,954	71	1,344	770
Jamaica, Hollis & St. Albans	38,282	2,088	362	7,392	386	1,242	7,533	2,745	3,579	2,714	699	591	53	285	540
Howard Beach & Ozone Park	24,597	1,629	372	260	572	1,096	10,586	196	1,241	2,884	461	1,222	2	734	215
Far Rockaway, Breezy Point & Broad Channel	12,271	1,439	333	867	96	188	812	386	139	437	93	158	33	-	184

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Challenges to quality healthcare

Common themes from key informants and focus groups representing diverse population groups included some combination of:

- Significance of language access across the spectrum of services;
- Difficulties meeting basic needs, leading to extended work hours and emotional stresses;
- Prioritization of work, children and education over health;
- Lack of sufficient information on health and health services;
- Minimal knowledge, interest, and engagement in prevention services;
- Low utilization of health care services, relative to other populations;
- Cultural issues, including greater stigmatization of particular health conditions;
- Relatively high rates of non-insurance, due to multiple factors including ineligibility; and
- Fear of medical bills, medical debt, and deportation.

The challenge of language and culture

> *In the Borough of Queens, one of the biggest barriers to healthcare is the ethnic diversity that exists here. So it's not even just about language. Language, of course, is a barrier, but more easily addressed than cultural barriers. And in some cultures, seeking out healthcare is just not something that they do. They're not comfortable with it, especially if a person has a questionable immigration status. They're extremely hesitant... So a lot of times what happens is that the emergency room becomes a primary care provider, because they don't have preventive care. They're not keeping up with regular routine visits, they're not monitoring their [health] status. (key informant, CBO)*

> *The main issue here is language…Our family member shouldn't have to explain medical conditions to us unless they are also medical practitioners, because even an educated and good English speaker may not understand medical terms, and so they aren't able to interpret what's going on…Better language services at hospitals and pharmacies (Nepali focus group).*

Key informants and focus group participants noted a lack of clinical staff who can speak their native language. Respondents to community surveys also note the lack of culturally competent behavioral health care services.[110] Gaps are even more pronounced for smaller and/or more recent immigrant groups from places such as Nepal, and for particular services including mental health and specialty services.[111]

[110] Ibid.
[111] Ibid.

Independent of work and language access issues, key informants and focus group participants described cultural, attitudinal, perceptual and knowledge-based barriers to care among the foreign born, including greater stigmatization of particular health conditions, difficulties navigating the health insurance and care system, low prioritization of preventive care services, and fear of medical bills and deportation if they engage with any part of "the system."

> *[Arab] women if they have breast cancer, they try to hide it as much as they can, because they don't want the community to know that their girls might get it. They might inherit it from the mother. Nobody will marry their daughters, so all these problems, they feel like they don't let anyone in the community – even though confidentiality is a very big issue for us and very important for us, but they feel very protective of themselves. They don't want anybody to know about health issues and health problems. (key informant, CBO)*

Homeless Population

The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed, and which may be, in turn, further exacerbated by homelessness. According to a key informant that works with the homeless:

> *A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients. I think on the Families with Children side, there is a very significant proportion of our families coming in because they are domestic violence [DV] victims. And, they may not qualify for a DV shelter. That's something that's determined at our intake center. Or, they may decline going to a DV shelter – even though they qualify for it. Of course, the psychological and sometimes physical ramifications of having been a DV victim – for both the Head of Household – the responsible parent – and for the kids is very, very significant.*

Homeless New Yorkers tend to be disconnected from primary care and a medical home and are reportedly frequent users of emergency departments. According to the key informant cited above:

> *Our clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street.*

She attributes a portion of this lack of coordination to hospital and provider practice:

> *If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not*

happening. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our Family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient.

Key informants in multiple fields emphasized the importance of supportive housing for high need homeless. Other recommendations include improved coordination of care, more efficient use of services, and improved health focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service.

Group Quarters - Institutionalized Populations

In Queens, there are approximately 28,000 residents living in Group Quarters with 15,400 residing in institutional settings. In total, 700 live in Adult Correctional Facilities, 300 live in Juvenile Facilities, 13,400 live in nursing facilities (including skilled nursing facilities) and 1,000 live in other institutional facilities (comprises hospital, inpatient hospice, psychiatric hospital, military treatment facilities and residential schools for people with disabilities). There are another 9,300 residents living in other non-institutionalized facilities (comprises shelters, adult group homes, adult residential treatment facilities, and religious or work group quarters) in the county. The PUMA neighborhoods with the largest institutional populations include – Breezy Point-Belle Harbor-Rockaway Park-Broad Channel (800), Hammels-Arverne-Edgemere (1,200), Far Rockaway-Bayswater (2,000), Flushing (1,100), College Point (600), Corona (600), East Elmhurst (500), Briarwood-Jamaica Hills (800), Bellerose (500), Glen Oaks-Floral Park-New Hyde Park (1,200) and Murray Hill (700).[112],[113]

Crime and Jail Admissions

While crime has been declining overall in NYC for the past 15 years, the issue persists in parts of the city.[114] Data suggests that the highest rates of serious felony crime in the borough are in the Jamaica/Hollis, South Ozone Park/Howard Beach, Elmhurst/Corona and Woodside/Sunnyside Community Districts.[115]

Along with a declining crime rate and Rockefeller drug law reforms in 2009, the number of new NYC Jail and NYS Prison admissions has been steadily declining over the past 15 years.[116]

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[112] Sources: U.S. Census Bureau, 2010 Census, Population Division.
[113] New York City Department of City Planning (July 14, 2011).
[114] Brennan Center "How NYC Reduced Mass Incarceration". Accessed August , 2014 at http://www.brennancenter.org/sites/default/files/publications/How_NYC_Reduced_Mass_Incarceration.pdf
[115] The Furman Center for Real Estate and Urban Policy – Total Felony Rate by Community District, 2007
[116] Brennan Center for Justice at New York University School of Law "How NYC Reduced Mass Incarceration".

Despite the reductions in crime and incarceration, concerns around aggressive policing practices remain a concern to key informants that work with affected populations, who emphasized the diminished life chances resulting from involvement in the criminal justice system and the need to place a greater emphasis on alternative to incarceration and disincentives for inappropriate guilty pleas, particularly for crimes, like sex work, that may be motivated primarily by the need to survive rather than by criminal intention.

The jail admission rate per in the Queens service area is 621 per 100,000 population, 40% lower than the New York City rate (877 per 100,000) and 7% higher than the statewide rate (489 per 100,000). Areas in the service area that have high rates of jail admissions include East New York (1,911 per 100,000), Jamaica (1,124 per 100,000) and Southeast Queens (612 per 100,000).[117]

Domestic Violence

Domestic violence—with wives, older adults and children as potential victims— was a topic that resonated with several interviewees and focus group participants as a significant community concern and having received inadequate attention. Of Queens survey respondents, 28% reported that health education or programs on domestic violence are needed in their community.[118]

Although not necessarily more prevalent, domestic violence issues according to key informants, are particularly relevant in immigrant communities.[119]

> *They came to U.S. legally with their husband, but because of abuse, and sometimes, oftentimes abusers use their immigration status as a tool to control their partner, so they ended up being undocumented, so it's much harder for then get a job. They ended up working under the table, a lot of labor trafficking issues there too by the employer. (key informant, CBO)*

> *Some people are afraid to let people know they're undocumented. If they let people know about [abuse by] their husband or brother, that means they're putting themselves at risk for deportation. Sometimes I believe people are afraid to make that step because of the fear that they're going to be sent back. (focus group)*

A key informant working with older adults described the significance of elder abuse across populations, which may be physical, emotional and/or financial, in nature.

> *People come to us in sometimes very dire situations of being physically abused, certainly emotionally abused. I would say that emotional abuse is the accompanier of any type of abuse because people feel vulnerable and at risk. One major type of abuse is financial abuse, and that*

[117] New York City Department of Corrections Jail Admissions, 2007-2012, Acquired by Gothamist
[118] Ibid.
[119] NYAM primary data findings, September, 2014.

could be from strangers, as well as, family members. But in our experience, unfortunately family is over 50% of our cases tends to be the abuser. … Elder abuse is not just domestic violence grown old in our world, because it can be perpetrated by someone other than domestic partner, etc. And beyond that, it is sometimes very clearly related to the changes that happen when you're getting older, whether it's your financial need or some isolation, social isolation. (key informant that works with older adults)

Population Trends

New York City is projected to grow from 8.2 million persons in 2010 to 8.5 million in 2020, an increase of 308,000 or 3.7 percent. Between 2020 and 2030, the growth rate in New York City is projected to increase by 3.2 percent. Queens is projected to grow from 2,250,000 in 2010 to 2,330,000 in 2020, an increase of 3.6 percent. From 2020 to 2030, the growth rate will slow to 1.9%, adding another 43,000 Queens residents. High growth age groups (defined as a 20% increase) among males from 2010 to 2020 include 65-69 and 70-74 years while it is expected that there will be a population decline (of more than 5%) among 15-19, 45-49 and 50-54 year old males. Among females over the same time period, high growth age groups include 65-69 and 70-74 years, while it is expected that there will be a population decline among females aged 45-49, 50-54, 80-84, and 85+ years.

Queens is expected to have a 2.8% increase in school-age children from 2010-2020, this population growing from 332,000 in 2010 to 341,000 in 2020. From 2020-2030, the growth rate is expected to remain flat at 2.8%, adding another 9,000 school-age children in Queens. The population aged 65 years and older in Queens is expected to grow 12.9% from 2010 to 2020, expanding by 37,000 (from 288,000 to 325,000). The growth rate is expected to expand narrowly to 14% from 2020 to 2030, adding an additional 45,000 seniors to the Queens population.[120]

[120] New York City Department of City Planning, New York City Population Projections by Age/Sex and Borough, 2010-2040 (Updated from the original PlaNYC Projections, 2000-2030), Accessed November 6, 2014.

Section ii: Health Status

From the community's standpoint and consistent with other boroughs, the most commonly cited health concerns by Queens key informants and focus group respondents are diabetes, high blood pressure, cancer, depression, obesity and asthma.[121]

> *There's really such a lack of mental health services, and combined with the fact that people just have really, really difficult lives. Sometimes they've left behind even more difficult lives in their countries. I think there's just kind of a lot of trauma about what they've left, and then the process of trying to integrate here. And to some extent, a good amount of isolation. When you're working so much, you don't really have as much time to seek out other things that are not hard work. So we've seen that as kind of crisis moments where people come in and they're like, "I can't take this anymore," and we help them connect to something. And often it's not great. It's like they have to go to the emergency room. (Key informant, Latino CBO)*

> *From day one in the United States there is mental pressure. There is depression and frustration because my experiences, qualification and education from back home are not compatible with the demands here. There is no job satisfaction. We aspire to do well in this country but the realization of not being able to is frustrating. (Focus Group, Bangladeshi CBO)*

Approximately one quarter of survey respondents reported that there was a time in the last year when they needed health care but didn't get it. The most commonly noted reasons were, "not insured" (41%), "could not get an appointment soon or at the right time" (17%), and "cost of co-pays" (13%). They did, however, report relatively good access to most types of medical care.

Approximately 80% of survey respondents reported that primary care was available or very available, 77% reported that they had a primary care provider or personal doctor, and 76% reported that had a routine check-up in the last 12 months. Seventy-three percent of survey respondents reported that pediatric and adolescent services were available or very available. Seventy-two percent reported that medical specialists are available or very available.

LEADING CAUSE OF DEATH AND PREMATURE DEATH

In New York City in 2012 the leading causes of death were diseases of the heart, which included coronary artery disease (CAD) and myocardial infarction, malignant neoplasms (cancer) and influenza and pneumonia. Heart disease and cancer accounted for 57% of all deaths in New York City (table 23).

Table 23: Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%

[121] NYAM Primary Data.

2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%
8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

In Queens the top three causes of death mirrored those in the city overall: heart disease, cancer, and influenza/pneumonia. These were followed by cerebrovascular disease, diabetes mellitus, and chronic lower respiratory disease. In Queens, the eighth, ninth, and tenth leading causes of death, respectively, were essential hypertension and renal diseases, Alzheimer's disease, and intentional self-harm (table 24).

Table 24: Leading Causes of Death, Queens, 2012

Rank		Total Reported	Percent of Total%
	QUEENS		
1	Diseases of Heart	4,192	34.4%
2	Malignant Neoplasms	2,963	24.3%
3	Influenza (Flu) and Pneumonia	534	4.4%
4	Cerebrovascular Disease	449	3.7%
5	Diabetes Mellitus	399	3.3%
6	Chronic Lower Respiratory Diseases	389	3.2%
7	Accidents Except Drug Poisoning	236	1.9%
8	Essential Hypertension and Renal Diseases	203	1.7%
9	Alzheimer's Disease	161	1.3%
10	Intentional Self-Harm	143	1.2%
	All Other Causes	2,515	20.6%
	Total	12,184	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Causes of Death by Age

Table X (See Appendix B) provides the leading causes of death for City residents in 2012 by age groupings that include persons from less than one year old to age 85 and older. It is notable that assault ranked as the number one cause of death for age group 15-24; malignant neoplasms were the leading

cause of death in age group 1-14 and all age groups 35-74. In the latter age groups, diseases of the heart was the second most common cause of death and the most common cause of death for persons 75 and older. For City residents ages 25-54, use of/accidental poisoning by psychoactive substances was the first leading cause of death, accounting for 27% of deaths in that age group.

Causes of Death by Sex

The three leading causes of death in 2012 were the same for men and women, with similar percentages of mortality. For men, the fourth and fifth leading causes of death were the same as for the City as a whole—diabetes and chronic lower respiratory diseases. For women, the fourth leading cause of death was cerebrovascular disease, followed by diabetes mellitus. For men, accidents (except for drug poisoning) were a prominent cause of death, ranked at number 6; for women it was the ninth leading cause of death. Death by use of - or poisoning by - psychoactive substance exposure, typically a drug overdose, was the eight leading cause of death for men in the City, followed by essential hypertension and renal disease, and HIV disease. For women, Alzheimer's disease was the eighth leading cause of death, followed by accidents (except drug poisoning) and septicemia (table 25)

Table 25: Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total Reported	%	Causes of Mortality	Total Reported	%
	Males			**Females**		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%
4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory Diseases	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and Renal Diseases	562	2%
8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Causes of Mortality by Race

Causes of death differ by racial grouping. Diseases of the heart and malignant neoplasms were the first two leading causes for Hispanics, White non-Hispanics and Black non-Hispanics in 2012. Among Asians and Pacific Islanders, the order of these two causes was reversed. For non-Hispanic Whites, the two leading causes accounted for 62% of mortality, while the two leading causes accounted for 51% of deaths in Hispanics and 57% of deaths for Asians and Pacific Islanders. The remaining leading causes of death varied by racial group. Altogether, the 10 leading causes of death account for 74% of mortality in Hispanics, 80% in non-Hispanic Whites, 79% in non-Hispanic Blacks, and 81% in Asians and Pacific Islanders (table 26).

Table 26: Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			White, Non-Hispanic			Black, Non-Hispanic			Asian and Pacific Islander		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Trends in Mortality Causes in New York City

From 2002 to 2012 the three leading causes of death in the City overall have remained the same: diseases of the heart, malignant neoplasms, and influenza and pneumonia. In 2002, HIV disease was the fifth leading cause of death; in 2012 it is no longer in the top 10. In 2002, cerebrovascular disease, diabetes and chronic lower respiratory disease each accounted for 3% of deaths; the percentages did not change in 2012 although their relative rankings varied. The percentages of deaths from hypertension and renal disease rose one point in 2012 relative to 2002 and 2007, from 1% to 2%. In 2012 Alzheimer's disease appeared in the top ten causes for the first time in 2012 (at number 10), accounting for 1% of deaths that year.

Percentages of deaths due to accidents (except for drug poisoning and use of - or poisoning by -psychoactive substance) did not change from 2002 through 2012 (table 27).

Table 27: Leading Causes of Death, New York City, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			2007			2012		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Premature Deaths

In New York City in 2012 the leading cause of premature deaths, that is, deaths before the age of 65, was cancer, followed by diseases of the circulatory system (including heart disease), and accidents. Overall, 14,407 premature deaths were recorded in 2012, with 224,047 years of life lost (table 28).

Table 28: Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in the Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drowning	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010
Homicide and Legal Intervention	400	14,196	341	12,356	59	1,840
All Other Causes	2,324	39,249	1,357	22,315	967	16,934

Premature death is defined a death before age 65. Years of Life Lost (YLL) is calculated by subtracting the age of death from age 65.
Source: The New York State Department of Health, Vital Statistics, 2012, accessed December 2, 2014

Leading causes of death by payer

The data in the table 29 below compares decedents who were enrolled in Medicaid in the year before their deaths and those who were not enrolled. The top four leading causes are the same: heart disease, cancer, chronic lower respiratory disease (CLDR) and cerebrovascular disease. Suicide is ranked in the top ten causes of death for non-enrollees, but not for Medicaid enrollees. Alzheimer's disease ranks higher among those enrolled in Medicaid, and while hypertension is among the top ten causes of death for enrollees, it is not ranked among non-enrollees (table 29).

Table 29. Ten Leading Causes of Death by Medicaid Status, New York State, 2012

Rank	Underlying Cause of Death	Deaths	Underlying Cause of Death	Deaths
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

*Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.

Hospitalizations by Age and Payer Group

Of the 1.08 million inpatient discharges by hospitals in New York City in 2013, 16% were made by patients ages 0 to 17; 27%, ages 18 to 44; 26%, ages 45 to 64, and 30%, age 65 and older. Fifty-five percent of visits were by female patients, with 45% by males. Medicaid was the primary payer for 39% of visits, Medicare 32% Commercial 24%, Uninsured 3.4%, and Other payers 2%. Over the four-year time period from 2010 to 2013, inpatient discharges decreased 7.4% city wide and the average length of stay declined 1.1% from 5.69 to 5.63 days. The greatest decrease in the number of discharges occurred in Queens with a decline of 9.6%, while the Bronx had the smallest decline, at 6.6%.[122]

Causes for hospital admissions – Diagnoses and Trends

The main causes for hospital admissions were consistent from 2010 and 2013, and across boroughs (Table 30). Newborn and newborn related was the main reason for admission in all four boroughs and both time periods. Heart disease, digestive disease, and respiratory disease all had similar rates in all boroughs, with the exception of The Bronx, where respiratory disease was more common.

[122] New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 30. Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive Disease	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Emergency Department Visits by Age and Payer Group

Of the 2.9 million ED visits by city residents in 2013 (excluding Staten Island), 24% were by patients ages 0 to 17; 44%, ages 18 to 44; 23%, ages 45 to 64, and 9%, age 65 and older. Fifty-four percent of visits were female patients, and 46% by males. Medicaid was the primary payer for 46% of ED visits, Commercial 19%, Medicare 10%, Uninsured 19%, and Other payers 4%.[123]

Causes for ED Visits – Diagnoses and Trends

In Queens, the leading diagnosis for ED visits in 2013 was Symptoms and Signs at 23%, an increase from 19% in 2010. This was followed in 2013 in descending order with Injury, Respiratory disease, and musculoskeletal disease (Table 31).

[123] Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2013.

Table 31. ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Complic. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

POTENTIALLY PREVENTABLE ED AND INPATIENT UTILIZATION

Access to an adequate amount, and mix of outpatient care and other community resources can reduce hospitalizations and ED visits related to Ambulatory Care Sensitive Conditions (ACSC) -- medical problems which could potentially be prevented, or for which early intervention could prevent complications or more severe disease.

The Gap Between Community Resources and Needs

The number of potentially avoidable ED visits and admissions therefore represents the Gap between community resources (provider and non-provider) and the needs of the Medicaid community, or unmet need. The Gap between resources and needs among neighborhoods and boroughs can be compared to each other, or to the Statewide average after adjusting for demographic differences, such as age, gender, and race / ethnicity. Neighborhoods with greater challenges such as higher disease prevalence, poverty rate, or English language proficiency may require a greater level of and perhaps different mix of resources.

The following categories of potentially avoidable hospital utilization are discussed throughout this section:

1. Medicaid Potentially Avoidable ED visits (PPV)
2. Medicaid Adult Overall Conditions Composite Hospitalizations (PQI 90)
3. Medicaid Adult Acute Conditions Composite Hospitalizations (PQI 91)
4. Medicaid Adult Chronic Conditions Composite Hospitalizations (PQI 92)
5. Medicaid Adult Respiratory Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Medicaid Adult Respiratory Conditions Composite Hospitalizations (PQI S03)
        i. Asthma Prevalence and percent with a hospital admission and ED visit
        ii. COPD and Asthma in Older Adults Hospitalizations (PQI 05)
        iii. Asthma in Younger Adults Hospitalizations (PQI 15)
        iv. Pediatric Asthma ages 2-17 Hospitalizations (PDI 14)
6. Medicaid Adult All Circulatory / Cardiovascular Disease Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Circulatory Conditions Composite Hospitalizations (PQI S02)
        i. Hypertension Hospitalizations (PQI 07)
        ii. Heart Failure Hospitalizations (PQI 08)
7. Medicaid Adult All Diabetes Composite
    a. Prevalence; Percent with a hospital admission and ED visit
    b. All Diabetes Composite Hospitalizations (PQI S01)
8. Medicaid Behavioral Health
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Mental Health Prevalence and percent with a hospital admission and ED visit
    c. Substance Abuse Prevalence and percent with a hospital admission and ED visit
9. Total Population HIV/AIDS
    a. People living with HIV/AIDS (PWHA)
    b. Prevalence; Percent with a hospital admission and ED visit

Note that a limitation in this way of measuring the gap between resources and needs is that while it does allow comparison across diseases and across geographic areas, it does not identify the amount and type of resources needed to reduce the gap, for example additional primary care providers and which type; language and cultural sensitivity; patient education; and transportation.

The terms used to measure ambulatory care sensitive conditions are as follows:

- Prevention Quality Improvement (PQI) is a set of measures developed by the federal Agency for Healthcare Research and Quality (AHRQ) for use in assessing the quality of outpatient care for a set of ACSC conditions. The PQIs are measured as a number of discharges or a discharge rate for a specific condition or disease for a given population. See Appendix E for a list of all condition (disease) specific PQI discharges and rates by neighborhood.
    - Observed PQIs may be described as the "actual" number of discharges. The Observed PQI rate (per 100,000 people) is the number of PQI discharges divided by the population. Lower rates represent better results.
    - Expected PQIs are Observed PQI discharges adjusted for age, gender, and race / ethnicity. The expected PQI rate (per 100,000 people) is the number of PQI discharges divided by the population.
    - Risk Adjusted PQI rate (per 100,000 people) is calculated by dividing the observed PQI rate by the expected PQI rate, multiplied by the statewide PQI rate. This has the effect of adjusting for demographic and case mix factors.
    - Observed to Risk Adjusted Expected gap quantifies the gap in absolute numbers of potentially avoidable hospital encounters.
    - Observed / Risk Adjusted Expected rate ratio is the ratio of "actual" PQI discharges to expected discharges, adjusted for age, sex, and race/ethnicity. Lower number is better.

- Potentially Preventable Visits (PPVs), based on proprietary 3M software, are emergency visits for ambulatory care sensitive conditions (ACSC) that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or eliminated with adequate patient monitoring and follow up. Unlike with PQIs, which can be disease specific, there is only one PPV indicator which represents all potentially avoidable ED visit regardless of condition or disease.
    - PPV Events are observed or "actual" ED visits that meet the criteria of an ACSC visit as defined by the 3M software. The Observed Rate is the number of PPV events divided by the population.
    - Risk Adjusted Expected Visits are PPV visits adjusted by age, gender and race/ethnicity. The Expected rate is the number of Expected visits divided by the population.
    - Risk Adjusted Expected Rate is the observed PPV rate divided by the expected PPV rate, multiplied by the statewide PPV rate. A lower number is better.

While not considered in this analysis an ambulatory care sensitive condition, Potentially Preventable admissions are included in this section due to their nature of being avoidable. I

- Potentially Preventable Readmission (PPR), is based on proprietary 3M software and as used in this report, identifies hospital admissions clinically related to an initial admission within a 30-day time period from the discharge date of the initial admission. A PPR approximates admissions that may have resulted from a deficiency in the process of care and treatment at the initial hospitalization or lack of post discharge follow up, and exclude unrelated admissions such as admissions for trauma. Therefore, PPR readmissions are linked to the initiating hospital regardless of whether the readmission is to the same or different hospital.

- At-Risk Admissions are the total number of admissions at a hospital that could be followed by a PPR readmission as defined the software.
- Observed PPR Chains are the number admissions at the initiating hospital followed by a readmission. Observed PPR Rate is the ratio of observed chains (readmissions) to At Risk admission.
- Expected PPR Chains are the number of admissions at the initiating hospital followed by a readmission, adjusted for patient severity of illness (APR-DRG) and age. Expected PPR rate is the ratio of expected chains (admissions) to at-risk admissions.
- Risk Adjusted Expected PPR Rate is the ratio of the Observed rate to the Expected rate, multiplied by the Statewide PPR rate. A lower number is better.

Source
New York State DOH Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Data Update
The PQI and PPV data used in this Appendix E reflects the most current updates, November 26, 2014 and may not match exactly comparable statistics in the report, which used original data as of June and August, 2014. Any changes resulting from the November update have not affected the findings of the report.

Potentially Preventable ER Visits

Queens as a whole as well the Queens service area has a lower rate of potentially preventable ED visits per 100 Medicaid beneficiaries, after adjusting for population differences, than New York City and New York State. The Queens service area rate, 0.87, is 7% lower than the NYC rate of 0.94 (table 32).

Table 32 - Potentially Preventable ER Visits (PPV)

	NYS	NYC	Queens	Queens service area
Observed/Risk-Adjusted Expected Rate ratio	1.00	0.94	0.85	0.87

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Within the service area there is wide disparity of the observed / risk adjusted expected ratio between neighborhoods and zip codes. As mentioned previously, neighborhoods and zip codes with the highest ratio have the greatest gap between provider and non-provider resources available and community need. There is also disparity between zip codes and neighborhoods in the number of potentially preventable ED visits. Neighborhoods and zip codes with both high ratios and high numbers of PPVs may have the greatest need and with interventions yield the greatest overall outcomes.

East New York has an observed to risk adjusted expected PPV ratio of 1.13, signifying an observed rate 13% greater than expected, after adjusting for population differences. The neighborhood of Flushing / Clearview has a ratio of 0.58, signifying an observed rate 42% less than expected (table 33).

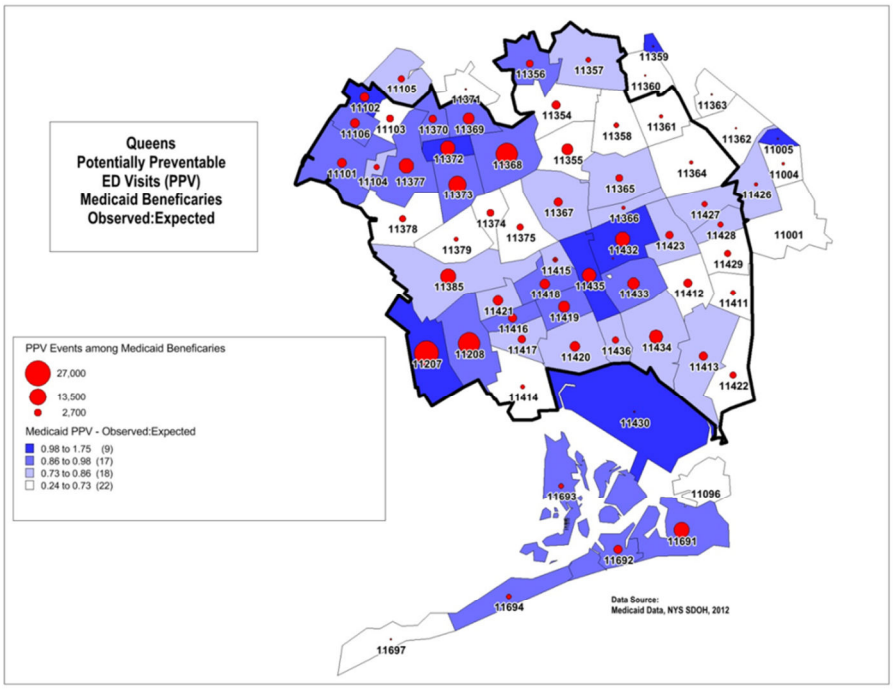
Table 33 - Potentially Preventable ED Visits (PPV), Medicaid Beneficiaries, UHF Neighborhood, 2012

UHF Neighborhood	PPV Observed Events	Observed Rate per 100 Beneficiaries	Risk-Adjusted Expected Rate per 100 Beneficiaries	Observed/ Risk Adjusted Expected Rate Ratio
East New York	47,135	39.96	35.48	1.13
*Rockaway	18,535	35.27	32.69	1.08
Southeast Queens	15,473	27.38	26.26	1.04
Jamaica	45,601	33.92	33.77	1.00
Long Island City/Astoria	21,041	29.28	32.01	0.91
Ridgewood/Forest Hills	17,730	23.12	25.31	0.91
West Queens	68,268	29.69	33.74	0.88
Southwest Queens	32,531	26.85	30.95	0.87
Fresh Meadows	7,591	21.77	29.29	0.74
Bayside/Little Neck	2,236	11.22	18.77	0.60
Flushing/Clearview	17,334	14.83	25.46	0.58

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

Map 4 shows the size of the gap between community need and resources as an absolute number for each zip code and adjusted for population size, by comparing the number of PPV visits by Medicaid beneficiaries, represented by the relative size of the red circles, and the ratio of observed to expected PPV visits, represented by shading.

Map 4: Potentially Preventable ED Visits (PPV) by Zip Code



Potentially Preventable Readmissions

PPR readmissions represent admissions that may have resulted from a deficiency in the process of care and treatment at the initial hospitalization or lack of post discharge follow up. Among Queens' hospitals, the Observed/Risk-Adjusted Expected ratio range from 0.64 (Forest Hills Hospital and New York Queens Hospital) to 1.50 (St. John's Episcopal Hospital) (Table 34).

TABLE 34: Potentially Preventable Readmissions, Queens Hospitals

Facility Name	At Risk Admissions	Observed PPR Chains	Observed PPR Rate	Risk Adjusted Expected PPR Chains	Risk-Adjusted Expected PPR Rate	Observed/ Risk Adjusted Expected Ratio
St. John's Episcopal	341	31	9.09	21	6.07	1.50
Queens Hospital	6,690	469	7.01	475	7.09	0.99
Elmhurst Hospital	12,830	733	5.71	873	6.80	0.84
Jamaica Hospital	9,797	571	5.83	695	7.10	0.82
Flushing Hospital	7,532	422	5.6	564	7.49	0.75
NY Queens Hospital	11,157	443	3.97	687	6.16	0.64
Forest Hills Hospital	5,233	235	4.49	367	7.01	0.64
Total Queens Hospitals	53,580	2,904	5.42	3,694	6.89	0.79
New York City Total	345,073	23,981	6.95	24,823	7.19	0.97
New York State Total	604,308	40,687	6.73	N/A	N/A	N/A

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Chronic Diseases Prevalence and Potentially Avoidable Utilization

In comparing five chronic conditions -- respiratory, cardiovascular (CVD)/circulatory, diabetes, mental health, and substance abuse related – among Medicaid beneficiaries, CVD/circulatory is the highest prevalence across the state, and is even higher across the city, and Queens service area.

While the prevalence of substance abuse among Medicaid beneficiaries is less than CVD/circulatory, the percent of individuals with at least one hospitalization and ED visit within a 12 month period is higher than for the other chronic conditions (table 35).

Table 35: Chronic Diseases Prevalence and Potentially Avoidable Utilization

	Prevalence Medicaid Beneficiaries	Percent w/ Hospitalization	Percent w/ ED Visit	Observed PQI Hospitalizations per 100,000 Beneficiaries
NYS				
Respiratory	9.6%	35.3%	47.3%	486
CVD/Circulatory	26.4%	40.0%	31.3%	412
Diabetes	9.6%	32.5%	31.2%	368
Mental Health	22.8%	30.9%	45.8%	n/a
Substance Abuse	6.4%	59.6%	59.9%	n/a
NYC				
Respiratory	9.7%	35.3%	47.3%	507
CVD/Circulatory	30.2%	40.4%	28.1%	461
Diabetes	11.4%	32.3%	28.6%	388

Mental Health	19.5%	32.3%	42.3%	n/a
Substance Abuse	6.2%	65.0%	58.4%	n/a
Queens service area				
Respiratory	7.5%	30.6%	41.6%	2,155
CVD/Circulatory	28.4%	35.7%	24.9%	2,341
Diabetes	11.2%	26.5%	24.2%	1,856
Mental Health	14.2%	29.1%	39.0%	n/a
Substance Abuse	3.3%	61.2%	55.0%	n/a

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Prevention Quality Improvement Hospitalizations (PQI)

Composite PQIs combine hospitalizations within a broad illness category. In Queens, observed total PQI hospitalizations (PQI 90), which includes acute (other than chronic) hospitalizations per 100,000 Medicaid beneficiaries declined 9% from 2009 to 2012. Hospitalizations for circulatory conditions declined by 10%, respiratory conditions declined by 7%, and diabetes related conditions fell by 7% from 2009 to 2012 (table 36).

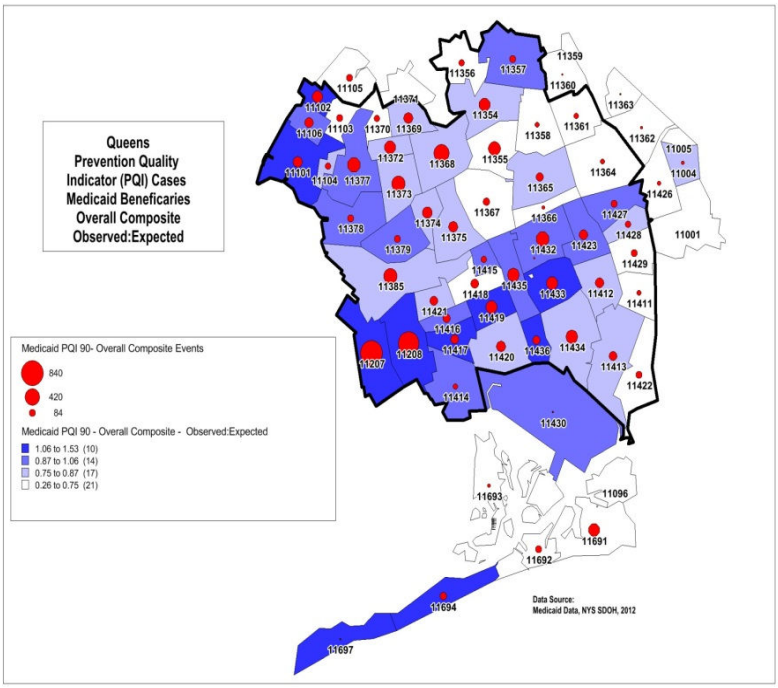
Table 36 - Potentially Avoidable Hospitalizations (Composite PQI), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	2012	2009	2012	2009	2012	2009	2012
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	1,547	1,360	**1,453**	**1,318**
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	1,615	1,398	**1,874**	**1,641**
	Observed/Expected	1.46	1.38	0.99	1.06	0.96	0.97	**0.78**	**0.80**
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	246	230	**243**	**225**
	Expected Rate Per 100,000	369	336	337	289	250	227	**296**	**272**
	Observed/Expected	1.50	1.47	1.15	1.20	0.99	1.01	**0.82**	**0.83**
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	357	304	**289**	**269**
	Expected Rate Per 100,000	493	437	458	378	365	319	**426**	**374**
	Observed/Expected	1.69	1.60	0.96	1.04	0.98	0.95	**0.68**	**0.72**
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	425	350	**427**	**386**
	Expected Rate Per 100,000	590	499	590	464	456	380	**543**	**462**
	Observed/Expected	1.40	1.31	1.04	1.08	0.93	0.92	**0.79**	**0.83**

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Map 5 shows the number of total PQI hospitalizations (PQI 90) by Medicaid beneficiaries by their zip code of residence represented by the red circles, and the ratio of observed to expected hospitalizations. Darker shades represent a higher ratio of observed to expected, indicating poorer performance.

Map 5: PQI Overall Composite Cases (PQI 90) by Zip Code



Within the Queens service area, the neighborhood of East New York has the greatest number of acute and chronic Medicaid PQI admissions resulting from its large Medicaid population. However East New York also has the greatest number of PQI admissions after adjusting for size and other population characteristics (table 37), indicating that among all Queens neighborhoods, it has the greatest gap between resources and need, per 100,000 Medicaid beneficiaries.

Table 37: Hospitalizations for Major PQI Composite Indicators by Neighborhood, 2012

	PQI 90 Overall Composite		PQI 91 Acute Composite		PQI 92 Chronic Composite	
	PQI Admissions	Risk-Adjusted Expected Rate	PQI Admissions	Risk-Adjusted Expected Rate	PQI Admissions	Risk-Adjusted Expected Rate
QSA	9,204	1,579	2,852	503	6,352	1,078
Queens	8,316	1,482	2,641	474	5,675	1,008
NYC	44,913	1,822	12,328	525	32,619	1,295
NYS	69,084	1,784	20,521	530	48,568	1,254
Queens service area Neighborhoods:						
East New York	1,578	1,957	422	629	1,156	1,339
LIC /Astoria	793	1,714	237	502	556	1,212
Jamaica	1,573	1,699	417	509	1,156	1,191
Southwest Queens	1,155	1,678	331	492	824	1,186
Ridgewood / Forest Hills	814	1,521	294	498	520	1,015

West Queens	1,744	1,423	650	527	1,094	895
Flushing/Clearview	773	1,320	296	450	477	860
Southeast Queens	573	1,296	141	371	432	923
Fresh Meadows	257	1,280	78	359	179	923
*Rockaway	472	1,079	143	350	329	732
Bayside/Little Neck	121	1,027	46	333	75	687

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

East New York also leads all Queens service area neighborhoods in Diabetes and Respiratory related PQI Medicaid admissions, after adjusting for population size and other neighborhood characteristics (table 38). Among circulatory related PQI Medicaid admissions, Southwest Queens has the highest rate, followed in descending order by Jamaica, Southeast Queens, and East New York.

Table 38 - Hospitalizations for Chronic PQI Composite Indicators by Neighborhood, 2012

	PQI S01 Diabetes Composite		PQI S02 Circulatory Composite		PQI S03 Respiratory Composite	
	Observed PQI Admissions	Risk-Adjusted Expected Rate	Observed PQI Admissions	Risk-Adjusted Expected Rate	Observed PQI Admissions	Risk-Adjusted Expected Rate
QSA	1,856	317	2,341	388	2,155	431
Queens	1,612	292	2,171	372	1,892	425
NYC	9,289	370	11,116	432	12,216	493
NYS	14,121	365	15,795	408	18,654	482
Queens service area Neighborhoods						
East New York	381	414	346	411	429	512
Jamaica	356	357	445	436	355	391
Fresh Meadows	64	351	50	243	65	337
LIC /Astoria	145	321	174	382	237	509
Southwest Queens	224	321	370	537	230	330
Ridgewood/Forest Hills	142	297	188	368	190	352
West Queens	326	272	378	310	390	313
*Rockaway	118	269	107	226	104	238
Bayside/Little Neck	21	222	31	243	23	220
Southeast Queens	105	220	208	416	119	274
Flushing/Clearview	104	208	201	316	172	326

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012*

RESPIRATORY CONDITIONS

Prevalence, Hospitalizations and ED Use

There are 51,000 Medicaid beneficiaries in the Queens service area diagnosed with Asthma, for a prevalence rate of 5.4%, lower than both the NYC (6.7%) and New York State rate (6.4%). Among

Queens service area neighborhoods, asthma prevalence ranges from 3.3% in Bayside/Little Neck to 7.9% East New York (table 34).

Among Medicaid beneficiaries diagnosed with asthma in the Queens service area, 23% had at least one hospital admission, and 45% had at least one ED visit over a 12 month period, lower than the statewide rate of 27% and 50%, respectively. Among Queens service area neighborhoods, Medicaid beneficiaries diagnosed with asthma in East New York has the highest rates of both hospitalizations and ED utilization. East NY had 29% of those diagnosed with at least one hospitalization, 8% higher than the state rate, and 56% with at least one ED visit, 11% higher than the state rate (table 39).

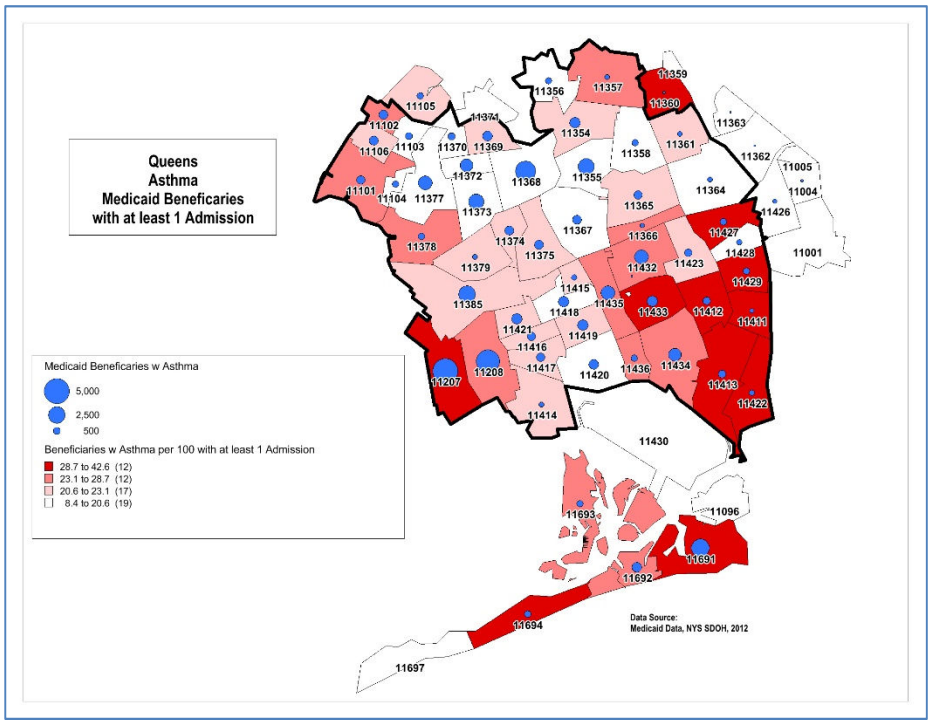
Table 39 - Hospital Utilization among Medicaid Beneficiaries with Asthma by UHF Neighborhood, 2012

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	375,170	6.43	26.8	1.86	50.3	2.79
NYC	240,241	6.70	27.6	1.90	48.3	2.63
Queens	47,526	5.19	22.4	1.77	43.0	2.40
Queens service area	51,118	5.36	23.0	1.77	44.8	2.42
Neighborhoods						
Long Island City/Astoria	4,215	5.33	23.29	1.82	42.64	2.42
West Queens	15,193	4.63	18.20	1.60	42.73	2.33
Flushing/Clearview	8,003	4.03	19.44	1.78	31.13	2.37
Bayside/Little Neck	952	3.32	19.21	1.61	27.53	1.91
Ridgewood/Forest Hills	7,060	5.73	22.36	1.64	37.20	2.10
Fresh Meadows	2,713	5.18	20.81	1.90	36.91	2.35
Southwest Queens	8,733	5.34	20.75	1.64	43.70	2.15
Jamaica	10,759	5.78	25.64	1.84	50.68	2.52
Southeast Queens	3,511	4.76	27.47	1.82	46.08	2.64
*Rockaway	8,148	8.63	29.76	2.04	50.78	2.71
East New York	12,412	7.88	28.89	1.90	55.88	2.65

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

Map 6 shows the juxtaposition of the number of Medicaid beneficiaries with an asthma diagnosis, represented by the blue circles, and the percent with one or more hospitalizations, represented by shading, with darker shading indicating higher hospitalization rates. Neighborhoods with high numbers of asthma beneficiaries and high utilization may indicate the greater opportunities for impact.

Map 6: Medicaid Beneficiaries with Asthma Diagnosis and Hospitalizations



Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Potentially Avoidable Admissions (PQI/PDI) by Age Group

Medicaid beneficiaries in The Queens service area age 2 through 17 had 743 potentially avoidable admissions (PDI 14). The risk adjusted Expected Medicaid potentially avoidable hospitalization rate in the Queens service area exceeded the State by 18%. Disparities in potentially avoidable childhood asthma follow similar neighborhood level patterns to those of adults. Neighborhoods with observed rates higher than expected are led by East New York (36% higher than expected), Jamaica (25% higher) and Southeast Queens (31% higher) and West Queens (8% higher). Each neighborhood also has high number of absolute cases. Ridgewood (53 cases) and Southwest Queens (101 cases) represent additional areas with a high number of observed cases.

Among 18-39 year-old Medicaid beneficiaries in the Queens service area, there are 90 Asthma/COPD PQI discharges per 100,000 (256 cases), which is lower than the city and state rate of 161 per 100,000 and 135 per 100,000, respectively. After controlling for demographic and case mix factors, the Queens service area outperforms the State by 29%. Neighborhood rates range from 30.3 per 100,000 in Flushing/Clearview to 155.9 per 100,000 in East New York.[124] Neighborhoods with higher than expected rates for this PQI include: East New York (34% higher), Southeast Queens (20% higher) and Jamaica (12% higher). Neighborhoods with the highest observed number of cases in Queens are East New York (209 cases), West Queens (143 cases), Southwest Queens (101 cases) and Jamaica (106 cases).

[124] New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012

Among older adults in the Queens service area, 522 per 100,000 Medicaid population (1,899 cases), are hospitalized for Chronic Obstructive Pulmonary Disorders (COPD) and asthma, a rate which is lower than the state and city at 779 per 100,000 and 785 per 100,000, respectively. After controlling for demographic and case mix factors, the Queens service area rate was 22% lower than the State. Consistent with the other asthma indicators, areas with higher than expected rates include: East New York (17% higher), Southeast Queens (9% higher) and Jamaica (2% higher). Other neighborhoods with at least 200 cases in 2012 that perform relatively better than the state include Long Island City (218 cases; 10% lower risk-adjusted expected rate) and West Queens (361 cases; 19% lower risk-adjusted expected rate).

Factors associated with reporting a lifetime asthma diagnosis

In the general New York City population, 12.6% of adults report a lifetime asthma diagnosis (weighted population, 792,000).[125] Those with an asthma diagnosis are 2.6 times more likely to report being native born (prevalence, 17.2%), 42% more likely to report having Medicaid insurance (versus private insurance) and 15% less likely to be uninsured (prevalence, 10.1%), relative to private insurance.

It is common for people with asthma to report having one or more diagnoses for other chronic conditions in their lifetime. They are 58% more likely to report ever having had a diabetes diagnosis (prevalence, 18.6%), 24% more likely to report a lifetime hypertension diagnosis (prevalence, 14.6%) and 97% more likely to report being obese (prevalence, 18.7%). They are also more likely to report engaging in health behaviors that create additional risk for a chronic disease diagnosis or could lead to a potential worsening of a chronic condition. For example, they are 39% more likely to be a current smoker (prevalence, 16.2%), 23% more likely to have had a recent binge drinking episode (prevalence, 14.9%) and 51% more likely to not by physically active "at all" (prevalence, 19.5%).

Long Island City/Astoria (17.6%; weighted population, 28,000), East New York (15.2%; weighted population, 20,000) and Ridgewood/Forest Hills (12.2%; weighted population, 23,000) are the neighborhoods that have the highest prevalence of a lifetime asthma diagnosis among the adult population. West Queens (weighted population, 36,000), Long Island City/Astoria (weighted population, 28,000), and Jamaica (weighted population, 25,000) represent additional areas to target that, while having a lower prevalence, have a larger population size with a lifetime asthma diagnosis.

CARDIOVASCULAR DISEASE

Heart disease is the leading cause of death in Queens, with 4,699 deaths in 2012, at a rate of 183 per 100,000. The mortality rate is highest among White Non-Hispanics, at 392 per 100,000, nearly twice the rate among Black Non-Hispanic populations (208 per 100,000). Heart Disease is also the second leading cause of premature death in Queens with 4,101 deaths in 2010-2012 (age-adjusted rate of 165 per 100,000).

[125] New York City Department of Health and Mental Hygiene Community Health Survey, 2012

Prevalence and Hospital Utilization of Cardiovascular Related Conditions

The prevalence of cardiovascular disease among Medicaid beneficiaries in New York City far exceeds that of other chronic diseases. In NYC, 30% of Medicaid beneficiaries have been diagnosed with a cardiovascular related condition, while only 10% have been diagnosed with a respiratory related condition, 11% with a diabetes related condition, and 20% with a mental health related condition (Appendix E).

In New York City and the Queens service area, the prevalence of cardiovascular disease exceeds the statewide rate. In the Queens service area, the prevalence is 28%, or 7% greater than the statewide rate of 26%, with 271,000 Medicaid beneficiaries diagnosed with a cardiovascular related condition (table 43). Among Queens neighborhoods, for Medicaid beneficiaries, the Rockaways has the highest prevalence rate at 45%, and West Queens has the lowest rate at 24% (table 43).

In addition to having a higher prevalence than other chronic conditions, a higher percent of individuals diagnosed with cardiovascular disease have hospitalizations than other chronic conditions, however they have a smaller percent of ED visits relative to other chronic conditions. In NYC, of Medicaid beneficiaries diagnosed with a cardiovascular related condition 40% had at least one hospital admission and 28% at least one ED visit over a 12 month period; while for individuals diagnosed with a respiratory related condition 36% had an admission and 45% an ED visit; for diabetes related, 32% had an admission and 29% an ED visit; for mental health related conditions 32% had an admission and 42% had an ED visit (Appendix E).

While the Queens service area has a higher prevalence than the statewide rate, it has a lower hospital utilization rate than the State. Of individuals diagnosed with a cardiovascular condition 36% in the Queens service area, and 40% statewide had a hospital admission over a 12 month period. Similarly, 25% in the Queens service area, and 31% statewide had an ED visit over a 12 month period (table 40).

Table 40 - Hospital Utilization among Medicaid Beneficiaries with Cardiovascular Conditions by UHF Neighborhood

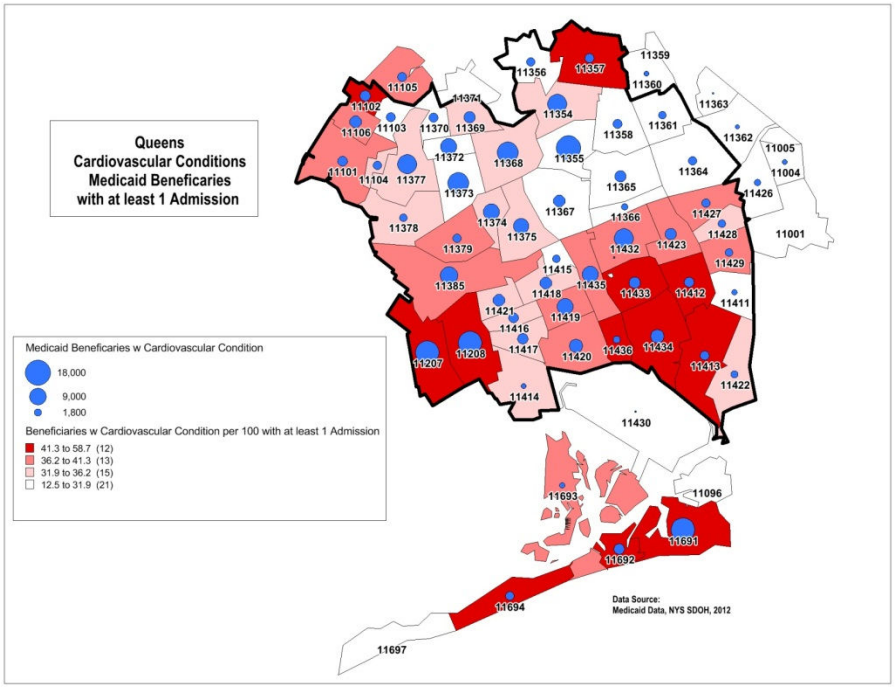
	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	1,543,129	26.44	40.00	1.97	31.28	2.57
NYC	1,085,013	30.24	40.44	2.03	28.09	2.37
Queens	271,388	29.63	35.55	1.89	23.89	2.10
QUEENS SERVICE AREA	270,776	28.38	35.68	1.92	24.88	2.16
UHF Neighborhoods:						
*Rockaway	23,924	45.43	47.75	2.10	30.06	2.50
Ridgewood/Forest Hills	27,747	36.20	35.47	1.70	20.16	1.86
Flushing/Clearview	37,374	32.02	29.01	1.78	16.65	2.00
Fresh Meadows	10,718	30.74	28.73	1.74	19.91	2.02

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
Bayside/Little Neck	5,924	29.74	24.71	1.57	13.23	1.53
Southwest Queens	35,914	29.66	35.50	1.85	25.90	1.94
Jamaica	38,841	28.94	41.21	2.03	30.73	2.20
Long Island City/Astoria	20,511	28.55	37.52	1.94	26.68	2.29
Southeast Queens	15,411	27.69	37.41	2.13	28.71	2.63
East New York	31,027	26.40	44.83	2.19	36.36	2.65
West Queens	54,707	23.80	32.08	1.79	21.34	1.82

*Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012

Map 7 indicates by zip code the number of Medicaid beneficiaries with a cardiovascular related condition, represented by the size of the blue circles, and the percent with at least one hospital admission, represented by shading. Zip codes with both the large blue circles and darker shading may represent greater opportunities.

Map 7: Medicaid Beneficiaries with Cariovascular Diagnosis and Hospitalizations



Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Circulatory Condition Related Potentially Avoidable Hospitalizations (PQI S02)

Within the Queens service area, the risk-adjusted expected rate for potentially preventable hospitalization rate among Medicaid beneficiaries for circulatory conditions (PQI SO2) is 388 admissions

per 100,000 Medicaid beneficiaries, lower than both the citywide rate of 432 and statewide rate of 408 (table 25). Among Queens neighborhoods, the risk adjusted expected admission rate ranges from the Rockaways (which is outside of the Queens service area) with 226 admissions to Southwest Queens with 537 admissions per 100,000.

Hypertension Prevalence and Hospital Utilization

In New York City, of the 1.1 million Medicaid beneficiaries diagnosed with a circulatory related condition, Hypertension accounts 564,000 or 51%. The prevalence of the population with hypertension is comparable in the Queens service area and the State, at 16% and 15%, respectively. However of those with hypertension, hospital utilization rates are lower in the Queens service area compared to the State. In the Queens service area, 18% had a hospital admission, and 23% had an ED visit in a 12 month period, compared to 23% and 30% statewide, respectively (Appendix B, table 26).

Individuals reporting a Hypertension diagnosis also report having another chronic condition. Those reporting hypertension are 3.1 times more likely to report a diabetes diagnosis (prevalence, 69.2%), 2.7 times more likely to report a lifetime high cholesterol diagnosis (prevalence, 49.9%), 1.2 times more likely to report a lifetime asthma diagnosis (prevalence, 31.8%) and 2.8 times more likely to report being obese (prevalence, 44.9%) relative to normal weight. Those reporting a hypertension diagnosis commonly report performing health behaviors that could create additional risk for a chronic disease diagnosis or lead to a potential worsening of one or more chronic conditions. For example, those with a hypertension diagnosis are more likely to report being a smoker or low physical activity.[126]

Queens neighborhoods with a high prevalence of adults with a lifetime hypertension diagnosis include: Southeast Queens (35.3%; weighted population, 56,000), East New York (34.8%; weighted population, 42,000). Additional areas that have large populations with hypertension include: West Queens (88,000), Flushing/Clearview (51,000), Ridgewood/Forest Hills (55,000), Southwest Queens (56,000) and Jamaica (70,000).

Hypertension Related Potentially Avoidable Hospitalizations (PQI 07)

As with Circulatory related PQI hospitalizations, The risk-adjusted expected rates for potentially preventable hospitalization rate among Medicaid beneficiaries for hypertension (PQI 07) is lower in the Queens service area when compared to both the citywide and statewide rate, with 94 PQI admissions per 100,000 Medicaid beneficiaries, compared to NYC at 112 and NYS at 102.

DIABETES

[126] New York City Department of Health and Mental Hygiene Community Health Survey, 2012

Diabetes is the fifth leading cause of death and fourth leading cause of early mortality in Queens. Among the leading causes of death in NYC, It has increased in rank from sixth to fourth, from 2002 to 2012. Diabetes is the third leading cause of death in NYC among ages 55 to 64, and 65 to 74. Its prevalence among Medicaid beneficiaries in the Queens service area is 11.2%, less than the prevalence of CVD/Circulatory conditions at 28.4%, and greater than respiratory related at 7.5%.

Prevalence and Hospital Utilization of Diabetes Related Conditions

Approximately 11.2% of Medicaid beneficiaries (107,000) in the Queens service area have a Diabetes related diagnosis as of 2012, slightly less than the NYC rate of 11.4% and 16% greater than the New York State rate (9.6%). The prevalence among neighborhoods in the Queens service area range from a high in Southwest Queens (12.8%) and Jamaica (12.3%) to a low in Bayside/Littleneck (9.0%).

In the Queens service area 26.5% of Medicaid beneficiaries diagnosed with a diabetes related condition with at least one hospitalization over a 12 month period, lower than the statewide rate of 32.5%. All Queens service area neighborhoods have a lower hospitalization rate than the State, with the exception of East NY at 35.4%. Other neighborhoods with substantially higher than average rates of utilization include: Southwest Queens, Jamaica and Southeast Queens (Table 41).

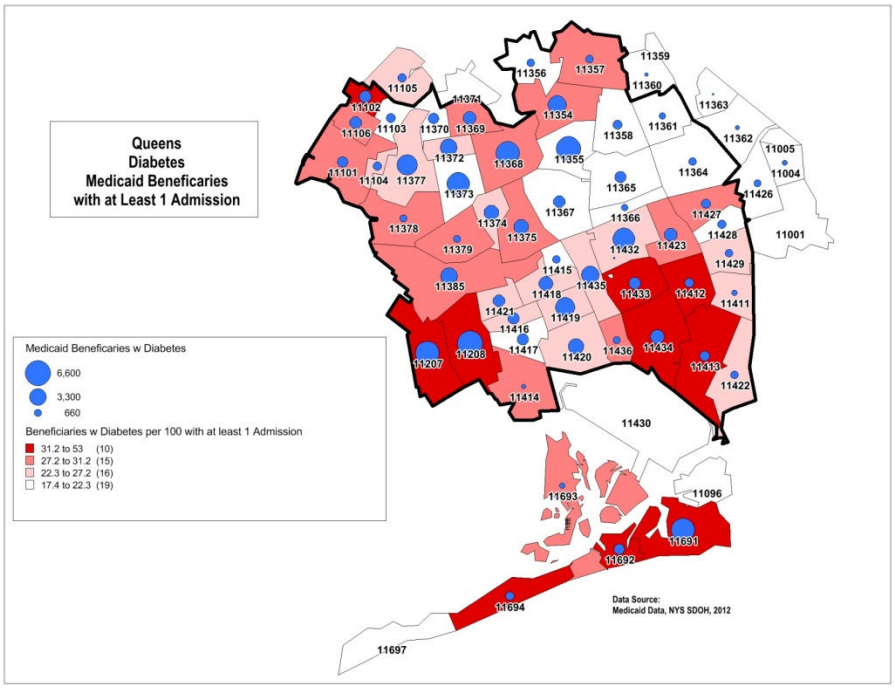
Table 41 - Hospital Utilization among Medicaid Beneficiaries with Diabetes by Neighborhood, 2012

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	562,637	9.64	32.52	1.89	31.23	2.43
NYC	409,227	11.41	32.27	1.93	28.55	2.25
Queens	105,074	11.47	26.52	1.80	23.17	1.97
Queens service area	106,517	11.17	26.46	1.83	24.23	2.00
Neighborhoods:						
Long Island City/Astoria	7,959	11.08	27.18	1.86	25.88	1.98
West Queens	22,717	9.88	24.90	1.67	20.58	1.72
Flushing/Clearview	12,964	11.11	21.37	1.67	15.78	1.85
Bayside/Little Neck	1,795	9.01	20.95	1.55	13.76	1.51
Ridgewood/Forest Hills	9,134	11.92	27.74	1.64	19.74	1.78
Fresh Meadows	3,902	11.19	21.19	1.80	18.55	2.13
Southwest Queens	15,534	12.83	23.59	1.70	23.92	1.86
Jamaica	16,526	12.31	28.87	1.92	29.64	2.03
Southeast Queens	6,003	10.79	25.54	2.06	27.14	2.33
*Rockaway	8,424	16.00	41.99	2.01	29.76	2.48
East New York	12,580	10.70	35.41	2.10	35.66	2.39

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

Map 8 indicates by zip code the number of Medicaid beneficiaries with a diabetes related condition, represented by the size of the blue circles, and the percent with at least one hospital admission, represented by shading. Zip codes with both the large blue circles and darker shading may represent greater opportunities for significant gains.

Map 8: Medicaid Beneficiaries Diagnosed with Diabetes and Percent Hospitalizations, 2012



Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Diabetes Related Potentially Avoidable Hospitalizations (PQI S01)

As with circulatory and respiratory related conditions, the risk-adjusted expected rate for potentially preventable hospitalizations among Medicaid beneficiaries for diabetes related conditions (PQI S01) is lower in the Queens service area than the citywide and statewide rates (table 25). In the Queens service area, there were 317 Diabetes composite (PQI S01) hospitalizations per 100,000 Medicaid beneficiaries adjusted for population differences, fewer than the 370 hospitalizations rate citywide, and 365 statewide. PQI hospitalization rates range among neighborhoods within the Queens service area from a low of 208 in Flusihing/Clearview, and 220 in Southeast Queens and with only one East New York having a rate that exceeds the statewide rate with 414 hospitalizations (table 25).

Factors associated with reporting a Diabetes diagnosis

In the general NYC population, 10.6% of adults report having a lifetime Diabetes diagnosis (weighted population, 667,000).[127] Adults that report receiving a Diabetes diagnosis are 15% likely to report being

[127] New York City Department of Health and Mental Hygiene Community Health Survey, 2012

foreign born (prevalence, 1.4%). They are also have a 19% higher likelihood to report having Medicaid insurance (prevalence, 13.4%) and 46% less likely to report being uninsured (prevalence, 6.1%), relative to private insurance, both relative to the privately insured.

It is common for those reporting a lifetime Diabetes diagnosis to report a diagnosis for another chronic condition in their lifetime. They are 6 times as likely to report a hypertension diagnosis (prevalence, 26.8%), 3.6 times as likely to report a lifetime high cholesterol diagnosis (prevalence, 21.8%), 1.6 times as likely report a lifetime asthma diagnosis (prevalence, 15.7%) and 4.4 times as likely to report being obese (prevalence, 21.1%), relative to normal weight. They also commonly report performing health behaviors that may add additional risk for a chronic disease diagnosis or lead to a potential worsening of one or more of their chronic conditions. For example, they are more likely to report a recent binge drinking episode and lower rates of physical activity.

Queens neighborhoods that have the highest prevalence of adults reporting a lifetime Diabetes diagnosis include: West Queens (12.8%; weighted population, 42,000), Southwest Queens (13.1%; weighted population, 25,000), Jamaica (14.1%; weighted population, 31,000), East New York (20.1%; weighted population, 24,000) and Rockaway (13.6%; weighted population, 15,000).

MENTAL HEALTH AND SUBSTANCE ABUSE

Prevalence and Hospital Utilization of Mental Health Related Conditions

Nearly 20% (703,000) of all NYC Medicaid beneficiaries have a mental health related diagnosis, 15% higher than the NYS rate of 17%. The Queens service area has a prevalence of 14% (136,000 beneficiaries), 15% lower than the NYS rate and 25% lower than the NYC rate. Among Queens neighborhoods, the prevalence ranges from The Rockways (which is outside the Queens service area) at 33% to West Queens at 11%.

In addition to having a lower prevalence than the city and the state, Medicaid beneficiaries in the Queens service area with a mental health diagnosis have fewer hospital admissions and ED visits. In the Queens service area, 29% of Medicaid beneficiaries had a hospital admission, and 39% had an ED visit over a 12 month period, less than the statewide rate of 41% and 61%, respectively.

TABLE 42 - Hospital Utilization among Medicaid Beneficiaries with Mental Health Condition

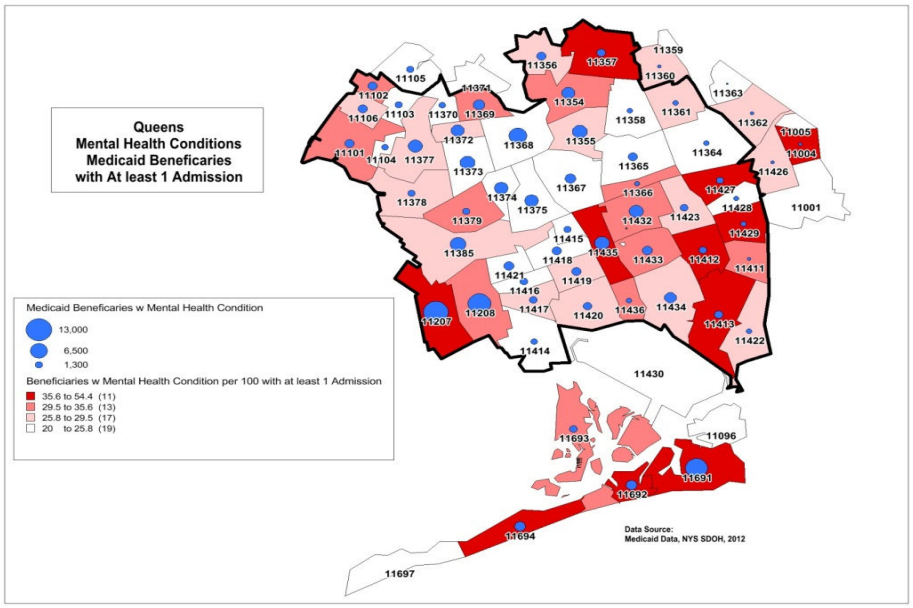
	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	997,306	17.09	41.21	2.24	60.98	3.19
NYC	702,585	19.58	32.34	2.43	42.33	2.98
Queens	133,250	14.55	30.20	2.17	37.60	2.74
QUEENS SERVICE AREA	135,746	14.23	29.14	2.26	39.03	2.83
UHF Neighborhoods:						
Long Island City/Astoria	10,432	14.52	27.91	1.99	39.48	2.51

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
West Queens	26,313	11.45	26.32	1.96	36.24	2.27
Flushing/Clearview	14,390	12.33	29.94	2.05	32.74	2.95
Bayside/Little Neck	2,400	12.05	24.88	2.05	27.17	2.22
Ridgewood/Forest Hills	15,446	20.15	25.09	1.87	29.96	2.36
Fresh Meadows	5,652	16.21	24.63	2.34	34.16	2.94
Southwest Queens	14,752	12.18	25.31	2.06	38.63	2.53
Jamaica	19,784	14.74	32.71	2.40	44.21	3.02
Southeast Queens	6,509	11.69	37.18	2.89	46.31	3.64
*Rockaway	17,488	33.21	43.37	2.26	40.19	3.02
East New York	22,969	19.54	33.58	2.72	47.60	3.33

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

The Queens zip code map shows the number of Medicaid beneficiaries with a mental health related condition, represented by the size of the blue circles, and the percent with at least one hospital admission, represented by shading. Zip codes with both the large blue circles and darker shading may represent greater opportunities for significant gains (map 9).

Map 9: Medicaid Beneficiaries Diagnosed with Mental Health Condition and Percent Hospitalizations, 2012



Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Among Medicaid beneficiaries in Queens, 8.4% (77,000) have a depression diagnosis (includes "Depression"; "Depressive and Other Psychoses"; and "Depressive Psychosis-Severe"), a rate nearly thirty percent lower than the city rate (11.3%). Prevalence of serious psychological distress (SPD), a composite measure of 6 questions regarding symptoms of anxiety, depression and other emotional problems, is 5.1% citywide, 4.6% in Queens. Neighborhoods with the highest rates of SPD in Queens include West Queens (7.7%), Jamaica (5.1%) and Southwest Queens (4.9%).[128]

CNA survey respondents in Queens reported that behavioral health services are less available than other types of care: 55% reported that mental health services were available/very available and 39% reported that substance abuse services were available/very available. Mental health services for children and adolescents were described as particularly limited, as well as culturally and linguistically competent services.

In an interview, one primary care provider stated:

> *"We often throw our hands up because it is so difficult to find [adolescent mental health] providers."*

According to key informants that are themselves providers, regulatory issues promote fragmentation of services.

> *Depending upon the level of what people talk about, behavioral health can be done within the Article 28. We have psychiatrists who work within the [article] 28 and psychiatry can be in health clinics. They're really there to really confirm and confer. It's called a consultation liaison model and you know, you're really, the rule of thumb and it's hard to get answers out of Medicaid about how many times we can be seen. It's like a maximum of three times. So if someone needs more than just a simple SSRI, you know, you see that the psychiatrist. The psychiatrist may say you know what, "I really think you should go into [article] 31" … It's not that it's a bad thing, you know but it's just another step … We do offer short term therapy in our 28 … We have very limited slots and because of licensure, it has to be secondary to a medical issue because again, the Medicaid rules are very clear. (key informant, CBO)*

A number of providers suggested that there is even poorer integration within behavioral health services themselves than between physical and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH) with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. Thus, a mental health provider might be limited in the severity of illness that can be treated, the age of the patient, and other factors.

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[128] Community Health Survey 2012 data, as reported on Epiquery http://nyc.gov/health/epiquery, accessed August 2014.

Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So, if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I mean really become integrated in treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (key informant, multiservice organization)

Co-Morbidity of Behavioral and Physical Health

Individuals with behavioral health conditions also have chronic physical health conditions. According to 2013 data from the NYS Office of Mental Health (OMH), approximately 51.8% (9,513/18,364) of Queens' clients served have at least one chronic medical condition. (See table and chart, Appendix B.)

The 2013 OMH Patient Characteristics Survey, which surveys clients with one or mental illnesses, found that 51.7% of Queens Adults surveyed have cardiac or metabolic illnesses; and 7.3% of Queens Children surveyed have a pulmonary condition. Although the data is not available at the city or county levels, state Health Home data corroborates this point (see section "Chronic Co-Morbidities" above). For example, in a 2010-2011 sample of those with a non-severe mental illness (46% of the health home sample), 70.9% also experience substance use issues, 36% have asthma, 35% have diabetes, 42% have hypertension and 28% have had a congestive heart failure episode.

An internal conservative proxy to estimate of the comorbidity rate between behavioral health and physical chronic conditions using HHC internal data, 44.5% of patients with one or more hospitalizations to an HHC acute care hospital for a behavioral health related condition in 2013 also had a hospitalization for a chronic related condition in the same year.[129]

Cultural Sensitivities

Access to mental health services is reported to be limited, particularly culturally competent care and services for children and adolescents.[130] According to some providers, services that are available might also be unknown to community-based organizations and residents, or they may be unaware of processes for accessing them.[131]

Behavioral health issues generally carry greater stigma than other health concerns, which tends to limit use of services. Key informants and focus group participants both reported that many affected individuals and families try to address problems internally—or not at all. A key informant emphasized the disparities in perceptions of behavioral health across NYC.

[129] Unpublished internal analysis of HHC patient data, 2013.
[130] NYAM Primary Data
[131] Ibid.

In New York, if you're White having a therapist is a badge of honor, if you're black it's stigmatized. (key informant, CBO)

Mental Health Readmissions

The 30-day readmission rate among Queens Medicaid Fee for Service (MC FFS) adult beneficiaries for mental health inpatient encounters is 25%, greater than both the statewide rate of 21% and the NYC rate of 23% (table 43).

TABLE 43 - Mental Health Readmissions within 30 Days among Medicaid Fee for Service Beneficiaries

Region	All Ages				
	# of Discharges	# of Readmissions in <= 30 Days to Any Region	Rate of Readmission in <= 30 Days to Any Region	# of Readmissions in <= 30 Days to the Same Region	Rate of Readmission in <= 30 days to the Same Region
Queens	4,008	1,004	25.0%	904	22.6%
New York City	21,653	5,047	23.3%	4,672	21.6%
Statewide	41,814	8,754	20.9%	7,953	19.0%
Hospitals					
Elmhurst Hospital	969	215	22.2%	201	20.7%
Flushing Hospital	168	67	39.9%	62	36.9%
Holliswood Hospital (closed 2013)	491	93	18.9%	69	14.1%
Jamaica Hospital	300	53	17.7%	51	17.0%
Long Island Jewish Med. Center	974	220	22.6%	190	19.5%
Queens Hospital	626	154	24.6%	141	22.5%
St John's Episcopal Hospital	397	191	48.1%	182	45.8%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Mental Health Post Discharge Interventions

In Queens, 35% of MC FFS mental health patients have a follow up appointment within seven (7) days of discharge, the same as the New York State rate, and increases to 46% within 30 days post discharge, slightly lower than the statewide rate of 47%. The percent of patients with four outpatient visits over a 60 day period post discharges in Queens is 33% and 30% statewide (table 44).

TABLE 44: 7, 30, and 60 Day Mental Health Outpatient Service Follow-up, Adult Medicaid Fee for Service

Event	Queens	New York City	New York State
7 day MH Follow-Up (MH Only)	34.6%	31.1%	34.8%
7 day MH Follow-Up (MH and SUD)	37.1%	35.9%	39.1%
30 Day MH Follow-Up (MH Only)	46.4%	42.6%	46.9%
30 Day MH Follow-Up (MH and SUD)	49.2%	48.0%	52.1%

30 Day MH Engagement (2 or More OP)	38.7%	32.6%	36.1%
60 Day MH Engagement (4 or More OP)	33%	26.5%	29.5%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Hospitals in Queens have similar rates of discharge follow-up, based on the percent of mental health patients with an outpatient visit within 30 days of discharge (table 45).

TABLE 45: 30 Day Mental Health Outpatient Service Follow-up, Adult Medicaid Fee for Service

Outpatient Service within 30 Days	Discharges	Outpatient
Queens	4,915	46.4%
New York City	16,629	42.6%
Statewide	29,661	46.9%
Hospital		
Elmhurst Hospital Center	755	43.0%
Flushing Hospital Medical Center	158	44.9%
Holliswood Hospital	1	100.0%
Jamaica Hospital Medical Center	265	52.5%
Long Island Jewish Medical Center	778	47.7%
Queens Hospital	512	44.3%
St John's Episcopal Hospital	298	50.7%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Medication fill rates for Medicaid fee-for-service patients post discharge are comparable at the Queens borough level, and city and state (table 46).

TABLE 46: Medication Fill Rates post Mental Health Discharge, Medicaid Fee for Service

Event	Queens	New York City	New York State
30 Day MH Rx Fill (1st Psychotropic Rx)	62.6%	57.6%	63.9%
100 Day MH Rx Fill (Refill Psychotropic Rx)	89.7%	86.5%	88.2%
30 Day MH Rx Fill, w/ Psychosis (1st Antipsychotic Rx)	56.7%	54.3%	59.6%
100 Day MH Rx Fill, w/ Psychosis (Refill Antipsychotic Rx)	85.7%	83.0%	84.4%
30 Day MH Rx Fill, w/ Mood Disorder (1st Mood Stabilizer Rx)	51.3%	47.0%	55.8%
100 Day MH Rx Fill, w/ Mood Disorder (Refill Mood Stabilizer Rx)	85.5%	83.1%	84.8%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

SUBSTANCE ABUSE

Prevalence and Hospital Utilization of Substance Abuse Related Conditions

The prevalence of substance abuse related conditions among Medicaid beneficiaries in Queens is about half that of the citywide and statewide rate, at 3.3%, 6.2%, and 6.4%, respectively. Of the Queens service area neighborhoods, only East NY has a prevalence exceeding the statewide rate, at 7.6%.

Utilization rates among Medicaid beneficiaries diagnosed with substance abuse in Queens is comparable to citywide and statewide rates. In Queens, 61% had at least one admission, just slightly less than the citywide rate of 65% and more than the statewide rate of 60%. In Queens, 55% of individuals had at least one ED visit over a 12 month period, just slightly less than the citywide and statewide rates of 58% and 60%, respectively.

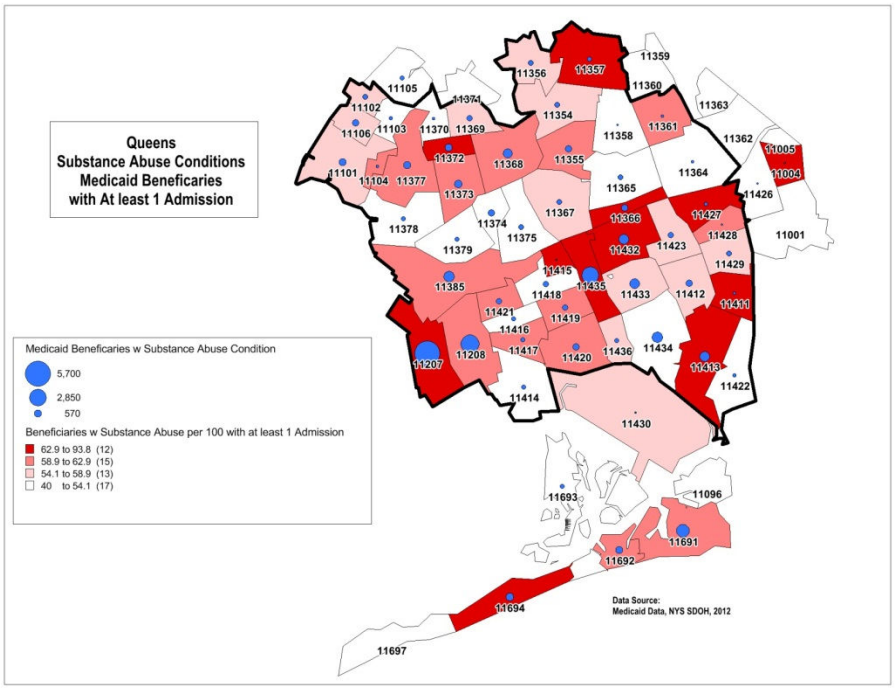
TABLE 47 - Hospital Utilization among Medicaid Beneficiaries with Substance Use CRG Diagnosis by UHF Neighborhood

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	370,898	6.36	59.56	3.13	59.86	4.18
NYC	222,198	6.19	65.03	3.58	58.37	4.34
Queens	26,264	2.87	60.23	3.24	54.04	3.92
QUEENS SERVICE AREA	31,425	3.29	61.21	3.37	55.02	4.19
UHF Neighborhoods:						
East New York	8,911	7.58	64.31	3.76	59.35	4.89
*Rockaway	3,386	6.43	62.76	3.44	58.33	4.25
Jamaica	7,468	5.56	59.75	3.19	56.55	3.85
Southeast Queens	2,045	3.67	68.36	3.61	62.00	4.86
Fresh Meadows	1,115	3.20	71.12	5.71	53.27	4.09
Ridgewood/Forest Hills	2,294	2.99	53.36	2.70	46.21	3.49
Long Island City/Astoria	1,909	2.66	56.10	3.25	56.63	3.61
Southwest Queens	2,488	2.05	57.60	2.67	53.82	3.61
West Queens	3,664	1.59	60.02	2.85	47.71	3.47
Flushing/Clearview	1,617	1.39	59.43	2.86	47.62	4.57
Bayside/Little Neck	250	1.25	54.40	2.90	47.60	2.74

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012*

The zip code map shows the number of Medicaid beneficiaries with a substance abuse related condition, represented by the size of the blue circles, and the percent with at least one hospital admission, represented by shading. Zip codes with both the large blue circles and darker shading may represent greater opportunities for significant gains (map 10).

Map 10: Medicaid Beneficiaries with Diagnosed Substance Abuse Related Condition and Percent Hospitalizations, 2012



Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Readmissions and Post Discharge Care

Readmission rates among Medicaid fee-for-service beneficiaries for substance abuse disorders (SUDs) are higher, and post discharge care rates are poorer citywide compared to the statewide rates.

The readmission rate within 30 days of initial discharge is 43% citywide, and 33% statewide. Citywide, 30% of individuals that have an outpatient visit within 14 days of discharge, less than the statewide rate of 37%. After 30 days following discharge, 33% of individuals have an outpatient visit citywide and 41% statewide. Similarly, with medications filled post discharge, NYC rates are worse than that of the state. In NYC, 20% of individuals 30 days post discharge have a prescription for a related medication filled, compared to 25% statewide (table 48).

Table 48: Substance Use Disorder: Readmissions and Post Discharge Care, Medicaid Fee For Service

	New York City			New York State		
	Discharges	**Events**	**%**	**Discharges**	**Events**	**%**
Readmissions						
SUD Readmissions (immediate next service) within 30 Days to Any Region	29,304	12,519	42.9%	49,010	16,116	32.9%
SUD Readmissions (immediate next service) within 45 Days to Any Region	29,304	14,134	48.2%	49,010	18,340	37.4%
14 Day Post Discharge Care Outpatient Follow Up						

Percentage of SUD Detox/Rehab Discharges Followed by a Lower Level SUD Service or MH Outpatient Treatment within 14 Days	23,264	7,023	30.2%	41,490	15,210	36.7%
Percentage of SUD Detox or Rehabilitation Discharges Followed by Two or More Lower Level SUD Services within 14 Days of Discharge	20,170	3,557	17.6%	8,198	36,197	22.6%
30 Day Post Discharge Care Outpatient Follow Up						
Percentage of SUD Detox/Rehab Discharges Followed by a Lower Level SUD Service or MH Outpatient Treatment within 30 Days	23,264	7,576	32.6%	41,490	16,798	40.5%
Percentage of SUD Detox or Rehabilitation Discharges Followed by Two or More Lower Level SUD Services within 30 Days of Discharge	20,170	4,085	20.3%	9,553	36,197	26.4%
Post Discharge Care Medication Filled						
Percentage of SUD Detox or Rehabilitation Discharges where a Prescription for an Anti-Addiction/Mood Stabilizer/Antidepressant Medication was Filled within 30 Days	23,435	4,657	19.9%	43,601	10,902	25.0%
Percentage of SUD Detox or Rehabilitation Discharges where a Prescription for an Anti-Addiction/ Mood Stabilizer/Antidepressant Medication was Filled within 100 Days	4,675	3,743	80.1%	10,758	8,583	79.8%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Cultural Sensitivities

As mentioned in earlier sections, mental health issues were reported to be prevalent among across all populations participating in stakeholder interviews and focus groups, with depression and isolation high among immigrant populations who face pressures from long work hours and social isolation. Drinking alcohol is particularly problematic as it is easily available and legal.

A key informant working across Asian communities stated:

> *I think substance abuse is something that is definitely not talked about. But in the work that I've done, alcoholism in certain communities is definitely something that people just don't want to acknowledge. In the Filipino community, for example, it's called shabu, but it is equivalent to crystal meth.*

This stigma dissuades people from acknowledging their problems and seeking treatment. The LGBT population in Queens faces significant isolation and stigma which leads to mental health concerns and substance abuse. A key informant noted:

> *I wouldn't say that the prevalence of psychiatric diagnosis is greater but there is a substantial amount of affective issues of mood anxiety and depression, and with those [conditions] in particular, substances play a very key role in modulating mood.*[132]

[132] NYAM Primary Data

Another LGBT focus group noted that there are LGBT-specific issues relating to substance abuse, but also described other themes affecting low-income and/or or immigrants who have substance abuse problems:

> *I do think there's a fair amount of substance abuse in the LGBT community. In this neighborhood there are two twelve step programs, one of which is specifically LGBT but you still see a lot of people drunk on the street who are obviously not getting assistance. Part of that might have to do with the large number of new immigrants who don't know what's available or two, LGBT AA groups I know of are largely white, so I don't know if immigrants or people with language barriers feel like they can join in….A lot of immigrants suffer because they don't know who to talk to. And they don't have mentors to help navigate the system. So people really suffer if they're not made aware of what is really available…. I'm from the south and I grew up in New York in my 20s and we drank hard and we partied but I feel like the new immigrants are not acclimated to the amount of alcohol that's available and the way we drink. I don't know the answer to this. But I see on Roosevelt avenue people crazy drunk like I've never seen before, so those people are not being reached. Maybe different languages in this neighborhood are not being reached and represented.*

Medical providers also expressed frustration at the challenges in effectively treating this population without a more coordinated, seamless service delivery system across clinical and supportive programs. One ED provider stated:

> *We have is we have a fairly high substance abuse population. So we see a number of patients with specifically alcohol, but other substances also. We see a pretty large group of patients with alcohol related issues. And so those patients are very regular here and very difficult despite trying to get interventions for them whether it be psychiatric interventions or substance abuse interventions. It's extremely difficult to get them connected and to get them to stay in any kind of program. So we can see them more than once a day, and it wouldn't be surprising….And I'll also say there are some private hospitals in the area that the expectation is the patients are going to come here. We're an HHC hospital. This is an intoxicated patient. You bring them to the city hospital.*

HIV/AIDS and STDs

Queens has a substantially lower diagnosis and incidence rate of HIV, Chlamydia and Gonorrhea compared to New York City as a whole, yet stark disparities exist for certain UHF neighborhoods and rates of HIV and STDs. Table 44 details the HIV prevalence and age-adjusted death rate by UHF neighborhood. The neighborhoods of Jamaica, Long Island City/Astoria, and West Queens all have HIV prevalence rates of 1%, indicating a generalized HIV epidemic. Four neighborhoods have age-adjusted death rates above the NYC average, suggesting that HIV positive residents of these neighborhoods are

dying at a higher rate and as such are not receiving adequate HIV prevention, care and treatment services.

Table 49: Rates of HIV diagnoses, People With HIV/AIDS (PWHA), and deaths among PWHA by United Hospital Fund (UHF) neighborhood, New York City 2011

UHF Neighborhood	HIV Diagnoses per 100,000 Population	Reported PWHA as Percent of Population	Age-Adjusted Death Rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Queens	**22.6**	**0.7**	**12.3**	**2,235,260**
Bayside/Little Neck	8.0*	0.2	0.0*	87,972
Flushing/Clearview	6.9	0.3	16.7	259,767
Fresh Meadows	8.3*	0.3	17.2*	96,831
Jamaica	36.3	1.0	14.9	289,314
Long Island City/Astoria	29.3	1.0	8.2	204,715
Ridgewood/Forest Hills	13.8	0.4	10.6	245,746
*Rockaway	23.5	0.8	24.9	114,978
Southeast Queens	16.4	0.6	11.6	189,171
Southwest Queens	16.1	0.6	14.6	266,265
West Queens	35.8	1.0	10.7	480,501
East New York Brooklyn	46.8	1.5	18.6	187,855

**Outside of Queens service area. Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs Semiannual Report. October 2012*
Rates based on numerators 10 are marked with an asterisk (*) and should be interpreted with caution.

In 2012 there were 501 Queens residents newly diagnosed with HIV, and 271 Queens residents diagnosed with late-stage HIV disease, AIDS. 21% of these AIDS diagnoses were made within 31 days of the initial HIV diagnosis[133]; indicating that these individuals went undiagnosed and untreated to their personal health detriment and potentially spreading HIV to others. Risk factors to having a concurrent diagnosis in NYC include living in areas with high to very high poverty levels (53.7% of concurrent diagnoses), being male (77.8%), being Black or Hispanic (80.4%), and being a man who have sex with other men(MSM) (44%).[134]

Rates of Chlamydia and Gonorrhea are 33% and 40% lower than the citywide rate in 2009, at 466 cases and 78 cases per 100,000 persons, respectively. High rates of STDs are concentrated in East New York, Jamaica, West Queens (Chlamydia only), and Southeast Queens. Given the high rate of Chlamydia and Gonorrhea in our services area, the testing and treatment of sexually transmitted diseases (STDs) can be an effective tool in preventing the spread of HIV, the virus that causes AIDS. Individuals who are infected with STDs are at least two to five times more likely than uninfected individuals to acquire HIV infection if they are exposed to the virus through sexual contact.

[133] New York City Department of Health and Mental Hygiene. *HIV Surveillance Annual Report, 2012*. http://www.nyc.gov/html/doh/downloads/pdf/dires/surveillance-report-dec-2013.pdf
[134] New York City Department of Health and Mental Hygiene. *HIV Surveillance Annual Report, 2012*. http://www.nyc.gov/html/doh/downloads/pdf/dires/surveillance-report-dec-2013.pdf

East New York has the highest incidence rate of Chlamydia, at 1,317 cases per 100,000, 89% greater than the City rate. Jamaica's incidence rate is 28% higher than the City rate at 890 cases per 100,000. Southeast Queens and Rockaway have incidence rates in line with the citywide rate, at 689 and 685 cases per 100,000, respectively. West Queens has an incidence rate 26% below the city rate, but 11% above the Queens-wide rate. Among Medicaid Managed Care Beneficiaries in Queens, 69% of sexually active women between 16 and 24 years of age receive a Chlamydia screening.[135]

East New York has the highest incidence rate of Gonorrhea, at 270 cases per 100,000, 107% greater than the City rate. Jamaica's incidence rate is 55% higher than the City rate at 202 cases per 100,000. Southeast Queens has an incidence rate in line with the citywide rate, at 130 and 127 cases per 100,000, respectively.

HIV/AIDS and STD Disparities

Racial/Ethnic

The rate of new HIV diagnoses among black/African American people living in Queens is more than four times the rate among whites in the borough (43.8 compared to 10 cases per 100,000 people).[136] The rate of new HIV diagnoses among Latinos living in Queens is over 3.5 times that of whites (35.6 compared to 10 cases per 100,000 people).[137]

The rate of new Chlamydia incidence among Black/African American people living in Queens is more than 21 times the rate among Whites in the borough (685 compared to 32 cases per 100,000 people). The rate of new Chlamydia incidence among Latinos living in Queens is over 6.5 times that of Whites (206 compared to 32 cases per 100,000 people). The rate of new Gonorrhea incidence among black/African American people living in Queens is more than 23 times the rate among Whites (176 compared to 8 cases per 100,000 people). The rate of new Gonorrhea incidence among Latinos living in Queens is over four times the rate of the White population (31 compared to 8 cases per 100,000 people).[138]

Gender Disparities

The rate of new HIV diagnoses among males living in Queens is more than four times the rate among females in the borough (37 compared to 8.6 cases per 100,000 people).[139] Rates of other STDs such as

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[135] QARR, 2012

[136] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [HIV/AIDS Surveillance Data 2011]. [1 August 2014]. http://nyc.gov/health/epiquery.

[137] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [HIV/AIDS Surveillance Data 2011]. [1 August 2014]. http://nyc.gov/health/epiquery.

[138] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data 2009][1 August 2014]. http://nyc.gov/health/epiquery.

[139] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [HIV/AIDS Surveillance Data 2011]. [1 August 2014]. http://nyc.gov/health/epiquery.

Gonorrhea, Chlamydia and Syphilis in Queens outpace corresponding rates in NYS. In 2009, the rate of Chlamydia among females aged 15-44 years in Queens, at 611 per 100,000, is 1.9 times the rate for males. In 2011, the Queens Chlamydia and Gonorrhea rates by gender are in line with the state rates. In 2011, the rate of Gonorrhea among men aged 15-44 years in Queens, at 94 per 100,000, is 1.5 times the rate for women.

The neighborhoods of Jamaica, Long Island City/Astoria, West Queens, and East New York, on the border of Queens and Brooklyn, experience the greatest burden from disparities in HIV and STDs (See Tables, Appendix B).

Table 50: HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1
20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361

High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

MATERNAL/CHILD HEALTH

Over the period 2010-2012, the Queens service area averaged 30,332 live births per year, representing 25.6% of births in New York City and 12.6% in the state. Medicaid and self-pay was the payer for 59.4% of all births in the Queens service area, compared to 59.7% in NYC and 50.1% in the State, and ranging from a low of 27.5% in Bayside/Little Neck to a high of 78.1% in West Queens.

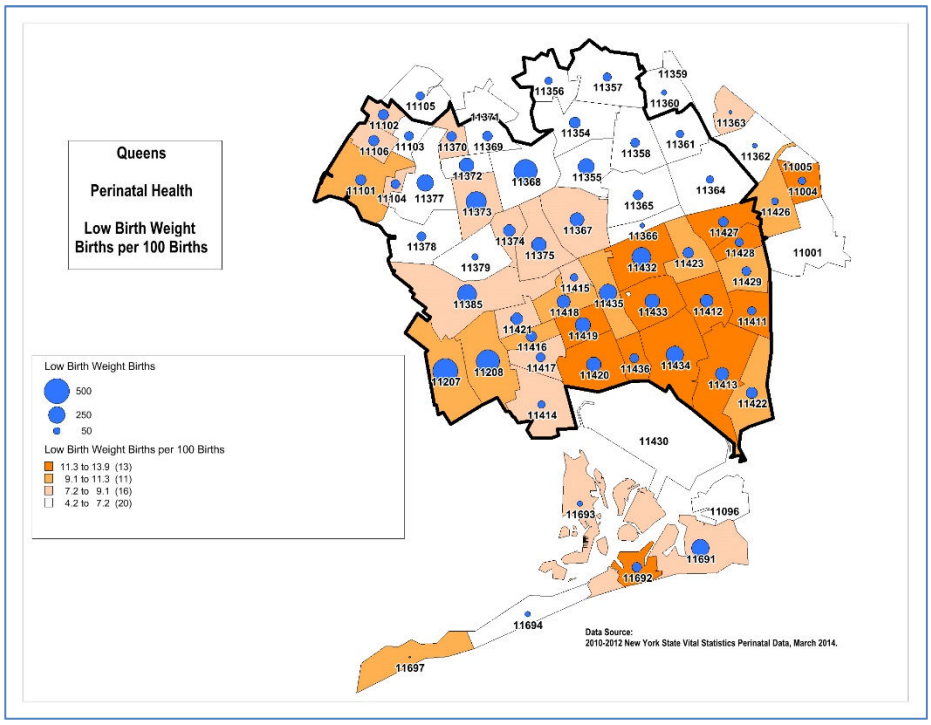
The Queens service area the infant mortality rate is 4.6 per 1,000 births, 5% higher than the city rate (4.4 per 1,000). Neighborhoods with high rates of infant mortality include Jamaica (7.5 per 1,000), Southeast Queens (6.4 per 1,000) and East New York (7%).

Teen pregnancy and childbearing bring substantial social and economic costs through immediate and long-term impacts on teen parents and their children – teen pregnancy is associated with higher rates of poverty and incarceration and lower rates of educational attainment. The teen birth rate in the Queens service area is 24 per 1,000 population, 20 percent higher than the citywide rate (20.2 per 1,000). Queens service area neighborhoods that have high teen birth rates include West Queens (33 per 1,000), Southwest Queens (21 per 1,000), Jamaica (27 per 1,000) and East New York (41 per 1,000).

Low birth-weight babies are at high risk for respiratory infection, blindness, learning disabilities, cerebral palsy and heart infection, and have higher rates of sudden infant death syndrome and infant mortality.[140] The overall Low Birth Weight (LBW) rate in the Queens service area over the same time period is 8.1%, compared to 8.5% for NYC and 8.1% for the State. Across neighborhoods, the LBW rates range from 6.2% (Flushing/Clearview) to 11.3% (Jamaica), with the highest rates found in a large cluster of ZIP Codes extending through the Jamaica and Southeast Queens, as well as the ZIP Codes in East New York. These neighborhoods also experience the highest rates of infant mortality (map 11).

[140] AHRQ, 2014

Map 11: Low Birth Weight Births Percentage by Zip Code.



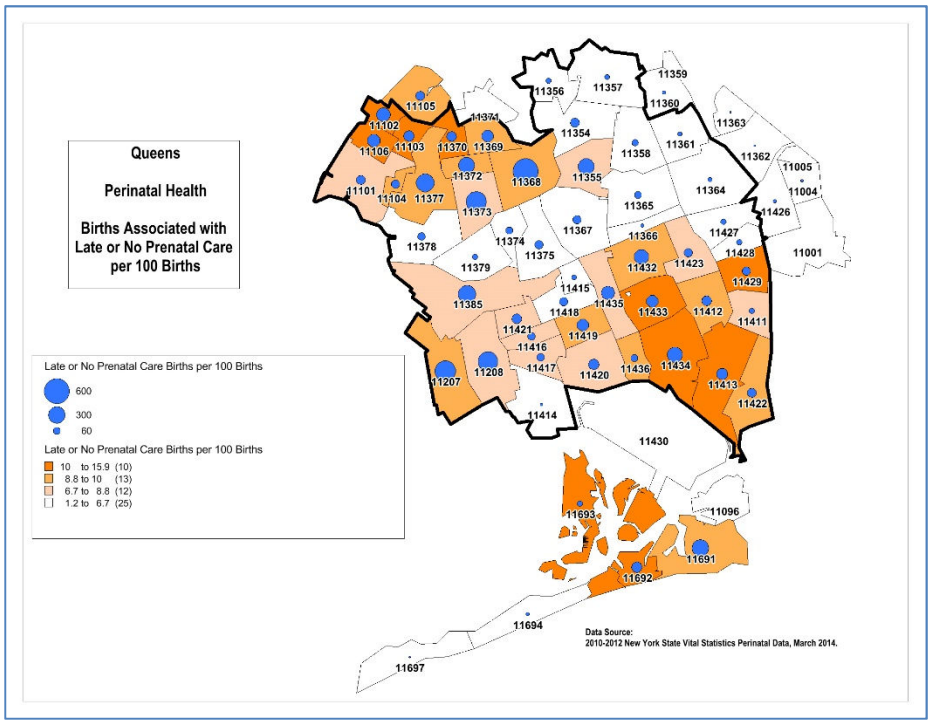
Source: 2010-2012 New York State Vital Statistics Perinatal Data, March 2014.

Preterm birth, defined as a birth before 37 weeks of pregnancy, accounts for a large proportion of infant deaths, and is a leading cause of long-term neurological disorders in children. In the Queens service area, 11.3% of births in are preterm, slightly higher than the NYC rate (10.9%). Queens service area neighborhoods with high rates of preterm birth include Southwest Queens (12%), Jamaica (14%), Southeast Queens (14%) and East New York (15%).

Regular and early prenatal care provides an opportunity for pregnant women to discuss their pregnancy and their behaviors (healthy diet, use of vitamin supplements) with their care provider, as well as identify maternal risk factors (genetic, hypertension, diabetes, etc.) and health promotion opportunities. It is essential to have these visits early in pregnancy to have an optimal effect on pregnancy outcomes and to reduce the risk of serious complications.[141] In the Queens service area, birth rates with late (defined as later than first trimester) or no prenatal care is 7.7%, compared to 7.0% for NYC and 5.5% for the state. Queens service area neighborhoods range from 2.6% (Bayside/Little Neck) to 10.9% (Long Island City/Astoria). Other below average Queens service area neighborhoods include West Queens (8.9%), Jamaica (9.1%) and East New York (9%) (Map 12).

[141] AHRQ, 2014

Map 12: Percentage of Births with Late or No Prenatal Care by Zip Code



Source: 2010-2012 New York State Vital Statistics Perinatal Data, March 2014.

CANCER

The incidence rate of colorectal, breast, lung or bronchus and prostate cancer is lower in Queens compared to New York State incidence rate, based on an analysis of New York State Cancer Registry Incidence observed and expected rate data, controlled for the local age distributions, relative to the state age distribution, as of 2007-2011.

Colorectal

There are 5,333 colorectal cancer cases in the Queens service area, 5% lower than the state rate, compared to the observed to expected (age-adjusted) statewide rate. The Queens neighborhoods of East New York (339 cases; 9% higher), Flushing/Clearview (853 cases; 7% higher), Bayside/Little Neck (310 cases; 3% higher) have higher than expected rates of colorectal cancer.

Breast

There are 6,600 breast cancer cases in the Queens service area (age adjusted), 17% lower than the state rate. Fresh Meadows (398 cases) is the only neighborhood in the Queens service area with higher than expected rates of breast cancer over this time period at 4%.

Lung or Bronchus

There are 5,200 lung or bronchus cancer cases in the Queens service area (age adjusted), 27% lower than the statewide rate. There are no neighborhoods in the Queens service area with higher than expected rates of lung or bronchus cancer over this time period.

Prostate

There are 7,500 prostate cancer cases in the Queens service area (age adjusted), 9% lower than the statewide rate. East New York (621 cases; 28% higher), Jamaica (925 cases; 32% higher) and Southeast Queens (612 cases; 47% higher) have higher than expected rates of prostate cancer over this time period.

PAIN MANAGEMENT AND PALLIATIVE CARE

The need for palliative care services will increase significantly as the population of New York City ages, and the prevalence of conditions suitable for palliative care increases. In Queens in 2020, 11.7% of the residents will be age 65 or older. In 2030, the percentage will be 14.5%, or almost one person in seven.[142] At least 80% of the elderly have at least one chronic condition.[143]

Clinicians are warning that, as the population ages, it will be accompanied by, "a marked increase in patients requiring care for disorders with a high prevalence in the elderly. As cancer incidence increases exponentially with advancing age, it is expected that there will be a corresponding surge in older cancer patients that will challenge both healthcare institutions and healthcare professionals (p. 147)".[144] Moreover, healthcare professionals will face an increase in patients with multiple age-related conditions.

Within the HHC PPS service areas, there are a high number of hospitalizations related to chronic conditions, particularly among older age groups. For example, there were 57,302 Queens residents hospitalized with at least one of nine chronic conditions (arthritis, CHF, COPD, ESRD, HIV, hypertension, mental health, obesity and diabetes). Although the majority of these individuals are age 65 and older, a significant percent are between ages 45 and 64.[145] In addition, the prevalence of multiple chronic conditions in the general inpatient population is high – the Queens service area had 29,773 residents hospitalized who had at least three chronic conditions.

Pain management is particularly needed among residents of nursing home residents. The percentage of nursing home short-stay residents who self-report moderate-to-severe pain is 19% and 14%, nationally

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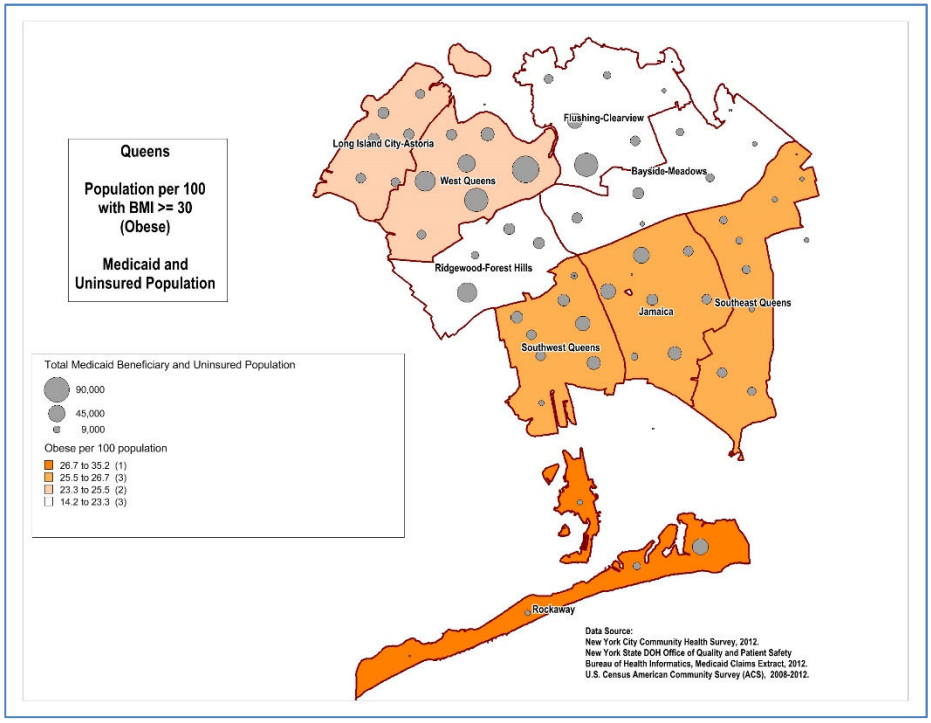
[142] City of New York Department of City Planning (2006). *New York City Population Projections by Age/Sex & Borough 2000-2030.*
[143] Centers for Disease Control and Prevention (2011). Healthy Aging: Helping People to Live Long and Productive Lives and Enjoy a Good Quality of Life. At: www.cdc.gov/chronicdisease/resources/publications/aag/aging.htm.
[144] Berger et. al (2006). Cancer in the elderly. *Transactions of the American Clinical and Climatological Association, 117,* 147-156.
[145] Unpublished analysis by the Healthcare Association of New York State, 2013.

and statewide, respectively. Among long-stay patients, the percentage self-reporting moderate-to-severe pain is 8% and 3%, nationally and statewide, respectively.[146]

OVERWEIGHT/OBESITY/HEALTHYEATING/EXERCISE

The prevalence of obesity in Queens is slightly lower than the NYC or NYS rate, with just under one-quarter (22.2%) of all adults in Queens reporting a BMI ≥ 30 compared to 24.2% in NYC and 23.6% NYS.[147] (Appendix B). The obesity rate varies widely within Queens with the highest rates in East New York (37%), Jamaica (26.7%), Southeast Queens (25.8%), Southwest Queens (25.5%) and West Queens (23.3%), all areas with high proportions of Medicaid beneficiaries. Among children and adolescents, approximately one in five are obese (21.1%), on par with NYC, but higher than NYS rate (17.6%, excluding NYC) for the same time period.[148] Neighborhoods with the highest numbers of obese populations in the Queens service area include: LIC/Astoria (39,000), West Queens (80,200), Flushing (34,700), Ridgewood (31,800), Southwest Queens (51,100), Jamaica (56,200), Southeast Queens (39,300) and East New York (47,800) (Map 13).

Map 13: Obesity Rate Among Medicaid Beneficiaries and Uninsured Population by Neighborhood



Sources: New York City Department of Health and Mental Hygiene Community Health Survey, 2012; New York State DOH Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012; U.S. Census American Community Survey, 2008-2012.

[146] Nursing Home Compare website, accessed September 2014. A sample based dataset of individuals receiving community-based long-term care services.
[147] NYC Community Health Survey, New York City Department of Health, 2012
[148] Data years 2010-2011

According to results from the community survey, there was some variability in health according to population. Among African American and Caribbean populations in Jamaica, obesity and asthma were considered very problematic. Among the Asian groups, ingredients (many vegetables) were considered healthy, although preparation (commonly fried) was less so. Obesity was considered less of a problem in Asian communities compared to others, and physical activity was apparently more common. Access to healthy foods was not described as particularly problematic in many neighborhoods, although limitations were described in Jamaica[149] (Appendix D).

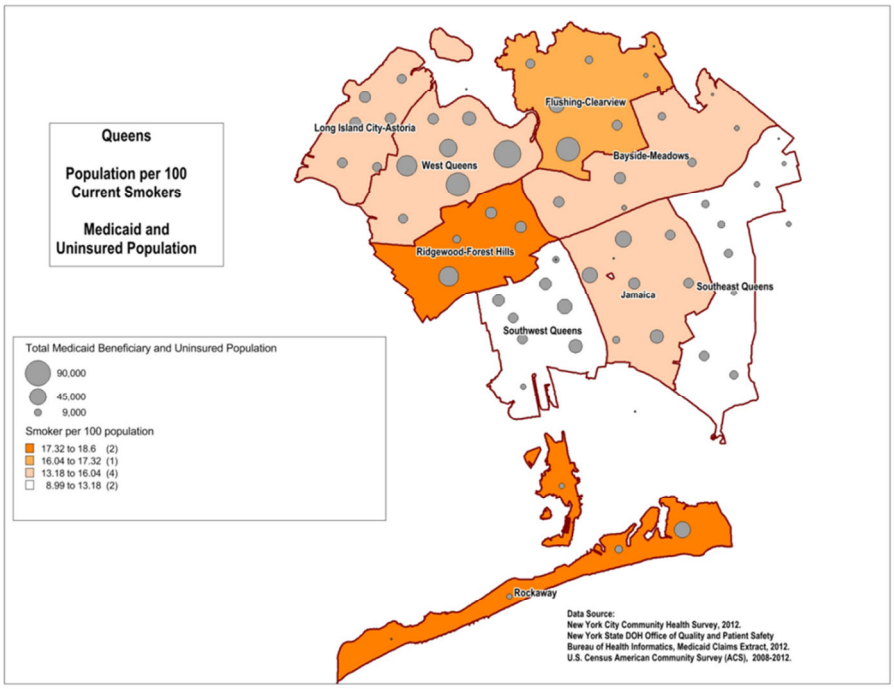
TOBACCO USE/CESSATION

In the general NYC population, 15.6% of adults report as current smokers (weighted population, 981,000).[150] The Queens neighborhoods with the highest percent of the adult population that are current smokers are: Long Island City/Astoria (16%; weighted population, 27,000), West Queens (15.9%; weighted population, 56,000), East New York (16.7%; weighted population, 21,000), Flushing (16.3%; weighted population, 33,000), Ridgewood (17.3%; weighted population, 33,000) and Rockaway (18.6%; weighted population, 14,000) (map 14).

Those reporting as smokers are 1.48 times more likely to report being native born (prevalence, 18.7%). Current smokers are 31% less likely to report having a PCP (prevalence, 14.5%), 40% more likely to report Medicaid insurance (prevalence, 19%) compared to private insurance, and 35% more likely to report being uninsured (prevalence, 18.3%), relative to private insurance.

Map 14: Cigarette Smoking Rate Among Medicaid Beneficiaries and Uninsured Population Neighborhood

[149] NYAM Primary Data
[150] New York City Department of Health and Mental Hygiene Community Health Survey, 2012.



Sources: New York City Department of Health and Mental Hygiene Community Health Survey, 2012; New York State DOH Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012; U.S. Census American Community Survey, 2008-2012.

DRUG OVERDOSES

About 9,000 city residents died of an unintentional drug poisoning (overdose) from 2000-2012, an average of 700 overdose deaths per year.[151] In 2012 nearly all unintentional drug poisoning deaths involved more than on substance, including alcohol, licit and illicit drugs, most commonly identified as heroin, cocaine, benzodiazepines, prescription opioid analgesics and methadone, according to DOHMH.

ACCESS TO AND QUALITY OF HEALTH CARE

Overall Quality of Care and Patient Satisfaction

High ratings on patient satisfaction measures are directly correlated with better patient engagement in clinical decision-making and more interaction between patients and physicians.[152] Engaged patients are more likely to manage their health and health care, which is correlated with lower health care costs.[153]

Compared with commercially insured populations, Medicaid Managed Care adult beneficiaries are less satisfied with their primary care providers and specialists, and generally rate the quality of their health

[151] New York City Department of Health and Mental Hygiene. *Unintentional Drug Poisoning (overdose) Deaths in New York City, 2000-2012.* Epi Data Brief, Sept. 2013, No. 33.
[152] "The CAHPS Improvement Guide," AHRQ, June 17, 2012.
[153] "Health Policy Brief: Patient Engagement," Health Affairs, February 14, 2013.

care lower. Adult Medicaid Managed care populations are also less likely to have received care when needed. Child Medicaid beneficiaries appear to receive care at a rate on par with commercial plans.[154]

Fewer Medicaid Managed Care beneficiaries reported satisfaction with healthcare services when compared to beneficiaries of commercial Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) in New York State (table 44). In all categories, enrollees with commercial organizations had higher satisfaction rates than with Medicaid Managed Care plans. "Satisfaction with Personal Doctor" and the "Satisfaction with Specialist" measures are the percentage of members who rated their doctors 8, 9 or 10 (on a scale of 0-10, where 0 is the lowest). Additionally, patients were asked a series of questions to determine if they received necessary care and if they were able to get an appointment for routine care as soon as desired. "Received Needed Care" reflects the percent of members who responded "usually" or "always" in regard to receiving urgent care, and "Got Care Quickly" represents the percentages of members who responded "usually" or "always" in regard to expediency.

Table 51 - Selected Patients' Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

*Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. * Data is for 2011.*

Access to Care for Adults

Adult Medicaid Managed Care populations are less likely to receive care when needed compared to commercial organizations (table 45). **"**Controlling High Blood Pressure**"** represents the percent of Medicaid beneficiaries, ages 18 to 85 years, with hypertension whose blood pressure was adequately controlled (below 140/90). Medicaid Managed Care beneficiaries generally fared better than other payer types. "Poor HbA1c Control" is the percentage of members with diabetes whose most recent HbA1c level (a measure of long-term glucose control) indicated poor control (>9.0%). Commercial HMOs performed best in this category. "Use of Appropriate Medications for People with Asthma" is the percentage of members, ages 19 to 64 years, with persistent asthma who received at least one appropriate medication to control their condition during the measurement year. Medicaid Managed Care on average performed worst, 7% lower than the average of Commercial PPOs. "Behavioral Health: Followup after Hospitalization for Mental Illness" concerns members, ages 6 years and older, who were hospitalized for treatment of selected mental health disorders and has two time-based components. The first column is the percentage of members who were seen on an ambulatory basis or who were in

[154] "2013 Health Plan Comparison in New York State," New York State Department of Health.

intermediate treatment with a mental health provider within 7 days of discharge. The second column is the percentage of members who were seen in the same settings within 30 days.

Table 52 - Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO		Commercial PPO		Medicaid Managed Care	
Controlling High Blood Pressure	59%		57%		63%	
Poor HbA1c Control in Diabetics* (Lower is better)	27%		42%		33%	
Use of Appropriate Medications for People with Asthma	89%		90%		82%	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

*Source: 2013 Health Plan Comparison in New York State," New York State Department of Health. * Data is from 2011*

Access to Care for Children and Adolescents

There is less variation between Medicaid Managed Care and Commercial plans in regard to access to care for children and adolescents (table 46) than for adults. The measure "Well-Child and Preventive Care Visits in the first 15 months" is the percent of children who had five or more well child visits with a primary care provider in their first 15 months of life. Both types of commercial groups on average performed at about the same rate, seven to eight percentage points higher than the average of Medicaid Managed Care organizations. The "Well-Child and Preventive Care Visits 3-6 measure is the percent of children in those ages with one or more well-child visit with a primary care provider during the measurement year. There is little variation between payer types (range 79%-84%). The "Adolescent Well-Care Visit" measure is the percent of youth ages 12-21 who had at least one comprehensive well-care visit to a PCP during the measurement year. Medicaid managed care organizations and commercial HMOs performed about equally, with commercial PPOs on average performing several points lower. "Appropriate Treatment for Upper Respiratory Infection" is the percentage of children ages 3 months to 18 years who were diagnosed with an upper respiratory infection (common cold) and were not given a prescription for an antibiotic. Medicaid Managed Care plans performed on average four points higher than the average of commercial HMO and PPO providers.

Table 53 - Access and Quality Measures for Children and Adolescents, New York State, by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83
Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

*Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. *Data is from 2011*

Section iii: Domain 3 and 4 Metrics

Domain 3 Metrics: Clinical Improvement

Table 54 - Domain 3 Metrics, Behavioral Health

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management: Effective Continuation Phase Treatment Effective Acute Phase Treatment*	 37% 50%	 47%	 49%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	66%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	80%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up care for Children Prescribed ADHD Medications: Initiation Phase* Continuous Phase	 56% 63%	 64%	 62%
Follow-up after hospitalization for Mental Illness: Within 7 Days Within 30 Days*	 65% 55%	 51%	 50%
Screening for Clinical Depression and follow-up			
Adherence to Antipsychotic Medications (at least 80% of treatment time) for People with Schizophrenia (aged 19-64 yrs)*	64%	63%	71%
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	74%
Additional behavioral health measures for provider systems implementing the Behavioral Interventions Paradigm in Nursing Homes (BIPNH) project:			
PPR for SNF patients	[No known public source]		
Percent of Long Stay Residents who have Depressive Symptoms**	12.23%	[See source note]	[See source note]

*Sources: *Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management. ** Source: Nursing Home Quality Initiative 2012 (this source does not provide data at the city or county level).*

Table 55 - Domain 3: Behavioral Health Metrics at uhf neighborhood level

Neighborhood/Region	Adherence to Antipsychotic Medications for Individuals With Schizophrenia	Antidepressant Medication Management-Effective Acute Phase Treatment	Diabetes Monitoring for People With Diabetes and Schizophrenia	Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	Follow-up After Hospitalization for Mental Illness within 30 Days	Follow-Up Care for Children Prescribed ADHD Medication-Initiation Phase	Initiation of Alcohol and Other Drug Dependence Treatment
Bayside/Little Neck	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	77.89
Flushing/Clearview	76.11	50.67	60.00	79.53	59.20	72.73	75.39
Fresh Meadows	64.29	51.32	N/A- Small Sample Size	87.06	66.07	N/A- Small Sample Size	72.12
Jamaica	59.75	42.57	76.47	80.07	46.78	58.77	76.78
Long Island City/Astoria	63.43	48.48	N/A- Small Sample Size	73.74	50.00	70.97	74.45
Ridgewood/Forest Hills	69.86	54.55	N/A- Small Sample Size	78.13	49.49	62.16	74.91
*Rockaway	80.90	42.31	42.25	84.31	50.31	67.61	74.70
Southeast Queens	64.52	51.35	62.86	75.45	30.60	N/A- Small Sample Size	71.96
Southwest Queens	66.83	50.69	N/A- Small Sample Size	83.69	58.47	56.60	74.04
West Queens	73.55	47.57	76.43	80.43	59.06	63.98	71.97
NYS	**63.18**	**48.87**	**68.48**	**78.83**	**55.19**	**56.54**	**78.05**

**Outside of Queens service area. Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH*

Table 56 - Select Medicaid Managed Care Clinical Improvement Measures: Mental Health

Select Medicaid Managed Care (MMC) Clinical Improvement Measures, 2012	NYS	NYC	Queens
Antidepressant Medication Management:			
Effective Continuation Phase Treatment	37%		
Effective Acute Phase Treatment*	50%	47%	49%
Follow-up care for Children Prescribed ADHD Medications:		[No known	[No known
Initiation Phase*	57%	public	public
Continuous Phase	63%	source]	source]
Follow-up after hospitalization for Mental Illness:		[No known	[No known
Within 7 Days	65%	public	public
Within 30 Days*	79%	source]	source]

*Sources: *Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management. QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 57 - Domain 3 Metrics, Diabetes Mellitus

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy) [a]	51%	[See source note]	[See source note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing*	80%	82%	85%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) [a]	33%	[See source note]	[See source note]
Comprehensive diabetes care - LDL-c control (<100mg/dL):		[See source	[See source
Lipids Controlled (<100 mg/dL)	47%	note]	note]
Monitoring Diabetes - Lipid Profile[a]	87%		
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	4.6% (2.5-8.3)
Flu Shots for Adults Ages 50 – 64[b]	[See source note]	43% (40.0-45.9)	43% (37.4-48.8)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse)	[No known public source]		

*Sources: * Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*

[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

[b] NYC DOHMH Community Health Survey, 2012 (NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)

Table 58 - Domain 3: Diabetes Metrics at UHF Neighborhood Level

Neighborhood/Region	Comprehensive Diabetes Care HbA1C testing
Bayside/Little Neck	87.94
Flushing/Clearview	88.01
Fresh Meadows	86.83
Jamaica	84.87
Long Island City/Astoria	84.01
Ridgewood/Forest Hills	84.55
*Rockaway	72.59
Southeast Queens	82.04
Southwest Queens	85.48
West Queens	87.34
NYS	80.28

**Outside of Queens service area. Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH*

Table 59 - Domain 3 Metrics, Cardiovascular Disease

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Cholesterol Management for Patients with CV Conditions[a]	[No known public source]	35.9% (33.3-38.7)	33.1% (28.9-37.5)
Controlling High Blood Pressure (Provider responsible for medical record reporting)[a,b]	63%*	67.0% (63.3-70.5)	[No known public source]
Aspirin Discussion and Use [b] Discussion of Aspirin Risks and Benefits(HMO/PPO) Aspirin Use(HMO/PPO)	 49%/43% 39%/39%	[No known public source]	[No known public source]
Medical Assistance with Smoking Cessation[a]	[No known public source]	5.8% (4.3-7.8)	4.6% (2.5-8.3)
Flu Shots for Adults Ages 50 – 64[a]	[No known public source]	43% (40 – 45.9)	43% (37.4-48.8)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse	[No known public source]	[No known public source]	[No known public source]

Sources:

[a] NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level).

[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level).

[c] QARR 2011(Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level).

Table 60 - Select Clinical Improvement Measures, Asthma

Select Clinical Improvement Measures, 2012	NYS
Asthma Medication Ratio	
Medical Management for People with Asthma:	
50% Covered (Ages 5-11)	48%
50% Covered(Ages 12-18)	49%
50% Covered(Ages 19-50)	63%
50% Covered (Ages 51-64)	77%
50% Covered (Ages 5-64)	57%
75% Covered (Ages 5-11)	25%
75% Covered(Ages 12-18)	25%
75% Covered(Ages 19-50)	38%
75% Covered (Ages 51-64)	53%
75% Covered (Ages 5-64)	34%

Source: QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 61 - Select Clinical Improvement Measures, HIV/AIDS

Select Clinical Improvement Measures	NYS	NYC	Queens
HIV/AIDS Comprehensive Care : Engaged in Care[a]	89%	89%	88%
HIV/AIDS Comprehensive Care : Viral Load Monitoring[a]	66%	67%	66%
HIV/AIDS Comprehensive Care : Syphilis Screening[a]	68%	71%	68%
Cervical Cancer Screening[a]	67%	69%	71%
Chlamydia Screening, Women Ages 16-24[a]	66%	70%	69%
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	4.6% (2.5-8.3)
Viral Load Suppression [c]	62.2%	61.2%	59%

Sources: Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management. [b] *Source: HIV Ambulatory Care Performance, 2011.*
[c] *2011 eHIVQUAL Submissions from NYS HIV Ambulatory Care Programs. Reports updated October 21, 2013.*

Table 62 - Domain 3: HIV/AIDS Metrics at UHF Neighborhood Level

			Comprehensive Care for People Living with HIV/AIDS		
Neighborhood/Region	**Cervical Cancer Screening**	**Chlamydia Screening in Women**	**Engaged in Care**	**Syphilis screening**	**Viral Load Monitoring**
Bayside/Little Neck	67.51	65.89	N/A- Small	N/A- Small	N/A- Small
Flushing/Clearview	75.27	68.47	94.87	62.16	48.72
Fresh Meadows	71.94	61.55	N/A- Small	N/A- Small	N/A- Small
Jamaica	69.63	66.27	87.39	71.32	69.04
Long Island City/Astoria	64.58	70.90	89.21	71.85	77.70
Ridgewood/Forest Hills	68.76	70.96	90.24	74.53	67.07
*Rockaway	66.08	63.02	87.79	65.71	57.14
Southeast Queens	67.66	67.46	82.56	62.77	57.95
Southwest Queens	70.01	66.78	90.43	70.00	70.81
West Queens	72.60	73.80	89.40	66.12	67.51
NYS	66.80	65.58	89.34	69.27	66.44

**Outside of Queens service area. Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH.*

Table 63. - Select Clinical Measures, Perinatal Care

Select Clinical Improvement Measures, 2012	**NYS**	**NYC**	**Queens**
PQI # 9 Low Birth Weight[a]	8.2%	8.6%	8.1%
Prenatal and Postpartum Care—Timeliness and Postpartum Visits:			
% mothers received postpartum checkup[b]	90.1%	89.2%	
% mothers received prenatal care - start 1st to 3rd month[a]	71.8%	70.4%	70.3%
% mothers received prenatal care - start 4th to 6th month[a]	20%	21.5%	21.0%
% mothers received prenatal care - start 7th to 9th month[a]	4.8%	6.2%	6.5%
% late or no prenatal[a]	3.4%	2.0%	2.2%
Frequency of Ongoing Prenatal Care:			
Frequency of Ongoing Prenatal Care 61-80%[c]	12%		
Frequency of Ongoing Prenatal Care 41-60%[c]	6%		
Frequency of Ongoing Prenatal Care 21-40%[c]	4%		
Frequency of Ongoing Prenatal Care <21%[c]	8%		
Percentage of Children Who Had Five (5) or More Well Care Visits in the first 15 months[c]	85%	83%	87%
Childhood Immunization Status:[d]			
Childhood immunization (0lmmz)[d]	1%		
Childhood immunization-3 or more IPVsd	93%		
Childhood immunization-2 or 3 rotavirus[d]	69%		
Childhood immunization-4 or more pneumococcals[d]	81%		
Childhood immunization-2 or more HepA[d]	37%		
Childhood Immunization-2 or more influenza[d]	57%		
Childhood Immunization-Varicella[d]	91%		
Childhood Immunization-MMR[d]	93%		

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Childhood Immunization-4 or more DTPs[d]	83%		
Childhood Immunization-3 or more HepB[d]	92%		
Childhood Immunization-3 or more Hibs[d]	93%		
Childhood Immunization Status (Combo 3: 4-3-1-3-3-1-4)[d]	74%		
Lead Screening in Children[d]	89%		

Sources: [a] NY State Vital Statistics, 2012. [b]PRAMS 2011 (postpartum metrics). [c] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level). [d] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level).

Table 64 - Domain 3: Perinatal Care Metrics At UHF Neighborhood Level

			Comprehensive Care for People Living with HIV/AIDS		
Neighborhood/Region	Cervical Cancer Screening	Chlamydia Screening in Women	Engaged in Care	Syphilis screening	Viral Load Monitoring
Bayside/Little Neck	67.51	65.89	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size
Flushing/Clearview	75.27	68.47	94.87	62.16	48.72
Fresh Meadows	71.94	61.55	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size
Jamaica	69.63	66.27	87.39	71.32	69.04
Long Island City/Astoria	64.58	70.90	89.21	71.85	77.70
Ridgewood/Forest Hills	68.76	70.96	90.24	74.53	67.07
*Rockaway	66.08	63.02	87.79	65.71	57.14
Southeast Queens	67.66	67.46	82.56	62.77	57.95
Southwest Queens	70.01	66.78	90.43	70.00	70.81
West Queens	72.60	73.80	89.40	66.12	67.51
NYS	66.80	65.58	89.34	69.27	66.44

**Outside of Queens service area. Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH.*

Table 65 - Select Clinical Improvement Measures, Renal Care

Select Clinical Improvement Measures, 2012	NYS
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy)[a]	51%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)[a]	33%
Comprehensive diabetes care - LDL-c control (<100mg/dL)[a]	47% 87%
Annual Monitoring for Patients on Persistent Medications – ACE/ARB[b]	92%

Sources:
[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level).
[b]QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level).

Table 66 - Domain 3: Other Clinical Improvement Process Metrics

Neighborhood/Region	Breast Cancer Screening	Colorectal Cancer Screening
Bayside/Little Neck	69.03	63.21
Flushing/Clearview	75.12	69.71
Fresh Meadows	70.89	59.88
Jamaica	64.14	44.73
Long Island City/Astoria	66.25	47.05
Ridgewood/Forest Hills	65.26	51.05
*Rockaway	57.09	41.44
Southeast Queens	64.50	46.13
Southwest Queens	70.61	48.53
West Queens	74.31	59.14
NYS	63.40	49.31

**Outside of Queens service area. Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH.*

SECTION C: IDENTIFICATION OF THE MAIN HEALTH AND HEALTH SERVICES CHALLENGES

Queens is a diverse borough, rich in culture, commerce and open space. However, disparities are pronounced, given its mix of high, medium and low income neighborhoods, and significant populations from diverse racial and ethnic groups including—but not limited to— Asian and Southeast Asians (from multiple countries), Latinos (originating from multiple countries), African American and Caribbean populations and Whites of European ancestry including Russian, Polish and other eastern European countries. These residents are both foreign-born citizens and recent immigrants who may or may not be documented. Each of these communities has unique health care and other needs related to culture, language, education and economics.

Behavioral Risk Factors

Tobacco use, alcohol consumption, physical activity and diet, sexual practices, and disease screenings exert strong influences on health. These behavioral risk factors contribute to numerous diseases, and have long been viewed a major contributors to deaths in the United States. For example, a World Health Organization (WHO) report shows the burden of disease and death attributed to tobacco use in developed countries was substantially higher than that attributable to any other risk factor including alcohol use, unsafe sex, hypertensions, and physical inactivity.[155] Second to tobacco use, the combination of inactivity and poor diet has been ranked as the second leading factor contributing to mortality in the US.[156] Overweight adults are at risk for diabetes, and increased risk for hypertension, coronary heart disease, several forms of cancer, and run the risk of developing gallbladder disease, osteoarthritis, sleep apnea, and respiratory problems.[157]

Table 67 - Risk Factors by Select Queens Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current Smoker
NYC	24.1%	19.7%	22.2%	15.6%
Long Island City-Astoria	23.8%	22.6%	17.7%	16.0%
West Queens	23.6%	23.6%	24.6%	16.0%
Flushing-Clearview	17.6%	18.2%	29.8%	16.3%
Bayside/Little Neck/Fresh Meadows	14.2%	7.5%	21.8%	13.2%
Ridgewood-Forest Hills	17.0%	13.5%	27.3%	17.3%
Southwest Queens	25.5%	21.7%	21.9%	17.3%
Jamaica	26.7%	13.0%	20.7%	11.9%
Southeast Queens	25.8%	13.9%	21.8%	9.0%
East New York/New Lots	37.0%	18.4%	25.6%	10.1%

[155] Murray C, Lopez A. "The Global burden of disease." Geneva: World Health Organization. 1996.
[156] McGinnis, JM, Foege WH. "Observed Causes of Death in the United States. " *Journal of the American Medical Association:* 270, pg. 2207-2212. 1993.
[157] USDHHS (US Department of Health and Human Services), "Healthy People 2010: Understanding and Improving Health." Washington, DC. 2000.

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012. Values are not adjusted for age. Values in red font should be interpreted with caution. Value's relative standard error (a measure of estimate precision) is greater than 30% or the sample size less than 50 or the 95% confidence interval half width is greater than ten, make the estimate potentially unreliable.

Environmental Risk Factors

Health status varies greatly among neighborhoods across the borough. Environmental risk factors such as poorly maintained housing, pest infestation, air pollution, limited access to healthy foods, and lack of recreational space for exercise and play all adversely affect health. Vulnerable populations typically face greater environmental risks. For example, data suggest that Citywide, 40% of uninsured and 37% of Medicaid beneficiaries reported having seen cockroaches inside their home in the past month.

Table 68 – Environmental Risk Factors in Select Queens Neighborhoods

	NYC	Queens	Flushing - Clearview	Jamaica	Long Island City Astoria	Southeast Queens	Southwest Queens	West Queens
Indoor Air Quality								
Homes with cockroaches (2011)	24%	19.7%	16.7%	20.4%	22.2%	7.9%	18%	27.9%
Adults reporting second-hand smoke at home (2011)	4.9%	5%	n/a	2.6%	4.9%	5.7%	n/a	4.7%
Adults reporting mold in the home (2012)	9.5%	8.6%	5.4%	11.6%	6.9%	8.9%	8.6%	10.8%
Adults reporting mice in the home (2012)	15.5%	12.6%	10.9%	16%	12.2%	9.9%	14.8%	16.3%
Home Safety and Maintenance								
Homes with cracks or holes (2011)	15.7%	9.4%	4.6%	9.6%	15.6%	6.7%	7.3%	11.8%
Homes with leaks (2011)	20.6%	15.2%	8.6%	18.3%	16.5%	13.5%	12.3%	18.7%
Households rating neighborhood structures good or excellent (2011)	75.2%	81.9%	88.9%	67.4%	83.7%	86.4%	81.7%	78.7%

Data Sources: New York Community Health Survey (CHS), New York City Housing and Vacancy Survey (HVS), 2011, 2012.

Socioeconomic Challenges

The Medicaid beneficiaries that account for the largest number of preventable admissions are concentrated in the areas of Jamaica, Southeast Queens and East New York, though pockets of high concentration may exist at sub-zip code levels in other neighborhoods throughout the borough. Medicaid beneficiaries in these areas also account for the highest number of potentially preventable

emergency room visits (PPV)[158]. These areas of the borough rank consistently poorly in markers of socioeconomic determinants of health such as household poverty, unemployment, lack of health insurance, low levels of education, as well as high prevalence of disease. In addition, there are a large number of immigrants—including many undocumented—in a number of Queens neighborhoods with access barriers (e.g., linguistic, eligibility for insurance, familiarity with the US healthcare system) that go beyond those of other populations and reportedly result in delayed care.[159]

Basic Necessity Resources

Neighborhoods with concentrated levels of poverty are described by many residents as suffering from neglect on a global scale. Housing, lifestyle, employment and education are all social determinants of good health but Queens, like all parts of all NYC boroughs, is slowly becoming more gentrified. Young and affluent people, priced out of Manhattan, are flocking to neighborhoods that are along subway lines that make the city accessible, making previously working and middle class neighborhoods like Ridgewood, Astoria, Sunnyside and Long Island City attractive to higher paying renters and first time buyers. The housing alternatives left for these displaced people are becoming slimmer every year.

The public housing stock in NYC is some of the oldest in the nation, and city government does not have the capital budget to maintain such an extensive housing stock. Mayor De Blasio has placed affordable housing on his first term agenda, but there is only so much physical space, let alone financing, to meet demand. As is, public housing in the outer boroughs such as Queens is most often located in some of the area's most far-flung neighborhoods, which can isolate residents from needed health and social services. For example after Hurricane Sandy, public housing in south Brooklyn and The Rockaways in Queens were literally cut off from all services as electrical service was lost. Residents could not even get out of their buildings without elevator service, and public transportation was lost or severely limited for months. Combined with limited services directly in the community, people went without health care services, prescription medication and social services. Without a fair distribution of affordable housing throughout the borough or enhanced public transportation services, Queens residents will always face barriers to health care access.

Barrier Free Access

Individuals with physical and/or cognitive disabilities are disproportionately low income, unemployed, and have a high number of co-morbidities, including obesity, hypertension, and cardiovascular disease. Despite a high need for services, they reportedly delay care because of poor accommodation (e.g., absence of ramps, sign language interpreters) and providers that are insensitive to both their capabilities and their limitations. These access barriers—and their implications— were described by CNA participants. Unfortunately, barriers are considered more significant in community as compared to

[158] Ibid.
[159] NYAM Primary Data

hospital settings so may become more pronounced as—consistent with the goals of DSRIP—services move into the community.

> *A requirement, for example, that you come to an appointment timely, or if you miss an appointment three times, you can be dis-enrolled from a program or a provider, [is discriminatory]. If you use Access-a-Ride, for example, it is almost impossible to know when you will arrive at a location on a consistent basis. The service is simply of such poor quality that if … you need door-to-door transportation, you need flexibility in appointment scheduling.*
>
> *In the health setting, practitioners are often listed – clinics are often listed as being wheelchair accessible in managed care program directories. But in fact, according to a survey by the Community Service Society, it was found that these practitioners have steps at their front entrance. The providers don't even know what accessibility means. And so they list themselves as accessible, but when you go to their site or you call them on the phone, they'll say, "Oh yes, we have a few [steps] at our entrance, but that's no big deal."*
>
> *They don't have exam tables that will lower so that you can transfer from a wheelchair. Or they don't provide ASL interpreters, either in person or by video phone or other system. …. They don't give you longer times for your appointment if it's going to take you a long time to dress and undress…*

Policy Environment

The NYS health care policy environment also presents challenges for consumers and providers and unintentionally causes barriers to health care access and the efficacy of care. Varying funding and regulatory agencies had differing requirements: 1) limiting continuity of care for patients with multiple healthcare needs and 2) putting excessive demands on provider organizations that worked with multiple systems. Resources for increasingly valued services, such as care coordination, were limited meaning that salaries for the positions were relatively low. Low salaries make hiring difficult and may necessitate selection of candidates that are under-qualified, particularly considering the expectations of the job. These expectations may include familiarity with multiple services (e.g., medical services, housing service, insurance information, etc.); ability to work with relatively difficult populations, including clients with behavioral health issues; and ability to use multiple electronic record systems, because of the multiple partner organizations.

Service Gaps Related to Primary Care

A key component of the DSRIP program is to reduce avoidable services by bolstering primary care providers and community based organizations (CBOs) to enhance coordination of care, prevention and disease management, particularly for those with chronic conditions.

Lack of trust or engagement (or possibly time) in care coordination on the part of medical providers also was considered to limit the potential effectiveness of care coordination models.[160]

> *What's missing is…saying to individual providers that this is important, and you need to be responsive, and you need to talk to people, and you need to interact with care coordinators. One of the biggest problems and flaws in the system is that in all of our contracts… we're required to go to providers, individual PCP's and psychiatrists, and get information from them both about their care that they're providing to our client or their patient or the lab work that's been done, tests, reports, anything that they're doing with our patient. We need to get access to that information so that we can help to provide better care and to guide that person along in the care that they're getting. So if they get prescribed a specific medication, we can say, "Are you taking that medication? Where are you at with it? Have you filled the prescription?" Those kind of things. The problem is, on the provider's side, they don't get paid. No one's telling them – no one's saying to them from the funder level … "You must communicate with these people."… so the providers ignore us. We have a requirement to do that, and so we're constantly doing it, but we're constantly getting rebuffed. And it's simply because there's no structure for them to respond. If, for example, you paid them to have a case conference, and that was part of their payment structure around a complicated expensive case, somebody who was costing Medicaid tens of thousands of dollars a year and, "Oh, let's pay the doctor $500 to have a case conference"…They have to be incentivized, and I think this DSRIP is an opportunity to do that. (Key informant, multiservice organization)*

This is perceived to be even more problematic for behavioral health services. According to key informant providers, the system is fragmented, with possibly poorer integration *within* behavioral health services themselves than between physical and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH) with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. Thus, a mental health provider might be limited in the severity of illness that can be treated, the age of the patient, and other factors.

> *Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I mean really become integrated in treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (Key informant, multiservice organization)*

> *Depending upon the level of what people talk about, behavioral health can be done within the Article 28. We have psychiatrists who work within the [Article] 28 and psychiatry can be in*

[160] NYAM Primary Data

health clinics. They're really there to really confirm and confer. It's called a consultation liaison model and you know, you're really, the rule of thumb and it's hard to get answers our of Medicaid about how many times we can be seen. It's like a maximum of three times. So if someone needs more than just a simple SSRI, you know, you see that the psychiatrist. The psychiatrist may say you know what, I really think you should go into [article] 31 … It's not that it's a bad thing, you know but it's just another step and I don't even know that it's a wrong step but it's a very excessive, it takes at least an hour to administer it to a patient… W*e do offer short term therapy in our 28 which does not make you go through that. We have very limited slots and because of licensure, it has to be secondary to a medical issue because again, the Medicaid rules are very clear. (Key informant, FQHC)*

Overall challenges within the health system include ambulatory care provider capacity (ability to schedule appointments within an acceptable period of time as well as waiting times at the time of the appointment) and linkages and coordination within and between broader health care delivery systems.[161] The data, including responses from large numbers of key informants and focus group participants, also suggest there is a lack of culturally and linguistically competent specialists.[162]

During key informant interviews and focus groups, community members (and providers) consistently described long wait times for visits (as long as a year for a dietician) and long wait times at the time of a visit. The brief amount of time doctors spend with patients, and a perception that providers do not have the best interests of patients in mind (i.e., they will do what is expedient rather than what represents highest quality care) also present a challenge. Limitations on subspecialty services in Queens mean that patients are referred to hospitals in other boroughs, impacting on continuity of care. Such issues have an impact on acceptance of services. Furthermore, the possible need for multiple visits (e.g., for tests), discourages timely use of services and makes the emergency department a rational choice for "one stop shopping".

<u>Factors Related to Health Insurance</u>

Independent of work and language access issues, key informants and focus group participants described, including greater stigmatization cultural, attitudinal, perceptual and knowledge-based barriers to care among the foreign born of particular health conditions, difficulties navigating the health insurance and care system, low prioritization of preventive care services, and fear of medical bills and deportation if they engage with any part of "the system."

[Arab] women if they have breast cancer, they try to hide it as much as they can, because they don't want the community to know that their girls might get it. They might inherit it from the mother. Nobody will marry their daughters, so all these problems, they feel like they don't let anyone in the community – even though confidentiality is a very big issue for us and very

[161] NYAM Primary Data
[162] Ibid.

important for us, but they feel very protective of themselves. They don't want anybody to know about health issues and health problems. (key informant, CBO)

Fear of medical bills and deportation was greatest among the undocumented but affected other immigrant groups, as well.

You also have insurance literacy and like, "What does a co-pay mean?" And some of the complexity of some of the plans, the way they're designed, you have co-payments and then you have co-insurance which is distinct. And then on top of that you have your premiums. And so, that's – we say this all the time, but that type of stuff is confusing to all of us, so how [immigrants] are able to navigate that moving forward and use their insurance, is huge. (key informant, health advocacy)

Oftentimes they would forego getting any care, getting screenings, or even if they were deathly ill, they will totally wait until the end, and even with people who had insurance, because they were afraid of the cost of care. (key informant, CBO)

Those are some of the most prevalent cases we get. Where people say, "I have this bill. I don't know how I could ever pay this bill." Often, even though in many cases we will help resolve the bill through the financial assistance policy, the person never wants to go back to the hospital again because that happened… Any hospital…. Often they'll have gone for like one appointment, and they get like a $7,000 bill. It just doesn't make sense to them. So it's just scary, right? So it does feel like hospitals don't really get the impact that a scary bill can have to their patient's desire to ever come back to the hospital. (key informant, CBO)

It was reported that immigrants that regularly returned to their home country used medical services there. It was also reported that immigrants received prescription medicines from their home country, as the costs of medicine were generally much lower outside the US.

SECTION D: SUMMARY OF THE ASSETS AND RESOURCES THAT CAN BE MOBILIZED

Queens health and human services infrastructure provides a solid base for launching collaborative programs to reduce the over utilization of acute care services and support public health interventions. The borough has an extensive array of public and private hospitals, hospital outpatient extension clinics, FQHCs, community health centers, independent community based primary care providers, and community based organizations (CBOs) that are coming together to establish targeted care coordination, health prevention, and disease management strategies through initiatives such as DSRIP, the Interboro and Healthix RHIOS, the HHC and Community Healthcare Network Health Homes and Health Center Controlled Networks. Medysis and HHC hospitals in Queens also accommodate physician residency programs which spur the growth of community-based primary and specialty care capacity in medically underserved areas. Expanded capacity, enhanced quality, technological linkages to broader health care delivery systems and operating hours adjusted to patient need are crucial in medically underserved areas such as Jamaica, East New York, Elmhurst/Corona, and Flushing.

This approach is supported by the New York State Department of Health, which is leveraging the policy objectives and financial resources from the federal Affordable Care Act and New York State's Medicaid Redesign strategy to invest in primary care service delivery funding for community health center development and capacity expansion, as well as increasing the number of insured individuals and families who will have greater access to community-based health care services. In addition, funding for establishing Patient Centered Medical Homes and EHR Meaningful Use are significant incentives to attain care coordination and quality outcome goals that are so integral to the success of DSRIP.

New York City is fortunate in that its local health department, the New York City Department of Health and Mental Hygiene (NYC DOHMH), has been led by visionary public health experts who, with Mayoral support, have established trailblazing population health programming and policy initiatives. These efforts include broad anti-smoking campaigns, a ban on transfats in local restaurants, targeted efforts to increase physical activity (e.g. City Share bike share program, incentivizing active design in new building developments) and healthy eating initiatives such as expanding the presence of local farmers markets in low-income neighborhoods and establishing nutritional standards in schools and other public institutions. These are just a few examples of the broad impact that DOHMH has on improving the health of local communities.

DOHMH is also supporting new initiatives such as the new Center for Health Equity, which will focus on reducing health disparities citywide, and a new community health worker program that is being piloted in East Harlem. Overall, there may be greater opportunities for synergies between the NYC DOHMH and the health systems in Queens to replicate these programs across the borough.

Community-based organizations (CBOs) such as Safe Space, South Asian Council for Social Services and New Horizons provide crucial social and enabling services to neighborhoods and specific constituencies, and will continue to be vital resources for culturally and linguistically targeted health education and chronic disease management, health insurance enrollment, treatment adherence and linkages to

additional community resources. CBOs also encompass faith-based organizations and religious institutions that are often the initial, trusted source of referrals for local community services.

Queens CBOs are potent activists in advocating for social and regulatory change that will positively impact on health outcomes in areas including but not limited to:

- Supportive housing and increased affordable housing development.
- Behavioral health care reform, including integration with primary care and other behavioral service providers.
- Immigration, education, and correctional services reform.
- Legal assistance in multiple languages related to immigration and housing issues, domestic violence, and emergency financial assistance from organizations such as Asian Americans for Equality, the New York Immigration Coalition and the New York City Housing Authority
- Social services programs including SNAP, Medicaid and subsidized child care (NYC Human Resources Administration, the NYC Administration for Children's Services and Catholic Charities).

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Brooklyn Community Needs Assessment

Final Report, December 16, 2014

NYAM

Original Version Prepared by The New York Academy of Medicine

Final Report Amended for Submission by
New York City Health and Hospitals Corporation
Corporate Planning Services

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Overview

Summary of Findings

Brooklyn is a diverse borough, rich in culture, commerce and open space, including parks, gardens and beaches. However, disparities are pronounced, given its mix of high, medium and low income neighborhoods, and significant populations from multiple racial, ethnic and immigrants groups including—but not limited to African American and Caribbean populations, Latinos (originating from multiple countries), and Chinese, Russian, Polish, South Asian, and Arab populations.[1] Each of these communities has unique needs related to culture, language, education, and economics, as well as unique strengths.[2]

A number of Brooklyn neighborhoods have high concentrations of public housing. These areas, which often have concentrated poverty, are described by many residents as neglected neighborhoods, without appropriate services for meeting even basic needs.[3] In contrast, rapid gentrification is evident in many traditionally lower income and minority Brooklyn neighborhoods, having consequences that are described by some in positive terms, including increased access to healthy foods.[4] More commonly, the negative consequences of gentrification are noted, including reduced affordable housing and higher prices at local businesses.[5]

In Brooklyn, the greatest proportion of potentially preventable admissions (PQI) is for chronic conditions including respiratory conditions (asthma, COPD), cardiovascular conditions (heart failure, hypertension), and diabetes; thus, these conditions and diseases represent the areas of greatest opportunity for reducing preventable inpatient stays.[6,7] A focus on these conditions is consistent with findings from the primary data, which also pointed to diabetes, hypertension and asthma as areas of great concern. Many community members were also concerned about obesity and behavioral health—including anxiety, depression, substance abuse and violence—and clearly recognized the link between behavioral and physical health conditions.[8]

Within Brooklyn, the Medicaid beneficiaries that account for the largest number of preventable admissions are concentrated in the areas of northern/central Brooklyn and Coney Island-Sheepshead

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[1] NYAM primary data findings, as of September 15, 2014.
[2] Ibid.
[3] Ibid.
[4] Ibid.
[5] Ibid.
[6] New York State Department of Health DSRIP Performance data, 2012, http://www.health.ny.gov/health_care/medicaid/redesign/dsrip_performance_data/, accessed September 15, 2014.
[7] Note the rate of potentially preventable inpatient admissions for chronic conditions (PQI 92) is 1,283 per 100,000 Medicaid beneficiaries in Brooklyn versus 480 per 100,000 beneficiaries for acute conditions (PQI 91) for the combined years 2011-2012 (NYS DOH DSRIP Chartbook, using data from the NYS DOH Office of Quality and Patient Safety, 2014). However, this measure does not assess length of stay or cost for these admission types.
[8] NYAM primary data findings, as of September 15, 2014.

Bay, though pockets of high concentration may exist at sub-ZIP Code levels in other neighborhoods throughout the borough.[9,10] Medicaid beneficiaries in northern/central Brooklyn also account for the highest number of potentially preventable emergency room visits (PPV), though PPV rates are high throughout the county, with approximately 65% to 80% of all emergency visits considered potentially preventable.[11] (See Appendix A, Map 53.) It should be noted that there are a large number of Medicaid beneficiaries living in the Sunset Park neighborhood, though the number of PQI admissions and rate of PPV visits per 100 beneficiaries are lower there than in northern/central Brooklyn and Coney Island–Sheepshead Bay. These areas of the borough consistently rank poorly in markers of socioeconomic determinants of health such as household poverty, unemployment, lack of health insurance,[12] low levels of education, as well as high prevalence of disease.

In addition, there are a large number of immigrants—including many undocumented—in a number of Brooklyn neighborhoods with barriers to health care (e.g., linguistic, eligibility for insurance, familiarity with the US healthcare system) that go beyond those of other populations and reportedly result in delayed care.[13]

A key component of DSRIP is to reduce avoidable hospital visits by bolstering community based providers and organizations to enhance coordination of care, prevention, and disease management, particularly for those with chronic conditions. Yet, we find the distribution of primary care providers uneven in Brooklyn, with sparse numbers in certain low-income neighborhoods. (See Appendix A, Maps 83, 84, and 89.) In addition, while community providers have made myriad efforts over the years to improve outreach to both community members and hospital providers,[14] concerns remain within the community regarding the adequacy and accessibility of outpatient care.[15] According to CNA participants, ambulatory care providers' capacity, perceived quality, linkages to broader health care delivery systems, and insufficient evening and weekend service exacerbate access issues in some high-need areas, for example in northern/central Brooklyn.[16] The data, including responses from large numbers of key informants and focus group participants, also suggest there is a lack of culturally and linguistically competent specialists[17] and multi-specialty centers that could provide a 'one-stop shopping' experience that many patients seek.[18] For example:

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[9] New York State Department of Health DSRIP Performance data, 2012, released 2014.
[10] NYAM data analysis is at the ZIP Code level, the smallest boundary level for which data is available. The neighborhood names cited are United Hospital Fund (UHF) neighborhood designations, commonly used by the New York City Department of Health and Mental Hygiene, including as the reporting boundaries for their Community Health Survey. For more information, see http://www.nyc.gov/html/doh/downloads/pdf/survey/uhf_map_100604
[11] New York State Department of Health DSRIP Performance data, 2012, released 2014.
[12] Excepting Coney Island where the population is older and thus more likely to be eligible for Medicare.
[13] NYAM primary data findings, as of September 15, 2014
[14] See, for example, IPA factsheets provided by AW Medical Offices and referenced in Section A(i) of this report.
[15] NYAM primary data findings, as of September 15, 2014
[16] NYAM primary data findings, as of September 15, 2014. See also Brooklyn Healthcare Improvement Project (B-HIP) "Final Report: Making the Connection to Care in Northern and Central Brooklyn," August, 2012.
[17] Ibid.
[18] Brooklyn Healthcare Improvement Project (B-HIP) "Final Report: Making the Connection to Care in Northern and Central Brooklyn," August, 2012

When you look at specialty care, say around mental health, for example, if an individual wants to go to someone who's culturally competent, we don't have a lot of Asian-Americans who are going into fields like mental health or behavioral health issues. (key informant)

From the community perspective, the costs incurred— in both time and money — in seeking medical care remains very problematic and acts as a barrier for low income populations to effectively use prevention and disease management services. The income criteria for Medicaid are described as unrealistic, given the cost of living in New York City, and the working poor who do not qualify for Medicaid — according to many focus group participants — cannot afford the premiums of the insurance offered through the Health Exchange.[19] Community members (and providers) consistently describe long wait times for visits and long wait times at the time of a visit. Furthermore, the possible need for multiple visits (e.g., for tests), discourages timely use of services and makes the emergency department a rational choice for "one stop shopping".[20] Typical of comments reported:

People say it's not rational to go to the emergency room for care, but when we talk to people, they would say things like, "Well, I tried to make an appointment with my doctor, and it's like four months in advance." What rational person is going to wait four months rather than go [to the ER?] (key informant)

Also, while there are a number of Community Based Organizations (CBOs) in Brooklyn, the data suggest more resources are needed to equip them with staff and capacity, including a structured and adequate funding stream for case managers, navigators, counselors, health educators and/or community health workers placed at CBOs or in the field, as well as effective linkages – both interpersonal and electronic – between the CBOs and the medical providers.[21]

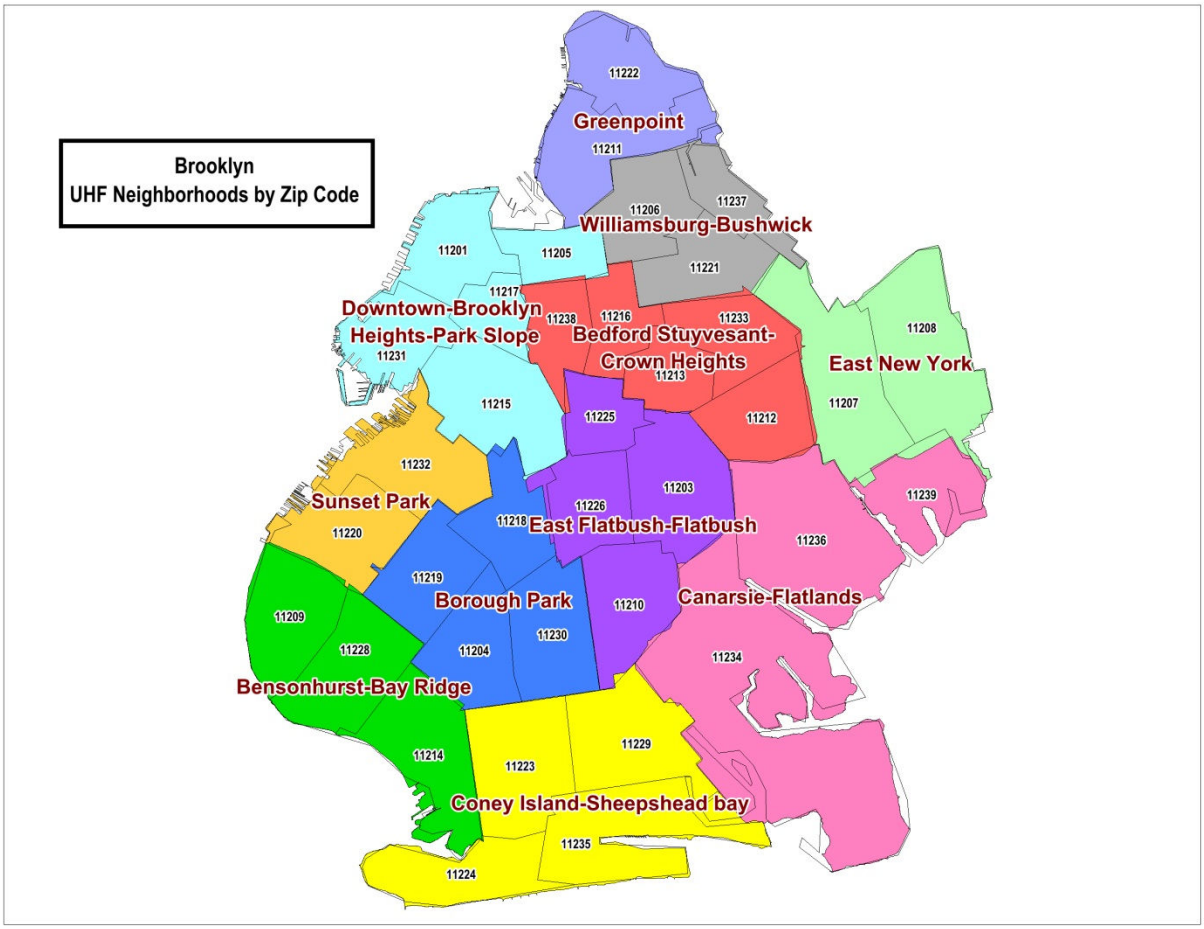
In addition to CBOs, the local department of health – the New York City Department of Health and Mental Hygiene (NYC DOHMH) – is a resource for population health programming and technical assistance. The NYC DOHMH has a Brooklyn District Public Health Office, which has a special focus on maternal child health and obesity prevention, and a new Center for Health Equity, which will focus on reducing health disparities citywide. There may be greater opportunities for synergies between the NYC DOHMH and the health systems in Brooklyn.

Overall, community members and providers that participated in the CNA clearly recognized the impact that poverty and lack of community resources have on health and well-being.[22] Low-income Brooklyn residents describe very stressful lives, with concerns that include, but are not limited to, employment, housing (which is in increasingly short supply with the gentrification of many Brooklyn neighborhoods),

[19] NYAM primary data findings, as of September 15, 2014
[20] NYAM primary data findings, as of September 15, 2014. B-HIP Report, August, 2012.
[21] NYAM primary data findings, as of September 15, 2014.
[22] NYAM primary data findings, as of September 15, 2014.

safety, access to healthy food, and appropriate resources for children and teens. A number of African American communities report poor access to services. Immigrant communities reported workdays may be 16 hours or more, and the pressures of assimilation are persistent.[23] Across populations, community members attribute high rates of diabetes, hypertension, obesity, depression and others illnesses, to their daily stresses.[24] They express the want for community programming and other resources to assist with their basic needs.[25] In addition, primary data suggest that there are particular very high need populations, including the chronically street homeless, those with severe alcohol dependence and/or serious mental illness, victims and survivors of domestic violence, individuals coming out of jails and prisons, and individuals with particular disabilities, that would likely benefit from more targeted and intensive services to ensure that a wide range of needs are addressed and systemic barriers are ameliorated.[26]

[23] Ibid.
[24] Ibid.
[25] Ibid.
[26] Ibid.


Brooklyn
UHF Neighborhoods by Zip Code
Greenpoint
11222
11211
Williamsburg-Bushwick
11206
11237
11221
11201
11205
11217
Downtown-Brooklyn
Heights-Park Slope
11231
11238
11216
11233
Bedford Stuyvesant-
Crown Heights
11213
11208
East New York
11207
11212
11215
11225
11232
Sunset Park
11220
11203
11226
11218
East Flatbush-Flatbush
11239
11236
11219
Borough Park
11210
Canarsie-Flatlands
11209
11228
11230
11204
11234
Bensonhurst-Bay Ridge
11214
11223
11229
Coney Island-Sheepshead bay
11235
11224

SECTION A. DESCRIPTION OF HEALTH CARE RESOURCES AND COMMUNITY RESOURCES

Sections i and ii

Health Care Resources

In Brooklyn, a large proportion of community members that were surveyed appear to be engaged regularly in primary and preventive care. Eighty-two percent of survey respondents reported having a "primary care provider or personal doctor;" 83.4% reported that there's a place they "usually for health care, when it is not an emergency." The majority of respondents (55.4%) went to a primary care doctor's office, 13.5% went to a hospital outpatient clinic, 13.0% went to a community/family health center, and 8.8% went to a specialist doctor's office. Eighty-four percent reported that the place they usually go is in Brooklyn; 10.8% reported that it is Manhattan. Eighty-four percent of respondents reported that their last routine check-up was within the last year. Approximately 60% had seen a dentist within the last year.[27]

However, there also seemed to be high use of the emergency room and episodes where respondents went without care. Close to 40% had been to the ER in the last year. Approximately 23% reported that there was a time in the last 12 months when they needed "health care or health services but did not get it." The most common reasons were lack of insurance (44.4%), cost of co-pays (18.8%), other responsibilities (12.5%), and "couldn't get an appointment soon or at the right time" (11.8%).[28]

Independent of the actual number of health care resources described in the sections below, strong themes that emerged from the primary data collection (key informant interviews and focus groups) included the perception that there were insufficient resources for those that were uninsured, wait times were often so long (3-4 months) that they discouraged optimal use of primary care services, and that access to providers with linguistic and cultural competency remains somewhat problematic, particularly for behavioral health services. In addition, there were concerns with quality of care, given the typical visit length, and perceptions that providers seek the easy solution—generally medication—rather than providing education or other supports that might be more effective.[29]

- **Hospitals**

There are 14 major hospital systems in Brooklyn: Beth Israel Medical Center; Brookdale Hospital Medical Center; Brooklyn Hospital Center - Downtown Campus; Coney Island Hospital; Interfaith Medical Center; Kings County Hospital Center; Kingsbrook Jewish Medical Center; Lutheran Medical Center; Maimonides Medical Center; New York Community Hospital of Brooklyn; New York Methodist Hospital; State University of New York Hospital Of Brooklyn; Woodhull Medical and Mental Health Center; and Wyckoff Heights Medical Center. (See Appendix B, Table 41.) These hospitals have bed capacity ranging from 134

[27] NYAM Primary Data Findings, September 2014.
[28] Ibid.
[29] Ibid.

to 711 with an average of 414 total beds per hospital. Many of them are located in North-Central Brooklyn in the neighborhoods of Williamsburg-Bushwick, Downtown–Heights–Slope, Bed Stuyvesant–Crown Heights and East Flatbush-Flatbush. Additionally, there are hospitals located in Sunset Park, Canarsie-Flatlands and Coney Island. Several neighborhoods, including Greenpoint, East New York, and Bensonhurst-Bay Ridge, appear to have no hospitals. (See Appendix A, Map 79.) Of these hospitals, the HHC system hospitals (Kings, Coney Island, Woodhull) are the public, safety net hospitals, treating a large proportion of the Medicaid and uninsured populations. The Veterans Administration also operates one hospital in the Borough.

In 2011, as part of state Medicaid redesign, the Brooklyn Health Systems Redesign Work Group convened to examine the healthcare delivery infrastructure in the Borough. The Work Group generated recommendations that particularly addressed six area hospitals: Brookdale Hospital Medical Center, Brooklyn Hospital Center, Interfaith Medical Center, Kingsbrook Jewish Medical Center, Long Island College Hospital, and Wyckoff Heights. Efforts to restructure the area health system per the recommendations have been ongoing, and have been tracked closely by advocacy and community groups, elected officials, and the media for their impact on the local economy as well as access to care. Reactions from community members include concerns that, with closures, remaining hospitals will receive an influx of patients that will overload the system.[30]

- **Ambulatory Surgical Centers**

There are approximately 16 ambulatory surgery centers and 103 office-based surgical practices in Brooklyn, highly concentrated in the higher SES neighborhoods of Downtown – Heights – Slope, Greenpoint, Bensonhurst-Bay Ridge and Canarsie-Flatlands. These types of services are noticeably absent in many ZIP Codes with high proportions of Medicaid beneficiaries and uninsured including Williamsburg-Bushwick and East New York. Clusters of ambulatory surgical centers and office surgical practices are also found in Sunset Park, Borough Park and Coney Island-Sheepshead Bay (See Appendix A, Map 62.)

- **Urgent Care Centers**

Because there is no standardized definition or regulation of urgent care centers in NYS, it is difficult to comprehensively catalog them (there also appears to be more recent rapid proliferation). According to HITE database, the American Academy of Urgent Care database, and a web-based search, there are 21 urgent care centers in Brooklyn. Although the urgent care model is attractive to many participants in the CNA, because they are reported to target privately insured patients, they tend to be concentrated in higher income communities and to be inaccessible to those with Medicaid and the uninsured.[31] (See Appendix B, Table 43 for full list.)

[30] NYAM primary data findings, as of September 15, 2014
[31] Ibid.

- **Health Homes**

There are four DOH designated 'health homes' in Brooklyn providing care management and service integration to Medicaid beneficiaries with complex chronic medical and behavioral health conditions. They are: Community Healthcare Network; Coordinated Behavioral Care, dba Pathways to Wellness; New York City Health and Hospitals Corporation; and Southwest Brooklyn Health Home, dba Brooklyn Health Home (Maimonides).

- **Community Health Centers, including Federally Qualified Health Centers (FQHCs)**

There are approximately 19 FQHCs in Brooklyn: some are located in neighborhoods with high uninsured and Medicaid populations like Sunset Park and East New York and others are located in neighborhoods with lower or moderate Medicaid and Uninsured populations like Downtown–Heights–Slope and Bedford Stuyvesant–Crown Heights. However, there is a dearth of FQHCs in East Flatbush and Flatbush, which have some of the highest numbers of uninsured residents in the borough. In addition, there are approximately 319 diagnostic and treatment centers (D&TC) in Brooklyn, which include outpatient care for primary care visits and specialty clinics such as for dental, Obstetrics/Gynecology (Ob/Gyn). Of these, approximately half (55%) serve Medicaid and uninsured populations and are scattered relatively evenly throughout the borough, with clusters in Sunset Park, East New York, Williamsburg-Bushwick and Downtown – Heights – Slope.[32] (See Appendix A, Maps 54-57.)

We have hours of operation information for approximately 129 out of the 175 clinics who service Medicaid and Uninsured patients. Of those, approximately 40% list some weekend operating hours and approximately 55% list some evening hours.[33]

Among survey respondents in Brooklyn, about 13% reported that they go to a community/family health center for non-emergency healthcare services. In addition, approximately 14% of respondents said they access these services at a hospital-based clinic and about 9% at a private clinic.

- **Federal Designation as an Underserved Area**

The Health Resources and Services Administration (HRSA) uses two types of designations to identify an area as being an underserved area or having a shortage of providers, Medically Underserved Area /Population (MUA) and Healthcare Provider Shortage Area (HPSA). A MUA designation applied to a neighborhood or collection of census tracts is based on four factors: the ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.

[32] This includes the New York State DOH "Safety Net Clinics" list, as of August 26, 2014, and clinics listed on HITE SITE that accept Medicaid or have a sliding-fee-scale or provide services to patients free of charge.
[33] NYAM primary data findings, as of September 15, 2014.

A HPSA is a collection of census tracts that has been designated as having a shortage of health professionals. There are three categories of HPSAs: primary care (shortage of primary care clinicians), dental (shortage of oral health professionals), and mental health (shortage of mental health professionals). HPSAs are designated using several criteria, including population-to-clinician ratios. This ratio is usually 3,500 to 1 for primary care, 5,000 to 1 for dental health care, and 30,000 to 1 for mental health care (HRSA). According to a report prepared for HHC by the Center for Health Workforce Studies, November 2013, New York City has 51 neighborhoods with the MUA designation with a combined population of 3.1 million.

Brooklyn has 15 MUA neighborhoods and one MUP (Medically Underserved Population designation) with a combined population of approximately 400,000. Most of these neighborhoods are located in the northern parts of the county, around HHC service area sites including Kings County Hospital Center, Woodhull Medical and Mental Health Center, Cumberland D&TC, and East New York D&TC. There are also a number of MUAs on the eastern edge of the county and in the Coney Island area.
Brooklyn has 9 Primary Care HPSA designated neighborhoods (Williamsburg, Red Hook, Crown Heights, Midwood, Sunset Park, Bushwick, Bedford-Stuyvesant, Coney Island/Gravesend, and East New York), 2 Mental Health HPSAs (Southwest Brooklyn and Coney Island/Gravesend), and 2 Dental HPSAs (Coney Island and Bedford-Stuyvesant).

- **Primary care providers including private, clinics, hospital based including residency programs**

According to the Center for Health Workforce Studies Physician Re-Registration data published online by the NYS Department of Health, there were 7,074 physicians in Brooklyn in 2013, or approximately 282 per 100,000 population, lower than the rate for NYC (428 per 100,000) overall.[34] In Brooklyn, the number of primary care and "mental health" physicians range considerably across ZIP Codes. Pediatricians range from 1-109 by ZIP Code with an average of 24.4 per ZIP Code.[35] Ob/Gyn physicians range from 0-50 across ZIP Codes, with an average of 10.8 per ZIP Code. Other primary care physicians, including family practice, general practice and non-specialty internal medicine range from 0-159 by ZIP Code, with an average of 54.4 per ZIP Code.[36] Mental health physicians range from 0 - 89 across Brooklyn ZIP Codes, with an average of 14.8 per ZIP Code. The ZIP Code with the largest number of mental health physicians (89) is 11203, where Kingsboro Psychiatric Center, Kings County Hospital Center, and SUNY Downstate Medical Center are located.[37]

Safety Net Physicians

The number of safety net physicians – defined as non-hospital based providers with at least 35% of all patient volume in their primary lines of business associated with Medicaid, dual-eligible or uninsured

[34] Center for Health Workforce Studies, 2013 data, published by NYS DOH online at http://www.health.ny.gov/health_care/medicaid/redesign/dsrip_workforce_information.htm, accessed September 17, 2014.
[35] Ibid.
[36] Ibid.
[37] Ibid.

patients - ranges considerably among ZIP Codes in Brooklyn from 2 - 185, with an average of 36.5 per ZIP Code.[38] Some neighborhoods with high Medicaid and uninsured populations, including Sunset Park, Brownsville and East Flatbush, have clusters of DOH designated safety net physicians. However, other neighborhoods with moderately high to high numbers of Medicaid and uninsured appear to have very few DOH designated safety net physicians. These include: East New York, Williamsburg – Bushwick and Canarsie. (See Appendix A, Maps 82-83.)

Physicians Assistants and Nurse Practitioners

In Brooklyn, there are approximately 895 nurse practitioners (35.2 per 100,000 population, compared to 47 per 100,000 in NYC[39] and 76[40] NYS), and 848 physicians assistants (33.3 per 100,000 population compared to 36 per 100,000 in NYC and 61 in NYS.[41] Approximately 109 nurse practitioners and physician's assistants in Brooklyn are safety net providers.[42] These non-physician safety net providers vary considerably by ZIP Code, from 0 to 22 in Brooklyn, with an average of 2.9 per ZIP Code.[43] (See Appendix A, Maps 82-83.)

Physicians Serving Self-Pay Patients

According to Center for Health Workforce Data, there are approximately 390 physicians in Brooklyn whose self-pay patients comprise more than 30% of their panels.[44] Of these, 84 are primary care physicians, 21 are OB/GYNs, 23 are pediatricians (excluding pediatrics sub-specialties), and 82 are "mental health" physicians. The number of these physicians ranges from 0-84 by ZIP Code, with an average of 8.4 per ZIP Code. "Mental Health" physicians whose panels are comprised of 30% or more self-pay tend to be clustered in Downtown–Heights–Slope. There is a cluster of this type of primary care physician in East Flatbush, yet they appear to be absent from several neighborhoods with high uninsured, such as East New York, Bushwick, Flatbush and Canarsie. (See Appendix A, Map 88.)

Access and Adequacy of Care, Providing Culturally Appropriate Care and Creating Linkages with Hospitals, Health Plans and Community Organizations

A number of physicians in Brooklyn have made efforts to build practices delivering culturally appropriate care. While a complete list of these physicians is unavailable, there is, for example, the Chinese American Independent Practice Association (CAIPA), the Chinese Community Accountable Care Organization, Inc. (CCACO) and Eastern Chinese American Physicians IPA, Inc. (ECAP), which serve patients in Brooklyn and throughout NYC. CAIPA is comprised of over 700 physician members in the

[38] New York State Department of Health "Eligible Safety Net Physicians" list, as of August 26, 2014. Accessed at http://www.health.ny.gov/health_care/medicaid/redesign/dsrip_safety_net_definition.htm.
[39] Includes midwives
[40] Includes midwives
[41] Martiniano R, Siwach G, Krohl D, and Smith L. *New York State Health Workforce Planning Data Guide 2013*. Rensselaer, NY: Center for Health Workforce Studies, September 2013.
Report: nys_health_workforce_planning_data_guide_2013.pdf (5.9 MB)
[42] New York State Department of Health "Eligible Safety Net Physicians", as of August 26, 2014
[43] Ibid.
[44] Center for Health Workforce Studies, Analysis of Physician Re-registration Data. 2008-2013 Blended.

greater New York area and has an office in Brooklyn.[45] Their specialties include acupuncture, cardiovascular disease, family practice, internal medicine, pediatrics, and dentistry. CAIPA also runs a social day care center. CCACO has more than 200 physicians including 100 primary care physicians as well as specialist physicians in the areas of cardiology, gastroenterology, otolaryngology, endocrinology, gynecology/obstetrics, and pediatrics. The group serves 12,000 Medicare beneficiaries within the Chinese communities in the boroughs of Manhattan, Brooklyn and Queens. ECAP's primary care and specialty physicians serve an estimated 150,000 Medicare and Medicaid beneficiaries within the Chinese communities throughout New York City in the boroughs of Manhattan, Brooklyn and Queens. ECAP provides culturally competent and language specific care to patients in this underserved community that may otherwise have limited access to healthcare.[46]

In addition, hundreds of physicians in Brooklyn, represented by IPAs have worked toward creating better linkages with hospitals, health plans and community providers. For example, the Corinthian Medical IPA, which has over 1,200 physician members, approximately 13% of which are based in Brooklyn, has a mission to create a "network of medically accomplished and culturally sensitive physicians" and works with major health plans and government partners to ensure "complete and efficient care" for its patients.[47] They have formed an Accountable Care Organizations which is affiliated with the Balance Medical IPA, the Breukelen Community Network IPA, and the Excelsior IPA, the Queens County IPA and Queens County ACO; and have Medicaid contracts with seven major health plans in NYC.

Despite these efforts, feedback from the community suggests that ambulatory care providers' capacity, perceived quality, linkages to broader health care delivery systems, and insufficient evening and weekend service, leads to access issues in some high need areas, for example in northern and central Brooklyn.[48] The data, including responses from large numbers of key informants and focus group participants, also suggest there is a lack of culturally and linguistically competent specialists[49] and multi-specialty centers that could provide a 'one-stop shopping' experience that many patients seek. Of those surveyed, only 55.4% of Brooklyn respondents said that they access non-emergency healthcare services at a primary care doctor's office and about one quarter reported that primary care medicine was "not very available" or "not available at all." Similarly, nearly one-third of respondents reported that pediatric and adolescent services were "not very available" or "not available at all."[50]

[45] CAIPA Fact Sheet, provided by AW Medical Offices, September, 2014.
[46] "CCACO ECAP Background Information," provided by AW Medical Offices, September, 2014.
[47] "Corinthian Fact Sheet" provided by AW Medical Offices, September 2014
[48] NYAM primary data findings, as of September 15, 2014. Brooklyn Healthcare Improvement Project (B-HIP) "Final Report: Making the Connection to Care in Northern and Central Brooklyn," August, 2012.
[49] Ibid.
[50] NYAM primary data findings, as of September 15, 2014.

- **Specialty medical providers**

The number of specialty physicians by borough is as follows:

Table 1: Specialty Physicians by Borough

	Bronx	Brooklyn	Manhattan	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO, and is based on primary specialty. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

In addition, New York City has the following number of non-MD (or non-DO) specialty providers:

Table 2: Medical Specialists by Borough

	Bronx	Brooklyn	Manhattan	Queens
Acupuncturist	4	16	36	24
Audiologist	23	46	71	26
Chiropractor	59	101	104	121
Occupational Therapist	51	114	67	43
Physical Therapist	370	539	231	306
Speech-Language Pathologist	25	142	100	49
Optometrist	100	215	325	214
Durable Medical Equipment Supplier	36	117	59	67
Hospital and Clinic Based Labs	14	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm

Approximately 40% of Brooklyn survey respondents reported that medical specialists were “not very available” or “not available at all.”[51]

- **Dental providers including public and private**

There are approximately 1,314 dentists, or 51.7 per 100,000 population compared to 74 per 100,000 population in NYC. In Brooklyn, there are approximately 520 dental hygienists (20.4 per 100,000

[51] NYAM primary data findings, as of September 15, 2014.

population).[52] Of these, there are 279 designated safety net dentists by NYS DOH.[53] The number of safety net dentists ranges from 0 – 33 across Brooklyn ZIP Code, with an average of 7.3 per ZIP Code. (See Appendix A, Maps 84-85.)

There are also approximately 54 dental clinics in Brooklyn, located primarily in northern/central Brooklyn, Flatbush and Sunset Park.[54] (See Appendix A, Maps 76-77.) Access to dental care was variable, with some CNA participants reporting easy access and others reporting limitations. More consistent were concerns regarding quality and access to optimal services.[55]

> *I always go to the dentist but what I found is … it is a whole 'nother story when you have to rely on the dental coverage of the healthcare [insurer]. They'd rather pull your teeth out than give you a cap. So now I have to turn around and take money out of my pocket because the medical coverage doesn't want to pay for it. 'We don't want to save your teeth---just pull it out!' It's not really about what's best for me, it's just what's expedient for the insurance company. [Flatbush focus group]*[56]

In addition, approximately one-third of survey respondents in Brooklyn identified dental services as "not very available" or "not available at all."[57]

- **Rehabilitative services including physical therapy, occupational therapy, and speech therapy, inpatient and community based**

Based on a review of the HITE database, there are approximately 73 programs and services specializing in physical therapy, occupational therapy and/or speech therapy located in Brooklyn.[58] Clusters of these programs and services are found in Downtown-Heights – Slope and Sunset Park. Several neighborhoods have little to none of these services, including East Flatbush – Flatbush, Canarsie – Flatlands, Greenpoint and Red Hook. (See Appendix A, Map 63.) Please note that there may be more organizations providing these types of therapy, but no exhaustive directory of such services could be identified.

[52] Ibid.
[53] New York State Department of Health "Eligible Safety Net Physicians", as of August 26, 2014
[54] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014.
[55] NYAM primary data findings, as of September 15, 2014.
[56] Ibid.
[57] Ibid.
[58] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014.

Behavioral health resources

- **Mental Health**

Psychiatrists

There are 536 general psychiatrists in Brooklyn, which is a rate of 21.1 per 100,000, much lower than the NYC rate of 49 per 100,000.[59] There are 4,899 social workers in Brooklyn, or 192.7 per 100,000 compared to 231 per 100,000 in NYC.[60]

Behavioral Health resources appear to be scattered throughout the Borough with a large cluster in the Downtown–Heights–Slope neighborhoods and other smaller clusters in Williamsburg–Bushwick, Bedford Stuyvesant-Crown Heights, East Flatbush, Canarsie and Sunset Park. (See Appendix A, Map 86.) The geographic distribution of behavioral health resources appears to match the widespread distribution of behavioral health conditions among beneficiaries as indicated by service utilization (see Appendix A, Map 31 and section, below); however, questions as to the adequacy of these resources in terms of capacity were raised in focus groups and key informant interviews. Approximately half (47.0%) of survey respondents reported that mental health services were "available" or "very available" in Brooklyn, compared—for example—to 74% who reported primary care was available.[61]

Per DSRIP behavioral health clinical improvement projects, the integration of behavioral health specialists into primary care clinics could help address this issue if it entails a net increase of behavioral health resources. Further, it may also address low behavioral health services utilization among some beneficiaries because of the stigma associated with having a behavioral health condition and seeking treatment at a behavioral health services provider location. Conversely, the integration of primary care services into existing behavioral health services settings addresses the high rates of co-morbidity between behavioral health and chronic physical health conditions for those currently utilizing behavioral health services.

Inpatient and Residential

There is one State-run adult psychiatric hospital in Brooklyn, Kingsboro Psychiatric Center, with 140 beds.[62] At Brooklyn hospitals, there are 790 psychiatric inpatient beds, which is 40.2 beds per 100,000 compared to 41.0 in NYC.[63] In addition, there are a number of residential treatment facilities. (See Appendix B, Table 46.)

There are 186 mental health residential programs in Brooklyn, including apartment/treatment, children and youth community residences, congregate support, congregate treatment, single room occupancy

[59] Martiniano R, Siwach G, Krohl D, and Smith L. *New York State Health Workforce Planning Data Guide 2013*. Center for Health Workforce Studies.
[60] Ibid.
[61] NYAM primary data findings, as of September 15, 2014.
[62] New York State Office of Mental Health "County Capacity and Utilization Data Book, Calendar Years 2012-2013," prepared April, 2014.
[63] NYS DOH Hospital Profiles, http://profiles.health.ny.gov/hospital, accessed September 15, 2014

(SRO) community residence, supported housing community service, and supported/SRO.[64] Certain neighborhoods are described as having an overabundance of such services, impacting on perceptions of safety and quality of life for the residents of these areas.[65] There is also a New York City Department of Health and Mental Hygiene administered Single Point of Access (SPOA) and a SPOA Brooklyn Housing Demonstration Project staffed by the Center for Urban Community Services, which has been operating in Brooklyn since August 2001.[66] In addition, there are 14 emergency programs: two CPEP crisis intervention programs, nine crisis intervention programs, one crisis resident program, and two home based crisis intervention programs. (See Appendix A, Map 86.)

Outpatient and Support

There are 93 outpatient programs in Brooklyn, including 13 Assertive Community Treatment (ACT) programs, 67 clinic treatment programs, six comprehensive PROS with clinical treatment programs, one continuing day treatment (CDT) program, three day treatment programs, one intensive psychiatric rehabilitation treatment program and two partial hospitalization programs. Additionally, there are 71 mental health support programs in Brooklyn, including family support services, supportive case management, vocational services, adult home supportive case management (SCM), Home and Community Based Services (HCBS) waiver services, Psychosocial Clubs (Club Houses). There are 23 targeted case management (TCM) programs serving 3,726 patients as of August, 2011 (the most recent available date).[67] (See Appendix A, Map 86.)

Youth

There are 100 mental health programs for youth in Brooklyn: 12 emergency programs, three inpatient programs including one residential treatment facility (RTF), five other residential programs, 51 outpatient programs including three day treatment programs, 29 support programs including two HCBS waiver programs, and a Children's Single Point of Access (CSPOA) program.[68] (See Appendix A, Map 86.) According to key informants with expertise in the field, there is a severe shortage of pediatric mental health professions in Brooklyn—and the nation.

> *There's a huge crisis nationwide is the lack of child and adolescent psychiatrists. It is a crisis in this country right now that we don't have enough child and adolescent psychiatrists. The sad thing from my perspective is that New York State is dealing with this by saying well, "Pediatricians can, no, pediatricians always could prescribe but we're going to give training to pediatricians to be able to meet the needs that the child and adolescent psychiatrists could do." So, that's putting more stuff on to pediatricians … which they really don't get paid for. It's not fair for a pediatrician to have no support and be told you have to figure out how to help this mother deal with the behavioral needs of her child.*

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[64] New York State Office of Mental Health, "Local Mental Health Programs in New York State" Directory, as of August, 2014.
[65] NYAM primary data findings, as of September 15, 2014
[66] New York State Office of Mental Health web site and the Center for Urban Community Services at http://www.cucs.org.
[67] New York State Office of Mental Health, "Targeted Case Management Programs Location with Program Capacity," August 2011.
[68] New York State Office of Mental Health, "Local Mental Health Programs in New York State" Directory, as of August, 2014, and the New York State Office of Mental Health web site.

- **Alcohol/Drug Use Resources**

Based on GNYHA and NYC Dept. of City Planning data, there are approximately 111 alcohol/drug use programs and services in Brooklyn.[69] Many of these programs are clustered in north/central Brooklyn and very few programs are located in Flatbush, Canarsie-Flatlands and Southwest Brooklyn. (See Appendix A, Map 62.) More than half (59.2%) of survey respondents identified substance abuse services as being "not very available" or "not available at all."

Inpatient

There are 30 inpatient alcohol/drug use programs in Brooklyn: 6 community residence programs with a total capacity of 321 beds, six medically managed detoxification programs with a total capacity of 104 beds, one medically supervised withdrawal program with 10 beds, two inpatient rehabilitation programs with a total capacity of 80 beds, eight intensive residential programs with a total capacity of 601 beds and one residential supportive living program with a total capacity of six beds.[70] (See Appendix A, Map 62.)

Outpatient

There are 81 outpatient alcohol/drug use programs in Brooklyn: three syringe exchange programs, 40 medically supervised withdrawal programs, 18 methadone maintenance/treatment programs with a total capacity of approximately 5,950 patients, and one outpatient rehabilitation program.[71] (See Appendix A, Map 62.) Additionally, there are approximately 192 doctors certified to prescribe buprenorphine in Brooklyn.[72]

Autism Spectrum Early Diagnosis/Early Intervention

The New York State Early Intervention Program offers a variety of therapeutic and support services to eligible infants and toddlers with disabilities and their families including: service coordination, screening and evaluation, family education and counseling, psychological services, occupational, speech and physical therapy, vision, audiology, assistive technology services and social work. There are 97 unique providers throughout New York City, with the largest number of providers in Queens (72), followed by Brooklyn (71), Manhattan and the Bronx (65 each) and Staten Island (50) (See Table 3 on the next page).

[69] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014 and New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014. Data from OASAS with this information was publicly unavailable as of September 2014.
[70] Ibid.
[71] Outpatient capacity information was only available for Methadone Maintenance/Treatment Programs. Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014 and New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[72] Substance Abuse and Mental Health Services Administration "Physicians Certified for Buprenorphine Treatment," accessed July 31, 2014.

Table 3: Early Intervention Program Providers

	Brooklyn	Bronx	Manhattan	Queens	Staten Island	NYC Total (Unique)
Number of Providers	71	65	65	72	50	97
Services:						
Service Coordination	39	39	39	42	27	56
Screening	34	35	34	36	29	48
Evaluation	49	49	48	53	36	69
Psychological Services	7	5	7	11	7	16
Family Education	32	21	26	31	21	41
Family Counseling	14	13	13	14	9	20
Speech Therapy	34	29	30	37	24	45
Occupational Therapy	35	30	30	37	21	48
Physical Therapy	36	30	31	37	22	49

Source: New York City Department of Health and Mental Hygiene Directory of New York City Early Intervention Providers, available at http://www.health.ny.gov/community/infants_children/early_intervention/, Accessed December 8, 2014.

Eating Disorder Providers

New York City has 109 providers (which includes a mix of practitioners including medical doctors, psychotherapists, nutritionists, social workers) that offer services related to eating disorders (including anorexia, bulimia or binge eating disorder specialties), with the vast majority located in Manhattan (See Table 4).

Of the 109 total providers, 89 are licensed specialists in treating anorexia, of which 58 offer a sliding fee scale payment system, and 6 accept Medicaid or Medicare as insurance payer. Eighty-six providers also specialize in treating bulimia, of which 58 offer a sliding fee scale payment system, and 6 accept Medicaid or Medicare as insurance payer. Eighty –seven of the 109 total providers specialize in treating binge eating disorder, of which 60 offer a sliding fee scale payment system, and 7 accept Medicaid or Medicare as insurance payer.

Table 4: Eating Disorder Providers by Borough

	Brooklyn	Manhattan	Queens	Staten Island	Grand Total
Number of Providers	5	101	2	1	109

Source: National Eating Disorder Association (NEDA) Directory of Facilities and Treatment Providers, available at http://www.nationaleatingdisorders.org/find-treatment, Accessed December 5, 2014

- **Pain Management and Palliative Care Services**

Based on a search through HITE data, there are approximately 12 facilities serving Medicaid and the Uninsured in Brooklyn providing specialty pain management services. These include health centers, hospitals, home health agencies and nursing homes. Additionally, there are 23 facilities with hospice services (these include nursing homes, hospices and general hospitals) located in the borough.[73] Additional organizations providing pain management services may exist in the borough, but no exhaustive directory of such services could be identified.

- **Skilled Nursing Facilities and Assisted Living**

There are 42 nursing homes with a total certified bed capacity of 10,426 scattered relatively evenly throughout the borough. However, there appear to be no nursing homes in the northernmost part of the borough in Greenpoint and Williamsburg, nor in Canarsie–Flatlands.[74] (See Appendix A, Maps 64-65.)

There are 22 Adult Care Facilities in Brooklyn, with a total capacity of 3,120 beds. Six of these facilities have Assisted Living Programs (ALP), with a total capacity of 442 beds. In addition, three programs have Assisted Living Residence (ALR) bed capacity of 470, enhanced ALR bed capacity of 413 and special needs ALR bed capacity of 104.[75] There is one cluster of adult care facilities in Coney Island–Sheepshead Bay, where the percentage of dual-eligible beneficiaries (of total beneficiaries) is relatively high. The rest of these facilities are scattered throughout the borough and appear to be absent from several areas with relatively high proportions of dual-eligible beneficiaries including Downtown-Heights-Slope and Greenpoint. (See Appendix A, Map 69.)

- **Home Care Services**

There are 31 certified home health agencies (CHHA), 11 long term home health care agencies (LTHHC), and seven home care hospice agencies that service Brooklyn residents. Of these agencies, 19 CHHAs, five LTHHCs, and four home care hospices, are located in Brooklyn.[76] Approximately 40% of survey respondents reported that home health care was "not very available" or "not available at all."[77]

- **Laboratory and radiology services including home care and community access**

Based on the NYS DOH Health Care Reform Act (HCRA) provider data, there are three D&TC-based clinical laboratories and 25 hospital-based clinical laboratories in Brooklyn.[78] In addition, there are approximately 14 health centers with radiology services that provide care to those with Medicaid and

[73] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014. New York State Department of Health "Home Health and Hospice Profile," as of July, 2014.
[74] New York State Department of Health "New York State Nursing Home Profile," as of July, 2014.
[75] New York State Department of Health, "Adult Care Facility Profiles," as of July, 2014.
[76] New York State Department of Health "Home Health and Hospice Profile," as of July, 2014.
[77] NYAM primary data findings, as of September 15, 2014.
[78] New York State Department of Health "HCRA Provider List," as of July, 2014.

the uninsured.[79] There may be additional organizations in Brooklyn providing laboratory and radiology services, but no directory or inventory of such services appears to exist.

- **Specialty developmental disability services**

There are approximately 493 developmental disability programs in Brooklyn and the majority (76%) of them are residential, with a total bed capacity of 2,901 beds. These include supervised community residences, individualized residential alternative programs, developmental centers and intermediate care facilities. There are also 116 non-residential programs including day treatment programs, day training programs, geriatric services, clinic treatment programs, day habilitation programs, evaluation and diagnosis programs, counseling and crisis intervention programs, behavior management programs, supported work/employment training programs and recreation programs.[80] These resources are located throughout all parts of the borough, with many non-residential programs in Downtown – Heights – Slope and clusters of both residential and non-residential programs in Central and Southwest Brooklyn. (See Appendix A, Map 66.)

- **Specialty services providers such as vision care and DME**

There are 202 optometrists in Brooklyn (7.9 per 100,000 population)[81] and approximately 21 health centers serving Medicaid beneficiaries and the uninsured population provide eye care services.[82] Among survey respondents, about 41% reported that vision services were "not very available" or "not available at all."[83]

- **Pharmacies**

There are 140 NYS DOH designated safety net pharmacies located in Brooklyn. Of their total prescriptions, 92 pharmacies have between 35% and 50% Medicaid prescriptions, 36 have between 50% and 75% Medicaid prescriptions and 12 have 75% or more Medicaid prescriptions. The total number of Medicaid prescriptions for these pharmacies ranges from 4,000 to 199,351 with an average of 49,034. (See Appendix B, Table 47 for a list of safety net pharmacies in Brooklyn.)

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[79] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014. New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014. New York State Department of Health, 2014. Health Resources Services Administration "Health Care Service Delivery and Look-Alike Sites," accessed August 29, 2014. New York State Department of Health "Safety Net Clinics," as of June, 2014.
[80] New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[81] Center for Health Workforce Studies.
[82] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014. New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014. New York State Department of Health, 2014. Health Resources Services Administration "Health Care Service Delivery and Look-Alike Sites," accessed August 29, 2014. New York State Department of Health "Safety Net Clinics," as of June, 2014.
[83] NYAM primary data findings, as of September 15, 2014.

- **Local Health Departments**

The New York City Department of Health and Mental Hygiene is the local health department for New York City, including Brooklyn. DOHMH has a District Public Health Office located in Brooklyn, designed to serve high-need areas of the borough. In addition to the population health projects of DOHMH in the borough, the Brooklyn DPHO also focuses on two major population health initiatives: maternal and infant health and promoting physical activity and good nutrition. The de Blasio administration has recently established a new Center for Health Equity within the DOHMH that was created to oversee the Brooklyn DPHO (as well as the DPHOs in East Harlem and the South Bronx) and implement new efforts to address health disparities. For DSRIP projects, DOHMH has offered to serve a technical assistance role to PPS's in the borough, particularly regarding population health projects.

- **Managed Care Organizations**

There are twelve Medicaid Managed Care (MMC) plans including three HIV Special Needs Plans (SNPs) serving Brooklyn.[84] Many of these plans also serve members in other counties. While plan enrollment data is not available at the county level, the nine MMC plans serving Brooklyn had a total NYC enrollment of 2.25 million members as of 2012.[85]

- **Foster Children Agencies**

There are 49 Administration for Children's Services (ACS) Community Partners providing preventive and family treatment and rehabilitation services throughout the borough, and six ACS Child Protective Borough Offices in Brooklyn located in Central Brooklyn, East New York/New Lots, Greenpoint, and Northwest Brooklyn.[86]

- **Area Health Education Centers (AHECs)**

The Area Health Education Center serving Brooklyn, the Brooklyn Queens Long Island Area Health Education Center (BQLI-AHEC), is located in Downtown Brooklyn and hosts the following programs: Community Health Experience, a summer program for medical school students interested in gaining exposure to community and public health experiences through placement in a community organization and specialized lecture series; the Medical Academy of Science and Health (MASH), a camp promoting health professions to students in grades six through nine; the Summer Health Internship Program, a summer internship placement program for high school and college students; Student/Resident Experiences and Rotations in Community Health (SEARCH), a program for health profession students and residents; and the Nursing Club, which exposes high school students to health professions including, but not limited to nursing.

[84] New York State Department of Health Division of Managed Care and Program Evaluation "County Directory of Managed Care Plans," as of July, 2014.
[85] United Hospital Fund, "Medicaid Managed Care Enrollment by Region," 2012.
[86] Administration for Children's Services (ACS) "ACS Community Partners"

- **Housing services, including advocacy groups and housing providers, including those for the homeless population**

There are approximately 85 non-profit or public agencies and community based organizations that provide housing services of varying types located in Brooklyn. These include intake and community centers; housing programs including emergency shelters, temporary housing and permanent supportive housing programs; case management agencies; public and non-profit clinics; and advocacy, empowerment and counseling organizations. Many of these agencies provide housing services to special populations, including but not limited to: victims of domestic violence, People Living with HIV and AIDS (PLWHA), people with mental illness, homeless veterans, older adults, immigrants, chronically street-homeless, ex-offenders, adolescents aging out of foster care and people with a history of substance use.[87] In addition, 15 organizations provide housing or rent assistance. There are approximately 103 NYCHA Developments and 146 NYCHA Community Facilities located in Brooklyn. [88] Housing and homeless resources, including Homebase locations, housing and rent assistance programs, NYCHA community facilities and shelters, appear to be located predominantly in north and central Brooklyn. They are comparatively scarce in southern Brooklyn, even in neighborhoods with high numbers of Medicaid and uninsured like Sunset Park. (See Appendix A, Maps 88-89.) Additionally, among survey participants, 69.5% identified affordable housing as "not very available" or "not available at all."

- **Food Pantries, Community Gardens, Farmers' Markets[89]**

There are 256 food banks in Brooklyn, including 202 food pantries and 52 soup kitchens.[90] In addition, there are 86 community gardens and 65 farmers markets in Brooklyn, many of which are heavily concentrated in north and central Brooklyn, especially in higher SES neighborhoods like Greenpoint, Downtown–Heights–Slope and Williamsburg–Bushwick.[91] Comparatively, there is a dearth of these types of resources in the southern part of the Borough, most notably in Canarsie – Flatlands, where there appear to be no farmers markets. (See Appendix A, Map 70.) Community members are concerned about farmers' market accessibility and the quality of food available from food pantries.[92] Although there is apparently some variability (by host organization) in the selection of food available at pantries, much of it is reported to be highly processed and not appropriate for individuals that have to restrict their food or salt intake.[93]

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[87] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[88] New York City Housing Authority (NYCHA) "NYCHA Development Data Book," as of 2014. New York City Housing Authority "Directory of NYCHA Community Facilities," as of 2013.
[89] If an organization provides multiple services, they are included under each header for which they provide services.
[90] Food Bank for New York City "Food Bank Locator," Accessed July 2014.
[91] New York State Department of Agriculture & Markets "New York State Farmers' Markets," accessed July 2014. New York City Department of Health and Mental Hygiene "New York City Farmers Markets," accessed July 2014.
[92] NYAM primary data findings, as of September 15, 2014.
[93] Ibid.

Across lower income neighborhoods and communities, respondents described poor access to fruit and vegetables. Fast food and bodegas were abundant; in many communities if supermarkets were present quality was considered inferior. Although many communities did have farmers markets, they were often held just once a week and operating during regular business hours so were not accessible to working people. Price was also a concern, particularly in neighborhoods that were gentrifying or for participants that wanted to eat organic produce.[94] Typical of comments heard from many key informants and residents of low income Brooklyn neighborhoods:

> *If you really look at East New York or like, a lot of neighborhoods where there's people like us, if you look at the stores in walking distance it's like McDonalds or Burger King or Chinese food. The farmers markets and stuff like that, you have to get on a train or bus to get access to those places. So obviously a lot of people would be tempted to go to get junk food, like Chinese food or fried chicken, stuff like that, and get fat. [Flatbush focus group]*

In addition, approximately 40% of survey respondents reported that healthy food was "not very available" or "not available at all" in their neighborhood.

- **Financial assistance and support including clothing and furniture banks**

Approximately 99 organizations throughout Brooklyn provide some type of financial assistance to their participants. Some of these organizations serve special populations including but not limited to: pregnant women, mothers and children, adults with mental illness, people living with HIV/AIDS (PLWHA), homeless families, immigrants and older adults. There are two Financial Empowerment Centers that offer free, individual, professional financial counseling located in Brooklyn: one in Central Brooklyn and another in East New York/New Lots at Partnership for the Homeless. There are also approximately 29 WIC programs throughout Brooklyn.[95]

Additionally, based on HITE data, at least 21 community-based organizations in Brooklyn provide "material goods" services, free clothing and/or furniture and about five community-based organizations provide utility assistance. There are also four clothing banks located in Brooklyn in Park Slope, Bay Ridge, Bedford-Stuyvesant and Bushwick.[96]

- **Specialty Educational Programs For Special Needs Children**

The city's Department of Education's District 75 provides citywide educational, vocational, and behavior support programs for students who are on the autism spectrum, have significant cognitive delays, are severely emotionally challenged, sensory impaired and/or have multiple disabilities. District 75 consists of 56 school organizations, home and hospital instruction and vision and hearing services. Schools and

[94] Ibid.
[95] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[96] Seedo, Earn Benefits Online "Clothing Resources Spreadsheet, accessed August, 2014.

programs are located at more than 310 sites in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island.[97]

- **Community Outreach Agencies**

Based on an analysis of GNYHA HITE database there are approximately 32 organizations in Brooklyn including health centers, faith-based organizations, care management agencies and community service organizations, among others, that conduct outreach activities ranging from mobile health vans to homeless outreach. They serve many different populations including but not limited to: low-income residents, older adults, immigrants and people who speak English as a second language (ESL), active and former drug users, people living with mental illness, PLWHA and victims and survivors of domestic violence.[98]

- **Transportation services**

Based on analysis of GNYHA HITE database, there are approximately 15 organizations in Brooklyn that provide varying types of transportation services. Eight of these provide transportation for seniors, 2 provide transportation services for the disabled and two organizations provide taxi or car services for their participants.[99] While there may be other organizations that provide transportation services to their participants, no directory or inventory of these services seems to exist. There are many concerns regarding ease of access to these services, and a perception that the process is complicated and unreliable, *"a nightmare."*[100] Comments from focus group participants included:

> *"I gotta live my own life, I gotta go to school, I gotta work but now I gotta get up in the morning and make sure that [my aunt] gets her medication, make sure I check her sugar. She was supposed to get Access-a-Ride to go somewhere and they had sent her a letter telling her that they'd have a car pick her up and she's waiting there but the car never showed up. And then she talked to the people and they said you have to look at the letter on the bottom and it says that you have to call two days in advance and then she misses her doctor's appointment. [Flatbush focus group]*
>
> *"You have an appointment at a certain time and they don't get you there. They say they picked you up and they didn't."*

There were also isolated reports of problems with basic transit in some communities and concerns that some public transit is not accessible to the disabled. For example:

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[97] The New York City Department of Education, http://schools.nyc.gov/Academics/SpecialEducation/D75/AboutD75/default.htm, accessed October 22, 2014
[98] Ibid.
[99] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[100] NYAM primary data findings, as of September 15, 2014.

Transportation in this area, especially because it's such a commercial area, this is considered a commercial area, there are just legendary tales about how the buses just don't run. And when we have snowstorms and we have the winters that we've had, or the erratic tropical storms, this is an area that is down. I don't know if anybody even takes on the fact that Brownsville exists when we have blackouts, brownouts, because it's one of the last communities to come up again. Like the lights go on, the plows come through. You can have snow on the street for two days before you actually see the plow mark. … We do have all the housing, New York City housing, and imagine New York City housing, streets not paved, no one could get to the grocery store, because the grocery store owners couldn't get into the community, it just gets shut down.

However, over 90% of survey respondents identified accessible transportation as "available" or "very available."[101]

- **Religious service organizations**

New York City contains tremendous diversity in the numbers of faith-based organizations, many of which provide charity care. There is no single database that lists all locales of worship and connected service organizations. According to the Bureau of Labor Statistics, 33 percent of all adults who volunteer do so for a religious service organization. The New York State Department of Health catalogued the various programs and services provided by faith-based organizations in a 2012 resource directory.[102] However, this is not a comprehensive listing of faith-based services or ministries in New York City as the organizations have to request voluntarily to be listed. In Brooklyn, there are 32 Christian churches of various denominations, one Interdenominational church and one Muslim organization that provide a variety of services which include clothing, emergency assistance funding, ESL programs, employment and housing referrals, food pantries and HIV care support. A review of UJA-Federation of New York website found that there are over 20 Jewish community-based organizations throughout New York City that provide relief services and support.[103]

- **Not for profit health and welfare agencies**

Not for profit health and welfare agencies provide a variety of social services and disseminate essential information to the community at no fee, including recreational activities tailored for various age groups, direct service delivery (meals, clothing and toiletries), printed materials about specific illnesses or risk factors, health workshops, hosting of support groups and legal and medical referrals. Examples of voluntary health and welfare organizations are the YMCA, the United Way, and the American Heart Association. There are approximately 528 non-profit social service agency sites scattered throughout Brooklyn.[104] Yet, approximately 40% of survey respondents reported that social services were "not very available" or "not available at all."

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[101] Ibid.
[102] Faith-based Ministries and Services Resource Directory, https://www.health.ny.gov/diseases/aids/consumers/faith_communities/directory_instruction.htm, accessed October 28, 2014
[103] UJA-Federation of New York, http://www.ujafedny.org/who-we-are/our-network-of-agencies/network-agencies-directory/, accessed October 28, 2014
[104] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.

- **Specialty community-based and clinical services for individuals with cognitive or developmental disabilities**

Both the community based and clinical resources for individuals with intellectual and developmental disabilities are included in the health care resources section above. Serving individuals with developmental disabilities is considered to be challenging in the changing healthcare environment, as they commonly have multiple co-morbidities and appointment length is extended due to issues around comprehension.[105]

- **Peer and Family Support, Training and Self- Advocacy Organizations**

Based on a review of the GNYHA HITE database, there appear to be approximately 29 organizations in Brooklyn that offer peer, family support and self-advocacy programs and services. These organizations serve many populations with psychosocial issues including individuals with mental illness, disabilities, alcohol/drug use, involvement in the criminal justice system and older adults, and their families, among others.[106] There may be additional organizations providing these services as part of their broader menu of services, but a complete directory with that information does not appear to exist.

- **Youth Development Programs**

There are 574 Department of Youth and Community Development (DYCD)-funded programs located in Brooklyn of the following types: 402 after-school programs; 50 family support programs including housing programs and fatherhood initiatives; 57 employment and/or internship programs; 96 summer programs and 11 runaway and homeless youth programs, among others. There are also 46 Mayor's Office Programs in Brooklyn offering education, employment, health and justice programming. These include but are not limited to: two Cure Violence programs, ten Cornerstone Mentoring programs, two Nurse-Family Partnership programs, five Young Adult Internship Programs and four Young Adult Literacy Programs.[107] Both DYCD-funded and Mayor's Office programs seem to be clustered mainly in north/central Brooklyn and less densely scattered throughout southern Brooklyn. (See Appendix A, Maps 90-91.) In addition, there are approximately 90 organizations including public libraries, YMCAs, Boys and Girls Clubs, Youth Clubs, Recreation Centers, and other types of community-based organizations that offer after-school and/or youth group services in Brooklyn. Forty-three (43) organizations in Brooklyn offer summer youth programs and 38 organizations offer tutoring.[108]

[105] Ibid.
[106] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[107] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[108] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.

- **LGBT Resources**

New York City has a large number of Lesbian, Gay, Bisexual and Transgender persons, as well as individuals who self-identify using other categories such as gender queer or questioning. Healthcare resources include facilities that have earned the Human Rights Campaign's designation of "leader in LGBT healthcare equality," a list of which can be accessed at http://www.hrc.org/hei/leaders-in-lgbt-healthcare-equality#.VE_lMDTF98E. Nineteen facilities in the city are listed as "leaders" for 2014, including 10 from the New York City Health and Hospitals Corporation.

Other resources available in the city include the Callen-Lorde Community Health Center, the Transgender Legal Defense and Education Fund, the LGBT Community Center; Lambda Legal, the nation's oldest and largest l*egal* organization working for the civil rights of lesbians, gay men, and people with HIV/AIDS, various community centers in the boroughs, SAGE for older LGBT persons, and PFLAG NYC which provides information for parents, family, friends, schools and teachers of lesbian, gay, bisexual, transgender people children and adults.

- **Libraries with Open access Computers**

All New York City public libraries provide open access computers to its customers, enabling users to access a myriad of websites including health information. Access requires that the individual be a resident of the borough in which library is located and have a library card and PIN to log onto a computer. In some cases, individuals can purchase a daily pass in order to log onto a computer.

In Brooklyn, there are approximately 60 libraries, including the Central Library and a Business Library, operated by the Brooklyn Public Library. Each library is equipped with Internet-enabled computers. However, there are limitations to the number of hours a particular user can stay on a computer to ensure that all customers have access.[109]

- **Community Service Organizations**

A review of the HITE site yielded over 333 organizations that provide a variety of social services to Brooklyn residents, including educational and recreational activities, cultural and faith-based events, employment referrals and assistance, housing, recreational and meal support to seniors, health education and exercise classes, counseling to at-risk youth, and housing which accommodates developmentally delayed populations. Many are also ethnic community-based organizations which provide specific populations with critical services as well as facilitate applications for residency and/or citizenship.

[109] Brooklyn Public Library, http://www.bklynlibrary.org/policy/technology-use-policy, accessed October 24, 2014

- **Education: schools, community-based education programs including programs for health professions/students, libraries**

There are approximately 903 schools in Brooklyn, including 254 public elementary schools, 87 public middle schools, 24 junior/senior high schools, 110 public high schools, 61 public charter schools, and 333 private/parochial schools. In additions, there are five public colleges located in Brooklyn: the SUNY Health Science Center at Brooklyn, Brooklyn College (CUNY) in Flatbush, Medgar Evers College (CUNY) in Crown Heights, Kingsborough Community College (CUNY) in Southern Brooklyn and the NYC College of Technology (CUNY) in Northwest Brooklyn.[110]

There are also 192 community-based organizations in Brooklyn providing education services such as GED/High School Equivalency (HSE) preparation, ESL, read aloud programs, cultural programming, tutoring and recreational activities. Some of these organizations offer education services to special populations including children with serious emotional disturbances, children with cerebral palsy, at-risk youth, and immigrants, refugees and asylees.[111] There are approximately five Associates' Degree Nursing programs and two Community Health Worker programs located in Brooklyn.[112] There are 60 public libraries in Brooklyn, including branch and central locations.[113] Two Brooklyn Public Library central locations are in Downtown – Heights – Slope and near Prospect Park, and 58 Brooklyn Public Library branch locations are scattered somewhat evenly throughout the borough. (See Appendix A, Maps 92-93.)

- **Local governmental social service programs**

There are 68 local governmental agencies located in Brooklyn such as food stamp programs, Medicaid offices, job centers, the Brooklyn Community Service Center and the Veterans Service Center**.** They are predominantly located in northern/central Brooklyn in the neighborhoods of East New York, Downtown–Heights–Slope and Williamsburg–Bushwick.[114] (See Appendix A, Maps 80-81.)

- **NAMI**

The Brooklyn National Alliance on Mental Illness (NAMI), is located in East Flatbush and serves the Greater Brooklyn area. NAMI offers family, peer, teacher and provider education, training and support through support and recovery groups and other programs.[115]

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[110] New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[111] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[112] New York State Education Department Office of the Professions "New York State Nursing Programs" and New York State Department of Health "Community Health Worker Programs," Accessed July, 2014.
[113] New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[114] Ibid.
[115] National Alliance on Mental Illness (NAMI) Website http://www.naminycmetro.org/.

- **Individual Employment Support Services**

About 100 organizations in Brooklyn provide employment/vocational support services to varying populations including but not limited to: young adults, Asian-Americans, veterans, male homeless individuals, out-of-school and unemployed youth and pregnant or parenting women.[116] However, approximately two-thirds (66.7%) of survey respondents reported that job training was "not very available" or "not available at all" in their community.[117]

- **Peer Supports (Recovery Coaches)**

Peer supports (recovery coaches) provide assistance to individuals managing a chronic health condition (e.g., substance abuse recovery, diabetes, HIV/AIDS or hepatitis C) in staying engaged in treatment over time and in resolving obstacles that may arise. These obstacles can be psychological, physiological or structural; without the support of trained said recovery coaches, these obstacles may impede individuals' ability to succeed in handling their conditions.

From a review of the HITE database, we have identified institutions, which vary from healthcare facilities to community-based organizations, that facilitated or offered peer support services. Although these organizations operate from a particular borough, many of the organizations serve clients regardless of where they are domiciled. In Brooklyn, there are approximately 36 organizations that connect clients with recovery coaches, peer groups and mentoring to assist the clients in managing their health condition.

- **Reentry Organizations and Alternatives to Incarceration**

Based on a review of HITE database, there are approximately 15 organizations that offer criminal justice offender services located in Brooklyn. These services include: outpatient substance use treatment, volunteer mentoring to at-risk youth, programming specific to women, housing placement, job skills training, case management, referrals to mental health and medical treatment, youth-specific programming and employment.[118]

- **HIV prevention/outreach and social service programs, including Ryan White programs**

There are numerous HIV/AIDS related services located in Brooklyn. A comprehensive search of the GNYHA HITE site using the keywords, HIV/AIDS, identified 25 non-profit organizations in Brooklyn which provide housing support, substance abuse and mental health counseling, legal assistance, health education, benefits assistance and case management services.[119] Many of the organizations had a focus

[116] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[117] NYAM primary data findings, as of September 15, 2014.
[118] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[119] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October, 2014.

on specific population, based on racial or ethnic identity or sexual orientation. A search of the Ryan White or CDC Prevention funded HIV programs in the borough was also conducted. In Brooklyn there are also 25 Ryan White or CDC Prevention funded HIV programs in the borough.[120] A small number of the sites identified via the HITE database (approximately 1-3 sites) are also funded via the Ryan White program. These programs include HIV Prevention and Outreach efforts such as sexual and behavioral health for HIV prevention, condom distribution, harm reduction, testing and linkage to care, and syringe exchange. Additionally there are programs to support HIV positive patients such as supportive counseling, home care, housing services, food and nutrition support, and care coordination. These Ryan White and CDC Prevention programs are provided at 276 service sites in the borough by 39 individual agencies.[121]

Section iii Domain 2 Metrics

See Attached Appendix B, Domain 2 Tables.

SECTION B. DESCRIPTION OF THE COMMUNITY TO BE SERVED

Section i: Demographics of the Population in Brooklyn

Brooklyn's large population of 2.5 million is approximately one-third of the total NYC population, and approximately 13% of the statewide population.[122] Approximately two-thirds (64.7%) of Brooklyn's population are working age adults, aged 18-64; approximately one quarter (23.7%) are children aged 0-17, and just over ten percent (11.6%) are older adults, aged 65+.[123] The age of Brooklyn's population approximately mirrors that of NYC and NYS, with a slightly lower proportion of older adults in Brooklyn (11.6%) than either NYC (12.2%) or NYS (13.6%).[124] Slightly more than half of the Brooklyn population is female, roughly analogous to the populations of NYC and NYS.[125] (See Appendix B, Tables 50-51.)

Effects of Health Exchange Enrollment

Largely due to the establishment of the New York State Health Exchange in January 2014, more than 660,000 New York City residents enrolled in Medicaid and an additional 157,000 enrolled in a Qualified

[120] Public Health Solutions Service Site Locator. http://www.healthsolutions.org/hivcare/?event=page.locations Services as of August 2014.
[121] HIV Health and Human Services Planning Council of New York, DOHMH. Needs Assessment for HIV Services New York Eligible Metropolitan Area Ryan White Part A 2014. http://www.nyhiv.org/pdfs/Needs%20Assessment_Full%20Final.pdf
[122] US Census American Community Survey, 5 year, 2008-2012.
[123] Ibid.
[124] Ibid.
[125] Ibid.

Health Plan (QHP). [126] Given that 93% of Medicaid enrollees and 63% of QHP enrollees were uninsured at the time of enrollment, it has been estimated that a more current number of citywide uninsured is 450,000.[127],[128]

The greatest increase in recent Medicaid enrollees occurred in neighborhoods that had the highest uninsured rates.[129] For example, Sunset Park West in Brooklyn previously had approximately 25 percent of its 54,000 population uninsured. Over the past year, the 11220 ZIP Code which overlaps with Sunset Park West saw 16,303 people enroll in Medicaid and 1,667 enroll in a QHP.[130]

Age

Medicaid covers a high proportion of children and adolescents, with approximately 44% of Brooklyn Medicaid population between the ages 0 to 19 years. This statistic suggests that efforts to enroll eligible children and adolescents in Medicaid are mostly successful. There are low numbers of uninsured pediatric patients, which is also due to the Child Health Plus program. Child Health Plus provides coverage for children and adolescents who do not qualify for Medicaid. This data suggests that there is a need for more pediatric capacity within safety net health care provider systems to ensure that there is adequate access for patients with chronic health conditions.

The uninsured population is heavily weighted toward the 20-39 age group in Brooklyn (56%), suggesting that resources should be leveraged towards preventing chronic diseases for this relatively young population, promoting child and maternal health (as large percentage of uninsured are of reproductive age) and promoting sexual health to avert HIV/STD infections. A relatively small percentage of the uninsured population consists of older adults aged 65 and over, while 13% of the Medicaid population in Brooklyn falls into this age group, suggesting a relatively greater need for senior health and community resources among the Medicaid population.

[126] Dan Goldberg, "Dan Mapping Obamacare by New York City ZIP Code," *Capital New York*, October 20, 2014, accessed October 30, 2014
[127] New York State Department of Health: The Official Health Plan Marketplace 2014 Open Enrollment Report, June 2014
[128] Goldberg.
[129] Ibid.
[130] Ibid.

TABLE 5 - Total Population by Age Group with No Health Insurance Coverage

	No Health Insurance Coverage																		
	Total	**Under 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	1.5	1.5	2.0	4.9	14.6	16.5	13.3	10.7	9.3	8.1	6.7	5.4	3.9	0.8	0.3	0.2	0.1	0.1
NYC Subtotal		9.9				55.1				33.5					1.5				
Brooklyn (%)	100	1.6	1.6	1.9	4.9	15.1	17.4	13.2	10.1	8.8	7.7	6.6	5.4	4.2	0.8	0.4	0.2	0.1	0.1
Brooklyn Subtotal		10				55.8				32.6					1.6				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

TABLE 6 - Total Population by Age Group with Medicaid/Low Income Medical Assistance

	Population with Medicaid/Low Income Medical Assistance																		
	Total	**Under 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	11.4	10.1	9.7	9.3	7.1	5.4	4.9	4.7	5.2	5.6	5.1	4.5	4.0	3.2	3.0	2.5	2.2	2.3
		40.4				22.1				24.4					13.1				
Brooklyn (%)	100	12.4	10.4	9.6	8.9	7.3	6.1	5.1	4.7	4.6	5.2	4.8	4.0	3.7	2.9	3.0	2.6	2.3	2.2
		41.3				23.3				22.4					13				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

TABLE 7 - Total Population by Age Group with Other Insurance

	Other Insurance																		
	Total	**Under 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC (%)	100	5.1	4.5	4.7	5.2	6.4	8.9	8.5	7.5	7.5	7.3	7.3	6.7	5.9	4.7	3.4	2.6	1.9	1.8
		19.5				31.4				34.6					14.5				
Brooklyn (%)	100	5.3	5.0	5.2	5.5	6.3	8.5	8.7	7.6	7.5	7.1	7.2	6.7	6.1	4.4	3.2	2.2	1.8	1.6
		21.1				31.1				34.5					13.3				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Race/Ethnicity

Brooklyn's population is racially and ethnically diverse. Approximately one in three (34.2%) people in Brooklyn identify as Black or African American, a much larger proportion than in NYC as a whole (25.1%) or NYS (15.7%).[131] In fact, the Black/African American population in Brooklyn accounts for slightly more than one-quarter (28.3%) of the total Black/African American population in New York State.[132] The Black/African American population includes US born and immigrant populations, including significant numbers from the Caribbean islands.[133] Approximately one-fifth (19.8%) of the Brooklyn population identifies as Hispanic/Latino of any race, accounting for approximately 14.5% of this population statewide.[134] Approximately one in ten (10.6%) people in Brooklyn identify as Asian.[135] (See Appendix B, Table 52.)

Immigration

Brooklyn's cultural diversity is further emphasized by the places of birth among the foreign born when comparing those with no health insurance and those with Medicaid. (See Tables 8 and 55.) The top 10 countries among those with no health insurance include Mexico, China, Jamaica, Trinidad and Tobago, Ecuador, Dominican Republic, Haiti, Guyana, Russia and Poland[136]. In contrast, the top 10 nations among those with Medicaid/Low Income Medical Assistance Insurance include China, Dominican Republic, Haiti, Jamaica, Ukraine, Russia, Mexico, Trinidad and Tobago, Guyana and Ecuador. 9 out of 10 top nationalities are represented in both payer classes; only Poland (uninsured) and Ukraine (Medicaid) appear on only one list. Within each nationality, there was limited variation by residing neighborhood and insurance status. Each of the nationalities is, however, concentrated in several neighborhoods, allowing for targeted efforts by country of birth.

Table 8 - Top Places of Birth Among Foreign Born With No Health Insurance

	Total	Mexico	China	Jamaica	Trinidad & Tobago	Ecuador	Dominican Republic	Haiti	Guyana	Russia	Poland
New York City	**724,452**	**131,000**	**60,385**	**32,639**	**20,659**	**56,982**	**74,765**	**14,315**	**25,737**	**9,926**	**12,375**
Brooklyn	**207,094**	**36,015**	**22,783**	**12,698**	**11,659**	**11,208**	**10,663**	**9,696**	**7,025**	**6,051**	**5,665**
Greenpoint & Williamsburg	8,148	1,459	223	16	-	487	1,020	-	21	70	2,517
Bushwick	20,387	7,955	328	188	311	5,003	2,380	177	368	35	44
Bedford-Stuyvesant	6,747	798	165	350	646	419	779	-	438	-	-
Brooklyn Heights & Fort Greene	4,591	891	259	522	211	54	168	46	96	-	37
Park Slope, Carroll Gardens & Red Hook	3,172	896	-	61	189	122	262	52	-	-	129
Crown Heights North & Prospect Heights	9,326	773	92	1,158	1,353	-	304	493	600	14	-
Brownsville & Ocean Hill	7,788	310	71	945	1,022	66	569	190	628	-	-
East New York & Starrett City	11,696	904	44	744	989	958	2,608	122	1,771	32	12

[131] Ibid.
[132] Ibid.
[133] NYAM primary data findings, as of September 15, 2014.
[134] US Census American Community Survey, 5 year, 2008-2012.
[135] Ibid.
[136] US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

	Total	Mexico	China	Jamaica	Trinidad & Tobago	Ecuador	Dominican Republic	Haiti	Guyana	Russia	Poland
Canarsie & Flatlands	10,761	670	129	1,761	1,217	57	69	2,618	526	134	90
East Flatbush, Farragut & Rugby	15,012	514	41	3,894	2,445	66	111	2,032	1,178	-	-
Crown Heights South, Prospect Lefferts & Wingate	11,454	344	179	1,861	1,922	70	135	1,958	847	12	20
Sunset Park & Windsor Terrace	25,893	9,277	8,278	91	134	2,049	1,216	53	16	94	591
Bay Ridge & Dyker Heights	8,638	1,182	1,956	-	16	170	118	-	15	132	593
Borough Park, Kensington & Ocean Parkway	13,185	2,854	1,820	-	-	402	162	216	174	821	869
Flatbush & Midwood	16,995	3,341	798	1,018	1,146	172	488	1,673	290	513	310
Sheepshead Bay, Gerritsen Beach & Homecrest	7,894	530	995	-	13	170	19	-	57	1,490	-
Bensonhurst & Bath Beach	18,364	2,217	6,357	89	-	943	225	-	-	991	453
Brighton Beach & Coney Island	7,043	1,100	1,048	-	45	-	30	66	-	1,713	-

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 9 - Top Places of Birth Among Foreign Born with Medicaid/Low Income Medical Assistance

	Total	China	Dominican Republic	Haiti	Jamaica	Ukraine	Russia	Mexico	Trinidad & Tobago	Guyana	Ecuador
New York City	**1,280,549**	**152,430**	**223,746**	**41,369**	**62,456**	**28,136**	**29,432**	**54,940**	**32,125**	**54,137**	**54,338**
Brooklyn	**424,938**	**66,817**	**33,967**	**27,781**	**26,724**	**22,585**	**19,910**	**17,790**	**17,537**	**16,245**	**10,775**
Greenpoint & Williamsburg	15,281	1,696	3,165	-	17	102	144	1,176	62	34	640
Bushwick	23,394	1,304	8,920	195	767	14	47	2,800	460	530	4,291
Bedford-Stuyvesant	12,610	235	3,068	390	911	16	57	327	982	943	141
Brooklyn Heights & Fort Greene	8,911	1,058	903	685	295	92	27	408	353	87	64
Park Slope, Carroll Gardens & Red Hook	6,384	301	438	128	144	138	57	751	81	100	279
Crown Heights North & Prospect Heights	15,457	440	1,060	1,314	2,094	52	155	393	1,927	1,403	140
Brownsville & Ocean Hill	14,133	260	2,240	909	2,094	-	-	292	1,144	1,719	184
East New York & Starrett City	24,472	553	7,257	213	1,925	782	498	309	1,657	2,647	1,176
Canarsie & Flatlands	31,543	732	601	8,107	5,925	449	521	527	2,890	1,720	169
East Flatbush, Farragut & Rugby	28,321	-	514	6,066	6,765	-	-	145	3,368	3,632	122
Crown Heights South, Prospect Lefferts & Wingate	21,014	583	430	3,749	3,184	157	121	202	2,419	1,596	-
Sunset Park & Windsor Terrace	36,550	20,149	3,270	141	130	380	403	4,078	87	140	1,356
Bay Ridge & Dyker Heights	23,914	8,988	120	47	32	661	850	787	57	20	170
Borough Park, Kensington & Ocean Parkway	28,443	4,228	307	538	189	1,092	2,247	1,255	32	506	455
Flatbush & Midwood	33,431	979	720	4,657	2,206	2,169	2,253	1,583	1,865	1,002	584
Sheepshead Bay, Gerritsen Beach & Homecrest	28,082	3,875	104	152	46	5,150	4,627	289	27	66	236
Bensonhurst & Bath Beach	46,286	18,483	522	18	-	3,647	3,035	1,395	50	64	696
Brighton Beach & Coney Island	26,712	2,953	328	472	-	7,684	4,868	1,073	76	36	72

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Brooklyn's Immigrant Communities

Brooklyn can be understood as a borough of migrant communities. Each has unique needs related to culture, language, education, and economics—as well as unique strengths, which may include close family ties and strong work ethics. Comments from key informants representing diverse ethnic groups commonly emphasize some combination of difficulties meeting basic needs, prioritization of work and children, economic constraints, lack of sufficient information on health and health services, and stigma.[137]

Arab and North African Community

The Arab and North African community in Sunset Park and Borough Park areas is diverse, with origins that include Egypt, Palestine, Iraq, Syria, Yemen, Morocco, and Algeria. Socioeconomically, there is variability as well, including a portion without education or English language skills and a portion that is academically and economically very successful. The community is also longstanding, so includes families that have been in the area for decades, as well as relatively recent immigrants.

Consistent with other communities, diabetes and obesity are common concerns. Participants reported preparing food at home using healthy ingredients, although foods tend to be fried. As described below, cultural traditions tend to both discourage a healthy weight and limit opportunity for exercise. However, such beliefs were not held by everyone and opportunities to exercise were found within the home and at local gyms.[138]

> *If a woman is thin, she's like, well, what are you going to do with this woman? So they encourage women to eat and be big. Of course, back home you've got to be able to work on the land. You've got to be able to support your family and for your family you've got to have a strong...It's not about your dress and makeup and sitting looking pretty, about being what's in this country. Back home it's about real life. It's about a partnership and making things meet. And it's not about losing weight. It's about how you can gain weight. So that's what it is.*[139]

> *Exercise is not one of the issues which they care for because they're working all the time, and the older people who are 50 years old or 45 years, you can't have shorts and a jogging suit and go to Shore Road and run ... So exercise is not part of their "culture," quote/unquote. Especially for women. Now that's a big issue for women because where will they go where they are covered? You can't run in the street with the shorts. So now we're trying to get them involved in exercise through places like Lucille Roberts and Harbor, which provides a women-only window for two hours.*[140]

[137] NYAM primary data findings, as of September 15, 2014.
[138] Ibid.
[139] Ibid.
[140] Ibid.

In addition to obesity, smoking is a very significant concern within the Arab community. Smoking is common and encouraged by community norms. In addition, there is a lack of health materials in Arabic that might be used to explain the risks of smoking.[141]

> *People back home smoke like chimneys. And now we have this new phenomenon that the hookah cafés are popping up all over the place. And our young and old are getting addicted to them. And every corner in my community you will see a hookah bar. And that's a real health concern to us. And actually we wanted to bring a resolution to City Council to close them down and we were unable to do that. So the only thing we were able to do is pass a resolution to regulate them. That means certain laws have to apply to them because in some cafés, I will see kids who are 14-15 are there. And that's a major concern to our community.*[142]

Focus group participants reported that mental health issues are common and tend to go unaddressed because of stigma and lack of information. *"We think it's embarrassing,"* explained one focus group participant.[143]

Participants reported that they do seek care when needed, but that the Arab community strongly prefers to see Arab doctors. Consequently, those doctors have very large patient panels. Key informants felt that additional Arabic-speaking and Muslim providers are needed in the community and in the hospital.[144]

> *All of them will go to the local Arabic-speaking doctor or the Muslim doctor… I see doctors in our community that will stay in their office until 10:00-11:00-12:00 at night. And people will sit and wait.*

Although focus group participants reported regular doctor visits, key informants from the Arab community felt there was an underutilization of preventive care services:[145]

> *When it comes down to health issues, they go to the doctor when they're sick. They don't know much about preventive medicine and that you have to go for the yearly checkup or anything. Unless you are sick, you don't go to the doctor. And that's one of the struggles we have in our community.*

<u>Latino Population</u>

> *It's varied. [Bushwick] used to be mostly Puerto Rican, then it became Puerto Rican-Dominican. Now, it's moved on to Puerto Rican-Dominican…Ecuadorian, Central American influence mostly. And there are some Colombians moving into the area as well.*[146]

Latino residents and key informants in Brooklyn reported many of the same health issues as other populations, such as obesity (including among children), diabetes, and depression. Several reported concerted efforts to eat a healthy diet and to engage in physical activity—or to encourage their children to do so. However, lack of time and budget constraints,

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[141] Ibid.
[142] Ibid.
[143] Ibid.
[144] Ibid.
[145] Ibid.
[146] NYAM Primary data findings, September, 2014.

as well as some ingrained habits, served as barriers to healthy choices. Typical of comments regarding competing priorities are:

> *We see people who have very low paying jobs. But as long as they're able to have their children in school, as long as they're able to maybe send them to a community college – really the vision and the longer term goal is about their children, and their children having better futures. So I would say that's a main thing. I think the downside to that is that people that we work with are so – I don't like frame it as it's their concern and that it's their fault – but they're so concerned about jobs, and that other things kind of fall to the wayside. So health is a key part of that really.*

> *Most of us parents are constantly working, and many times we don't have the time to commit to cooking a healthy meal every night – and so, we resort to fast food.*

Lack of insurance is a noted problem in the Latino community and resulted in high out of pocket costs, neglect of primary care and preventive services, and use of emergency care for non-urgent issues. In general, many Latinos reported only seeing a doctor when necessary.

> *Some of us have no insurance or not enough money to pay large medical bills so going to the doctor for preventive care is next to impossible. (Latino focus group)*

It was reported that the churches effectively helped Latino community members to learn about health services and access care and that more church-based health programing should be offered.[147]

Asian Population

Health concerns among participants from the Chinese community were similar to those of other populations. Their diet was generally considered healthy, obesity rates were lower than other communities, and physical activity was relatively common (e.g., walking, biking, Tai Chi). However, diabetes was still considered to be widespread. Smoking was a main concern, with rates reported to be higher in the Chinese community than among other populations, resulting in high rates of asthma, lung cancer, and other respiratory problems.[148]

Cost of care was described as a significant issue by a key informant from the Asian community:

> *We had interviewed clients among our social service agencies just to find out what are some of their primary issues. Language access came up over and over again. But the bigger issue was actually the cost of services, which I thought was really interesting because it was much higher than language access needs. And so oftentimes they would forego getting any care, getting screenings, or even if they were deathly ill, they will totally wait until the end, and even with people who had insurance, because they were afraid of the cost of care.*[149]

CNA participants reported that cultural beliefs and access to health information impacted utilization of health care services within the Chinese community, particularly among older adults or recent immigrants. Cultural beliefs

[147] Ibid.
[148] NYAM unpublished primary data findings, 2013
[149] NYAM primary data findings, September, 2014.

discouraged some individuals from seeking medical care. In addition, stigma associated with serious illnesses can prevent open dialog around health and health care, both for the patient and in the larger community.[150]

> *Being tradition, when you got sick most things are taken care of by your family members and the family tries to keep some secrets from the patient, telling him you have pneumonia or something you can treat, but they never tell them they have cancer. And I think probably there's the misconception that when I tell you cancer, you're going to get scared or you're going to get really depressed and you're going to die from it…You have cancer and they don't want to let other people know because they worry about people may try to keep distant from them or worry about them…It's just a whole social, ethnic issue, I think some people just like to keep their stuff inside of them.*

Furthermore, there is a lack of knowledge of preventive services among some residents, and language barriers limit access to health information, from the media, government, and providers, that is readily available to English speakers. Residents were reported to seek treatment through practitioners of Chinese medicine, which may either limit use of Western medicine when necessary. Even those Chinese treatments that are focused on symptom relief or perceived strengthening of the immune system may interfere with treatment. Providers discussed the need to balance Western and Chinese medicine, and insure and patients are receiving safe treatment[151]:

> *Our Chinese population will at times refuse to take medications that we'll prescribe. Instead, going down the street and getting some sort of a Chinese herb or ointment or something, and we spend an inordinate amount of time trying to find out what's in those herbs or in those ointments…to try and protect the patients in case they're harmful, in case they interact.*

Participants reported that community members were receptive to outreach efforts of medical providers, but also expressed the need for more health education within the community to address stigma associated with some illnesses and increase knowledge of preventive services. Participants emphasized that information must be provided in the appropriate language and be culturally sensitive. They cited the success of past Tai Chi programming that incorporated information regarding depression, a subject that would otherwise be avoided.[152]

<u>Black/African American and Caribbean Population</u>

The Black population of Brooklyn remains sizable, but has been declining in size –and shifting –due to gentrification of traditionally African American neighborhoods including Bedford-Stuyvesant and Crown Heights. The Black population described in this report includes both African American and non-Hispanic Caribbean groups, as they were often indistinguishable in focus groups and surveys. Although combining them may obscure important distinctions, it is consistent with the terminology used by the US Census American Community Survey statistics cited in this report. The non-Hispanic Caribbean population includes large numbers from Haiti, Jamaica and other West Indian nations—a portion of which are undocumented. Income constraints force choices that may delay use of needed health care. As explained by a key informant working with African American and Caribbean populations:

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[150] Ibid.
[151] NYAM primary data findings, as of September 15, 2014.
[152] Ibid.

[Do] you prioritize buying food, paying for your kids' education or going to check this pain that you have in your chest. Do you think you can do it later? Until you have a massive heart attack, right? Certain of the type of work that people do, in those fields you don't have a lot of health insurance coverage prior to this Affordable Care. A lot of our community work in construction, a lot of community works in service area, restaurants, small business things. So they don't receive healthcare through work-related insurance. So emergency room becomes the place that they go to – and so they don't have a primary physician care, they don't have a continued care. (key informant interview)

The resilience of particular communities was emphasized, as below.

I think Haitians are very strong in character – I think we persevere. I mean we persevere, and no matter what the challenges with Haiti or with Haitians here, you can still see that. It's a community that strives above and beyond, in spite of it all… A lack of service and organization and adequate support to respond to the need of the community makes us weak, because there's only but so much we can do with what you have…. Our slice of the pie was so much smaller in comparison. (focus group participant)

However, the challenges in many neighborhoods were pronounced. CNA participants from, or working in, lower income African American and Caribbean neighborhoods noted persistent poverty and prejudice, as well as significant disparities in resources available to those communities. A key informant explained:

So the agency that provides supports, the perception of the community is that these agencies are just there to stigmatize – to take away our kids. They're not there to help us. They want to know if we're getting welfare, if we're doing what we're doing to cut the services, people still see it as – their approach to us is punitive action towards us. …You see the same of the impact of incarceration. Brooklyn has one of the million dollar blocks. In BedStuy and some of the communities that we're spending more money putting kids in prison and to maintain them in prison, than we want to pay to send them to school around the block. So, those things are major impact in our community.

In Brownsville, Coney Island, and East New York, key informants and focus group participants described a poor resource base, including lack of healthy food and green space, community programs, and funding for needed services. Health providers described delayed care and low expectations:

What folks assume that they are, you know, just because they can get up and get through a day, they assume, well that's what it means to be physically fit and to be healthy…Every day that I'm vertical, it's a good day. You'll hear folks say that.

<u>Citizenship Status and Language Spoken at Home</u>

Approximately 17% of Brooklyn's residents are not US citizens, compared to 18% in NYC and 11% in NYS.[153] The total foreign born living in Brooklyn is 950,471, representing approximately 35% of the borough's population. Approximately 22.6 thousand people in Brooklyn are reported to have migrated to the United States less than one year ago. Survey data

[153] US Census, American Community Survey, 5-year data, 2008-2012.

likely underestimates the foreign born population in Brooklyn, because the number of undocumented individuals is reported to be substantial.[154]

Of those with no health insurance, 60% are foreign born, compared to 34% for population with Medicaid/Low Income Medical Assistance and 34% for those with other health insurance coverage.

Table 10 – Nativity by Insurance Status

Region	No Health Insurance Coverage		Population with Medicaid/Low Income Medical Assistance		Other Insurance	
	% Foreign Born	% Native	% Foreign Born	% Native	% Foreign Born	% Native
New York City	62%	38%	35%	65%	32%	68%
Brooklyn	60%	40%	34%	66%	34%	66%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Language issues, including Limited English Proficiency (LEP)

Approximately one in four people (566,247) report speaking English less than "very well."[155] Nearly half (46%) of Brooklyn residents report speaking a language other than English at home.[156] Limited English Proficiency (LEP) "means persons who are unable to communicate effectively in English because their primary language is not English and they have not developed fluency in the English language. A person with Limited English Proficiency may have difficulty speaking or reading English. An LEP person will benefit from an interpreter who will translate to and from the person's primary language. An LEP person may also need documents written in English translated into his or her primary language so that person can understand important documents related to health and human services."[157]

Populations with no health insurance are more likely to report LEP, at 37% in Brooklyn, compared to 29% for Medicaid/Low Income Medical Assistance and 15% for Other Insurance reporting LEP.

Table 11– Limited English Proficiency by Insurance Status

	% Low English Proficiency		
Region	No Health Insurance Coverage	Population with Medicaid/Low Income	Other Insurance
New York City	40%	29%	14%
Brooklyn	37%	29%	15%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

[154] NYAM primary data findings, as of September 15, 2014.
[155] US Census, American Community Survey, 5-year data, 2008-2012.
[156] Ibid.
[157] U.S. Department of Health and Human Services. http://www.hhs.gov/ocr/civilrights/resources/specialtopics/lep/ Accessed October 30, 2014.

Citywide, 90% of LEP uninsured populations speak one of the 12 languages, with the vast majority, 72%, speaking Spanish or Chinese. (See Table 12.) [158] There is a wider variance of languages spoken among the city's Medicaid population, given that the population that speaks either Spanish or Chinese is 62% or 10 points lower than the uninsured proportion. There is a slighter higher concentration of languages spoken among the city's LEP Medicaid population, as the top 12 languages among the LEP Medicaid population comprise 92% of all languages spoken in this group. While each of the top languages are accounted for in Brooklyn, there are larger percentages of Russian, Cantonese, Yiddish and French Creole, agnostic of payer class, while there is a lower proportion of Spanish speaking LEP populations relative to the NYC averages.

Table 12 – Languages Spoken At Home Among Populations With LEP, by Insurance Status

LANGUAGES SPOKEN AT HOME AMONG POPULATIONS WITH LOW ENGLISH PROFICIENCY WITH NO HEALTH INSURANCE					**LANGUAGES SPOKEN AT HOME AMONG POPULATIONS WITH LOW ENGLISH PROFICIENCY WITH MEDICAID/LOW INCOME MEDICAL**				
	New York City	**Percent**	**Brooklyn**	**Percent**		**New York**	**Percent**	**Brooklyn**	**Percent**
LEP Language	**470,669**	**100%**	**128,331**	**100**	**LEP Language**	**686,792**	**100.0%**	240,637	100%
Spanish	299,759	64%	67,513	53%	Spanish	355,732	52%	73,505	30.5%
Chinese	36,616	8%	6,440	5%	Chinese	67,666	10%	23,307	9.7%
Korean	17,497	4%			Russian	48,401	7%	34,510	14.3%
Mandarin	15,807	3%	4,094	3%	Cantonese	30,822	5%	18,062	7.5%
Russian	12,272	3%	7,498	6%	Bengali	24,008	4%	2,410	1.0%
Polish	7,923	2%	1,820	1%	Mandarin	21,487	3%	9,333	3.9%
French Creole	7,811	2%	4,426	3%	Yiddish	18,246	3%	15,755	6.5%
Bengali	7,219	2%			French Creole	16,225	2%	10,344	4.3%
Cantonese	7,137	2%	2,645	2%	Korean	10,998	2%		
Arabic	5,771	1%			Arabic	10,446	2%	2,207	0.9%
French	5,256	1%			Urdu	8,764	1%	1,826	0.8%
Panjabi	4,073	1%			French	5,641	0.8%		

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

[158] US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Income, Education and Unemployment

Income

The median household income in Brooklyn is approximately $45,000 per year, lower than NYC ($52,000) and NYS ($58,000).[159] Slightly more than one in five (22%) households in Brooklyn lives below the federal poverty level, compared to just fewer than one in five (19%) in NYC and approximately 14% in NYS.[160] Furthermore, CNA participants frequently pointed out the high cost of living in NYC, which made income and poverty guidelines unrealistic. The highest rates of poverty are in northern and northeastern parts of the Borough, in the neighborhoods of Williamsburg-Bushwick, East New York, and parts of Bedford Stuyvesant-Crown Heights, where approximately one in three households have incomes below the federal poverty level (FPL).[161] There are also high rates of poverty in Sunset Park and Coney Island, where approximately 25%-30% of households have incomes below 100% FPL.[162] (See Appendix A, Map 5 and Appendix B, Table 13.)

Trends in primary data collection activities suggest that, for some communities, including a number of immigrant groups, economic constraints are countered with very long work hours and multiple jobs, which make it extremely challenging to maintain good health habits.[163]

> *People [are] literally working, you know, 18 to 20 hours a day. Some of our people are working two to three jobs. So either by the priorities they set, or just what they have time for – you know, accessing health services is one of the last things that is on the list of priorities. And there's also the issue of the work situations they're in, and how stressful they can be, and how they're not safe workplaces, healthy workplaces. (Key informant, immigrant focused CBO)*

Educational levels

Educational levels in Brooklyn are in line with citywide averages, independent of insurance status. City wide, the uninsured have higher rates of completion of some college or higher relative to the Medicaid population (41% compared to 31%). This relationship persists in Brooklyn. Forty percent of the uninsured in Brooklyn have completed some college, compared to 31% for those with Medicaid insurance. This finding may be explained by a sizable proportion of immigrants completing higher education credentials in their native lands. Still, in context, these education figures are still far lower when compared to other types of insurance, with 62% of this population completing some college in Brooklyn.

[159] US Census, American Community Survey, 5 year data, 2008-2012.
[160] Ibid.
[161] US Census, American Community Survey, 5 year data, 2008-2012
[162] Ibid.
[163] NYAM primary data findings, as of September 15, 2014.

Table 13 - Educational Attainment for Population with No Health Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	30%	29%	20%	21%
Brooklyn	31%	29%	20%	20%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 14 - Educational Attainment for Population with Medicaid/Low Income Medical Assistance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	40%	29%	19%	12%
Brooklyn	38%	31%	19%	12%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 15 - Educational Attainment for Populations with Other Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	11%	22%	22%	45%
Brooklyn	12%	26%	22%	40%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Unemployment

The unemployment rate, not seasonally adjusted, for New York City was 6.1% in September 2014, according to the state Department of Labor.[164] The Queens rate was 5.4%; Bronx, 8.5%; Brooklyn, 6.6%, and Manhattan, 5.1% .[165] For young adults, the employment situation is dire.

> *There's little doubt that New York is facing a youth employment crisis. In 2012, the unemployment rate for young adults ages 16 to 24 was 18.6 percent—more than double the citywide average, and twice as high as for any other age cohort. Last year, only 29 percent of 16 to 24 year olds were employed or seeking work. In 2012, among the nation's 100 largest metro areas, New York City ranked 92nd in the rate of 16-19 year olds employed, and 97th for 20-24 year olds.*[166]

Interpretation of labor statistics is made difficult by a number of factors. Since unemployment rates count only persons still in the labor forces, a disproportionate number of persons of color who no longer seek work would lower those groups' unemployment rates. Also, there is no accurate count of employment by informal arrangement such as day labor, domestic labor and child care.

It is noteworthy that, currently and historically, unemployment rates are higher for persons with less than a college degree[167] and persons of color.[168] Low educational attainment and a high proportion of persons of color in our service areas can correlate to high unemployment in groups served by our healthcare system. Underlining this is our focus on Medicaid beneficiaries and the uninsured, who are likely to have higher rates of unemployment or employment in low-paying positions, some of which may be "off the books." Employment with insurance benefits is hard to come by for many low income and/or immigrant populations as jobs are hourly or seasonal.

Ambulatory Difficulties and Disability

Ambulatory difficulty among the age 65+ population is concentrated in two clusters, one extending from the far northern tip of the borough in Greenpoint in a southeasterly direction to East New York, and the other from Sunset Park southeasterly through Borough Park to Sheepshead Bay. For the age 18-64 category, the rates are much lower but ambulatory difficulty still affects a sizable number of people, with a similar geographic pattern. (See Appendix A, Maps 11-12 and Appendix B, Table 64.)

Individuals with physical and/or cognitive disabilities are disproportionately low income and have a high number of co-morbidities. They are dependent on systems that provide inadequate accommodation and face a number of logistic, psychosocial and emotional barriers to care. A key informant working in the field reported the following:

> *One-third of people with disabilities in New York City are living in poverty, and on a long-term basis. Other populations cycle in and out of poverty, but people with disabilities live in poverty on a long-term basis.*

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[164] New York State Department of Labor. http://labor.ny.gov/stats/laus.asp. Accessed November 7, 2014.
[165] http://www.labor.ny.gov/stats/PressReleases/county_rates.pdf
[166] Gonzalez-Rivera, C., (September 2014) *Bridging the Disconnect. https://nycfuture.org/research/publications/bridging-the-disconnect. Accessed November 7, 2014.*
[167] http://www.bls.gov/emp/ep_chart_001.htm
[168] http://www.bls.gov/web/empsit/cpsee_e16.htm

Currently, only about 20 percent of youth with disabilities will obtain a high school diploma. … Only about 32, 33 percent of people with disabilities are employed.

The State of New York knows that there's a higher prevalence of obesity, cardiovascular disease, hypertension and other diseases and health conditions for people with disabilities, but does not inquire into why that might be or how its programs for prevention and treatment and delivery of services need to be thought about in terms of how to address that problem. And yet those disparities are higher than for people of certain races and ethnicities. And yet services are directed and organized to them, but not for people with disabilities. It is suggestive of stigma in planning and program development. SPARCS data does not collect data about disability. It collects gender, age, race, ethnicity, but not disability. And yet we know that disability affects emergency room use, hospitalization and healthcare utilization. (key informant, disability services organization)

She described the multiple barriers to care, which were echoed in focus groups with individuals having vision impairment, hearing impairment, mobility issues, traumatic brain injury, and developmental delays.

They don't have exam tables that will lower so that you can transfer from a wheelchair. Or they don't provide ASL interpreters, either in person or by video phone or other system. Or they don't permit you to be seen right away if you have autism or an anxiety disorder, or a developmental disability – that make it very, very difficult for you to remain seated quietly in a waiting area. They don't give you longer times for your appointment if it's going to take you a long time to dress and undress…Our system is being redirected towards community care. And yet the community care that is available is more inaccessible to people with disabilities than the institution-based care.

So we have people who avoid health practitioners because they are routinely stigmatized and humiliated. The No. 1 problem people with disabilities have cited to us in studies is that they're dealing with practitioners who do not understand their disability, and who do not treat them with respect. People will go to the health practitioner, and if there's an aide with them, the health practitioners will address themselves entirely to the aide. As if the person sitting with a disability in front of them is not the person to whom they should be directing their comment, is not in charge of themselves, is not able to communicate, is not a thinking person. People with disabilities that are physical often complain that people treat them as if they have a low IQ. People with speech disabilities are often treated as if they're stupid. Similarly, people who are deaf or people who are blind. (Key informant, disability services organization)

Medicaid

There are approximately 1.3 million Medicaid beneficiaries living in Brooklyn, which is 1 out of 5 (21.1%) of all Medicaid beneficiaries in New York State and more than one-third (34.3%) of all Medicaid beneficiaries in New York City. The percentage of the Brooklyn population who are Medicaid Beneficiaries varies across ZIP Codes from 11.8% to 84.9% (See

Appendix A, Map 1).[169] The highest proportion of the population who are Medicaid Beneficiaries are in two large clusters, one in the northeast part of the borough from Williamsburg through Bushwick, Bedford-Stuyvesant, Brownsville, and East New York; and the other in southwest and south central Brooklyn, from Sunset Park to Borough Park, Flatbush, East Flatbush, and Bensonhurst.

Older Adults/ Dual Eligible Beneficiaries

Older adults covered by Medicare alone are not a focus for the DSRIP program which is primarily focused on Medicaid and uninsured populations, however there are a number of low income adults who are dually-eligible for Medicaid and Medicare in Brooklyn. Approximately half (52%) of the Brooklyn older adult population of 290.7 thousand is dually eligible for Medicaid and Medicare.[170] Brooklyn "duals" account for nearly one-third (32.9%) of all dually eligible individuals in NYC, and 18.1% in NYS.[171] Dual eligible individuals live in many parts of the borough with the highest numbers in Coney Island-Sheepshead Bay. (See Appendix A, Map 2.)

Older adults have specific concerns, primarily regarding care coordination and access to care, including mental health care. Isolation is seen as an issue that could negatively impact both physical and mental health for this population.

> *"In Brooklyn, [there are] no mental health services for old people that are easily accessible. ….There are a few providers, but they don't do home visits or they can't do it in a major way. What else can I tell you about Brooklyn? You know, again, social isolation and loneliness, people are not living near their families." (key informant interview)*

> *"This silo specialization in medicine is a problem for everybody, but it's a particular problem for the geriatric population with, you know, 12 medications and four presenting conditions. So that anything that can happen to not just coordinate but actually integrate care across specialties so that when you do need the interaction of the medical institution for it to deal with a whole person as a whole person, not by its individually coded and billed body parts would be really important. Anything that could happen along those lines would help everybody, but it would particularly help our guys." (key informant interview)*

Uninsured

In Brooklyn, according to the latest available data, approximately 344,000 people are uninsured, accounting for approximately 16% of all the uninsured individuals in New York State.[172] Adults over the age of 18 account for the largest proportion of the uninsured in Brooklyn, with a rate of 16.9%, versus approximately 2% among those aged 65 and older, and 4.1% among children aged 0-17. (See Appendix B, Table 60-61.) Within the borough, the highest number of uninsured are clustered in the ZIP Codes of 11220 Sunset Park and 11226 East Flatbush, with high numbers in Williamsburg-Bushwick, East New York, and East Flatbush-Flatbush. (See Appendix A, Map 3.)

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[169] New York State Department of Health 2012

[170] New York State Department of Health, 2012 data. Note, it is possible to be dually eligible for Medicare and Medicaid if you have a low income and are long tern disabled, without being over the age of 65.

[171] Ibid.

[172] Note these figures were estimated prior to the implementation of the Affordable Care Act (ACA) insurance exchange in New York State, and may have changed. Data Source: US Census, American Community Survey, 5 year data, 2008-2012.

The 2008-2012 five-year American Community Survey estimated that 207,094 (or 60.0%) of the total number of 344,916 uninsured Brooklyn residents were foreign born. Of these 207,094 foreign-born uninsured residents, the largest number were born in Latin American countries (75,577 / 36.5%), followed by those born in non-Hispanic Caribbean countries (48,893 / 23.6%), China (24,494 / 11.8%), Russia (6,051 / 2.9%), Poland (5,665 / 2.7%), South Asian countries (5,532 / 2.7%), and Arab countries (2,220 / 1.1%). (See Appendix B, Table 61)

Uninsured foreign born Latinos are concentrated primarily in Community District (CD) 4, Bushwick, and CD 7, Sunset Park and Windsor Terrace. Those uninsured born in Caribbean countries reside primarily in CD 17, East Flatbush, Farragut, and Rugby; CD 18, Canarsie and Flatlands; and CD 9, Crown Heights South, Prospect Lefferts, and Wingate. The Chinese-born uninsured are found mostly in CD 7, Sunset Park and Windsor Terrace and CD 11, Bensonhurst and Bath Beach. Those from Russia are more dispersed with some concentration in CD 13, Brighton Beach and Coney Island and CD 15, Sheepshead Bay, Gerritsen Beach, and Homecrest. Those from Poland are concentrated in CD1, Greenpoint and Williamsburg. The South Asian and Arab foreign born uninsured are fairly evenly dispersed throughout Brooklyn.[173]

A significant portion of the uninsured in Brooklyn may be undocumented.[174] Despite health reform, data suggest insurance coverage also remained problematic (or was increasingly problematic) even for those eligible.[175] Income restrictions for Medicaid were considered unrealistically low, and self-purchased coverage was repeatedly described as too expensive, given the difficulties of paying for basic necessities including food and housing. Lack of health insurance was reported to result in reduced use of preventive and community based care and increased emergency department use.[176]

> *I go to emergency room. That's where most people have to go if they don't have a doctor. That's where everybody has to go if you don't have health insurance. [Flatbush focus group]*

Housing: Types and Environment

Approximately one in five (20.3%) households in Brooklyn is a family household with an unmarried female householder, accounting for 17% of all such households in NYS.[177] More than one-quarter (28.7%) of all households in Brooklyn are comprised of a single person living alone, accounting for approximately 12% of such households in NYS.[178] (See Appendix B, Table 57.)

Serious Housing Violations

For lower income New York City residents, housing is often a challenge. [179] Particularly in Brooklyn, where neighborhoods continue to gentrify, housing options are restricted.[180] As explained by key informants and focus group participants include:

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[173] Borough Community District Profiles. http://www.nyc.gov/html/dcp/pdf/neigh_info/profile/bkboro_profile.pdf
[174] NYAM primary data findings, as of September 15, 2014.
[175] Ibid.
[176] Ibid.
[177] US Census American Community Survey, 5 year data table, 2008-2012.
[178] Ibid.
[179] NYAM primary data findings, as of September 15, 2014.

[In Bushwick] here are so many buy-outs and so many landlords that are just trying to get rid of those people that resided for years in these very affordable units. And now, they find that if they can move them out any which way, they can actually raise the rents and bring in the new people.

Thus, crowding is considered to be significantly higher than what would be reported in the census, meaning that sleeping arrangements—including for children—are substandard from a health perspective. Household composition, where there are significant income stresses, was also described as problematic as there might be adults living in close quarters with unrelated children.[181]

Many lower income populations live in apartments with poor maintenance, but given the restricted options (and landlords hope for gentrification), they have little leverage when advocating for repairs. High rates of serious housing violations per 1,000 units are found in Bushwick, Bedford-Stuyvesant, Crown Heights, East New York, East Flatbush, and Brownsville.[182] (See Appendix A, Map 15.) Poor housing conditions are reported to contribute to a high prevalence of asthma in particular communities, including Bushwick. Concerns about housing, including high rents and poor conditions, are a significant source of stress for lower income residents.

Key informants noted the lack of funding for rental vouchers (Section 8 housing) for low income people. Indeed, NYCHA – the city's largest administrator of Section 8 housing – has not processed new applications for this housing assistance since 2009, due to federal budget cuts.[183]

"When there was a possibility of obtaining Section 8, we helped people apply for Section 8. We help people apply for waiting lists for housing because that's pretty much all there is for extremely low income people."

Homeless Population

The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed, and which may be, in turn, further exacerbated by homelessness. According to a key informant that works with the homeless:

A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients.
I think on the Families with Children side, there is a very significant proportion of our families coming in because they are domestic violence [DV] victims. And, they may not qualify for a DV shelter. That's something that's determined at our intake center. Or, they may decline going to a DV shelter – even though they qualify for it. Of course, the psychological and sometimes physical ramifications of having been a DV victim – for both the Head of Household – the responsible parent – and for the kids is very, very significant.

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[180] Ibid.
[181] Ibid.
[182] *State of New York City's Housing and Neighborhoods in 2013: Brooklyn*. NY: NYU Furman Center; 2013:22.
[183] As per the New York City Housing Authority website on Section 8 applications, http://www.nyc.gov/html/nycha/html/section8/applicant-info.shtml , accessed September 15, 2014. See also the NYC Department of Housing and Development, a Section 8 administrator, at http://www.nyc.gov/html/hpd/downloads/pdf/Section-8-Policy-Changes-FAQ.pdf

Homeless New Yorkers tend to be disconnected from primary care and a medical home and are reportedly frequent users of emergency departments. According to the key informant cited above:

> *Our clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street.*

She attributes a portion of this lack of coordination to hospital and provider practice:

> *If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not happening. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our Family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient.*

Key informants in multiple fields emphasized the importance of supportive housing for high need homeless. Other recommendations included improved coordination of care, more efficient use of services, and improved health focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service.

Group Quarters - Institutionalized Populations

In Brooklyn, there are approximately 36,000 residents living in Group Quarters with 9,500 residing in institutional settings. In total, 2,400 live in Adult Correctional Facilities, 400 live in Juvenile Facilities, 9,500 live in nursing facilities (including skilled nursing facilities) and 1,100 live in other institutional facilities (comprises hospital, inpatient hospice, psychiatric hospital, military treatment facilities and residential schools for people with disabilities)[184]. There are another 18,000 residents living in other non-institutionalized facilities (comprises shelters, adult group homes, adult residential treatment facilities, and religious or work group quarters) in the county. The PUMA neighborhoods with the largest institutional populations include – Sheepshead Bay-Gerritsen Beach-Manhattan Bch (700), Seagate-Coney Island (1,000), Bensonhurst West (500), Sunset Park West (2,200), Canarsie (500), Prospect Lefferts Gardens-Wingate (1,400), Crown Heights North (500), Prospect Heights (700), East New York (700) and Borough Park (500).

Crime and Jail Admissions

[184] Source: U.S. Census Bureau, 2010 Census, Population Division - New York City Department of City Planning (July 14, 2011).

While crime has been declining overall in NYC for the past 15 years, the issue persists in parts of Brooklyn where crime, including gun violence, is cited as a serious barrier to accessing services due to personal safety concerns.[185] Data suggests that the highest rates of serious crime in the borough are in parts of Downtown-Heights-Slope, Williamsburg-Bushwick, Bedford-Stuyvesant-Crown Heights, and Canarsie-Flatlands. (See Appendix A, Maps 13-14.) Violent crime affected communities at large, as CNA participants described fear for children at certain playgrounds and fear for themselves. As described in the quotes below, CNA participants attributed the violence to young people who were increasingly disconnected from adults in their communities, had too few opportunities to be productive, and were exposed to numerous negative influences.

> *From September through June they have afterschool programs in some of the schools but during the summer there's nothing. During the summer is when you have the gangsters and the gun violence. Now we have an anti-violence initiative. The only thing it does is when someone gets killed or something they'll go and acknowledge it but there's no program in place. No conflict resolution initiative to address the needs of these students.*

> *The problem exists among the young people – black and Hispanic – who don't have anything to do. They're out there, they're standing at the corners. They're gathering in various groups with nothing positive. No direction to go in. When I listen to some of the information coming out of Kings County. Starting on Friday nights through Sunday, the emergency room is like a battleground because they're coming in with all kinds of injuries: guns, bottles, knives. You name it. This is what happens on the emergency room in weekends. This is a direct result of what's going on – or isn't going on in a positive nature … the hospitals can play a part in terms of opening some programs. The City of NY really has to step up, particularly where NYCHA is involved… All of that spills into the health care area because now hospitals are forced to give care in certain areas that came out of not a disease situation but because of economic or underprivileged situation.*

Along with a declining crime rate and Rockefeller drug law reforms in 2009, the number of new NYC Jail and NYS Prison admissions has been steadily declining over the past 15 years.[186] The map of NYC DOC Jail admissions shows very similar clustering of high rates as the household poverty map. (See Appendix A, Maps 5 and 13.) As exemplified by the statement of a key informant, despite the reductions in crime and incarceration, concerns around aggressive policing practices—though diminished with the new mayoral administration—persist.[187]

> *With stop-and-frisk, it's also just like what we see with our youth [in Bushwick, Brownsville, Bed-Stuy], right, the constant getting stopped, the constant being harassed by the police. That has a really strong emotional effect…those young people are feeling just kind of like "screw it all" kind of mentality of like, "I live in this neighborhood, and I'm not welcome." That kind of feeling is prevalent.*

Respondents emphasized the diminished life chances resulting from involvement in the criminal justice system and the need to place a greater emphasis on reducing that involvement through alternative to incarceration and disincentives for

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[185] Brennan Center "How NYC Reduced Mass Incarceration". Accessed August , 2014 at http://www.brennancenter.org/sites/default/files/publications/How_NYC_Reduced_Mass_Incarceration.pdf

[186] Brennan Center for Justice at New York University School of Law "How NYC Reduced Mass Incarceration".

[187] NYAM primary data findings, as of September 15, 2014.

inappropriate guilty pleas, particularly for crimes, like sex work, that may be motivated primarily by the need to survive rather than by criminal intention.[188]

Rikers Island houses approximately 12,000 people on a given day. Engaging this population in care requires nonjudgmental staff that are familiar with the practical (e.g., Medicaid deactivations, parole regulations), medical, and psychosocial issues faced. According to a key informant that works in correctional health, this population is comprised of:

> *The sickest people in the city, who are the most socioeconomically disadvantaged, the most stigmatized and the least likely to access care in a way that would be, exclusive of using the emergency room and that sort of thing.*
>
> *People think that [Rikers] is filled with violent criminals, which not that there are none, but primarily what we're dealing with is people who can't afford bail, people who are unstably housed, people who have chemical dependence that is turning their life topsy-turvy, who have engaged in sex work because they told someone about being sexually abused and they didn't listen…. I think, honestly, with the state emptying the psychiatric facilities, which nobody liked, but I'm not sure that jail is a better alternative. And right now we're talking about 40% of [the Rikers] population are mentally ill. And about 60 to 80% have some kind of behavioral health issue. And then we're talking about, you know, folks with chronic health conditions and the population in jails is aging, so now we've got diabetes and heart disease at much higher rates…. we also have folks who live [at Rikers], honestly, because they'd rather be [there] than in homeless shelters. And so we won't see the same kind of aging that the prisons will, just because people are released, but remember that people are also chronically - in the same way that folks are chronically homeless, they're chronically involved in our jail system.*

A key informant knowledgeable in this field recommends bridging connections directly from jails/prisons to community based organizations and providers upon re-entry, to avoid emergency department use post-release:

> *[There are] increased rates of hospitalization and emergency department visits post release. We've shown both those things. So anything that we do to try to systematically reduce hospitalizations would definitely benefit from partnering with local jails to help facilitate what I call warm transitions to primary care for medical and to behavioral health treatment, including drug treatment, substance use treatment so that we can avoid people coming to the emergency room 'cause that's what they're gonna do if they don't have - if they don't have a plan. I think it's kind of a no-brainer.*

[188] Ibid.

Domestic Violence

Domestic violence is a topic that resonated with several interviewees and focus group participants as a significant community concern that has received inadequate attention. Of Brooklyn survey respondents, 31% reported that health education or programs on domestic violence are needed in their community. Although not necessarily more prevalent, domestic violence issues were particularly relevant in immigrant communities, due to possibly different standards in their home country as compared to the US, stigma, lack of linguistically and culturally appropriate resources, and fear of deportation—particularly in mixed immigration status families. Examples of comments from key informants and focus group participants include:

> *Now, when they come here, they don't know the law of the land – the whole community, they don't know the law of the land. They didn't know, like there is no domestic violence here, there is no child abuse here.*

> *Some people are afraid to let people know they're undocumented. If they let people know about [abuse by] their husband or brother, that means they're putting themselves at risk for deportation. Sometimes I believe people are afraid to make that step because of the fear that they're going to be sent back.*

A key informant working with older adults described the significance of elder abuse, which may be physical, emotional and/or financial, in nature.

> *People come to us in sometimes very dire situations of being physically abused, certainly emotionally abused. I would say that emotional abuse is the accompanier of any type of abuse because people feel vulnerable and at risk. One major type of abuse is financial abuse, and that could be from strangers, as well as, family members. But in our experience, unfortunately family is over 50, over 50% of our cases tends to be the abuser. … Elder abuse is not just domestic violence grown old in our world, because it can be perpetrated by someone other than domestic partner, etc. And beyond that, it is sometimes very clearly related to the changes that happen when you're getting older, whether it's your financial need or some isolation, social isolation.*

Homeless Population

The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NY[189]. In addition, there are 2,500 domestic violence units in the City, administered by HRA. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed—and then may be exacerbated by homelessness. According to a key informant that works with the homeless:

> *A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients.*

[189] http://www.nyc.gov/html/dhs/html/home/home.shtml

I think on the Families with Children side, there is a very significant proportion of our families coming in because they are domestic violence victims. And, they may not qualify for a DV shelter. That's something that's determined at our intake center. Or, they may decline going to a DV shelter – even though they qualify for it. Of course, the psychological and sometimes physical ramifications of having been a DV victim – for both the Head of Household – the responsible parent – and for the kids is very, very significant.

Homeless New Yorkers tend to be disconnected from primary care and a medical home and are reportedly frequent users of emergency departments. According to the key informant cited above:

Our clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street.

She attributes a portion of this lack of coordination to hospital and provider practice:

If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not happening. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our Family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient.

There were also recommendations for improved coordination of care, more efficient use of services, and improved health focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service. In addition, key informants in multiple fields emphasized the importance of supportive housing for high need homeless populations.

Population Trends

New York City is projected to grow from 8.2 million persons in 2010 to 8.5 million in 2020, an increase of 308,000 or 3.7 percent. Between 2020 and 2030, the growth rate in New York City is projected to increase by 3.2 percent. Brooklyn is projected to grow from 2,552,000 in 2010 to 2,754,000 in 2020, an increase of 3.7 percent. From 2020 to 2030, the growth rate will slow to 3.2%, adding another 270,000 Brooklyn residents. High growth age groups (defined as a 20% increase) among males from 2010 to 2020 include 65-69 and 70-74 years while it is expected that there will be a population decline (of more than 5%) among 15-19, 20-44 and 50-54 year old males. Among females over the same time period, high growth age groups include 65-69 and 70-74 years, while it is expected that there will be a population decline among females aged 15-19, 20-24, 45-49, 50-54 and 80-84 years.

Brooklyn is expected to have the largest growth (3.8%) in school-age children from 2010-2020, this population growing from 425,000 in 2010 to 441,000 in 2020. From 2020-2030, the growth rate is expected to increase to 4.7%, adding another 21,000 school-age children in Brooklyn. The population aged 65 years and older in Brooklyn is expected to grow 19.3% from 2010 to 2020, expanding by 57,000 (from 295,000 to 351,000). The growth rate is expected to contract to 16% from 2020 to 2030, still adding an additional 57,000 seniors to the Brooklyn population, the largest addition among NYC counties.[190]

Section ii: Health Status

According to Brooklyn residents completing the CNA survey, the greatest health concerns in their community are diabetes (51.5%), drug and alcohol use (44.1%), high blood pressure (40.7%), obesity (35.2%), asthma (30.9%), and cancer (30.5%). The most common self-reported health problems were high blood pressure (27.7%), depression or anxiety (22.2%), high cholesterol (21.6%), chronic pain (19.1%), asthma (18.6%), and diabetes (14.4%). Approximately 33% of respondents were overweight and 30% were obese; 29% described their health as fair or poor.

Leading Causes of Death and Premature Death

Mortality and Premature Mortality

In New York City in 2012 the leading causes of death were diseases of the heart, which included coronary artery disease (CAD) and myocardial infarction, malignant neoplasms (cancer) and influenza and pneumonia. (See Table 16.) Heart disease and cancer accounted for 57% of all deaths in New York City. (See Table 16.)

Table 16 - Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%
2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%
8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

[190] New York City Department of City Planning, New York City Population Projections by Age/Sex and Borough, 2010-2040 (Updated from the original PlaNYC Projections, 2000-2030), Accessed November 6, 2014.

In Brooklyn, the top six causes of death mirrored those of the city overall. In Brooklyn, the seventh leading cause of death was essential hypertension and renal diseases, which was the eighth leading cause of death in the city overall. (See Table 17.)

Table 17 - Leading Causes of Death, Brooklyn, 2012

Rank	Top 10 Leading Causes of Mortality	Total Reported	Percent of Total
1	Diseases of Heart	5,024	33.4%
2	Malignant Neoplasms	3,720	24.7%
3	Influenza (Flu) and Pneumonia	734	4.9%
4	Diabetes Mellitus	639	4.2%
5	Chronic Lower Respiratory Diseases	447	3.0%
6	Cerebrovascular Disease	445	3.0%
7	Essential Hypertension and Renal Diseases	310	2.1%
8	Accidents Except Drug Poisoning	262	1.7%
9	Human Immunodeficiency Virus Disease	213	1.4%
10	Use of or Poisoning By Psychoactive Substance	200	1.3%
	All Other Causes	3,056	20.3%
	Total	15,050	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Causes of Death by Age

Table 38-40 (See Appendix B) provides the leading causes of death for City residents in 2012 by age groupings that include persons from less than one year old to age 85 and older. It is notable that assault ranked as the number one cause of death for age group 15-24; malignant neoplasms were the leading cause of death in age group 1-14 and all age groups 35-74. In the latter age groups, diseases of the heart was the second most common cause of death and the most common cause of death for persons 75 and older. For City residents ages 25-54, use of/accidental poisoning by psychoactive substances was the first leading cause of death, accounting for 27% of deaths in that age group.

Causes of Death by Sex

The three leading causes of death in 2012 were the same for men and women, with similar percentages of mortality. For men, the fourth and fifth leading causes of death were the same as for the City as a whole—diabetes and chronic lower respiratory diseases. For women, the fourth leading cause of death was cerebrovascular disease, followed by diabetes mellitus. For men, accidents (except for drug poisoning) were a prominent cause of death, ranked at number 6; for women it was the ninth leading cause of death. Death by use of - or poisoning by - psychoactive substance exposure, typically a drug overdose, was the eight leading cause of death for men in the City, followed by essential hypertension and renal disease, and HIV disease. For women, Alzheimer's Disease was the eighth leading cause of death, followed by accidents (except drug poisoning) and septicemia. (See Table 18.)

Table 18 - Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total	Percent	Causes of	Total	Percent of

		Reported	of Total	Mortality	Reported	Total
	Males			**Females**		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%
4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and	562	2%
8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

auses of Mortality by Race

Causes of death differ by racial grouping. Diseases of the heart and malignant neoplasms were the first two leading causes for Hispanics, White non-Hispanics and Black non-Hispanics in 2012. Among Asians and Pacific Islanders, the order of these two causes was reversed. For non-Hispanic Whites, the two leading causes accounted for 62% of mortality, while the two leading causes accounted for 51% of deaths in Hispanics and 57% of deaths for Asians and Pacific Islanders. The remaining leading causes of death varied by racial group. Altogether, the 10 leading causes of death account for 74% of mortality in Hispanics, 80% in non-Hispanic Whites, 79% in non-Hispanic Blacks, and 81% in Asians and Pacific Islanders.

Table 19 - Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			White, Non-Hispanic			Black, Non-Hispanic			Asian and Pacific Islander		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Trends in Mortality Causes in New York City

From 2002 to 2012 the three leading causes of death in the City overall have remained the same: diseases of the heart, malignant neoplasms, and influenza and pneumonia. (See Table 20.) In 2002, HIV disease was the fifth leading cause of death; in 2012 it is no longer in the top 10. In 2002, cerebrovascular disease, diabetes and chronic lower respiratory disease each accounted for 3% of deaths; the percentages did not change in 2012 although their relative rankings varied. The percentages of deaths from hypertension and renal disease rose one point in 2012 relative to 2002 and 2007, from 1% to 2%. In 2012 Alzheimer's Disease appeared in the top ten causes for the first time in 2012 (at number 10), accounting for 1% of

deaths that year. Percentages of deaths due to accidents (except for drug poisoning and use of - or poisoning by -psychoactive substance) did not change from 2002 through 2012.

Table 20 - Leading Causes of Death, New York City, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			2007			2012		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Premature Deaths

In New York City in 2012 the leading cause of premature deaths, that is, deaths before the age of 65, was cancer, followed by diseases of the circulatory system (including heart disease), and accidents. Overall, 14,407 premature deaths were recorded in 2012, with 224,047 years of life lost. (See Table 21.)

Table 21 - Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in the Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drownings	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010
Homicide and Legal Intervention	400	14,196	341	12,356	59	1,840
All Other Causes	2,324	39,249	1,357	22,315	967	16,934

Premature death is defined a death before age 65. Years of Life Lost (YLL) is calculated by subtracting the age of death from age 65
Source: The New York State Department of Health, Vital Statistics, 2012, accessed December 2, 2014

Leading causes of death by payer

The data in the table 22 below compares decedents who were enrolled in Medicaid in the year before their deaths and those who were not enrolled. The top four leading causes are the same: heart disease, cancer, chronic lower respiratory disease (CLDR) and cerebrovascular disease. Suicide is ranked in the top ten causes of death for non-enrollees, but not for Medicaid enrollees. Alzheimer's disease ranks higher among those enrolled in Medicaid, and while hypertension is among the top ten causes of death for enrollees, it is not ranked among non-enrollees.

Table 22. Ten Leading Causes of Death by Medicaid Status, New York State, 2012

	Non-Medicaid		Medicaid*	
Rank	Underlying Cause of Death	Deaths	Underlying Cause of Death	Deaths
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

*Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.

Leading causes of hospitalization and preventable hospitalization

Hospitalizations by Age Payer Group, and Diagnoses

Of the 1.08 million inpatient discharges by NYC hospitals in 2013, 16% were made by patients ages 0 to 17; 27%, ages 18 to 44; 26%, ages 45 to 64, and 30%, age 65 and older. Fifty-five percent of visits were by female patients, with 45% by males. Medicaid was the primary payer for 39% of visits, Medicare 32% Commercial 24%, Uninsured 3.4%, and Other payers 2%. Over the 4 year time period from 2010 to 2013, inpatient discharges decreased 7.4% city wide and the average length of stay declined 1.1% from 5.69 to 5.63 days.[191]

The main causes for hospital admissions were stable between 2010 and 2013, and across boroughs. Newborn and newborn related was the main reason for admission in all four boroughs and both time periods. Heart disease, digestive disease, and respiratory disease all had similar rates in all boroughs, with the exception of The Bronx, where respiratory disease was more common. Table 23 lists primary diagnoses for inpatient discharges Citywide and by Borough in 2010 and 2013.

Table 23 - Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive Disease	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

[191] New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Among leading potentially avoidable admissions, circulatory conditions followed a similar pattern, having higher rates than respiratory and diabetes in all boroughs except Bronx, where respiratory conditions was more common. Observed (actual) rates of admission for all three disease categories declined from 2009 to 2012 in all boroughs.

POTENTIALLY PREVENTABLE ED AND INPATIENT UTILIZATION

Access to an adequate amount, and mix of outpatient care and other community resources can reduce hospitalizations and ED visits related to Ambulatory Care Sensitive Conditions (ACSC) -- medical problems which could potentially be prevented, or for which early intervention could prevent complications or more severe disease.

<u>The Gap Between Community Resources and Needs</u>

The number of potentially avoidable ED visits and admissions therefore represents the Gap between community resources (provider and non-provider) and the needs of the Medicaid community, or unmet need. The Gap between resources and needs among neighborhoods and boroughs can be compared to each other, or to the Statewide average after adjusting for demographic differences, such as age, gender, and race / ethnicity. Neighborhoods with greater challenges such as higher disease prevalence, poverty rate, or English language proficiency may require a greater level of and perhaps different mix of resources.

The following categories of potentially avoidable hospital utilization are discussed throughout this section:

1. Medicaid Potentially Avoidable ED visits (PPV)
2. Medicaid Adult Overall Conditions Composite Hospitalizations (PQI 90)
3. Medicaid Adult Acute Conditions Composite Hospitalizations (PQI 91)
4. Medicaid Adult Chronic Conditions Composite Hospitalizations (PQI 92)
5. Medicaid Adult Respiratory Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Medicaid Adult Respiratory Conditions Composite Hospitalizations (PQI S03)
        i. Asthma Prevalence and percent with a hospital admission and ED visit
        ii. COPD and Asthma in Older Adults Hospitalizations (PQI 05)
        iii. Asthma in Younger Adults Hospitalizations (PQI 15)
        iv. Pediatric Asthma ages 2-17 Hospitalizations (PDI 14)
6. Medicaid Adult All Circulatory / Cardiovascular Disease Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Circulatory Conditions Composite Hospitalizations (PQI S02)

i. Hypertension Hospitalizations (PQI 07)
ii. Heart Failure Hospitalizations (PQI 08)

7. Medicaid Adult All Diabetes Composite
    a. Prevalence; Percent with a hospital admission and ED visit
    b. All Diabetes Composite Hospitalizations (PQI S01)
8. Medicaid Behavioral Health
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Mental Health Prevalence and percent with a hospital admission and ED visit
    c. Substance Abuse Prevalence and percent with a hospital admission and ED visit
9. Total Population HIV/AIDS
    a. People living with HIV/AIDS (PWHA)
    b. Prevalence; Percent with a hospital admission and ED visit

Note that a limitation in this way of measuring the gap between resources and needs is that while it does allow comparison across diseases and across geographic areas, it does not identify the amount and type of resources needed to reduce the gap, for example additional primary care providers and which type; language and cultural sensitivity; patient education; and transportation.

The terms used to measure ambulatory care sensitive conditions are as follows:

- Prevention Quality Improvement (PQI) is a set of measures developed by the federal Agency for Healthcare Research and Quality (AHRQ) for use in assessing the quality of outpatient care for a set of ACSC conditions. The PQIs are measured as a number of discharges or a discharge rate for a specific condition or disease for a given population. See Appendix E for a list of all condition (disease) specific PQI discharges and rates by neighborhood.
    - Observed PQIs may be described as the "actual" number of discharges. The Observed PQI rate (per 100,000 people) is the number of PQI discharges divided by the population. Lower rates represent better results.
    - Expected PQIs are Observed PQI discharges adjusted for age, gender, and race / ethnicity. The expected PQI rate (per 100,000 people) is the number of PQI discharges divided by the population.
    - Risk Adjusted PQI rate (per 100,000 people) is calculated by dividing the observed PQI rate by the expected PQI rate, multiplied by the statewide PQI rate. This has the effect of adjusting for demographic and case mix factors.
    - Observed to Risk Adjusted Expected gap quantifies the gap in absolute numbers of potentially avoidable hospital encounters.
    - Observed / Risk Adjusted Expected rate ratio is the ratio of "actual" PQI discharges to expected discharges, adjusted for age, sex, and race/ethnicity. Lower number is better.

- Potentially Preventable Visits (PPVs), based on proprietary 3M software, are emergency visits for ambulatory care sensitive conditions (ACSC) that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or

eliminated with adequate patient monitoring and follow up. Unlike with PQIs, which can be disease specific, there is only one PPV indicator which represents all potentially avoidable ED visit regardless of condition or disease.

- PPV Events are observed or "actual" ED visits that meet the criteria of an ACSC visit as defined by the 3M software. The Observed Rate is the number of PPV events divided by the population.
- Risk Adjusted Expected Visits are PPV visits adjusted by age, gender and race/ethnicity. The Expected rate is the number of Expected visits divided by the population.
- Risk Adjusted Expected Rate is the observed PPV rate divided by the expected PPV rate, multiplied by the statewide PPV rate. A lower number is better.

While not considered in this analysis an ambulatory care sensitive condition, Potentially Preventable admissions are included in this section due to their nature of being avoidable. I

- Potentially Preventable Readmission (PPR), is based on proprietary 3M software and as used in this report, identifies hospital admissions clinically related to an initial admission within a 30-day time period from the discharge date of the initial admission. A PPR approximates admissions that may have resulted from a deficiency in the process of care and treatment at the initial hospitalization or lack of post discharge follow up, and exclude unrelated admissions such as admissions for trauma. Therefore, PPR readmissions are linked to the initiating hospital regardless of whether the readmission is to the same or different hospital.
  - At-Risk Admissions are the total number of admissions at a hospital that could be followed by a PPR readmission as defined the software.
  - Observed PPR Chains are the number admissions at the initiating hospital followed by a readmission. Observed PPR Rate is the ratio of observed chains (readmissions) to At Risk admission.
  - Expected PPR Chains are the number of admissions at the initiating hospital followed by a readmission, adjusted for patient severity of illness (APR-DRG) and age. Expected PPR rate is the ratio of expected chains (admissions) to at-risk admissions.
  - Risk Adjusted Expected PPR Rate is the ratio of the Observed rate to the Expected rate, multiplied by the Statewide PPR rate. A lower number is better.

Source

New York State DOH Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Data Update

The PQI and PPV data used in this Appendix E reflects the most current updates, November 26, 2014 and may not match exactly comparable statistics in the report, which used original data as of June and August, 2014. Any changes resulting from the November update have not affected the findings of the report.

Table 24 - Potentially Avoidable Inpatient Discharges (Composite PQI), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	**2012**	**2009**	**2012**	**2009**	**2012**	**2009**	**2012**
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	1,547	1,360	1,453	1,318
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	1,615	1,398	1,874	1,641
	Observed/Expected	1.46	1.38	0.99	1.06	0.96	0.97	0.78	0.80
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	246	230	243	225
	Expected Rate Per 100,000	369	336	337	289	250	227	296	272
	Observed/Expected	1.50	1.47	1.15	1.20	0.99	1.01	0.82	0.83
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	357	304	289	269
	Expected Rate Per 100,000	493	437	458	378	365	319	426	374
	Observed/Expected	1.69	1.60	0.96	1.04	0.98	0.95	0.68	0.72
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	425	350	427	386
	Expected Rate Per 100,000	590	499	590	464	456	380	543	462
	Observed/Expected	1.40	1.31	1.04	1.08	0.93	0.92	0.79	0.83

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Emergency Department Visits

Of the 2.9 million ED visits by city residents in 2013 (excluding Staten Island), 24% were by patients ages 0 to 17; 44%, ages 18 to 44; 23%, ages 45 to 64, and 9%, age 65 and older. Fifty-four percent of visits were by were female patients, with 46% by males. Medicaid was the primary payer for 46% of visits, Commercial 19%, Medicare 10%, Uninsured 19%, and Other payers 4%. Table 25 lists primary diagnoses for ED visits in 2010 and 2013.

Table 25 - ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC 2010	NYC 2013	Manhattan 2010	Manhattan 2013	Bronx 2010	Bronx 2013	Brooklyn 2010	Brooklyn 2013	Queens 2010	Queens 2013
Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Compl. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Potentially Preventable Admissions (PQI), ER Visits (PPV), and Readmissions (PPR)

Overall, the rate of PQI Admissions in Brooklyn has been declining since 2009, but are above the expected rate.[192] The majority of PQI admissions in Brooklyn are for chronic conditions, which have also declined since 2009 but remain above the expected rate. Examining the ZIP Code level data, the highest Observed / Expected PQI ratios are consistently found in north-central Brooklyn, a cluster of ZIP Codes from Downtown in the west to Bedford-Stuyvesant and Bushwick in the east, and in Coney Island. Turning to absolute numbers of PQI admissions, the geographic areas of concern extend south and

[192] The Observed/Expected ratio is a measure of how well each geographic region is doing, taking into account basic demographic differences. A ratio less than 1.00 denotes performance that is better than expected; a ratio greater than 1.00 denotes performance that is worse than expected.

further east from these areas to Crown Heights and Brownsville and East New York. (See Appendix A, Maps 35-52, and table 17.)

Table 26 - Potentially Preventable Admissions (PQI) for Diabetes, Circulatory and Respiratory conditions

	PQI S01 Diabetes composite		PQI S02 Circulatory Composite		PQI S03 Respiratory Composite	
	PQI admissions	**O/E ratio**	**PQI admissions**	**O/E ratio**	**PQI admissions**	**O/E ratio**
Brooklyn	3,072	1.00	3,694	1.04	3,686	0.94
NYC	9,289	1.01	11,116	1.06	12,216	1.02
NYS	14,121	1.00	15,795	1.00	18,654	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

The conditions that vary from this general pattern are for the Circulatory Composite and the Hypertension PQI, which is part of the Circulatory Composite, with additional areas with high Observed / Expected ratios and numbers of cases in Flatbush, East Flatbush, and Sheepshead Bay; and the Asthma in Younger Adults PQI with the largest number of cases and highest Observed / Expected ratios clustered in Bushwick, Crown Heights, and Brownsville. (See Appendix A, Maps 39, 44, 51).

Table 27 - All PQI Indicators

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
Adult Overall Conditions Composite (PQI 90)	14,175	44,943	69,084	0.97	1.02	1.00
Adult Chronic Conditions Composite (PQI 92)	10,451	32,619	48,568	0.99	1.03	1.00
Adult All Diabetes Composite (PQI	3,072	9,289	14,121	1.00	1.01	1.00

				PQI Observed / Expected ratio		
PQI Indicator	# of Medicaid PQI Hospitalizations, Brooklyn	# of Medicaid PQI Hospitalizations, NYC	# of Medicaid PQI Hospitalizations, NYS	Brooklyn	NYC	NYS
S01)						
Adult Diabetes Short-term Complications (PQI 01)	838	2,533	4,506	0.87	0.91	1.00
Adult Diabetes Long Term Complications (PQI 03)	1,732	5,357	7,572	1.05	1.07	1.00
Adult Uncontrolled Diabetes (PQI 14)	428	1,178	1,679	1.15	1.04	1.00
Lower Extremity Amputation among Adults with Diabetes (PQI 16)	148	432	699	0.96	0.97	1.00
Adult All Circulatory Conditions Composite (PQI S02)	3,694	11,116	15,795	1.04	1.06	1.00
Adult Hypertension (PQI 07)	862	2,991	3,938	0.95	1.10	1.00
Adult Heart Failure	2,598	7,426	10,902	1.07	1.04	1.00

				PQI Observed / Expected ratio		
PQI Indicator	# of Medicaid PQI Hospitalizations, Brooklyn	# of Medicaid PQI Hospitalizations, NYC	# of Medicaid PQI Hospitalizations, NYS	Brooklyn	NYC	NYS
(PQI 08)						
Adult Angina Without Procedure (PQI 13)	234	699	955	1.13	1.09	1.00
All Adult Respiratory Conditions Composite (PQI S03)	3,686	12,216	18,653	0.94	1.02	1.00
COPD and Asthma in Older Adults (PQI 05)	3,236	10,486	16,244	0.95	1.01	1.00
Asthma in Younger Adults (PQI 15)	450	1,730	2,410	0.88	1.11	1.00
Adult Acute Conditions Composite (PQI 91)	3,727	12,328	20,521	0.90	0.99	1.00
Adult Dehydration (PQI 10)	732	2,403	3,958	0.89	0.98	1.00
Adult Bacterial Pneumonia (PQI 11)	1,620	5,353	9,347	0.86	0.96	1.00
Adult Urinary Tract Infection (PQI	1,375	4,572	7,216	0.96	1.04	1.00

				PQI Observed / Expected ratio		
PQI Indicator	# of Medicaid PQI Hospitalizations, Brooklyn	# of Medicaid PQI Hospitalizations, NYC	# of Medicaid PQI Hospitalizations, NYS	Brooklyn	NYC	NYS
12)						
Pediatric Overall Conditions Composite (PDI 90): ages 6-17 years	926	2,909	3,774	1.13	1.19	1.00
Pediatric Chronic Conditions Composite (PDI 92): ages 6-17 years	708	2,255	2,903	1.11	1.19	1.00
Pediatric Asthma (PDI 14): ages 2-17 years	1,278	4,282	5,384	1.08	1.73	1.00
Pediatric Diabetes Short-term Complications (PDI 15): ages 6-17 years	74	234	380	1.16	1.04	1.00
Pediatric Acute Conditions Composite (PDI 91): 6 - 17 years	218	654	871	1.21	1.16	1.00
Pediatric Gastroenteritis (PDI 16): ages 3 months - 17	558	1,758	2,333	1.31	1.18	1.00

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
years						
Pediatric UTI (PDI 18): ages 3 months - 17 years	134	602	929	0.80	1.04	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Potentially Preventable ER Visits (PPV)

Brooklyn has fewer potentially avoidable emergency room visits (PPV) per 100 Beneficiaries than does NYC or NYS. Despite this, the proportion of Emergency Visits that are considered potentially preventable is quite high: 74.5% for Brooklyn as a whole and ranging from 64.6% - 80.4% among ZIP Code areas. (See Appendix A, Map 53.) The same areas of the borough with elevated PQI Observed / Expected rates, a north central swath extending from downtown in the west to East New York in the east, has the highest proportions of Emergency Department visits designated as potentially preventable, with the addition of Flatbush and Canarsie south of the central and eastern part of this area. (See Appendix A, Map 53, and table below.) There were reported to be a number of factors that contributed to non-emergent use of hospital emergency departments. Among them were wait times for appointments, wait times on the day of the visit, and the potential need for multiple visits (e.g., for test not available on site). Even long waits in the ER are believed to represent a more efficient use of time:

> *If I get sick today, and I don't want to go the emergency room. And, so I try to consult with my primary physician, and there they give me an appointment for a month or two months. I say to myself 'for what? If I am sick now and I need a doctor now' [Bushwick focus group]*

Among survey respondents using emergency rooms in the past year, 17% reported that they did so because they "did not have insurance," and approximately 13% reported that they used the ER because "the doctor's office or clinic was not opened."[193]

[193] NYAM primary data findings, as of September 2014.

Table 28 - Emergency Department Potentially Preventable Visits

PPV	NYS	NYC	Brooklyn	# of Admissions, Brooklyn
Emergency Dept. Visits for Ambulatory Sensitive Conditions (PPV), per 100 Beneficiaries	36	34	29	690,782

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Potentially Preventable Readmissions (PPR)

Table 29 on the next page illustrates PPRs for the borough as a whole. There were more than 7,000 PPRs in 2012, with the number of actual events fewer than expected events based on demographics and case mix. The borough's facilities performed 2% better than the city's hospitals overall.

Table 29 - Potentially Preventable Readmissions by Borough, City and State, 2012

				Risk-Adjusted Expected Rate Ratios	
Area	Observed Potentially Preventable Readmissions	Observed Rate per 100 Admissions	Risk- Adjusted Expected Rate per 100 Admissions	to NYC	to NYS
Kings	**7,082**	**6.47**	**7.01**	**0.98**	**1.04**
NYC	**23,981**	**6.95**	**7.19**	**1.00**	**1.07**
NYS	**40,687**	**6.73**	**6.73**	**-**	**1.00**
* Risk-Adjusted Expected Rate accounts for demographic (age,gender, race/ethnicity) and case mix (statewide PPV rate) factors. Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.					

Source: New York State Department of Health Office of Quality and Patient Safety, Bureau of Health Informatics Medicaid Claims Extract, 2012.

The Observed / Expected ratios range from 0.87 to 1.17, with an overall ratio of 1.04. (See Table 29.)

Table 30 - Potentially Preventable Readmissions, Brooklyn Hospitals, 2012

Facility Name	At Risk Admissions	Observed PPR Chains	Observed / Expected PPR	Observed PPR Rate	Expected PPR Rate	Expected PPR Chains
Beth Israel Med Ctr Kingshwy Division	2,367	119	0.94	5.03	5.33	126
Brookdale Hospital Medical Center	8,084	533	0.95	6.59	6.95	562
Brooklyn Hospital Center	7,281	480	1.15	6.59	5.74	418
Coney Island Hospital	6,995	427	0.93	6.1	6.56	459

Facility Name	At Risk Admissions	Observed PPR Chains	Observed / Expected PPR	Observed PPR Rate	Expected PPR Rate	Expected PPR Chains
Interfaith Medical Center	5,179	709	1.17	13.69	11.73	607
Kings County Hospital Center	13,680	1,075	1.08	7.86	7.29	997
Kingsbrook Jewish Medical Center	3,627	299	1.12	8.24	7.35	267
Lutheran Medical Center	1,610*	103	1.11	6.4	5.78	93
Maimonides Medical Center	17,816	681	0.87	3.82	4.37	779
New York Methodist Hospital	11,125	575	1.00	5.17	5.15	573
Ny Community Hosp Of Brooklyn	3,060	138	0.79	4.51	5.71	175
University Hosp Of Brooklyn	11,362	795	1.13	7	6.2	704
Woodhull Med & Mntl Hlth Ctr	8,209	647	1.11	7.88	7.1	583
Wyckoff Heights Medical Ctr	8,986	500	1.11	5.56	5.03	452
Brooklyn Hospitals Total	**109,381**	**7,081**	**1.04**			**6,795**

**Lutheran Medical Center is working with the New York State Department of Health to revise this number, and expects the figure to be closer to 15,000. Source: New York State Department of Health, 2012 data.*

ASTHMA/RESPIRATORY CONDITIONS

Approximately 6.0% of Medicaid beneficiaries in Brooklyn had asthma-related service utilization (including pharmacy) in 2012, which is approximately on par with both the NYC (6.7%) and NYS (6.4%) figures. Within Brooklyn, these rates range from 3.0% to 10.0% and the highest rates are clustered in Downtown, Red Hook, Coney Island, Williamsburg/Bushwick, East New York, and Sunset Park. (See Appendix A, Map 23.) While the observed rate of potentially preventable inpatient stays for Medicaid beneficiaries for respiratory conditions (PQI 05, PQI 15) has declined in Brooklyn since 2009, it remains at or above the expected rate, with significant variability among ZIP Codes. The areas of Brooklyn with the highest PQI respiratory composite hospitalizations are located in North/Central Brooklyn, with especially high numbers in Bushwick and Crown Heights, and in the south in Coney Island. (See Appendix A, Map 40.) These are also the areas with the highest concentration of potentially preventable hospitalizations for older adults for asthma or COPD (PQI 05) (See Appendix A, Map 43.) Notably, while Sunset Park has high numbers of beneficiaries with asthma and other respiratory conditions, it has low numbers of asthma and respiratory-related PQI hospitalizations. Among "younger adult" (aged 18-39) Medicaid beneficiaries, potentially preventable hospitalizations for asthma (PQI 15) are most heavily concentrated in Bushwick and Brownsville. (See Appendix A, Map 51.)

Yet, looking at the Brooklyn population as a whole, the asthma ED visit rate in 2012 was higher in Brooklyn than for the city and state at a rate of 143.9 per 10,000 compared to 139.6 per 10,000 and 88.6 per 10,000, respectively.

Regarding environmental triggers, limited data is available. However, data on the rate of serious housing violations by Community District, i.e., housing code violations that are considered "immediately hazardous or serious," show prevalence in many of the same neighborhoods with high numbers of preventable respiratory PQI hospitalizations: Bedford-Stuyvesant, Crown Heights, Williamsburg, Bushwick, Brownsville, and East New York; plus Flatbush and East Flatbush. (See Appendix A, Map 15.) In Bushwick, community members consider the prevalence of asthma to be "huge" and largely attribute it to indoor and outdoor environmental conditions, including poor housing conditions, traffic, and the historic industrial base of the community, with likely persistent toxic chemicals.[194] In Sunset Park, there is also a history of toxic environments due to 'brownfields,' especially along the waterfront where there is a historically industrial area.

When looking at the location of asthma health care resources in relation to Respiratory Composite PQI hospitalizations (See Appendix A, Map 72), there appears to be fairly good alignment of health care resources to need; however, as noted above in regard to Sunset Park compared to other areas with high numbers of beneficiaries with respiratory conditions, the relationship of these resources to the prevention of PQI hospitalizations varies and is uncertain, especially when considering additional socio-demographic variables that may be influencing the PQI hospitalization outcome. Whatever the current efficacy of these resources in preventing asthma-related hospitalizations, they provide a foundation to implement the DSRIP clinical improvement projects around medication adherence and home-based self-management, which includes a focus on reducing home environmental triggers.

Asthma in younger adults and children

Among 18-39 year-old Medicaid beneficiaries in Brooklyn, there were 118.4 PQI discharges per 100,000, which is lower than the city and state rate of 160.82 per 100,000 and 134.52, respectively. However, there is great variability among neighborhoods with rates that range from 15.36 per 100,000 in Sunset Park to 219.55 per 100,000 in Bed Stuy/Crown Heights.[195] The highest total Medicaid PQI hospitalizations among young adults occurs in Williamsburg-Bushwick and Bed Stuy/Crown Heights. (See Appendix A, Map 51.)

Among children in Brooklyn who are Medicaid beneficiaries, the asthma rate of 310.87 per 100,000 is lower than the NYC overall rate of 426.91 per 100,000 but higher than the NYS overall rate of 210.39 per 100,000.[196] Childhood asthma rates in the borough range from 85.31 per 100,000 in Borough Park to 666.92 per 100,000 in Bed Stuy/Crown Heights. Additionally, DOH data suggests the majority of asthma PQI visits are among very young children, aged 2-5. (See Appendix B. detailed tables, and Appendix A, Map 51.)

The asthma ED visit rate of 297.3 per 10,000 for Brooklyn children is also higher than the state rate of 225.1 per 10,000, but lower than the city rate of 348.4 per 10,000. (See Appendix B, detailed tables.)

Asthma in Older Adults

[194] NYAM primary data findings, as of September 15, 2014.
[195] Medicaid Prevention Quality Indicators, 2012.
[196] Ibid.

Among older adults in Brooklyn, COPD or asthma in older adults PQI rate is lower than the state and city, at 758 per 100,000 recipients, as opposed to 814 per 100,000 and 822 per 100,000, respectively. Consistent with other asthma indicators, the highest observed rates and total number of Medicaid PQI hospitalizations for COPD and asthma in older adults are clustered in North and Central Brooklyn, and in the South in Coney Island. (See Appendix A, Map 43, and Appendix B, Table 83.)

CARDIOVASCULAR DISEASE

The rate of age-adjusted heart attacks is higher in Brooklyn (15.9 per 10,000) than in the city (13.5 per 10,000) or the state (15.1 per 10,000).

In 2012, the number of potentially preventable hospitalizations among Medicaid beneficiaries for circulatory conditions (PQI S02 Circulatory Composite) in Brooklyn was 3,694, accounting for more than one in five (23.3%) of all such admissions in the State. However, the ratio of observed/expected (O/E) admissions in Brooklyn (1.04) was lower than the ratio for NYC (1.06) for the same time period. Although the overall Observed/Expected ratio for the borough was 1.04 for Circulatory Composite PQI hospitalizations, the range across ZIP Code areas was 0.34 to 1.47, with 22 of the 37 ZIP Code areas having an O/E ratio over 1.00, indicating relatively broad prevalence across the borough. The highest Observed / Expected PQI ratios for Circulatory Composite are in north-central Brooklyn, a cluster of ZIP Codes from Downtown in the west to Bedford-Stuyvesant and Bushwick in the east, and in Flatbush, East Flatbush, and Coney Island - Sheepshead Bay. (See Appendix A, Map 39.)

The highest rates of cardiovascular-related service utilization (including pharmacy) were found in south Brooklyn, in Coney Island and Sheepshead Bay, extending northward to Borough Park.[197] That the north central Brooklyn neighborhoods noted above, with high numbers and O/E ratios for PQI hospitalizations, have relatively lower rates of cardiovascular-related utilization suggests opportunities for greater service utilization in those communities aimed at the DSRIP clinical improvement project objectives of implementing primary and secondary prevention strategies, more efficacious patient self-management, and enhanced clinical disease management.

In regard to disease information and support services, much of Brooklyn including the north central high needs areas, appear to have those services available; however, in the high need south Brooklyn area, those services appear to be lacking. Specialty cardiovascular services similarly do not appear to be located in the areas of greatest need. (See Appendix A, Map 70.)

From 2009-2012, the rate of potentially preventable (PQI) hospital discharges related to hypertension in Brooklyn declined from more than 120 per 100,000 to approximately 106 per 100,000, but remained above expected rates. (See Appendix B, Chart 53.) These rates were better than equivalent rates in NYC

[197] These numbers and rates reflect possible duplicated counts of beneficiaries if a beneficiary's calendar year utilization was found by NYS DOH to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect the Weighted Number of Beneficiaries with Condition-Related Utilization, and the rates reflect the Weighted Condition Prevalence among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category. NYS Department of Health, 2012 data

(124 per 100,000) but on par for those in NYS (105.5 per 100,000) in the same time period.[198] There is great variation in the number of PQI hypertension discharges among Brooklyn neighborhoods, ranging from 0-6 in areas of Greenpoint, Sunset Park and Bensonhurst-Bay Ridge, to 39-54 in parts of Williamsburg-Bushwick, Bedford Stuyvesant-Crown Heights, and high numbers (24-38) in East New York, East Flatbush-Flatbush, and Coney Island-Sheepshead Bay. (See Appendix A, Map 44.) The largest number of beneficiaries with hypertension-related utilization (including pharmacy) were in these same areas, with the addition of Sunset Park.

In 2012, among Medicaid beneficiaries participating in managed care plans, approximately 64.8% had controlled high blood pressure, fewer than comparable figures in NYC (67%) and NYS (63%).[199] (See Appendix B, Table 58.)

DIABETES

Diabetes is considered by many residents and key informants to be the most significant health issue in Brooklyn. The diabetes composite PQI (S01) for Brooklyn (1.00) is overall the same as for New York City (1.01) and New York State (1.00). But, within Brooklyn, the range for PQI S01 observed / expected ratios is 0.30 to 1.69. (See Appendix A, Map 38.) Across New York State, only 51% of Medicaid Managed Care beneficiaries with diabetes received all recommended tests in the last year, and 33% of Medicaid Managed Care beneficiaries in NYS with diabetes have poorly controlled HbA1c (>9%).[200]

Hospitalizations

The Diabetes Composite PQI (PQI S01) suggests there are a large cluster of potentially preventable hospitalizations in northern and central Brooklyn, extending from Bedford-Stuyvesant and Williamsburg-Bushwick through Crown Heights and Brownsville to East New York; and in Coney Island. Additional areas with significant numbers of Diabetes Composite PQI hospitalizations, if not an O/E ratio over 1.00, can be found in Flatbush and East Flatbush. (See Appendix A, Map 38).

Rates of Medicaid avoidable hospitalizations in Brooklyn for short-term diabetes complications are comparable to those for New York City and New York State. The rate of hospitalizations for short-term diabetes complications (PQI 01) among Medicaid beneficiaries is 2% lower in Brooklyn (103.12 per 100,000) than in the city overall (105.03 per 100,000), and 7% lower than the state overall (110.31 per 100,000). Brooklyn, overall, had 838 Diabetes short-term complications (PQI 1) hospitalizations and a PQI O/E ratio of 0.87. Thirteen ZIP Code areas with O/E ratio greater than 1.00 account for 546 of these hospitalizations. These 546 PQI hospitalizations are found in a large cluster in north central Brooklyn, extending from Bedford-Stuyvesant and Williamsburg-Bushwick through Crown Heights and Brownsville to East New York; and in Coney Island. (See Appendix A, Map 41.)

[198] NYS DOH, 2012
[199] City and County data from NYC DOHMH Community Health Survey, 2012. State data from QARR, 2012
[200] QARR, 2011

Long-term diabetes hospitalization rates among Medicaid beneficiaries in Brooklyn (PQI 03) vary by neighborhood. Rates of such hospitalizations are highest in Williamsburg-Bushwick, East New York, Bedford Stuyvesant-Crown Heights, and Flatbush. (See Appendix A, Map 42.)

As compared to New York State, hospitalization rates among Medicaid beneficiaries in Brooklyn with uncontrolled diabetes were two to three times higher in the Downtown–Heights–Slope neighborhood, and slightly lower differences were found in Bedford Stuyvesant-Crown Heights, East New York, and Coney Island–Sheepshead Bay. The PQI (14) for Medicaid hospitalizations for uncontrolled diabetes is highest in East New York, Bedford Stuyvesant-Crown Heights, and Flatbush. (See Appendix A, Map 50.) Lower extremity amputation rates for Medicaid Beneficiaries with diabetes are largely concentrated in the north of Brooklyn.

The geographic concentration of PQI hospitalizations makes the return on investments in practice reforms and personnel potentially high in terms of incentive payments for reduced PQI admissions and overall improved disease management. However, the available data suggests there may be a geographic misalignment of diabetes care management resources with need (as shown in terms of Diabetes Composite PQI S01 hospitalizations).[201] (See Appendix A, Map 71.)

BEHAVIORAL HEALTH

Mental Health

Among the Brooklyn population as a whole, the age-adjusted percentage of adults with poor mental health for 14 or more days of 7.4%, as well as the age-adjusted suicide rate of 4.6%, were lower than the state and city rates.[202] 6.1% of all people in Brooklyn report experiencing serious psychological distress, compared to 5.5% in NYC overall. In NYC, people who are currently experiencing psychological distress are more likely to report binge drinking in the last 30 days than people who did not report psychological stress and are more than twice as likely to report being a current smoker. Coney Island, in particular, appears to be disproportionately impacted by psychological distress with 12% of residents reporting it, nearly double the rate for the Borough (6.1%). Those in Bay Ridge-Bensonhurst and Williamsburg-Bushwick also report high rates of psychological distress, with approximately one in ten residents surveyed reporting it. Rates in the remainder of the borough range from approximately 8.5% in Greenpoint to a minimum of 1.6% in Sunset Park. (See Appendix B, Table 90.)

Approximately 17.7% of Medicaid beneficiaries in Brooklyn had weighted, behavioral health-related service utilization (including pharmacy) in 2012.[203] Within Brooklyn, the beneficiaries utilizing behavioral

[201] The list of diabetes resources are from the GNYHA HITE SITE providers who list “diabetes” among their services or programs, plus a list of FQHCs and Community Health Centers servicing the area.
[202] 2008-2009 Behavioral Risk Factor Surveillance Survey (BRFSS) and Expanded BRFSS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard, accessed September, 2014.
[203] These numbers and rates reflect possible duplicated counts of beneficiaries if a beneficiary's calendar year utilization was found by NYS DOH to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect the Weighted Number of Beneficiaries with Condition-Related Utilization, and the rates reflect the Weighted Condition

health services the most appear to be located in a cluster from Williamsburg and Bushwick through Crown Heights, Brownsville, and East New York; and in a cluster from Sunset Park and Borough Park, extending north to Flatbush and south to Coney Island and Sheepshead Bay.[204] (See Appendix A, Map 31.)

The myriad of stresses on lower income Brooklyn residents were considered overwhelming to some and resulted in high levels of depression.[205]

> *A major cause of that is the amount of economic pressure that people are under right now. People are losing their jobs; as a result of losing their job, there goes the resources you could have utilized for certain expenses. As a result of not meeting those expenses, you have pressure. It breaks you down in other areas. If you're a father and you have your household that you're responsible for, you're not able to meet the needs, then your wife is under the pressure of how she's working. Everything is on her; there goes your manhood. Now you're being beaten on the street because you're targeted. And some people, maybe there's not that strong family foundation, so there's no one to talk to about it. [Flatbush focus group]*

This qualitative report is validated by diagnostic data. Among Medicaid beneficiaries in Brooklyn, 10% (123,000) have a depression CRG diagnosis (includes "Depression"; "Depressive and Other Psychoses "; and "Depressive Psychosis - Severe"), a rate nearly ten percent lower than the city rate (11.3%). Rates of depression among enrollees vary greatly through the county and are highest in these UHF neighborhoods: Coney Island/Sheepshead Bay (14.9%), Downtown Brooklyn/Park Slope/Brooklyn Heights (16%), Williamsburg/Bushwick (10.8%) and East New York (10.7%).[206] Prevalence of serious psychological distress (SPD), a composite measure of 6 questions regarding symptoms of anxiety, depression and other emotional problems, correlates with the rate of severe mental illness in a population. Citywide, the rate of SPD in the general population is 5.1%, while the Brooklyn Rate is 6%. Neighborhoods with the highest rates of SPD in Brooklyn include Greenpoint (9.8%), Borough Park (7.4%), Bay Ridge/Bensonhurst (9.1%), Williamsburg/Bushwick (8.6%) and Coney Island (10.8%).[207]

Low-income immigrant populations—whether they be Latino, Arab, African or Caribbean—may have additional stressors, as well as poorer access to care, due to insurance and language issues.[208] As described by key informant working with Latino immigrants:

> *There's really such a lack of mental health services, and combined with the fact that people just have really, really difficult lives. Sometimes they've left behind even more difficult lives in their*

Prevalence among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category. NYS Department of Health, 2012 data.

[204] Ibid.

[205] NYAM primary data findings, as of September 15, 2014.

[206] New York State Dept. of Health, 2012. https://health.data.ny.gov/Health/Medicaid-Chronic-Conditions-Inpatient-Admissions-a/wybq-m39t.

[207] Community Health Survey 2012 data, as reported on Epiquery http://nyc.gov/health/epiquery, accessed August 2014.

[208] Ibid.

countries. I think there's just kind of a lot of trauma about kind of what they've left, and then the process of trying to integrate here. And to some extent, a good amount of isolation. When you're working so much, you don't really have as much time to seek out other things that are not hard work. So we've seen that as kind of crisis moments where people come in and they're like, "I can't take this anymore," and we help them connect to something. And often it's not great. It's like they have to go to the emergency room.

Another key informant noted:

> *Because of the political problems in the Middle East, they feel unsafe, unprotected. They are scared all the time. They are afraid to go anywhere or speak out. All these issues, it doesn't help them financially, psychologically, and other problems like mental health issues are on the rise in our community because they can't provide food for their children. They take it out on their wife and their kids, and on themselves, they feel depressed. (Key informant, immigrant focused CBO)*

> *So, Asian-American young women have the highest rate of suicidal ideation among all racial ethnic groups. And we find something similar, not just with the young people, but senior – Asian-American women who are seniors as well. (Key informant, immigrant focused CBO)*

Bangladeshi focus group participants also noted the particular stresses of immigration:

> *From day one in the United States there is mental pressure. There is depression and frustration because my experiences qualification and education from back home is not compatible with the demands here. There is no job satisfaction. We aspire to do well in this country but the realization of not being able to is frustrating.*

While the geographic distribution of behavioral health resources (Appendix A, Map 86) appears to match the widespread distribution of behavioral health conditions among beneficiaries as indicated by service utilization,[209] community members raised questions as to the adequacy of these resources in terms of capacity. Access to mental health services is reported to be limited, although it might be the case that community organizations and residents are not aware of available services or how to access them. In addition, behavioral health issues generally carry greater stigma than other health concerns, which tends to limit use of services. Key informants and focus group participants both reported that many affected families try to address problems internally.[210]

> *There's a lot of stigma across the board of getting services. Some things that we hear are even the parents who understand that there are young people that could really benefit from getting*

[209] As noted above, these numbers and rates reflect possible duplicated counts of beneficiaries if a beneficiary's calendar year utilization was found by NYS DOH to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect the Weighted Number of Beneficiaries with Condition-Related Utilization, and the rates reflect the Weighted Condition Prevalence among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category. NYS Department of Health, 2012 data

[210] Ibid.

treatment and services, it's like, "let's just keep it in the family" (Key informant, immigrant focused CBO)

I will say that they are sometimes, first of all, people have an aversion to it. There's a cultural aversion to it. There's a cultural stigma and misunderstanding about mental healthcare and behavioral healthcare. People are not motivated in the way they perhaps should be to seek it, but it's not like there are clinics around [Crown Heights].

Per the DSRIP Project Toolkit, integration of behavioral health specialists into primary care clinics may help address access issues if it means a net increase of behavioral health resources. Integration with primary care services may also facilitate utilization among some beneficiaries who may avoid seeking treatment due to a stigma associated with doing so at a behavioral health services provider location. Conversely, the integration of primary care services into existing behavioral health services settings addresses the high rates of co-morbidity between behavioral health and chronic physical health conditions for those currently utilizing behavioral health services.

According to providers themselves, the system is fragmented, with possibly poorer integration within behavioral health services themselves than between physical and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH) with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. Thus, a mental health provider might be limited in the severity of illness that can be treated, the age of the patient, and other factors.[211]

Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I mean really become integrated in treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (key informant, multiservice organization.)

Although we do not have data specific to Brooklyn, in NYS, approximately half (53%) of Medicaid Managed Care beneficiaries who were prescribed antidepressant medications continued to use the medication for the entirety of the 12-week acute treatment phase, and only 37% remained on the medication for at least 6 months (QARR, 2012). In NYS, only 57% of children enrolled in Medicaid Managed Care who were prescribed medication for ADHD completed a follow-up visit with a practitioner within 30 days of starting the medication (the initiation phase), only 63% of whom also received two additional follow-up visits in the 9 month period after the initiation phase ended (QARR, 2012). In NYS, only 65% of adults enrolled in Medicaid Managed Care who were hospitalized for a

[211] Ibid.

mental illness received a follow up within 7 days of discharge; 79% received a follow-up within 30 days (QARR, 2012)

Additional behavioral health measures for provider systems implementing the Behavioral Interventions Paradigm in Nursing Homes (BIPNH) project:

Among Medicaid beneficiaries in Brooklyn, the observed PPR rate was 6.47%, compared to 7.04% in NYC and 6.73% in NYS (Medicaid Hospital Inpatient Potentially Preventable Readmission (PPR) Rates). Among all long-stay residents in nursing homes in NYS, 12.23% exhibit depressive symptoms. See Appendix B, Table 31 for data on readmissions within 30 days of a psychiatric discharge across Brooklyn hospitals, for all payor categories (not only Medicaid).

Alcohol/Drug Use

About 4.8% of Medicaid beneficiaries in Brooklyn had alcohol/drug use-related service utilization (including pharmacy) in 2012, compared to 6.2% in NYC and 6.4% in NYS.[212] These service utilization rates range considerably throughout the borough, with the highest rates clustered in Downtown, Bedford-Stuyvesant, and Crown Heights.[213] (See Appendix A, Map 33.) The age-adjusted percentage of adult binge drinking among the total population during the past month for the borough, 16.4 %, was also lower than the state and city rates of 18.1% and 19.6%, respectively. (See Appendix B, Table 90.) While information is not available at the borough level, in 2011, the rate of emergency room visits for non-alcohol illicit drug use in NYC was 639.2 per 100,000.[214]

Medicaid beneficiaries with alcohol/drug use related service utilization are located in many of the same neighborhoods with high numbers of beneficiaries utilizing behavioral health services: Williamsburg and Bushwick through Crown Heights, Brownsville, and East New York; with the addition of Bedford-Stuyvesant.[215] (See Appendix A, Map 33.) The availability of resources appear to align fairly well geographically with need (see Appendix A, Map 62), providing a foundation for the implementation of community-based detoxification and withdrawal management services as outlined in the DSRIP Project Toolkit.

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[212] These numbers and rates reflect possible duplicated counts of beneficiaries if a beneficiary's calendar year utilization was found by NYS DOH to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect the Weighted Number of Beneficiaries with Condition-Related Utilization, and the rates reflect the Weighted Condition Prevalence among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category. NYS Department of Health, 2012 data.

[213] Ibid.

[214] Drug Abuse Warning Network, 2011: New York City – 5 Boros: Drug-Related Emergency Department Visits, 2004-2011 - Illicits (excluding alcohol) Rockville, MD: Center for Behavioral Health Statistics and Quality, SAMHSA, 2013.

[215] These numbers and rates reflect possible duplicated counts of beneficiaries if a beneficiary's calendar year utilization was found by NYS DOH to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect the Weighted Number of Beneficiaries with Condition-Related Utilization, and the rates reflect the Weighted Condition Prevalence among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category. NYS Department of Health, 2012 data.

Behavioral health and substance abuse issues were also described by CNA participants:

> *[In Crown Heights] the mental health issues are many, and addiction to me is a mental health issue. And that's rampant in the neighborhood, and just depression. I mean, I don't know about today, but in this block alone you can just walk up and down the street and see guys sitting around, sitting in front of the liquor store down there or just, all day they'll be out there, from the time I come to work at around 9:00 a.m. or 10:00 a.m., and they'll be out there until I leave… if you take a look at them and that life, underneath that there's probably some real depression setting in. Poverty kind of breeds that.*

Comorbidities with physical health

Many patients with behavioral health conditions also have chronic physical health conditions. According to data from the NYS Office of Mental Health (OMH), approximately 54.8% (13,141/23,994) of Brooklyn clients served had at least one chronic medical condition. (See Appendix B, Table 32 and Chart 35.) The 2011 OMH Patient Characteristics Survey found that 51.5% of Brooklyn adults surveyed had cardiac or metabolic illnesses; and 10.4% of Brooklyn children surveyed had a pulmonary condition.[216] In 2012, of the 219,347 Brooklyn Medicaid beneficiaries who had a behavioral health-related service utilization (including pharmacy) throughout the calendar year, nearly one in three (31.2% or 68,604/219,347) had an inpatient admission during the year, for any reason, i.e., the admission was not necessarily related to behavioral health.[217] These 68,604 beneficiaries represent 5.5% of all Brooklyn Medicaid beneficiaries, and they accounted for a total of 162,820 inpatient admissions in 2012.[218] They were concentrated in north central Brooklyn, from Bedford-Stuyvesant through Crown Heights, Brownsville, to East New York. (See Appendix A, Maps 32.)

An analysis of Brooklyn inpatient hospital admissions by ZIP Code for beneficiaries who have utilized some mental health services in the 2012 calendar year, including behavioral health prescription medicines (See Appendix A, Map 32), suggests a geographic pattern of hospital admissions very similar to those for chronic diseases.[219] (See Appendix A, Map 37.) This is consistent with the literature noting that the majority of inpatient admissions for beneficiaries with a behavioral health condition are for physical health conditions.

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[216] NYS OMH Patient Characteristics Survey, 2011

[217] These numbers and rates reflect possible duplicated counts of beneficiaries if a beneficiary's calendar year utilization was found by NYS DOH to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect the Weighted Number of Beneficiaries with Condition-Related Utilization, and the rates reflect the Weighted Condition Prevalence among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category. NYS Department of Health, 2012 data.

[218] Ibid.

[219] Ibid.

HIV/AIDS and STDs

Brooklyn is similar to New York City as a whole in its incidence rates of HIV and Chlamydia, but has significantly lower rates of Gonorrhea.[220] In Brooklyn, the incidence of gonorrhea is 134% lower than it is for the city as a whole. Within the borough, there is a 184% difference between the neighborhoods with the highest and lowest incidence rates.[221]

However, stark disparities exist between communities in their rates of HIV and STDs. As indicated in Table 31, the neighborhoods of Bedford Stuyvesant/Crown Heights, Williamsburg/Bushwick, and East Flatbush/Flatbush have the highest HIV prevalence in Brooklyn. While Bensonhurst/Bay Ridge, Coney Island/Sheepshead Bay, and Greenpoint have the most significant age-adjusted death rates – with Bedford/Stuyvesant/Crown Heights and Williamsburg/Bushwick closely following. Brooklyn residents who are HIV positive or have been diagnosed with AIDS have lower rates of viral load suppression (58.3%) compared to New York City (61.2%) and New York State (62.2%)[222], indicating that Brooklyn residents are having less treatment success and therefore experiencing worse health outcomes as a result of their HIV diseases then the general HIV population in the State.

Table 31 - Rates of HIV diagnoses, People with HIV/AIDS (PWHA), and deaths among PWHA by United Hospital Fund (UHF) neighborhood, New York City 2011

UHF Neighborhood	HIV diagnoses per 100,000 population	Reported PWHA as percent of population	Age-adjusted death rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Brooklyn	**39.2**	**1.1**	**17.7**	**2,504,700**
Bedford Stuyvesant/Crown Heights	77.1	2.2	20.1	318,898
Bensonhurst/Bay Ridge	13.5	0.3	22.2	199,271
Borough Park	8.7	0.3	14.8	331,983
Canarsie/Flatlands	38.5	0.7	12.9	195,027
Coney Island/Sheepshead Bay	9.1	0.4	21.1	285,502
Downtown/Heights/Park Slope	37.9	1.4	16.6	224,199
East Flatbush/Flatbush	60.7	1.6	13.5	296,583
East New York	46.8	1.5	18.6	187,855
Greenpoint	29.9	0.8	22.7	127,051
Sunset Park	23.5	0.7	10.2*	127,863
Williamsburg/Bushwick	73.2	1.8	20.0	210,468

Rates based on numerators 10 are marked with an asterisk(*) and should be interpreted with caution.
Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs Semiannual Report. October 2012

[220] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery
[221] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery
[222] HIV Ambulatory Care Performance, 2011

These findings are consistent with information on Medicaid beneficiaries with HIV/AIDS-related service utilization, with Sunset Park also standing out as an area with relatively high numbers of beneficiaries with HIV/AIDS-related service utilization. (See Appendix A, Map 29.)

The HIV/AIDS Resources map shows an apparent geographic alignment between Medicaid Beneficiaries with an HIV/AIDS service utilization in the Calendar Year and the location of HIV/AIDS resources. (See Appendix A, Map 74.) The existing health care and ancillary services structure provides an apparent strong foundation for implementing both the HIV/AIDS clinical improvement project and the core components of the HIV/AIDS population-wide project listed in the DSRIP Toolkit. Even with this strong foundation, there continues to be concerns related to access to HIV care and access to the necessary supportive services that have been shown to improve health outcomes and increase the likelihood of retaining HIV patients in care. According to key informants there continues to be challenges related to accessing care and treatment support.

> *[Y]es access is an issue. First, for preventive care you have to be aware that there's benefit to being screened for a disease that you may have no symptoms of and show no signs of. And you have to trust the provider is going to use the information you give them in a way that won't be to your detriment and won't [unclear], for example, and seeing that you need to know that if you are diagnosed with something you are screened for, that there is no route to access to treatment that you can afford. So those are all hoops that [unclear].*[223]

> *No one's being turned away. We still have the state ADAP program that covers immigrants, the undocumented and uninsured. So the system of care for HIV is well-built. What's peeling away are some of the supportive services that keep people in care or bring them to care in the first place. I mean, I think substance use treatment services and mental health services have blossomed finally. [unclear] has lost some funding. With the community-based programs that used to provide supportive services for HIV Africa Care have been pared down, and there's more of a funder focus on medical [unclear] HIV care, putting more funding in the hospital setting for case management, HIV case management. And a lot of AIDS service organizations have [unclear], I think that 70 AIDS service organizations in New York City have closed or merged with another organization since 2009.*[224]

Disparities

Racial/ Ethnic

The rate of new HIV diagnoses among black/African American people living in Brooklyn is more than five times the rate among whites in the borough (79.9 compared to 14.0 cases per 100,000 people).[225] The rate of new HIV diagnoses among Latinos living in Brooklyn is over 2.5 times that of whites (36.6

[223] NYAM primary data findings, as of September 15, 2014.
[224] NYAM primary data findings, as of September 15, 2014.
[225] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

compared to 14.0 cases per 100,000 people).[226] Across NYC, rates related to linkage to care and viral load suppression are lowest among blacks.[227]

Gender

Women living with HIV consistently have lower rates of viral load suppression across NYC, [228] and linkage to and retention in care are slightly lower among men in NYC.[229]

Rates of other STDs such as Gonorrhea, Chlamydia and syphilis in Brooklyn outpace corresponding rates in NYS. In 2012, the rate of Gonorrhea among women aged 15-44 years in Brooklyn was 1.3 times the State rate, and, among men, the Brooklyn rate was 1.4 times the State rate. The Chlamydia rate among Brooklyn women was 1.3 times the State rate in the same time period. [230] Among Brooklyn men, the primary and secondary syphilis case rate was 1.7 times the State rate for 2012, and, among women, the rate was 1.4 times the State rate.[231]

The neighborhoods of Bedford Stuyvesant/Crown Heights, Williamsburg/Bushwick, East New York, East Flatbush/Flatbush, and Flatlands experience the greatest burden from disparities in HIV and STDs.

Table 32 - HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1

[226] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

[227] HIV Health and Human Services Planning Council of New York, New York City Department of Health and Mental Hygiene. *Needs Assessment for HIV Services New York Eligible Metropolitan Area, Ryan White Part A 2014.*

[228] HIV Health and Human Services Planning Council of New York, New York City Department of Health and Mental Hygiene. *Needs Assessment for HIV Services New York Eligible Metropolitan Area, Ryan White Part A 2014.*

[229] HIV Health and Human Services Planning Council of New York, New York City Department of Health and Mental Hygiene. *Needs Assessment for HIV Services New York Eligible Metropolitan Area, Ryan White Part A 2014.*

[230] Data for 2012 is not reported for men on the NYS Prevention Agenda 2013-2017 State and County Dashboard.

[231] 2012 data reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.

20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361
High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

MATERNAL/CHILD HEALTH

Over the period 2010-2012, Brooklyn averaged 41,969 live births per year, representing 35.5% of the births in New York City and 17.5% of the births in the state. The highest fertility rates are found in Bay Ridge, Borough Park, and Williamsburg. The percentage of all births in Brooklyn that were Medicaid or self-pay was 65.9%, compared to 59.7% in NYC and 50.1% in the state; the percentage of Medicaid or self-pay births across Brooklyn ZIP Codes ranged from 12.5% to 91.2%. The highest rates and numbers of Medicaid or self-pay births were in Sunset Park and Brownsville. (See Appendix A, Map 8.)

The overall Low Birth Weight (LBW) rate for Brooklyn over the same time period was 8.2%, compared to 8.5% for NYC and 8.1% for the state.[232] Across ZIP Codes, the LBW rates ranged from 5.2% to 13.4%, with the highest rates found in a large cluster of ZIP Codes extending through the north central, central, and eastern parts of the borough in the neighborhoods of Bedford-Stuyvesant, Crown Heights, Flatbush, Brownsville, East New York, and Canarsie.[233] These neighborhoods also experience the highest rates of infant mortality. (See Appendix A, Map 6 and Appendix B, Tables 86 & 93.) It appears that the focus of the DSRIP perinatal care clinical improvement project, if chosen to be implemented, would be on these communities.

CANCER

The incidence rate of colorectal cancer is higher than expected in Brooklyn compared to the New York State incidence, while incidence of prostate, lung or bronchus and breast cancer is lower than expected.

[232] New York State Vital Statistics Data 2010-2012, available at http://www.health.ny.gov/statistics/chac/perinatal/county/kings.htm#kings, accessed September, 2014
[233] Ibid.

Incidence data, as of 2007-2011, is available at the ZIP Code level and has been mapped and analyzed. The New York State Cancer Registry provides observed and expected case rates, with the latter rate controlling for the local age distributions, relative to the state age distribution.

Colorectal

There are 6,186 colorectal cancer cases in Brooklyn, 6% higher than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Williamsburg/Bushwick (393 cases; 13% higher), Bedford/Stuy/Crown Heights (700 cases; 13% higher), Coney Island/Sheepshead Bay (1,093 cases; 11% higher), Borough Park (886 cases; 10% higher), Canarsie/Flatlands (546 cases; 9% higher), East New York (339 cases; 9% higher), and Sunset Park (251 cases; 9% higher) are neighborhoods in Brooklyn with higher than expected rates of colorectal cancer over this time period.

Breast

There are 7,333 breast cancer cases in Brooklyn, 18% lower than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Each Brooklyn neighborhoods has lower than expected rates of breast cancer over this time period.

Lung or Bronchus

There are 5,917 lung or bronchus cancer cases in Brooklyn, 25% lower than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Each Brooklyn neighborhood has lower than expected rates of lung or bronchus cancer over this time period.

Prostate

There are 8,207 prostate cancer cases in Brooklyn, 6% lower than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Bedford/Stuy/Crown Heights (1,367 cases; 53% higher), Flatbush/E. Flatbush (1,536 cases; 51% higher), East New York (621 cases; 28% higher), Canarsie/Flatlands (874 cases; 16% higher) and Williamsburg/Bushwick (556 cases; 6% higher), are neighborhoods with higher than expected rates of prostate cancer over this time period.

PAIN MANAGEMENT AND PALLIATIVE CARE

The need for palliative care services will increase significantly as the population of New York City ages, and the prevalence of conditions suitable for palliative care increases. In Brooklyn in 2020, 13.3% of the residents will be age 65 or older. In 2030, the percentage will be 14.8%, or almost one person in seven. About 80% of older adults have one chronic condition, and 50% have at least two.

Clinicians are warning that, as the population ages, it will be accompanied by, “a marked increase in patients requiring care for disorders with a high prevalence in the elderly. As cancer incidence increases exponentially with advancing age, it is expected that there will be a corresponding surge in older cancer

patients that will challenge both healthcare institutions and healthcare professionals (p. 147)".234 Moreover, healthcare professionals will face an increase in patients with multiple age-related conditions.

Within the HHC PPS service areas, there are a high number of hospitalizations related to chronic conditions, particularly among older age groups. For example, there were 47,464 Manhattan residents hospitalized with at least one of nine chronic conditions (arthritis, CHF, COPD, ESRD, HIV, hypertension, mental health, obesity and diabetes). Although the majority of these individuals are age 65 and older, a significant percentage is between ages 45 and 64.235 The lower Manhattan service area had 7,176 residents hospitalized who had at least three chronic conditions and the upper Manhattan service area had 21,768 residents.

Pain management is particularly needed among residents of nursing home residents. The percentage of nursing home short-stay residents who self-report moderate-to-severe pain is 19% and 14%, nationally and statewide, respectively. Among long-stay patients, the percentage self-reporting moderate-to-severe pain is 8% and 3%, nationally and statewide, respectively.[236]

ACCESS TO AND QUALITY OF HEALTH CARE IN NEW YORK STATE BY INSURANCE STATUS

Compared with commercially insured populations, Medicaid Managed Care adult beneficiaries are less satisfied with their primary care providers and specialists, and generally rate the quality of their health care lower. Adult Medicaid Managed care populations are also less likely to have received care when needed. Child Medicaid beneficiaries appear to receive care at a rate on par with commercial plans.[237] The following discussion notes differences in access to and quality of health care between Medicaid Managed Care and commercially insured populations in New York State.

Overall Satisfaction

High ratings on patient satisfaction measures are directly correlated with better patient engagement in clinical decision-making and more interaction between patients and their physicians[238]. Engaged patients are more likely to manage their health and health care, which is correlated with lower health care costs.[239]

Fewer Medicaid Managed Care beneficiaries reported satisfaction with healthcare services when compared to beneficiaries of commercial Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) in New York State. Table 33 provides a comparison of several

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234 Berger et. al (2006). Cancer in the elderly. *Transactions of the American Clinical and Climatological Association, 117,* 147-156.
235 Unpublished analysis by the Healthcare Association of New York State, 2013.
236 Nursing Home Compare website, accessed September 2014. A sample based dataset of individuals receiving community-based long-term care services.
237 "2013 Health Plan Comparison in New York State," New York State Department of Health
238 "The CAHPS Improvement Guide," AHRQ, June 17, 2012.
239 "Health Policy Brief: Patient Engagement," Health Affairs, February 14, 2013.

measurements of patient satisfaction by payer status. In all categories, on average, the commercial organizations performed better than the Medicaid Managed Care organizations.

Table 33 - Selected Patients' Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. * Data is for 2011.

In Table 33 "Satisfaction with Communication" is the percent of members who responded "usually" or "always" when asked how often their doctors listened to them carefully, explained things in a way they could understand, showed respect for what they had to say, and spent enough time with them. "Satisfaction with Personal Doctor" and the "Satisfaction with Specialist" measures are the percentage of members who rated their doctors 8, 9 or 10 (on a scale of 0-1, where 0 is the lowest). Additionally, patients were asked a series of questions to determine if they received necessary care and if they were able to get an appointment for routine care as soon as desired. "Received Needed Care" reflects the percent of members who responded "usually" or "always" in regard to receiving urgent care, and "Got Care Quickly" represents the percentages of members who responded "usually" or "always" in regard to expediency. Commercial organizations performed better than Medicaid Managed Care organizations across all measures.

Access to Care for Adults

Compared to commercial organizations, adult Medicaid Managed Care populations are often less likely to have received care when needed. Table 34 presents selected quality of care measures for several illnesses by payer.

Table 34 - Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care
Controlling High Blood Pressure	59%	57%	63%
Poor HbA1c Control in Diabetics* (Lower is better)	27%	42%	33%

Use of Appropriate Medications for People with Asthma	89%		90%		82%	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

Source: 2013 Health Plan Comparison in New York State," New York State Department of Health. * Data is from 2011

"Controlling High Blood Pressure" represents the percent of Medicaid beneficiaries, ages 18 to 85 years, with hypertension whose blood pressure was adequately controlled (below 140/90). Medicaid Managed Care beneficiaries generally fared better than other payer types. "Poor HbA1c Control" is the percentage of members with diabetes whose most recent HbA1c level (a measure of long-term glucose control) indicated poor control (>9.0%). Commercial HMOs performed best in this category. "Use of Appropriate Medications for People with Asthma" is the percentage of members, ages 19 to 64 years, with persistent asthma who received at least one appropriate medication to control their condition during the measurement year. Medicaid Managed Care on average performed worst, 7% lower than the average of Commercial PPOs. "Behavioral Health: Followup after Hospitalization for Mental Illness" concerns members, ages 6 years and older, who were hospitalized for treatment of selected mental health disorders and has two time-based components. The first column is the percentage of members who were seen on an ambulatory basis or who were in intermediate treatment with a mental health provider within 7 days of discharge. The second column is the percentage of members who were seen in the same settings within 30 days.

Access to Care for Children and Adolescents

There is less variation between Medicaid Managed Care to Commercial organizations in regard to access to care for children and adolescents, as demonstrated in Table 35.

Table 35 - Access and Quality Measures for Children and Adolescents, Statewide Average by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83
Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. *Data is from 2011

The measure "Well-Child and Preventive Care Visits in the first 15 months" is the percentage of children who had five or more well child visits with a primary care provider in their first 15 months of life. Both types of commercial groups on average performed at about the same rate, seven to eight percentage points higher than the average of Medicaid Managed Care organizations. The "Well-Child and Preventive Care Visits 3-6 measure is the percentage of children in those ages who had one or more well-child visit with a primary care provider during the measurement year. There is little variation between payer types (range 79%-84%). The "Adolescent Well-Care Visit" measure is the percentage of youth ages 12-21 who had at least one comprehensive well-care visit to a PCP during the measurement year. Medicaid managed care organizations and commercial HMOs performed about equally, with commercial PPOs on average performing several points lower. "Appropriate Treatment for Upper Respiratory Infection" is the percentage of children ages 3 months to 18 years who were diagnosed with an upper respiratory infection (common cold) and were not given a prescription for an antibiotic. Medicaid Managed Care plans performed on average four points higher than the average of commercial HMO and PPO providers.

OBESITY

The prevalence of obesity in Brooklyn is higher than in NYC or NYS, with just over one-quarter (27%) of all adults in Brooklyn obese, versus 24.2% in NYC and 23.6% in the state.[240] (See Appendix B, Table 91.) The obesity rate varies widely within Brooklyn with the highest rates in East New York (37.6%), high rates in Canarsie-Flatlands (30.1%) and Coney Island- Sheepshead Bay (30.5%) and Williamsburg-Bushwick (29.5%) and the lowest rates in the borough in Downtown-Heights-Slope at 16.2%, where the fewest number of Medicaid beneficiaries reside in the Borough.[241] (See Appendix A, Maps 17-18, and Appendix B, Table 46.) Among children and adolescents, approximately one in five is obese (21.7%), on par with NYC, but higher than NYS (17.6%, excluding NYC) for the same time period.[242] (See Appendix B, Table 91.) Community members and key informants recognized the high rates of obesity in Brooklyn, seeing it as a significant health concern: "*Obesity. Obesity. Obesity. That's number one." [Flatbush focus group]* They attributed obesity to dietary behavior, which in turn were attributed to food availability, as well as lack of knowledge, lack of time, lack of money, and ingrained habits. Across lower income neighborhoods and communities, respondents described poor access to fruit and vegetables; if supermarkets were present, quality was considered inferior. Although many communities did have farmers markets, they were often held just once a week and operating during regular business hours so were not accessible to working people. Price was also a concern, particularly in neighborhoods that were gentrifying or for participants that felt that only organic produce was healthy. In contrast, fast food and bodegas were abundant, as described by multiple CNA participants. For example:

[240] Community Health Survey, 2012. New York State Department of Health, 2012.
[241] It should be noted these rates are by UHF neighborhood, as rates are not available at the ZIP Code level, so there could be variation within these UHF neighborhoods that is not captured here.
[242] Data years 2010-2011.

If you really look at East New York or like, a lot of neighborhoods where there's like, people like us, if you look at the stores in walking distance it's like McDonalds or Burger King or Chinese food. The farmers markets and stuff like that, you have to get on a train or bus to get access to those places. So obviously a lot of people would be tempted to go to get junk food, like Chinese food or fried chicken, stuff like that, and get fat. [Flatbush focus group]

On that [2.5 block] walk [in Bushwick] you pass a White Castle, McDonald's, KFC, Dunkin' Donuts, and a bodega with lots of candy and chips, right? So it's just amazing. It's so prevalent. …. There's like five [fast food establishments] within two blocks. So, yes, kids are obese. (Bushwick key informant)

Focus group participants appeared to know which foods were healthy and which were not, and consistently emphasized the importance of fresh fruit and vegetables. Many described dietary changes they had made in recent years. There was a common interest in organic foods and complaints regarding the price of organic products. In general, there were concerns about the cost of fresh produce relative to other foods.

That's where we [Haitians] probably, we have made the least progress in – in diet and exercise – because it's only there for the people who can afford it.

You can get a huge thing of rice, and a pretty good supply of like beans, or chicken, or something like that, for like a fraction of the price of what like a thing of kale would cost

Dietary issues went beyond access: participants described the difficulty of changing cultural patterns and related behavior. CNA participants across populations described consistent themes:

I think, from a West Indian type of background, food is comfort. It's a huge part of culture. You go to any birthday, funeral, whatever, there's going to be food. … We're raised where you have to eat everything on your plate, even if you're full. That's just the way we're raised. And combined with food that's unhealthy, that leads to a lot of the reasons why people have health issues.

I'm Peruvian. So, we have some dishes that involve probably 80% carbohydrates, and maybe like a salad that's like not really a salad. So a lot of it is cultural stuff where folks are just used to eating certain things.

Working parents had little or energy time to shop and cook, so offered their children fast food as the inexpensive, easy, and likely to please, alternative. Such patterns were considered ingrained, although the expanded healthful choices at fast food restaurants was seen as potentially impacting these negative patterns. For individuals in poverty—particularly if they had health related dietary restrictions—food access was considered especially problematic. Typical focus group and key informant comments include:

One of the biggest problems of the community is diabetes. And when we talk of diabetes and nutrition, we see that many people know that they should eat certain foods, but for economic

reasons, they always buy the cheapest pasta, the cheapest bread, not that kind that will be nutritious.

The example is the woman who's got a couple of kids and has to get up and take three buses to work. By the time she gets home at night, it's 8:00 and she has no time to go and pick up fresh vegetables and cook them. So it's not necessarily that people don't want to consume the right food. It's that they're not able to prepare it.

TOBACCO USE/CESSATION

The percentage of cigarette smoking among adults in Brooklyn is roughly on par with NYC and NYS rates (16.0% in Brooklyn versus 15.5% in NYC and 16.2% in NYS in 2012), but rates vary widely by neighborhood. Nearly one-quarter (23%) of Coney Island residents report being a current smoker. High rates are also found in Williamburg/Bushwick, Greenpoint, Bay Ridge/Bensonhurst, East New York/New Lots and Bedford Stuyvesant/Crown Heights, where rates range from approximately 16-19%.[243] (Appendix B, Table 91.)

Smoking was considered problematic among particular populations, including Chinese and Arab immigrants. Among Arab populations, smoking is considered an indicator of maturity and offering cigarettes a common courtesy. In addition the increasing number of hookah bars in Arab neighborhoods, was also an issue of concern.

Another cultural thing, the hookah bars, the hookah smoking in the community. It's a culture thing. It's getting very bad in the community. I start to see it here in downtown Brooklyn, and they are planning to open one here, one of the hookah bars here, and there are about 20 of them in the Village area... one hour of the hookah stuff is like you're smoking a whole pack in one hour. (Key informant, immigrant service CBO)

DRUG OVERDOSE

About 9,000 city residents died of an unintentional drug poisoning (overdose) from 2000-2012, an average of 700 overdose deaths per year.[244] In 2012 nearly all unintentional drug poisoning deaths involved more than on substance, including alcohol, licit and illicit drugs, most commonly identified as heroin, cocaine, benzodiazepines, prescription opioid analgesics and methadone, according to DOHMH.

Section iii: Domain 3 and 4 Metrics

[243] Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, or the 95% Confidence Interval half width is greater than ten, making the estimate potentially unreliable. NYC DOHMH Community Health Survey, 2012

[244] New York City Department of Health and Mental Hygiene. Unintentional Drug Poisoning (overdose) Deaths in New York City, 2000-2012. Epi Data Brief, Sept. 2013, No. 33

- Domain 3 Metrics: Clinical Improvement

See attached Appendix B.

- Domain 4 Metrics: Improve Health Status and Reduce Health Disparities

See attached Appendix B.

SECTION C: IDENTIFICATION OF THE MAIN HEALTH AND HEALTH SERVICES CHALLENGES

Brooklyn is a diverse borough, rich in culture, commerce and open space, including parks, gardens and beaches. However, disparities are pronounced, given its mix of high, medium and low income neighborhoods, and significant populations from diverse racial and ethnic groups including—but not limited to— African American and Caribbean populations, Latinos (originating from multiple countries), and Chinese, Russian, Polish, South Asian, and Arab populations, including immigrants. [245] Each of these communities has unique needs related to culture, language, education, and economics, as well as unique strengths.[246]

Behavioral Health Risks

Tobacco use, alcohol consumption, physical activity and diet, sexual practices, and disease screenings exert strong influences on health. These behavioral risk factors contribute to numerous diseases, and have long been viewed a major contributors to deaths in the United States. For example, a World Health Organization (WHO) report shows the burden of disease and death attributed to tobacco use in developed countries was substantially higher than that attributable to any other risk factor including alcohol use, unsafe sex, hypertensions, and physical inactivity.[247] Second to tobacco use, the combination of inactivity and poor diet has been ranked as the second leading factor contributing to mortality in the US.[248] Overweight adults are at risk for diabetes, and increased risk for hypertension, coronary heart disease, several forms of cancer, and run the risk of developing gallbladder disease, osteoarthritis, sleep apnea, and respiratory problems.[249]

Table 36 - Risk Factors by Brooklyn Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current Smoker

[245] NYAM primary data findings, as of September 15, 2014.
[246] Ibid.
[247] Murray C, Lopez A. "The Global burden of disease." Geneva: World Health Organization. 1996.
[248] McGinnis, JM, Foege WH. "Actual Causes of Death in the United States. " *Journal of the American Medical Association:* 270, pg. 2207-2212. 1993.
[249] USDHHS (US Department of Health and Human Services), "Healthy People 2010: Understanding and Improving Health." Washington, DC. 2000.

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current Smoker
NYC	24.1%	19.7%	22.2%	15.6%
Greenpoint	24.2%	23.4%	29.6%	17.3%
Downtown Brooklyn/Heights/Slope	13.6%	18.9%	14.4%	16.9%
Bedford Stuyvesant/Crown Heights	27.4%	13.7%	20.2%	16.8%
Sunset Park	23.4%	16.8%	28.2%	12.0%
Borough Park	24.4%	10.0%	18.3%	12.4%
Flatbush	27.4%	14.1%	24.4%	12.1%
Canarsie and Flatlands	31.7%	17.6%	20.8%	14.8%
Bay Ridge/Bensonhurst	22.7%	16.3%	32.4%	16.7%
Coney Island	33.3%	19.3%	30.2%	21.4%
Williamsburg/Bushwick	29.1%	21.6%	25.5%	18.2%

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012. Values are not adjusted for age. Values in red font should be interpreted with caution. Value's relative standard error (a measure of estimate precision) is greater than 30% or the sample size less than 50 or the 95% confidence interval half width is greater than ten, make the estimate potentially unreliable.

Environmental Health Risks

Environmental risk factors, which include the presence of roaches, rodents, and mold in the home, pose considerable consequences for the residents of New York City. Vulnerable populations typically face greater environmental risks. For example, data suggest that Citywide, 40% of uninsured and 37% of Medicaid beneficiaries reported having seen cockroaches inside their home in the past month.[250]

[250] New York Community Health Survey (CHS), New York City Housing and Vacancy Survey (HVS), 2011, 2012.

Table 37 – Environmental Risk Factors in Select Neighborhoods in Brooklyn

	NYC	Brooklyn	Bedford-Stuyvesant - Crown Heights	Bensonhurst - Bay Ridge	Coney Island - Sheepshead Bay	Downtown -Heights-Slope	East Flatbush - Flatbush	East New York
Indoor Air Quality								
Homes with cockroaches (2011)	24%	26.6%	29.5%	17.5%	25.7%	18.5%	33%	39%
Adults reporting second-hand smoke at home (2011)	4.9%	4.3%	8.7%	n/a	3.2%	n/a	1.7%	7.3%
Adults reporting mold in the home (2012)	9.5%	10.5%	9.4%	13%	10%	7.6%	11.8%	10.9%
Adults reporting mice in the home (2012)	15.5%	17.9%	21%	n/a	9%	9.8%	32.7%	32.9%
Home Safety and Maintenance								
Homes with cracks or holes (2011)	15.7%	17.9%	22.1%	11.3%	10.6%	21.4%	24.9%	22.5%
Homes with leaks (2011)	20.6%	22.7%	25.9%	16.5%	15.8%	27.6%	29.9%	20.4%
Households rating neighborhood structures good or excellent (2011)	75.2%	71.9%	59.7%	84.9%	83.5%	82.9%	64.8%	51.6%

Data Sources: New York Community Health Survey (CHS), New York City Housing and Vacancy Survey (HVS), 2011, 2012.

Socioeconomic Factors

In Brooklyn, the greatest proportion of potentially preventable admissions (PQI) is for chronic conditions including respiratory conditions (asthma, COPD), cardiovascular conditions (heart failure, hypertension), and diabetes; thus, these conditions and diseases represent the areas of greatest opportunity for reducing preventable inpatient stays.[251,252] A focus on these conditions is consistent with findings from the primary data, which also pointed to diabetes, hypertension and asthma as areas of great concern. Many community members were also concerned about obesity and behavioral health—including anxiety, depression, substance abuse and violence—and clearly recognized the link between behavioral and physical health conditions.[253]

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[251] New York State Department of Health DSRIP Performance data, 2012, http://www.health.ny.gov/health_care/medicaid/redesign/dsrip_performance_data/, accessed September, 2014.
[252] Note the rate of potentially preventable inpatient admissions for chronic conditions (PQI 92) is 1,283 per 100,000 Medicaid beneficiaries in Brooklyn versus 480 per 100,000 beneficiaries for acute conditions (PQI 91) for the combined years 2011-2012 (NYS DOH DSRIP Chartbook, using data from the NYS DOH Office of Quality and Patient Safety, 2014). However, this measure does not assess length of stay or cost for these admission types.
[253] NYAM primary data findings, as of September 15, 2014.

The Medicaid beneficiaries that account for the largest number of preventable admissions are concentrated in the areas of northern/central Brooklyn and Coney Island-Sheepshead Bay, though pockets of high concentration may exist at sub-ZIP Code levels in other neighborhoods throughout the borough.[254,255] Medicaid beneficiaries in northern/central Brooklyn also account for the highest number of potentially preventable emergency room visits (PPV), though PPV rates are high throughout the county, with approximately 65% to 80% of all emergency visits considered potentially preventable.[256] It should be noted that there are a large number of Medicaid beneficiaries living in the Sunset Park neighborhood, though the number of PQI admissions and rate of PPV visits (per 100 beneficiaries) are lower there than in northern and central Brooklyn and Coney Island–Sheepshead Bay.

These areas of the borough rank consistently poorly in markers of socioeconomic determinants of health such as household poverty, unemployment, lack of health insurance[257], low levels of education, as well as high prevalence of disease. In addition, there are a large number of immigrants—including many undocumented—in a number of Brooklyn neighborhoods with access barriers (e.g., linguistic, eligibility for insurance, familiarity with the US healthcare system) that go beyond those of other populations and reportedly result in delayed care.[258]

As explained by key informants and focus group participant:

> Arab community: *That's why sometimes I feel that colon cancer, breast cancer are on the rise in the community because they've never been screened before. Some people, they have colon cancer for a long time. They discover it too late. Breast cancer. Sometimes it's too late. You can't survive because it's already spread. Why? Because they didn't get their mammograms. So our community back home, they never had these screenings, so when they come here, they never ask for it. Sometimes it takes two or three years to have their annual checkup.*

Basic Necessity Resources

A number of Brooklyn neighborhoods have high concentrations of public housing. These areas, which often have concentrated poverty, are described by many residents as neglected neighborhoods, without appropriate services for meeting even basic needs.[259] In contrast, rapid gentrification is evident in many traditionally lower income and minority Brooklyn neighborhoods, having consequences that are described by some in positive terms, including increased access to healthy foods.[260] More commonly,

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[254] New York State Department of Health DSRIP Performance data, 2012, released 2014.

[255] NYAM data analysis is at the ZIP Code level, the smallest boundary level for which data is available. The neighborhood names cited are United Hospital Fund (UHF) neighborhood designations, commonly used by the New York City Department of Health and Mental Hygiene, including as the reporting boundaries for their Community Health Survey. For more information, see http://www.nyc.gov/html/doh/downloads/pdf/survey/uhf_map_100604

[256] New York State Department of Health DSRIP Performance data, 2012, released 2014.

[257] Excepting Coney Island where the population is older and thus more likely to be eligible for Medicare.

[258] NYAM primary data findings, as of September 15, 2014.

[259] Ibid.

[260] Ibid.

the negative consequences of gentrification are noted, including reduced affordable housing and higher prices at local businesses.[261]

Barrier Free Access

Individuals with physical and/or cognitive disabilities are disproportionately low income, unemployed, and have a high number of co-morbidities, including obesity, hypertension, and cardiovascular disease. Despite a high need for services, they reportedly delay care because of poor accommodation (e.g., absence of ramps, absence of sign language interpreters) and providers that are insensitive to both their capabilities and their limitations. These access barriers—and their implications— were described by CNA participants. Unfortunately, barriers are considered more significant in community as compared to hospital settings so may become more pronounced as—consistent with the goals of DSRIP—services move into the community. As explained by a key informant in the field:

> *A requirement, for example, that you come to an appointment timely, or if you miss an appointment three times, you can be dis-enrolled from a program or a provider, [is discriminatory]. If you use Access-a-Ride, for example, it is almost impossible to know when you will arrive at a location on a consistent basis. The service is simply of such poor quality that if … you need door-to-door transportation, you need flexibility in appointment scheduling.*
>
> *In the health setting, practitioners are often listed – clinics are often listed as being wheelchair accessible in managed care program directories. But in fact, according to a survey by the Community Service Society, it was found that these practitioners have steps at their front entrance. The providers don't even know what accessibility means. And so they list themselves as accessible, but when you go to their site or you call them on the phone, they'll say, "Oh yes, we have a few [steps] at our entrance, but that's no big deal."*

Policy Environment

The NYS health care policy environment also presents challenges for consumers and providers and unintentionally causes barriers to health care access and the efficacy of care. Varying funding and regulatory agencies had differing requirements: 1) limiting continuity of care for patients with multiple healthcare needs and 2) putting excessive demands on provider organizations that worked with multiple systems. Resources for increasingly valued services, such as care coordination, were limited meaning that salaries for the positions were relatively low. Low salaries make hiring difficult and may necessitate selection of candidates that are under-qualified, particularly considering the expectations of the job. These expectations may include familiarity with multiple services (e.g., medical services, housing service, insurance information, etc.); ability to work with relatively difficult populations, including clients with behavioral health issues; and ability to use multiple electronic record systems, because of the multiple partner organizations involved in providing coordinated health care services.

[261] Ibid.

Lack of trust or engagement (or possibly time) in care coordination on the part of medical providers also was considered to limit the potential effectiveness of care coordination models.[262]

> *What's missing is…saying to individual providers that this is important, and you need to be responsive, and you need to talk to people, and you need to interact with care coordinators. One of the biggest problems and flaws in the system is that in all of our contracts… we're required to go to providers, individual PCP's and psychiatrists, and get information from them both about their care that they're providing to our client or their patient or the lab work that's been done, tests, reports, anything that they're doing with our patient. We need to get access to that information so that we can help to provide better care and to guide that person along in the care that they're getting. So if they get prescribed a specific medication, we can say, "Are you taking that medication? Where are you at with it? Have you filled the prescription?" Those kinds of things. The problem is, on the provider's side, they don't get paid. No one's telling them – no one's saying to them from the funder level … "You must communicate with these people."… so the providers ignore us. We have a requirement to do that, and so we're constantly doing it, but we're constantly getting rebuffed. And it's simply because there's no structure for them to respond. If, for example, you paid them to have a case conference, and that was part of their payment structure around a complicated expensive case, somebody who was costing Medicaid tens of thousands of dollars a year and, "Oh, let's pay the doctor $500 to have a case conference"…They have to be incentivized, and I think this DSRIP is an opportunity to do that. (Key informant, multiservice organization)*

In addition, insurance regulations and the structure of care necessitate increasing travel to access care. Visits and tests might be at separate locations and/or providers accepting a particular insurance might be far from the home of the patient.

Service Gaps Related to Primary Care

A key component of the DSRIP program is to reduce avoidable services by bolstering primary care providers and community based organizations (CBOs) to enhance coordination of care, prevention and disease management, particularly for those with chronic conditions. Yet, we find the distribution of primary care providers uneven in Brooklyn, with sparse numbers in certain low-income neighborhoods. In addition, while community providers have made myriad efforts over the years to improve outreach to both community members and hospital providers,[263] concerns remain within the community regarding the adequacy and accessibility of outpatient care.[264] According to CNA participants, ambulatory care providers' capacity, perceived quality, linkages to broader health care delivery systems, and insufficient evening and weekend service, exacerbates access issues in some high need areas, for example in northern and central Brooklyn.[265] The data, including responses from large numbers of key informants and focus group participants, also suggest there is a lack of culturally and linguistically competent

[262] Ibid.
[263] See, for example, IPA factsheets provided by AW Medical Offices and referenced in Section A(i) of this report.
[264] NYAM primary data findings, as of September 15, 2014
[265] NYAM primary data findings, as of September 15, 2014. Brooklyn Healthcare Improvement Project (B-HIP) "Final Report: Making the Connection to Care in Northern and Central Brooklyn," August, 2012.

specialists[266] and multi-specialty centers that could provide a 'one-stop shopping' experience that many patients seek. For example:

> *When you look at specialty care, say around mental health, for example, if an individual wants to go to someone who's culturally competent, we don't have a lot of Asian-Americans who are going into fields like mental health or behavioral health issues.*

From the community perspective, the costs incurred— in both time and money — in seeking medical care remains very problematic and acts as a barrier for low income populations to effectively use prevention and disease management services. The income criteria for Medicaid are described as unrealistic, given the cost of living in New York City, and the working poor who do not qualify for Medicaid — according to many focus group participants — cannot afford the premiums of insurance offered through the Exchange.[267] Community members (and providers) consistently describe long wait times for visits and long wait times at the time of a visit. Typical of these comments:

> *I just walked out. I was there for like, 4 hours. I mean, I can't do that. I've been here since 10 AM. Why am I not seen yet? People get frustrated. (focus group participant)*

Furthermore, the possible need for multiple visits (e.g., for tests), discourages timely use of services and makes the emergency department a rational choice for "one stop shopping".[268]

> *I played it smart. I had an emergency and I went to the emergency room. They took care of me so quick. I was there for like 30 minutes. When you go to see a doctor, you must have an appointment with the doctor. That's my beef. Two weeks, or two months. It depends. (focus group participant)*
>
> *People say it's not rational to go to the emergency room for care, but when we talk to people, they would say things like, "Well, I tried to make an appointment with my doctor, and it's like four months in advance." What rational person is going to wait four months rather than go [to the ER?] (key informant)*

The brief amount of time doctors spend with patients, and a perception that providers do not have the best interests of patients in mind (i.e., they will do what is expedient rather than what represents highest quality care) also present a challenge. Such concerns have an impact on acceptance of services:

> *First, for preventive care you have to be aware that there's benefit to being screened for a disease that you may have no symptoms of and show no signs of. And you have to trust the provider is going to use the information you give them in a way that won't be to your detriment*

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[266] Ibid.
[267] NYAM primary data findings, as of September 15, 2014
[268] NYAM primary data findings, as of September 15, 2014. B-HIP Report, August, 2012.

and ….you need to know that if you are diagnosed with something you are screened for, that there is a route to access to treatment that you can afford (Key informant, CBO)[269]

Factors Related to Health Insurance

Focus group participants, in response to a question regarding what should change in health care, overwhelming cited insurance, including its expense, complications, and the limitations it places on choice. Limitations on choice were particularly problematic for individuals with special needs, including individuals with disabilities and limited English proficient individuals. A key informant explained:

So if you signed up for a plan and that doctor that takes care of your community isn't on that plan then there's not a whole lot you can do. And the other issue is you might be signed up for a provider who says he accepts this plan and then halfway through the year you're locked into the plan, [even] if the provider drops it…They do not have any commitment and so that's been – there's no accountability on the provider side in terms of staying in it. And this is particularly important for immigrants … when you talk about languages of lesser infusion, where there are not that many providers that speak those languages or have the cultural competence. (key informant, health advocacy)

Lack of insurance was, not surprisingly, a more common problem in immigrant communities, due to limitations on immigrant eligibility for public insurance programs, as well as more limited access to employer-sponsored care (due to restricted job opportunities). However, community members and key informants also report that income restrictions for Medicaid are unrealistically low, and self-purchased coverage is felt to be too expensive for low-income populations, given the difficulties of paying for basic necessities like food and housing in NYC. Many low-income, previously uninsured, community members had been receiving free or very low cost services at FQHC's or HHC facilities; insurance is perceived to be expensive in comparison.

We have lots of people who are low income families, but they're not eligible for Medicaid and they can't afford Obamacare. *(key informant, CBO)*

Lots of people don't get Obamacare. If we pay the violation for not having insurance, it is cheaper than paying each month's fee. (focus group participant)

Lack of insurance coverage resulted in neglect of primary care, preventive services, and dentistry; limited access to prescription medications; and use of emergency care for non-urgent issues. For example:

I go to emergency room. That's where most people have to go if they don't have a doctor. That's where everybody has to go if you don't have health insurance. (focus group participant)

[269] NYAM primary data findings, as of September 15, 2014.

As you know we have the Affordable Care implementation, but that has to do with your choices of what do you prioritize? You prioritize buying food, paying for your kids' education, or going to check this pain that you have in your chest. Do you think you can do it later? Until you have a massive heart attack, right? Certain of the type of work that people do, in those fields you don't have a lot of health insurance coverage prior to this Affordable Care. A lot of our community work in construction, a lot of community works in service area, restaurants, small business things. So they don't receive healthcare through work-related insurance. So emergency room becomes the place that they go to – and so they don't have a primary physician care, they don't have a continued care. (key informant, CBO)

I lost my job, but I was not qualified for Medicaid. I had high blood pressure but there was nothing free and accessible. It's a problem for people who are born here; working people cannot afford health care. I want to drop my insurance. I can't afford it. I pay $150 month premium and $50 co-pays. It's worse when you are undocumented but it's a problem for people raised here. People who have minimum wage jobs are not given health insurance or enough hours of work but make too much for Medicaid, so the guidelines need to be changed. If you make more than $104 a week and that's with taxes, you can't live like that. I couldn't get sick. I had to fend for myself. That alone would make you sick, stress you out. (focus group participant)

Other Considerations

Overall, community members and providers that participated in the CNA clearly recognized the impact that poverty and lack of community resources have on health and well-being.[270] Low-income Brooklyn residents describe very stressful lives, with concerns that include, but are not limited to, employment, housing (which is in increasingly short supply with the gentrification of many Brooklyn neighborhoods), safety, access to healthy food, and appropriate resources for children and teens. A number of African American communities report poor access to services. Immigrant communities reported workdays may be 16 hours or more, and the pressures of assimilation are persistent.[271] Across populations, community members attribute high rates of diabetes, hypertension, obesity, depression and others illnesses, to their daily stresses.[272] They hope for community programming and other resources to assist with their basic needs.[273] A common complaint heard in focus groups is that providers fail to recognize or address these connections, consistently looking instead to the quick but possibly ineffective medical solution.

I feel like when it comes to health and the services that are being provided, providers need to start looking at underlying issues as to why people are doing certain behaviors. Like, dig deeper. Don't just prescribe a medication to subside the pain or whatever. Dig deeper. See why the person is choosing to have an unhealthy diet. Maybe it's mental issues. And address those things. Don't just see a patient and give him medication.

[270] NYAM primary data findings, as of September 15, 2014.
[271] Ibid.
[272] Ibid.
[273] Ibid.

In addition, primary data suggest that there are particular very high need populations, including the chronically street homeless, those with severe alcohol dependence and/or serious mental illness, victims and survivors of domestic violence, individuals coming out of jails and prisons, and individuals with particular disabilities. These would likely benefit from more targeted and intensive services to ensure that a wide range of needs are addressed and systemic barriers are ameliorated.[274]

Northern/Central Brooklyn

Within northern and central Brooklyn, the highest number of avoidable inpatient admissions for chronic conditions are concentrated in the United Hospital Fund (UHF) neighborhoods of East New York, Williamsburg-Bushwick, Bedford Stuyvesant-Crown Heights and East Flatbush-Flatbush.[275] The highest ratio of observed/expected admissions for these conditions are in some of these neighborhoods as well as Downtown-Heights-Slope, and range as high as 1.28-1.55 across a large swath of this region. (See Appendix A, Maps 35- 37). Similarly, the highest number of potentially preventable emergency room visits (PPV) are also clustered in these areas. (See Appendix A, Map 53).

Residents of northern and central Brooklyn neighborhoods tend to have low incomes, especially in areas with large public housing structures, and report concerns about securing basic needs like housing, food (including healthy food), and employment, and resources needed to appropriately care for children.[276] According to a key informant that both lives and works in Crown Heights:

> *So I know that nutrition is an issue, I know that prenatal care is an issue, alcoholism is an issue, and if not alcoholism then over use and over abuse of alcohol is an issue, coupled with smoking pot … Given my … work is in treatment, they're medicating. They walk around for all the world looking like people who are depressed. Mental health issues are many and subtle. Ignorance about health issues and about the healthcare delivery system.*

In addition to the stressors mentioned above - such as securing basic needs like housing, food, and employment – crime, including gun violence, and perceived threats to personal safety in some neighborhoods of northern and central Brooklyn, including East New York, Brownsville, Flatbush, may impact health seeking behaviors as well as the availability of health care providers, as providers are reluctant to open or stay open after-hours in unsafe places.[277] According to a Brooklyn-based key informant social service provider:

> *You get into poor neighborhoods like Brownsville and East New York, and even Bed-Stuy is probably underserved. There's not a lot of services there for people, everyday-type services, so I think that's probably the biggest problem that – one of the biggest problems that needs to be addressed is getting people access to better quality care in the community that's more easily*

[274] Ibid.
[275] These are UHF neighborhood designations. For more information, see http://www.nyc.gov/html/doh/downloads/pdf/survey/uhf_map_100604.
[276] NYAM primary data findings, as of September 15, 2014.
[277] NYAM primary data findings, as of September 15, 2014. B-HIP Report.

accessible so that they don't – and then retraining people so that they don't feel like they have to go to the emergency room to treat a cold, that they can actually go to their doctor and get an appointment and go get seen by a doctor in the community. That's a tough one, though, because doctors don't want to come [there].

Residents and key informants alike spoke about a lack of services in these communities leading to poor environmental conditions (e.g., rodents, snow-filled streets) that discourage engagement within the community. (See Appendix A, Map 16 for rat sightings.)

Coney Island – Sheepshead Bay

Compared to Brooklyn as a whole, the population in Coney Island-Sheepshead Bay is older and disproportionately white (European).[278] There is a high concentration of dual-eligible individuals.[279] Approximately 18% of the population in the primary service area of the southern Brooklyn public hospital, Coney Island Hospital (CIH), is aged 65 or older, compared to approximately 11% in NYC and 12% in NYS.[280] Language presents a challenge in serving this community; approximately 36% of the population in CIH's primary service area speak European languages (primarily Russian) at home, 14% speak Asian languages (Chinese, Urdu), and 8% speak Spanish.[281] Chronic diseases and conditions such as diabetes, cardiovascular disease, behavioral health, asthma and obesity are the primary health needs in the area.[282]

CIH was severely impacted by Super Storm Sandy, and its extension clinic, the Ida G. Israel Community Health Center, was completely destroyed and has not yet reopened, reducing the currently available outpatient care in the area.[283] There are a number of facilities dedicated to serving the older population in this area, including 15 nursing homes and Assisted Living Residences with a total of 3,500 (2431 + 1069) beds[284] and 23 senior centers, and 6 Naturally Occurring Retirement Communities (NORCs) in CIH's service area.[285] While CIH regularly partners with these providers and support services, more is needed to ensure coordination of care and disease management for the older population in the area, particularly the provision of culturally appropriate care for those who require care in languages other than English.[286]

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[278] US Census American Community Survey 5 year, 2008-2012.
[279] NYS Department of Health, 2012 data posted in 2012 to the DSRIP Performance Data site at http://www.health.ny.gov/health_care/medicaid/redesign/dsrip_performance_data/, accessed September 15, 2014.
[280] "Coney Island Hospital 2013 Community Health Needs Assessment and Implementation Strategy," New York City Health and Hospitals Corporation, 2013.
[281] Ibid.
[282] NYAM primary data findings, as of September 15, 2014.
[283] Coney Island Hospital is working to rebuild outpatient services in a shorefront location. "Coney Island Hospital 2013 Community Health Needs Assessment and Implementation Strategy," NYC Health and Hospitals Corporation, 2013.
[284] Data is for facilities in the ZIP Codes 11214, 11224 and 11235. Source: New York State Department of Health Nursing Home Profiles and Assisted Living Residence data, accessed September 2014.
[285] "Coney Island Hospital 2013 Community Health Needs Assessment and Implementation Strategy," NYC Health and Hospitals Corporation, 2013.
[286] "Coney Island Hospital 2013 Community Health Needs Assessment and Implementation Strategy," New York City Health and Hospitals Corporation, 2013 and NYAM primary data findings, as of September 15, 2014.

Focus group participants reported described great needs in Coney Island, in particular[287]:

> *Coney Island is the group that suffers greatly economically. We have a high rate of unemployment in Coney Island. High rate of high school drop outs. Lots of senior citizens. Lots of young mothers…. Some of the medical needs that we have are obesity, asthma, hypertension and heart disease. HIV and mental illness too, but the first five are really kind of rampant, in terms of our medical needs… We probably have the most [public housing] in New York City….Coney Island has been like a warehouse. That's why Coney Island has so many problems and so many needs. For about 30 years, no money had been invested in Coney Island, so what it had been used for—for a long time—was just to warehouse people. And now they're trying to turn it back around to its glory days.*

Community resources are described as increasingly limited, as the City apparently closed cooling centers and community centers, resulting in gaps for older adults and teens, in particular.[288] As described by one focus group participant:

> *You have some many teenagers living in NYCHA buildings and there is no place to go for them. I can speak to Coney Island in particular. There is nowhere for young people to go. It's about a year and a half now, they built a YMCA. But, the YMCA is for people that can afford the YMCA. So there is still that segment out there that has no direction at all. So they're left to be out on the street. So even if you have community centers, those centers are locked up.*

<u>Sunset Park</u>

The Sunset Park population includes a high number of Medicaid beneficiaries, but the rate of avoidable admissions, readmissions and emergency visits is lower here than in other parts of the borough with similar proportions of Medicaid beneficiaries and populations with a similar socio-economic status. Notably, nearly half of the population in the Sunset Park service area is foreign-born, with notably large Asian (Chinese) and Latino communities.[289]

The Chinese community of Sunset Park has been growing rapidly.[290] The diversity within it has also grown, and includes populations from multiple provinces, each with its own dialect and perceptions.[291] Health concerns among participants from the Chinese community are similar to those of other populations, and diabetes is considered to be widespread.[292] However, diet is generally considered healthy, obesity rates are lower than other communities, and physical activity is relatively common (e.g., walking, biking, Tai Chi).[293] Smoking is a main concern, with rates reported to be higher in the Chinese community than among other populations, resulting in high rates of asthma, lung cancer, and other

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[287] NYAM primary data findings, as of September 15, 2014.
[288] Ibid.
[289] Lutheran Healthcare "Community Health Needs Assessment and Community Service Plan" Conducted in 2013. "Maimonides Comprehensive Community Service Plan and Community Health Needs Assessment (2014-2016)," Maimonides Medical Center, 2013.
[290] NYAM primary data findings, as of September 15, 2014.
[291] Ibid.
[292] Ibid.
[293] Ibid.

respiratory problems.[294]CNA participants reported that cultural beliefs and access to health information impacted utilization of health care services within the Chinese community, particularly among older adults and recent immigrants.[295] Cultural beliefs discouraged some individuals from seeking medical care, particularly non-urgent or preventive services. In addition, stigma associated with serious illnesses can prevent open dialog around health and health care, both for patient and in the larger community. Furthermore, there is a lack of knowledge of preventive services among some residents, and language barriers limit access to health information, from the media, government, and providers, that is readily available to English speakers. Residents were reported to seek treatment through practitioners of Chinese medicine, which may limit use of Western medicine when necessary. Providers discussed the need to balance Western and Chinese medicine, and insure and patients are receiving safe treatment. Participants reported that community members were receptive to outreach efforts of medical providers, but also expressed the need for more health education within the community to address stigma associated with some illnesses and increase knowledge of preventive services. Participants emphasized that information must be provided in the appropriate language and be culturally sensitive. They cited the success of past Tai Chi programming that incorporated information regarding depression, a subject that would otherwise be avoided.[296]

Latino residents in Sunset Park report many of the same health issues as other populations, such as obesity (including among children), diabetes, and depression.[297] Several report concerted efforts to eat a healthy diet and to engage in physical activity—or to encourage their children to do so. However, lack of time and budget constraints, as well as some ingrained habits, serve as barriers to healthy choices -- one focus group participant reports that Latino residents regularly work 16 hours per day. Lack of insurance is reported to be more common in the Latino community than among other groups, and results in high out of pocket costs, neglect of primary care and preventive services, and use of emergency care for non-urgent issues.[298]

Sunset Park's history as a first stop for immigrants along a waterfront in a historically manufacturing and industrial center brings with it environmental factors that may impact health, such as overcrowding in housing and environmentally toxic brownfields.[299] Sunset Park has high numbers of beneficiaries with asthma and other respiratory conditions, yet has low numbers of asthma and respiratory-related PQI hospitalizations.[300]

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[294] Ibid.
[295] Ibid.
[296] Unpublished NYAM primary data findings, 2013.
[297] Ibid.
[298] Ibid.
[299] Lutheran Community Health Needs Assessment, 2013. Also, UPROSE, which notes on its web site: "In Sunset Park, as in many communities that have been home to manufacturing for the past hundred years, brownfield properties can present a major challenge to realizing the ultimate vision for revitalizing a neighborhood. A "brownfield" or "brownfield site" is defined as any real property whose redevelopment or reuse may be complicated by the potential presence of a contaminant."
[300] NYS Department of Health, 2012 data.

SECTION D: SUMMARY OF THE ASSETS AND RESOURCES THAT CAN BE MOBILIZED

Brooklyn's health and human services infrastructure provides a solid base for launching collaborative programs to reduce the over utilization of acute care services and support public health interventions. The borough has an extensive array of public and private hospitals, hospital outpatient extension clinics, FQHCs, community health centers, independent community based primary care providers, and community based organizations (CBOs) that are coming together to establish targeted care coordination, health prevention, and disease management strategies through initiatives such as DSRIP, the Interboro and Healthix RHIOS, the HHC, Community Healthcare Network and Brooklyn Health Homes and Health Center Controlled Networks. HHC's Brooklyn hospitals as well as other providers such as Maimonides Medical Center also accommodate physician residency programs which spur the growth of community-based primary and specialty care capacity in medically underserved areas. Expanded capacity, enhanced quality, technological linkages to broader health care delivery systems and operating hours adjusted to patient need are crucial in medically underserved areas such as Brownsville, East New York and Sunset Park.

This approach is supported by the New York State Department of Health, which is leveraging the policy objectives and financial resources from the federal Affordable Care Act and New York State's Medicaid Redesign strategy to invest in primary care service delivery funding for community health center development and capacity expansion, as well as increasing the number of insured individuals and families who will have greater access to community-based health care services. In addition, funding for establishing Patient Centered Medical Homes and EHR Meaningful Use are significant incentives to attain care coordination and quality outcome goals that are so integral to the success of DSRIP.

New York City is fortunate in that its local health department, the New York City Department of Health and Mental Hygiene (NYC DOHMH), has been led by visionary public health experts who, with Mayoral support, have established trailblazing population health programming and policy initiatives. These efforts include broad anti-smoking campaigns, a ban on transfats in local restaurants, targeted efforts to increase physical activity (e.g. City Share bike share program, incentivizing active design in new building developments) and healthy eating initiatives such as expanding the presence of local farmers markets in low-income neighborhoods and establishing nutritional standards in schools and other public institutions. These are just a few examples of the broad impact that DOHMH has on improving the health of local communities.

DOHMH is also supporting new initiatives such as the new Center for Health Equity, which will focus on reducing health disparities citywide, and a new community health worker program that is being piloted in East Harlem. Overall, there may be greater opportunities for synergies between the NYC DOHMH and the health systems in Brooklyn to replicate these programs across the borough.

Community-based organizations (CBOs) such as Diaspora, the Caribbean Women's Health Association, and Immigrant Hope provide crucial social and enabling services to neighborhoods and specific constituencies, and will continue to be vital resources for culturally and linguistically targeted health education and chronic disease management, health insurance enrollment, treatment adherence and linkages to additional community resources. CBOs also encompass faith-based organizations and religious institutions that are often the initial, trusted source of referrals for local community services.

Brooklyn CBOs are potent activists in advocating for social and regulatory change that will positively impact on health outcomes in areas including but not limited to:

- Supportive housing and increased affordable housing development.
- Behavioral health care reform, including integration with primary care and other behavioral service providers.
- Immigration, education, and correctional services reform.
- Legal assistance in multiple languages related to immigration and housing issues, domestic violence, and emergency financial assistance from organizations such as Asian Americans for Equality, the New York Immigration Coalition and the New York City Housing Authority
- Social services programs including SNAP, Medicaid and subsidized child care (NYC Human Resources Administration, the NYC Administration for Children's Services and Catholic Charities).

GLOSSARY OF KEY TERMS

Avoidable Hospital Use: "This term is used to designate all avoidable hospital service use including avoidable emergency department use, avoidable hospital admissions and avoidable hospital readmissions within 30 days. This can be achieved through better aligned primary care and community based services, application of evidence based guidelines for primary and chronic disease care, and more efficient transitions of care through all care settings." (New York State Department of Health, "NYS DSRIP Glossary")

Clinical Improvement Milestones: "Noted under Domain 3, these milestones focus on a specific disease or service category, e.g., diabetes, palliative care, that is identified as a significant cause of avoidable hospital use by Medicaid beneficiaries. Milestones can either relate to process measures or outcome measures and can be valued either on reporting or progress to goal, depending on the metric. Every Performing Provider System must include one strategy from behavioral health. Payment for performance on these outcome milestones will be based on an objective demonstration of improvement over baseline, using a valid, standardized method." (New York State Department of Health, "NYS DSRIP Glossary")

Community District (CD): New York City has 59 community districts: 12 in Brooklyn, 12 in the Bronx, 12 in Manhattan, 14 in Queens and three in Staten Island. Each community district appoints a community board, an advisory group that is comprised of 50 volunteers to assist neighborhood residents and to advise on local and city planning, as well as other issues.

Community Needs Assessment (CNA): As defined in the NYS DOH CNA guidance, "this process includes a description of the population to be served, an assessment of its health status and clinical care needs, and an assessment of the health care and community wide systems available to address those needs." (New York State Department of Health, "Guidance for Conducting Community Needs Assessment Required for DSRIP Planning Grant and Final Project Plan Applications," as of June, 2014).

The specific aims of the CNA process are to:

- Describe health care and community resources,
- Describe communities served by the PPSs,
- Identify the main health and health service challenges facing the community, and
- Summarize the assets, resources, and needs for the DSRIP projects.

Delivery System Reform Incentive Payment (DSRIP): As defined by NYS DOH, "DSRIP is the main mechanism by which New York State will implement the Medicaid Redesign Team (MRT) Waiver Amendment. DSRIP's purpose is to fundamentally restructure the health care delivery system by reinvesting in the Medicaid program, with the primary goal of reducing avoidable hospital use by 25% over 5 years. Up to $ 6.42 billion dollars are allocated to this program with payouts based upon achieving predefined results in system transformation, clinical management and population health." (New York State Department of Health, "DSRIP FAQs")

District Public Health Office: Three DPHOs were established by NYC DOHMH in 2002 to reduce health disparities in the highest need neighborhoods of the city. They are located in the following neighborhoods:

- East/Central Harlem
- North/Central Brooklyn
- The South Bronx

Domain: "Overarching areas in which DSRIP strategies are categorized. Performing Provider Systems must employ strategies from the domains two through four in support of meeting project plan goals and milestones. Domain one is encompasses project process measures and does not contain any strategies. The Domains are:

- Domain 1: Overall Project Progress
  Domain 2: System Transformation
  Domain 3: Clinical Improvement
- Domain 4: Population-wide Strategy Implementation"

(New York State Department of Health, "NYS DSRIP Glossary")

DSRIP Project Toolkit: "A state developed guide that will provide additional information on the core components of each DSRIP strategy, how they are distinct from one another, and the rationale for selecting each strategy (i.e. evidence base for the strategy and it's relation to community needs for the Medicaid and uninsured population). In addition, the strategy descriptions provided in the toolkit will be used as part of the DSRIP Plan Checklist and can serve as a supplement to assist providers in valuing projects." (New York State Department of Health, "NYS DSRIP Glossary")

MRT Waiver Amendment: "An amendment allowing New York to reinvest $8 billion in Medicaid Redesign Team generated federal savings back into NY's health care delivery system over five years. The Waiver amendment contains three parts: Managed Care, State Plan Amendment and DSRIP. The amendment is essential to implement the MRT action plan as well as prepare for ACA implementation." (New York State Department of Health, "NYS DSRIP Glossary")

New York City Department of Health and Mental Hygiene (NYC DOHMH): New York City's local health department responsible for: disease control, mental hygiene, environmental health, epidemiology, health care access and improvement, health promotion, planning and program analysis and disease prevention and emergency preparedness and response.

Performing Provider Systems (PPS): "Entities that are responsible for performing a DSRIP project. DSRIP eligible providers, which include both major public general hospitals and safety net providers, collaborating together, with a designated lead provider for the group." (New York State Department of Health, "NYS DSRIP Glossary")

Population-wide Project Implementation Milestones: "Also known as Domain 4, DSRIP performing provider systems responsible for reporting progress on measures from the New York State Prevention Agenda. These metrics will be measured for a geographical area denominator of all New York State residents, already developed as part of the Prevention Agenda:
http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/index.htm"
(New York State Department of Health, "NYS DSRIP Glossary")

Potentially Preventable Emergency Room Visits (PPVs): "Part of the nationally recognized measures for avoidable hospital use. The measures identify emergency room visits that could have been avoided with adequate ambulatory care." (New York State Department of Health, "NYS DSRIP Glossary")

Potentially Preventable Readmissions (PPRs): "Part of the nationally recognized measures for avoidable hospital use. PPRs measure readmissions to a hospital following a prior discharge from a

hospital and that is clinically-related to the prior hospital admission." (New York State Department of Health, "NYS DSRIP Glossary")

Prevention Agenda: "As Part of Domain 4, Population-wide Strategy Implementation Milestones, the Prevention Agenda refers to the "blueprint for state and local action to improve the health of New Yorkers in five priority areas and to reduce health disparities for racial, ethnic, disability, socioeconomic and other groups who experience them", as part of New York State's Health Improvement Plan . Further information: http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/index.htm"
(New York State Department of Health, "NYS DSRIP Glossary")

Prevention Quality Indicators – Adults (PQIs): "Part of the nationally recognized measures for avoidable hospital use PQIs are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. The PQIs are population-based and can be adjusted for covariates for comparison purposes. Additionally there are similar potentially preventable hospitalization measures for the pediatric population referred to as PDIs." (New York State Department of Health, "NYS DSRIP Glossary")

Prevention Quality Indicators – Pediatric (PDIs): "Part of the nationally recognized measures for avoidable hospital use that can be used with hospital inpatient discharge data to provide a perspective on the quality of pediatric healthcare. Specifically, PDIs screen for problems that pediatric patients experience as a result of exposure to the healthcare system and that may be amenable to prevention by changes at the system or provider level. Similarly the PDIs are population based and can be also be adjusted for covariates for evaluation." (New York State Department of Health, "NYS DSRIP Glossary")

Project Progress Milestones: "Also known as Domain 1, measures the investments in technology, tools, and human resources that strengthen the ability of the performing provider systems (PPS) to serve target populations and pursue DSRIP project goals. The Project Progress milestones include monitoring of the project spending and post-DSRIP sustainability. In addition, submission of quarterly reports on project progress specific to the PPS DSRIP project and it's Medicaid and low-income uninsured patient population." (New York State Department of Health, "NYS DSRIP Glossary")
Safety Net Provider (SNP): "Entities that provide care to underserved and vulnerable populations. The term 'safety net' is used because for many low-income and vulnerable populations, safety net providers are the 'invisible net of protection' for individuals whose lack of health coverage or other social and economic vulnerabilities limits their ability to access mainstream medical care.

Below is the DSRIP specific definition of safety-net provider:
The definition of safety net provider for hospitals will be based on the environment in which the performing provider system operates. Below is the safety net definition:

- A **hospital** must meet one of the three following criteria to participate in a performing provider system:
    1. Must be either a public hospital, Critical Access Hospital or Sole Community Hospital, or
    2. Must pass two conditions:
        A. At least 35 percent of all patient volume in their outpatient lines of business must be associated with Medicaid, uninsured and Dual Eligible individuals.
        B. At least 30 percent of inpatient treatment must be associated with Medicaid,

uninsured and Dual Eligible individuals; or

3. Must serve at least 30 percent of all Medicaid, uninsured and Dual Eligible members in the proposed county or multi-county community. The state will use Medicaid claims and encounter data as well as other sources to verify this claim. The state reserves the right to increase this percentage on a case by case basis so as to ensure that the needs of each community's Medicaid members are met."

- **Non-hospital based providers**, not participating as part of a state-designated health home, must have at least 35 percent of all patient volume in their primary lines of business associated with Medicaid, uninsured and Dual Eligible individuals.
- **Vital Access Provider Exception**: The state will consider exceptions to the safety net definition on a case-by-case basis if it is deemed in the best interest of Medicaid members. Any exceptions that are considered must be approved by CMS and must be posted for public comment 30 days prior to application approval. Three allowed reasons for granting an exception are:
    - A community will not be served without granting the exception because no other eligible provider is willing or capable of serving the community.
    - Any hospital is uniquely qualified to serve based on services provided, financial viability, relationships within the community, and/or clear track record of success in reducing avoidable hospital use.
    - Any state-designated health home or group of health homes.
- **Non-qualifying providers** can participate in Performing Providers Systems. However, non-qualifying providers are eligible to receive DSRIP payments totaling no more than 5 percent of a project's total valuation. CMS can approve payments above this amount if it is deemed in the best interest of Medicaid members attributed to the Performing Provider System. (New York State Department of Health, "NYS DSRIP Glossary")

System Transformation Milestones: "Also known as Domain 2, these are outcomes based on a community needs assessment, which reflect measures of inpatient/outpatient balance, increased primary care/community-based services utilization, rates of global capitation, partial capitation, and bundled payment of providers by Medicaid managed care plans and measures for patient engagement." (New York State Department of Health, "NYS DSRIP Glossary")

United Hospital Fund (UHF) Neighborhood: There are 42 UHF neighborhoods in NYC, 11 of which are in Brooklyn, and each is comprised of adjoining ZIP Codes to approximate community planning districts. (34 neighborhoods are sometimes used to increase the statistical power of the sample size).

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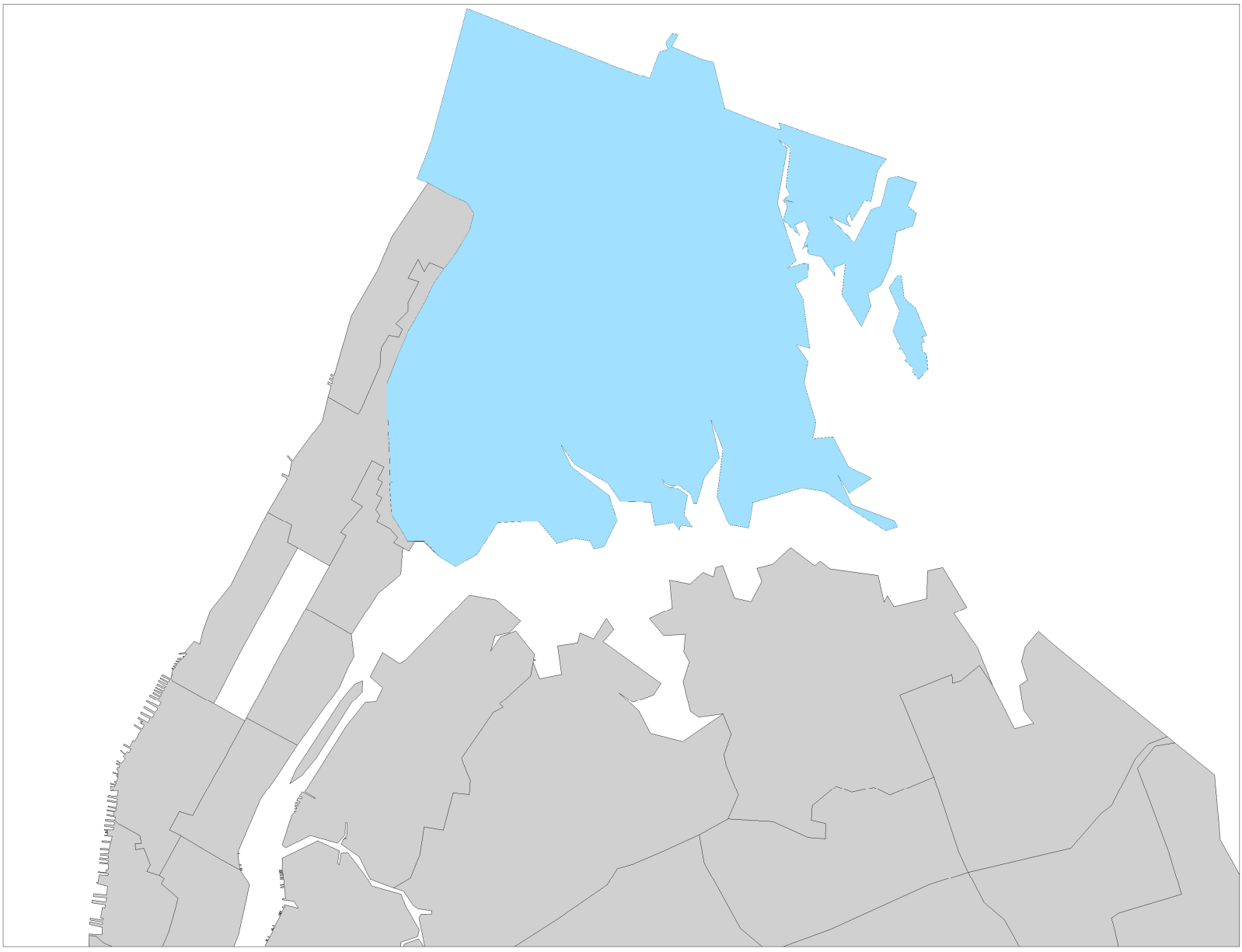

NYAM

Original Version Prepared by The New York Academy of Medicine

Final Report Amended for Submission by
New York City Health and Hospitals Corporation
Corporate Planning Services

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OVERVIEW

The population in the Bronx is burdened by a myriad of health challenges and socioeconomic circumstances that foster poor health outcomes. It is the least healthy county in New York State, and has high rates of chronic disease such as diabetes, cardiovascular disease, and respiratory disease including asthma/COPD, cancer and high rates of obesity.[1] The Bronx leads New York State in the percentage of premature deaths in people aged less than 65 years; [2] the leading causes of these deaths in the county are cancer, heart disease, unintentional injury, AIDS and diabetes.[3] The Bronx also outpaces NYC overall in household poverty and low educational attainment, and is approximately on par with city rates of unemployment and health insurance.[4] More than half of the Bronx population speaks a language other than English in the home, and many are immigrants, presenting possible additional cultural and regulatory challenges to health care access.[5] Among the Medicaid population, the Bronx ranks highest among all boroughs in NYC in the rate of potentially preventable inpatient hospitalizations, including for chronic conditions overall and for certain chronic conditions such as circulatory conditions, respiratory conditions and diabetes.[6] It also ranks second among the NYC boroughs in the rate of preventable emergency room visits (PPV).[7]

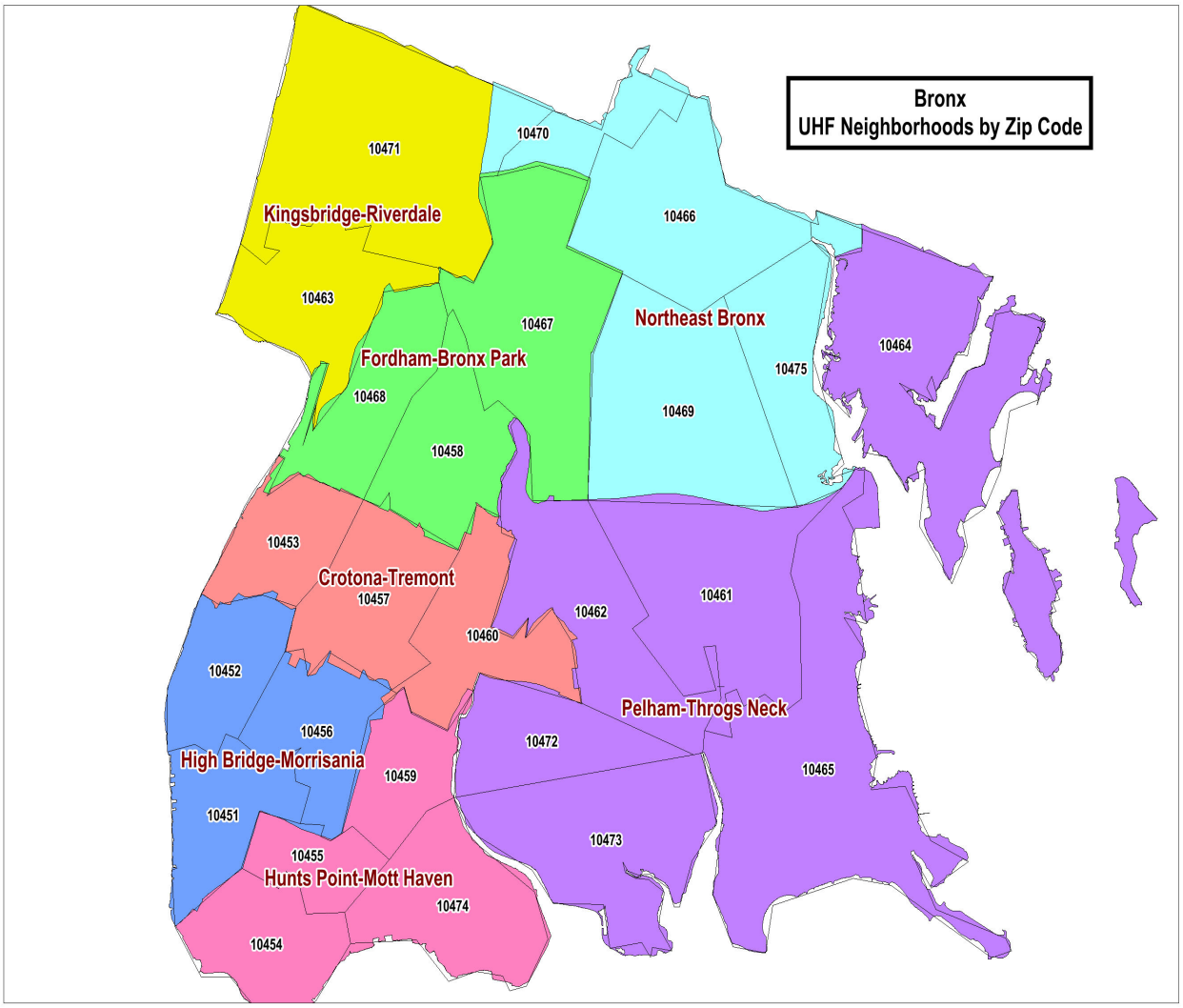
From the perspective of the community, the main health issues include diabetes, obesity, cancer, cardiovascular disease, asthma, violence and behavioral health issues, including anxiety, depression and substance use.[8] Community members clearly connect these common health conditions to conditions of poverty, including—but not limited to—insecurity with respect to housing and other basic needs, unsafe environments, and poor access to healthy foods. The community members associate health problems with depression, and likewise depression with poverty. People reported concerns about jobs, housing, access to government benefits programs, and the safety of their streets. A dramatic indicator of poverty, with obvious health implications, is food insecurity (hunger), which was described as a challenge by multiple respondents.

The costs incurred—in both time and money—for medical care remain problematic and act as a barrier to effective use of prevention and disease management services from the perspective of community members. The income criteria for Medicaid are described as unrealistic, given the cost of living in New York City, and the working poor who do not qualify for Medicaid have trouble affording even the subsidized premiums of insurance (or are not eligible for subsidies) offered through the Health Exchange. Community members (and providers) consistently describe long wait times for visits and at the time of a visit. Furthermore, the possible need for multiple visits (e.g., for tests or specialist services), discourages timely use of services and for many makes the emergency department a rational choice for “one stop shopping”.

Furthermore, the policy environment reportedly presents a number of challenges to residents and providers. For example, funding and regulatory agencies have differing requirements that 1) limit continuity of care for patients with multiple health care needs and 2) put high demands on provider organizations that work with multiple systems. Funding for high-demand services, such as care coordination, is limited and consequently salaries for the positions are relatively

low. Low salaries make hiring difficult and may necessitate selection of candidates that are under-qualified, particularly considering the expectations of the job. Lack of trust or engagement (or possibly time) in care coordination on the part of medical providers is also considered to limit the potential effectiveness of care coordination models. Finally, a consistent electronic health record was described as a challenge for agencies offering care coordination services, as they had to utilize multiple systems.

Key informants participating in the CNA, representing a cross-section of professions and fields, described distinct populations with particular health care – and health – challenges. For example, individuals with severe alcohol or substance abuse disorders, who often have high rates of mental and physical illness and homelessness, are frequent users of emergency department services. However, emergency departments mostly lack the resources to address the psychosocial needs that might increase stability within this population, and decrease their use of health care services. Undocumented residents are described as hesitant to use health care services due to cost considerations and fear of deportation. When they do access medical services, it is late and sporadic.



SECTION A. DESCRIPTION OF HEALTH CARE RESOURCES AND COMMUNITY RESOURCES

i. Health Care Resources

In the Bronx, a large proportion of community members that were surveyed appear to be engaged regularly in primary and preventive care. (See Appendix D) Approximately eighty percent of survey respondents reported having a "primary care provider or personal doctor;" 85% reported that there's a place they "usually for health care, when it is not an emergency." Just over half of respondents (53%) went to a primary care doctor's office, 16% went to a hospital outpatient clinic, 13% went to a community/family health center, and 7% went to a specialist doctor's office. Eighty-four percent reported that the place they usually go is in the Bronx; 12% reported that it is Manhattan. Eighty percent of respondents reported that their last routine check-up was within the last year. Over 90% reported having a routine check-up in the last two years. Over half (58%) had seen a dentist.[9]

However, there also seemed to be high use of the emergency room and episodes where respondents went without care. Over 40% of survey respondents had been to the ER in the last year. Over one quarter reported that there was a time in the last 12 months when they needed "health care or health services but did not get it." The most common reasons were lack of insurance (37%), cost of co-pays (26%), "couldn't get an appointment soon or at the right time" (12%) and concerns about the quality of care (9%).[10]

Independent of the actual number of health care resources described in the sections below, a strong theme that emerged from the primary data collection (key informant interviews and focus groups) was the perception that there was an insufficient access to the high quality providers on a timely basis. A key informant working in the South Bronx explained:

> *Because it's the Bronx. You know how hard it is to get [organizations] to come up here to do anything? And generally they don't get providers… The services in a lot of the outer boroughs are not at the level of quality that they should be. I'm saying that as a Bronx-based provider… You're going to vote with your feet, you're going to go to where you think you're going to receive good services. And in the cases of a lot of our folks that are marginalized and do experience being stigmatized… for people to feel that they're receiving a great service, that they're being respected, they're going [out of the Bronx] to go to that service.* (key informant, community based organization)

- **Hospitals**

There are 7 major hospital systems in the Bronx with 10 locations: Bronx Lebanon Hospital Center (Concourse Division and Fulton Division); Calvary Hospital; Jacobi Medical Center (HHC); Lincoln Medical and Mental Health Center (HHC); Montefiore Medical Center (Weiler Hospital, Henry and Lucy Moses Division, and Wakefield Hospital); North Central Bronx Hospital (HHC); and St. Barnabas Hospital. These hospitals have a total of 3,794 (approximately 2.74 per 1,000 population) certified hospital beds, with bed capacity ranging from 164 to 767 per hospital, for an average of 379 beds per hospital. Several hospitals are clustered in southeast Bronx, with the rest scattered in a corridor extending from northeast Bronx to Hunts Point–Mott Haven. (See Appendix A, Map 79.) Of these hospitals, the HHC system hospitals (Jacobi Medical Center, Lincoln Hospital Center and North Central Bronx Hospital) treat the largest proportions of Medicaid and uninsured populations. The Veterans Administration also operates one hospital in the Borough, the James

[9] NYAM Primary data findings, September 2014.
[10] Ibid.

J. Peters VA Medical Center.[11] Focus group and key informant interviews expressed frustration with long wait times at local hospitals.

- **Ambulatory Surgical Centers**

There are approximately 14 ambulatory surgery centers and 22 office-based surgical practices in the Bronx with one cluster in the higher SES neighborhoods in the east and the others spread across the borough. These surgical centers and practices seem to be missing from several neighborhoods with high Medicaid and uninsured populations like Highbridge – Morrisania. (See Appendix A, Map 63.)

- **Urgent Care Centers**

Because there is no standardized definition or regulation of urgent care centers in NYS, it is difficult to comprehensively catalog them (there also appears to be a more recent rapid proliferation). According to the HITE data, the American Academy of Urgent Care database, and a web-based search, there are 10 urgent care centers in the Bronx. Because they target insured patients, urgent care centers also tend to be concentrated in higher income communities: four in Pelham-Throgs Neck, one in Riverdale-Kingsbridge River, two in Northeast Bronx, and one each in Crotona-Tremont, Hunts Point-Mott Haven, and Fordham. (See Appendix B, Table 3 for full list.)

- **Health Homes**

There are five NYS Department of Health designated 'health homes' in the Bronx providing care management and service integration to Medicaid beneficiaries with complex chronic medical and behavioral health conditions. They are: Bronx Lebanon Hospital Center, Bronx Accountable Healthcare Network Health Home, Community Care Management Partners (CCMP), LLC, Community Health Care Network, and New York City Health and Hospitals Corporation.

- **Community Health Centers, including Federally Qualified Health Centers (FQHCs)**

There are approximately 255 diagnostic and treatment centers (D&TC) in the Bronx, which include outpatient care for primary care visits and specialty clinics such as for dental, Ob/Gyn. Of these, 39 are FQHCs which appear to be predominantly located in Crotona–Tremont and seem to be absent from other high need areas of central and northern Bronx such as Fordham–Bronx Park and sections of the Southeast Bronx. One hundred fifty-one (151), or 59% of D&TCs, serve Medicaid and uninsured populations and are also similarly clustered in Crotona–Tremont and less densely spread across other areas with high Medicaid and uninsured populations.[12] (See Appendix A, Maps 55-58.) We have hours of operation information for approximately 101 out of the 151 clinics that service Medicaid and uninsured patients. Of those, approximately 41.6% list some weekend operating hours, approximately 50.5% list some evening hours.

Among survey respondents, about 13% reported that they go to a community/family health center for non-emergency healthcare services. In addition, approximately 16% of respondents said they access these services at a hospital-based clinic and about 6% at a private clinic.[13]

[11] US Department of Veterans Affairs, 2013,

[12] This includes the New York State DOH "Safety Net Clinics" list, as of August 26, 2014, and clinics listed on HITE SITE that accept Medicaid or have a sliding-fee-scale or provide services to patients free of charge.

[13] NYAM Primary Data Collection, preliminary findings, August 2014.

- **Federal Designation as an Underserved Area**

The Health Resources and Services Administration (HRSA) uses two types of designations to identify an area as being an underserved area or having a shortage of providers, Medically Underserved Area /Population (MUA) and Healthcare Provider Shortage Area (HPSA).

A MUA designation applied to a neighborhood or collection of census tracts is based on four factors: the ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.

A HPSA is a collection of census tracts that has been designated as having a shortage of health professionals. There are three categories of HPSAs: primary care (shortage of primary care clinicians), dental (shortage of oral health professionals), and mental health (shortage of mental health professionals). HPSAs are designated using several criteria, including population-to-clinician ratios. This ratio is usually 3,500 to 1 for primary care, 5,000 to 1 for dental health care, and 30,000 to 1 for mental health care (HRSA).

According to a report prepared for HHC by the Center for Health Workforce Studies, November 2013, New York City has 51 neighborhoods with the MUA designation with a combined population of 3.1 million.

The Bronx has 18 MUA neighborhoods, with a combined population of 815,000. Most of these neighborhoods are located south of Interstate 95 (I-95), which is where most of the primary care HPSA designations are located. An additional six Bronx neighborhoods may also qualify for MUA designation. Nearly all HHC hospitals and health centers are located in these neighborhoods.

The Bronx has 8 Primary Care HPSA designated neighborhoods (Morris Heights, Highbridge, Soundview/West Farms, Morrisania, Tremont, Parkchester/Throgs Neck, Fordham/Norwood, and Hunts Point/Mott Haven), 6 Mental Health HPSAs (West Central Bronx, Hunts Point/Mott Haven, Soundview, Parkchester/Throgs Neck, Kingsbridge/Riverdale, and Fordham/Norwood), and 3 Dental HPSAs (Central Bronx, Southwest Bronx, and Morris Heights/Fordham).

- **Physicians including Private, Clinics, Hospital-based including Residency Programs**

According to the Center for Health Workforce Studies Physician Re-Registration data published online by the NYS Department of Health, there were 4,325 physicians in the Bronx in 2013, or approximately 312 per 100,000 population, lower than the rate for NYC (428 per 100,000) overall.[14] Of these 4,325 physicians, 457 are listed as Pediatric, 219 are Pediatric Sub-specialty, 213 are Ob/Gyn, 1,100 are "Other Primary Care," 554 are "Other Sub-specialty," 243 are Surgery, 394 are "Mental Health," and 1,144 are "Other or Missing."[15]

In the Bronx, the number of primary care and "mental health" physicians range considerably across ZIP Codes: Pediatricians range from 0 – 74 by ZIP Code; Ob/Gyn physicians range from 0-76 across ZIP Codes; and other primary care

[14] Center for Health Workforce Studies, 2013 data, published by NYS DOH online at http://www.health.ny.gov/health_care/medicaid/redesign/dsrip_workforce_information.htm, accessed September 17, 2014.
[15] Ibid.

physicians, including family practice, general practice and non-specialty internal medicine range from 1-180 by ZIP Code. "Mental health" physicians range from 0 - 112 across ZIP Codes in the Bronx; the ZIP Code with the largest number of mental health physicians (112) is 10461, where Calvary Hospital, Jacobi Medical Center, and two Montefiore Hospital divisions are located. [16]While data does not appear to exist regarding the appropriateness or capacity of these physician rates by Bronx neighborhood, the literature suggests that areas with a higher penetration of primary care physicians have overall higher health levels and lower costs.[17] Also, mental health services were described by CNA participants as lacking, with a particularly serious gap in mental health services for children and adolescents.

Safety Net Physicians

The number of safety net physicians – defined as non-hospital based providers with at least 35% of all patient volume in their primary lines of business associated with Medicaid, dual-eligible or uninsured patients - ranges considerably among ZIP Codes in the Bronx from 0 to 345, with an average of 46.5 per ZIP Code.[18] Several clusters of safety net physicians appear to be located in neighborhoods with high Medicaid and uninsured like Crotona–Tremont and Fordham– Bronx Park but are noticeably less densely located in sections of the Southeast Bronx and the southernmost portion of Crotona–Tremont. Additionally, there is a large cluster of safety net physicians in the section of the Southeast Bronx where Jacobi Medical Center, Calvary Hospital and two Montefiore divisions are located. (See Appendix A, Maps 83-84.)

Physicians Assistants and Nurse Practitioners

In the Bronx, there are approximately 337 nurse practitioners (24.2 per 100,000 population, compared to 47 per 100,000 in NYC[19] and 76[20] NYS), and 244 physician's assistants (17.5 per 100,000 population compared to 36 per 100,000 in NYC and 61 in NYS).[21] Approximately 135 nurse practitioners and physician's assistants in the Bronx are safety net providers.[22] These non-physician safety net providers vary considerably by ZIP Code, from 0 to 41 in the Bronx, with an average of 5.4 per ZIP Code.[23] (See Appendix A, Maps 83-84.)

Physicians Serving Self-Pay Patients

According to Center for Health Workforce Data, there are approximately 196 physicians in the Bronx whose self-pay patients comprise more than 30% of their panels.[24] Of these, 42 are primary care physicians, 6 are Obstetricians/Gynecologists, 11 are pediatricians (excluding pediatrics sub-specialties), and 40 are "mental health" physicians. The number of these physicians ranges from 0-55 by ZIP Code, with an average of 8.2 per ZIP Code. These physicians are dispersed rather sparsely throughout the borough, with several neighborhoods that have little to no primary-care, obstetrics/gynecology, or "mental health" physicians serving over 30% self-pay, including portions of the Southeast Bronx and Croton –Tremont that have high numbers of uninsured. (See Appendix A, Map 89.)

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[16] Center for Health Workforce Studies, Analysis of Physician Re-registration Data, 2014. Received from HHC.
[17] Starfield, Barbara et al., "Contribution of Primary Care to Health Systems and Health," Milbank Quarterly 83(3): 457-502.
[18] New York State Department of Health "Eligible Safety Net Physicians" list, as of August 26, 2014. Accessed at http://www.health.ny.gov/health_care/medicaid/redesign/dsrip_safety_net_definition.htm.
[19] Includes midwives
[20] Includes midwives
[21] Martiniano R, Siwach G, Krohl D, and Smith L. *New York State Health Workforce Planning Data Guide 2013*. Rensselaer, NY: Center for Health Workforce Studies, September 2013.
Report: nys_health_workforce_planning_data_guide_2013.pdf (5.9 MB)
[22] New York State Department of Health "Eligible Safety Net Physicians", as of August 26, 2014
[23] Ibid.
[24] Center for Health Workforce Studies, Analysis of Physician Re-registration Data. 2008-2013 Blended.

Access and Adequacy of Care, Providing Culturally Appropriate Care and Creating Linkages with Hospitals, Health Plans and Community Organizations

Of those surveyed, over half of Bronx respondents said that they access non-emergency healthcare services at a primary care doctor's office and over three quarters reported that primary care medicine was "very available" or "available." Nearly one third of respondents reported that pediatric and adolescent services were "not very available" or "not available at all."[25]

Physicians in the Bronx, including hundreds represented by IPAs, have worked toward creating better linkages with hospitals, health plans and community providers. For example, the Corinthian Medical IPA, which has over 1,200 physician members, approximately 30% of which are based in the Bronx, has a mission to create a "network of medically accomplished and culturally sensitive physicians" and works with major health plans and government partners to ensure "complete and efficient care" for its patients.[26] They have formed an Accountable Care Organizations and have Medicaid contracts with seven major health plans in NYC. Despite these efforts, key informants and focus group participants report that gaps remain in culturally and linguistically competent providers, particularly for immigrant populations that are relatively new to the Bronx, such as Africans and South East Asians.[27]

> *I don't care where you come from, but it has to be people seeing people who look like them, that are like them, who speak like them and who feel like this people are – have my interests on my –their mind. … Seriously, you need to have a program where you have people who look like me, who will be there to pass along information to the people is critical. (immigrant focus group participant)*

- **Specialty Medical Providers**

The number of specialty physicians by borough is as follows:

Table 1 - Specialty Physicians by Borough

	Bronx	Brooklyn	Manhattan	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO, and is based on primary specialty. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

[25] NYAM Primary Data Collection, preliminary findings, August, 2014.
[26] "Corinthian Fact Sheet" provided by AW Medical Offices, September 2014
[27] Ibid.

In addition, New York City has the following number of non-MD (or non-DO) specialty providers:

Table 2 - Medical Specialists by Borough

	Bronx	Brooklyn	Manhattan	Queens
Acupuncturist	**4**	16	36	24
Audiologist	**23**	46	71	26
Chiropractor	**59**	101	104	121
Occupational Therapist	**51**	114	67	43
Physical Therapist	**370**	539	231	306
Speech-Language Pathologist	**25**	142	100	49
Optometrist	**100**	215	325	214
Durable Medical Equipment Supplier	**36**	117	59	67
Hospital and Clinic Based Labs	**14**	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm

About 38% of Bronx survey respondents reported that medical specialists were "not very available" or "not available at all."[28]

- **Pain Management and Hospice Services**

There are approximately seven facilities serving Medicaid and the uninsured in the Bronx providing specialty pain management services. These include nursing homes, health centers and a hospice center. Additionally, there are 30 facilities with hospice services (these include nursing homes, hospices and general hospitals) located in the borough.[29] There may be additional organizations providing pain management services in the borough, but no exhaustive directory of such services could be identified.

- **Dental Providers including Public and Private**

There are approximately 348 dentists, or 25 per 100,000 population compared to 74 per 100,000 population in NYC. In the Bronx, there are approximately 184 dental hygienists (13.2 per 100,000 population).[30] One hundred and twelve dentists are designated safety net dentists by NYS DOH.[31] The number of safety net dentists ranges from 0 to 23 across Bronx ZIP Codes, with an average of 4.5 per ZIP Code. There are also approximately 44 dental clinics in the Bronx, located primarily in south/central Bronx.[32] (See Appendix A, Maps 77-78.)

[28] NYAM Primary Data Collection, preliminary findings, August, 2014.
[29] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014. and New York State Department of Health "Home Health and Hospice Profile," as of July, 2014.
[30] Ibid.
[31] New York State Department of Health "Eligible Safety Net Physicians", as of August 26, 2014
[32] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014.

Approximately 70% of survey respondents report that dental services are available or very available in their community and 60% report having been to the dentist in the prior 12 months. Many focus group respondents expressed concerns regarding out-of-pocket costs for particular dental services.

- **Rehabilitative Services including Physical Therapy, Occupational Therapy, and Speech Therapy, Inpatient and Community Based**

Based on a review of HITE data, there are approximately 73 programs and services specializing in physical therapy, occupational therapy and/or speech therapy.[33] There are a few clusters of these programs in Kingsbridge – Riverdale and Fordham – Bronx Park, with many dispersed throughout the borough. However, it appears that the Southern-most section of the Bronx has relatively few rehabilitative services of this kind. (See Appendix A, Map 64.) Please note that there may be more organizations providing these types of therapy, but no exhaustive directory of such services could be identified.

- **Behavioral Health Resources**

Mental Health

There are 391 general psychiatrists in the Bronx, which is a rate of 28.1 per 100,000, much lower than the NYC rate of 49 per 100,000.[34] There are 1,883 social workers in the Bronx, or 135.3 per 100,000 compared to 231 per 100,000 in NYC.[35]

Behavioral Health resources, including outpatient, inpatient, support and emergency programs as well as youth programs, appear to be clustered in sections of Kingsbridge – Riverdale, Crotona – Tremont, Highbridge – Morrisania and Pelham – Throgs Neck. Conversely, there appear to be very few resources in the southern-most section of the Bronx in Hunts Point – Mott Haven and in the Southeast Bronx. Some ZIP Codes with relatively high percentages of beneficiaries with behavioral health-related utilization, like 10471 in Kingsbridge – Riverdale (which has the highest rates) and 10461 in Pelham - Throgs Neck, have clusters of these programs, while others seem to have a dearth of these resources even though a relatively high percentage of beneficiaries in those ZIP Codes had behavioral health-related utilization in the calendar year. These ZIP Codes include: 10463 in Kingsbridge – Riverdale, 10475 in Pelham – Throgs Neck, 10454 in Hunts Point – Mott Haven and 10473 in Southeast Bronx. (See Appendix A, Map 88, and section below.)

Key informants also note the shortage of mental and behavioral health services, as well as the barriers to increased capacity:

> *For mental health, substance abuse—the way reimbursement is being structured—it's straining programs and there are many programs right now that are trying to survive within the new payment structure. So there is a concern that they could do more, but because of budget constrictions they're limited in the number of visits and services that they're able to provide, even on extended hours. And then when you look at who can truly benefit from mental health services, you also have a working population, and if you're not open later in the evening or on the weekends, then that excludes another group. By the same token, I've been involved with another mental health clinic and the staff expressed grave concerns regarding extended hours during the winter because it gets*

[33] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014.
[34] Martiniano R, Siwach G, Krohl D, and Smith L. *New York State Health Workforce Planning Data Guide 2013*. Center for Health Workforce Studies.
[35] Ibid.

dark so early and safety… So just crime in certain neighborhoods and high-risk areas—because of that fear and of safety—not opening as late as they could to serve the population. (Key informant, community based organization)

Additionally, about 53% of survey respondents reported that mental health services were "available" or "very available" in the Bronx, compared – for example – to 77.6% who reported primary care was available.[36]

Per DSRIP behavioral health clinical improvement projects, the integration of behavioral health specialists into primary care clinics could help address this issue if it entails a net increase of behavioral health resources. Further, since a large number of survey respondents noted they have a primary care doctor/usual source of care, co-location could have a high-impact on the population. It may also address low behavioral health services utilization among some beneficiaries because of the inconvenience of seeking care at multiple locations and the stigma associated with seeking treatment at a behavioral health location. Conversely, the integration of primary care services into existing behavioral health services settings addresses the high rates of co-morbidity between behavioral health and chronic health conditions for those currently utilizing behavioral health services.

Inpatient and Residential

There is one State-run adult psychiatric hospital in the Bronx, The Bronx Psychiatric Center, with 181 beds.[37] At Bronx general hospitals, there are 393 psychiatric inpatient beds, which is 37.9 beds per 100,000 compared to 41.0 in NYC. In addition, there are a number of residential treatment and assertive community treatment facilities.

There are 155 mental health residential programs in the Bronx, including apartment/treatment, children and youth community residences, congregate support, congregate treatment, single room occupancy (SRO) community residence, supported housing community service, and supported/SRO.[38] There is also a New York City Department of Health and Mental Hygiene administered Single Point of Access (SPOA) and a SPOA Housing Project staffed by the Center for Urban Community Services, which has been operating in the Bronx since August 2003.[39] In addition, there are 9 emergency programs: 2 CPEP crisis intervention programs, 5 crisis intervention programs, 1 crisis program with respite beds, and 1 home-based crisis intervention program (See Appendix A, Map 88).

Outpatient and Support

There are 63 outpatient programs in the Bronx, including 9 ACT programs, 41 clinic treatment programs, 4 comprehensive PROS with clinical treatment programs, 2 continuing day treatment (CDT) program, 6 day treatment programs, and 1 partial hospitalization program. Additionally, there are 51 mental health support programs in the Bronx, including but not limited to family support services, supportive case management, vocational services, adult home supportive case management (SCM), HCBS waiver services, and Psychosocial Clubs (Club Houses). There are 15 targeted case management (TCM) programs serving 1,760 patients as of August, 2011 (the most recent available date).[40] (See Appendix A, Map 88.)

[36] NYAM Primary Data Collection, preliminary findings, August, 2014.
[37] New York State Office of Mental Health "County Capacity and Utilization Data Book, Calendar Years 2012-2013," prepared April, 2014.
[38] New York State Office of Mental Health, "Local Mental Health Programs in New York State" Directory, as of August, 2014.
[39] New York State Office of Mental Health web site and the Center for Urban Community Services at http://www.cucs.org.
[40] New York State Office of Mental Health, "Targeted Case Management Programs Location with Program Capacity," August 2011.

South Bronx residents participating in the CNA expressed a concern that there is a lack of supportive services programs in their community, affecting quality of life and perceptions of safety in particular neighborhoods. Similarly, a mental health advocate and focus group participant in a northern Bronx community complained that services were not available there, because of community level prejudice.

Youth

Of the 288 mental health programs in the Bronx, 71 mental health programs serve youth: 7 emergency programs, 3 inpatient programs including one residential treatment facility (RTF), 3 other residential programs, 32 outpatient programs including 6 day treatment programs and 24 support programs including one HCBS waiver program.[41] (See Appendix A, Map 88.)

- **Alcohol/Drug Use Resources**

Based on HITE and NYC Dept. of City Planning data, there are approximately 107 alcohol/drug use programs and services in the Bronx.[42] Many of these programs are clustered in south/central Bronx and very few programs are located in Pelham-Throgs Neck, Northeast Bronx and Fordham-Bronx Park. (See Appendix A, Map 61.) The availability of outpatient substance use resources appear to align fairly well geographically with need, providing a foundation for the implementation of community-based detoxification and withdrawal management services as outlined in the DSRIP Project Toolkit. However, some communities report that an overabundance of such services affects quality of life and perceptions of safety. Approximately half of survey respondents identified substance abuse services as being "not very available" or "not available at all."[43]

Inpatient

There are 33 inpatient alcohol/drug use programs in the Bronx: 4 medically managed detoxification programs with a total capacity of 110 beds, one medically supervised withdrawal program with 30 beds, 2 inpatient rehabilitation programs with a total capacity of 68 beds, 10 intensive residential programs with a total capacity of 987 beds, one residential rehabilitation service for youth with 28 beds, one methadone to abstinence residential service with 110 beds, 5 community residence programs with a total capacity of 136 beds, and one additional community residence program with an unreported bed capacity.[44] (See Appendix A, Map 62.)

Outpatient

There are 74 outpatient alcohol/drug use programs in the Bronx: three syringe exchange programs, one medically supervised withdrawal program with a capacity of 15 patients, 13 methadone maintenance/treatment programs with a

[41] New York State Office of Mental Health, "Local Mental Health Programs in New York State" Directory, as of August, 2014, and the New York State Office of Mental Health web site.
[42] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014 and New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[43] NYAM Primary Data Collection, preliminary findings, August, 2014.
[44] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014 and New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.

total capacity of approximately 8,995 patients, one outpatient rehabilitation program, three vocational rehabilitation programs and 34 other outpatient medically supervised programs. [45] (See Appendix A, Map 62.)

Additionally, there are approximately 107 doctors certified to prescribe buprenorphine in the Bronx.[46]

Autism Spectrum Early Diagnosis/Early Intervention

The New York State Early Intervention Program offers a variety of therapeutic and support services to eligible infants and toddlers with disabilities and their families including: service coordination, screening and evaluation, family education and counseling, psychological services, occupational, speech and physical therapy, vision, audiology, assistive technology services and social work. There are 97 unique providers throughout New York City, with the largest number of providers in Queens (72), followed by Brooklyn (71), Manhattan and the Bronx (65 each) and Staten Island (50). (See Table 3.)

Table 3 - Early Intervention Program Providers

	Brooklyn	Bronx	Manhattan	Queens	Staten Island	NYC Total (Unique)
Number of Providers	71	65	65	72	50	97
Services:						
Service Coordination	39	39	39	42	27	56
Screening	34	35	34	36	29	48
Evaluation	49	49	48	53	36	69
Psychological Services	7	5	7	11	7	16
Family Education	32	21	26	31	21	41
Family Counseling	14	13	13	14	9	20
Speech Therapy	34	29	30	37	24	45
Occupational Therapy	35	30	30	37	21	48
Physical Therapy	36	30	31	37	22	49

Source: New York City Department of Health and Mental Hygiene Directory of New York City Early Intervention Providers, available at http://www.health.ny.gov/community/infants_children/early_intervention/, Accessed December 8, 2014.

- **Eating Disorder Providers**

New York City has 109 providers (which includes a mix of practitioners including medical doctors, psychotherapists, nutritionists, social workers) that offer services related to eating disorders (including anorexia, bulimia or binge eating disorder specialties), with the vast majority located in Manhattan. (See Table 4).

Of the 109 total providers, 89 are licensed specialists in treating anorexia, of which 58 offer a sliding fee scale payment system, and 6 accept Medicaid or Medicare as insurance payer. Eighty-six providers also specialize in treating bulimia, of which 58 offer a sliding fee scale payment system, and 6 accept Medicaid or Medicare as insurance payer. Eighty –seven of the 109 total providers specialize in treating binge eating disorder, of which 60 offer a sliding fee scale payment system, and 7 accept Medicaid or Medicare as insurance payer.

[45] Outpatient capacity information was only available for Methadone Maintenance/Treatment Programs. Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014 and New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.

[46] Substance Abuse and Mental Health Services Administration "Physicians Certified for Buprenorphine Treatment," accessed July, 2014.

Table 4 - Eating Disorder Providers by Borough

	Brooklyn	Manhattan	Queens	Staten Island	Grand Total
Number of Providers	5	101	2	1	109

Source: National Eating Disorder Association (NEDA) Directory of Facilities and Treatment Providers, available at http://www.nationaleatingdisorders.org/find-treatment, Accessed December 5, 2014

- **Skilled Nursing Homes, Assisted Living Facilities**

Forty-six nursing homes with a total bed capacity of 11,732 are scattered throughout the borough.[47] There appear to be more nursing homes located in the northern neighborhoods of the Bronx including Northeast Bronx, Fordham – Bronx Park and Kingsbridge – Riverdale. (See Appendix A, Maps 65-66.)

There are also ten Adult Care Facilities in the Bronx, with a total capacity of 1,445 beds. Seven of these facilities have Assisted Living Programs (ALPs), which accept Medicaid or SSI, with a total capacity of 578 beds. In addition, one program has an Assisted Living Residence (ALR), which is private payee only, has a bed capacity of 195, enhanced ALR bed capacity of 35 and special needs ALR bed capacity of 20. Individuals, who are medically eligible for nursing home placement but do not require continual nursing care, can be served via an ALP. ALPs overwhelming serve residents who are also Medicaid recipients although private-pay patients can also be admitted to such programs. ALPs provide personal care, room, board, housekeeping and a range of home health and medical services. ALRs provide services similar to ALPs, but Medicaid and Medicare will not pay for an individual to reside in an ALR. These adult care facilities appear to be concentrated in the northern part of the borough in Northeast Bronx, Fordham – Bronx Park and Kingsbridge – Riverdale. There appears to be only one adult care facility in southern Bronx located in Hunts Point – Mott Haven. (See Appendix A, Map 65-66.)

- **Home Care Services**

There are 11 certified home health agencies (CHHA), 16 long term home health care agencies (LTHHC), and 6 home care hospice agencies that service Bronx residents. Of these agencies, 2 CHHAs, 9 LTHHCs, and 2 home care hospices, are located in the Bronx.[48] Approximately 36% of survey respondents reported that home care was "not very available" or "not available at all."[49]

- **Laboratory and radiology services including home care and community access**

There are 3 D&TC-based clinical laboratories and 21 hospital-based clinical laboratories in the Bronx.[50] In addition, there are approximately 14 health centers with radiology services that provide care to those with Medicaid and the uninsured.[51]

[47] New York State Department of Health "New York State Nursing Home Profile," as of July, 2014.
[48] New York State Department of Health "Home Health and Hospice Profile," as of July, 2014.
[49] NYAM Primary Data Collection, preliminary findings, August, 2014.
[50] New York State Department of Health "HCRA Provider List," as of July, 2014.
[51] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014. New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014. New York State Department of Health, 2014. Health Resources Services Administration "Health Care Service Delivery and Look-Alike Sites," accessed August, 2014. New York State Department of Health "Safety Net Clinics," as of June, 2014.

- **Specialty Developmental Disability Services**

There are approximately 316 developmental disability programs in the Bronx and the majority (82%) of them are residential, with a total bed capacity of 1,649 beds. These include supervised community residences, individualized residential alternative programs, and intermediate care facilities. There are also 58 non-residential programs including day training programs, clinic treatment programs, day habilitation programs, counseling and crisis intervention programs, supported work/employment training programs and recreation programs.[52] Developmental Disability resources are located throughout all parts of the borough, but some neighborhoods, such as portions of Pelham – Throgs Neck, Hunts Point – Mott Haven and Kingsbridge – Riverdale, have relatively fewer resources than others. (See Appendix A, Map 67.)

- **Specialty Services Providers such as Vision Care and DME**

There are 55 optometrists in the Bronx (4.0 per 100,000 population)[53] and approximately five health centers serving Medicaid beneficiaries and the uninsured population provide eye care services.[54] Among survey respondents, about 34% reported that vision services were "not very available" or "not available at all."[55]

- **Pharmacies**

There are 73 NYS DOH designated safety net pharmacies located in the Bronx. Of their total prescriptions, 33 pharmacies have between 35% and 49% Medicaid prescriptions, 35 have between 50% and 74% Medicaid prescriptions and 5 have 75% or more Medicaid prescriptions. The total number of Medicaid prescriptions for these pharmacies ranges from 1,647 to 204,969 with an average of 28,799 per pharmacy. Key informants noted that there appears to be no 24 hour pharmacies in the neighborhoods south of the Cross Bronx Expressway. (See Appendix B, Table 7 for a full list of safety net pharmacies in the Bronx.)

- **Local Health Departments**

The New York City Department of Health and Mental Hygiene is the local health department for New York City, including the Bronx. DOHMH has a District Public Health Office (DPHO) located in Tremont designed to serve high-need areas of the borough. In addition to the population health projects of DOHMH in the borough, the Bronx DPHO focuses on two major population health initiatives: teenage pregnancy and promoting physical activity and good nutrition. In addition, the de Blasio administration has recently established a new Center for Health Equity within the DOHMH that will reportedly oversee the Bronx DPHO (as well as the DPHOs in East Harlem and Brooklyn) and implement new efforts to address health disparities. For DSRIP projects, DOHMH has offered to serve in a technical assistance role to PPS in the borough, particularly regarding population health projects.

- **Managed Care Organizations**

[52] New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[53] Center for Health Workforce Studies.
[54] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August 2014. New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014. New York State Department of Health, 2014. Health Resources Services Administration "Health Care Service Delivery and Look-Alike Sites," accessed August, 2014. New York State Department of Health "Safety Net Clinics," as of June, 2014.
[55] NYAM Primary Data Collection, preliminary findings, August, 2014.

There are 9 Medicaid Managed Care (MMC) plans and 3 HIV Special Needs Plans (SNPs) serving the Bronx.[56] Many of these plans also serve members in other counties. While plan enrollment data is not available at the county level, the 9 MMC plans serving the Bronx had a total NYC enrollment of 2,256,087 million members as of 2012.[57] (See Appendix B, Table 37.)

- **Foster Children Agencies**

There are 49 Administration for Children's Services (ACS) Community Partners providing preventive and family treatment and rehabilitation services throughout the borough, and three ACS Child Protective Borough Offices located in Southeast Bronx, Bronx Park-Fordham and Highbridge-Morrisania.[58]

- **Area Health Education Centers (AHECs)**

The Bronx Westchester Area Health Education Center is located in Bedford Park and hosts the following programs: Community Health Experience, a summer program for medical school students interested in gaining exposure to community and public health experiences through placement in a community organization and specialized lecture series; the Medical Academy of Science and Health (MASH), a camp promoting health professions to students in grades 6 to 9; the Summer Health Internship Program, a summer internship placement program for high school and college students; the Health Career Bridge Program, a program offered during the school year for juniors in high school interested in exploring health careers; and the Health Careers Internship Program, a program for college students aspiring towards careers in health care settings.

ii. Community Based Resources

The Bronx has a large number of community based resources. However, CNA participants expressed concerns about capacity (small staff and budgets), quality, and health care linkages to those services that might benefit their patients.

> *I think it's less about [health care] access and more about all of the other things that are hindering access: poverty, chaotic drug use, unstable housing, hunger. So that's why we spent so much time attacking those issues so they can get stabilized so then they can think about medical care. So I think what's lacking is more commitment of resources to really addressing homelessness and hunger and those things that once they're stabilized, access becomes much, much easier. (key informant, community based organization)*

> *Because physicians like us, we have absolutely zero knowledge of community resources, and there are plenty of community resources (key informant, health provider)*

- **Housing Services, including Advocacy Groups and Housing Providers, including Those for the Homeless Population**

[56] New York State Department of Health Division of Managed Care and Program Evaluation "County Directory of Managed Care Plans," as of July, 2014.
[57] United Hospital Fund, "Medicaid Managed Care Enrollment by Region," 2012.
[58] Administration for Children's Services (ACS) "ACS Community Partners" http://www.buildingcpi.org/. Accessed November 7, 2014.

There are approximately 78 non-profit or public agencies and community based organizations that provide housing services of varying types located in the Bronx. These include intake and community centers; housing programs including emergency shelters, transitional housing programs, temporary housing, community residences, SROs and supportive housing programs; case management agencies; public and non-profit clinics; and advocacy, empowerment and counseling/support organizations. Many of these agencies provide housing services to special populations, including but not limited to: pregnant teens; people with mental illness, disabilities, and/or substance use; people living with HIV/AIDS (PLWHA), homeless mothers with children; homeless veterans; older adults; immigrants; adolescents aging out of foster care.[59] There are approximately 97 New York City Housing Authority (NYCHA) Developments and 124 NYCHA Community Facilities located in the Bronx. [60] Housing and homeless resources, including Homebase[61] locations, housing and rent assistance programs, NYCHA community facilities and shelters, appear to be located predominantly in the southern Bronx neighborhoods of Crotona – Tremont, Highbridge – Morrisania and Hunts Point – Mott Haven (though the eastern portion of Hunts Point – Mott Haven appears to have very few of these resources). The concentration of poverty in neighborhoods with a large number of NYCHA developments presents distinct challenges to health and service providers.

> *Concentrated poverty, you've got a neighborhood [that] has a poverty rate of about 46%. The Bronx in general is about 26% which is still ridiculous, but that area has that concentrated poverty because of all the NYCHA housing projects. And so when you get that kind of concentrated poverty and then the violence, sexual violence, domestic violence, street violence, gang violence, drug violence, it's a perfect storm for breeding ground for spreading illness, disease, lots of psychiatric issues and lots of drugs. (key informant, community based organization)*

Comparatively, Northeast Bronx, Kingsbridge – Morrisania and Pelham – Throgs Neck seem to have few housing resources. (See Appendix A, Maps 90-91.)

CNA participants in the Bronx described a lack of affordable housing, inadequate housing resources, and poor conditions for low-income populations, including rodents, cockroaches, and poor maintenance. Additionally, among survey participants, close to half identified affordable housing as "not very available" or "not available at all."[62]

The Bronx—particularly the South Bronx—has a well-known history of housing degradation and loss to arson. According to some key informants, in the rebuilding of the Bronx, the needs of long-time residents have been ignored, in favor of higher income populations. However, the legacy of housing activism can be described as a community strength:

> *And the South Bronx has a pretty vibrant history of having pushed back against the bad mortgage practices and done a lot of community organizing around unfair practices and pushing for affordable housing. And I don't think the affordable housing situation is solved, but it's a lot better than it was, and there's a lot more attention put into affordable housing. So that's like a rich recent history that I think a lot of community-based organizations were*

[59] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[60] This compares to 103 NYCHA developments and 146 community facilities in another large NYC borough, Brooklyn, and 352 NYCHA developments and 536 community facilities in NYC overall. New York City Housing Authority (NYCHA) "NYCHA Development Data Book," as of 2014. New York City Housing Authority "Directory of NYCHA Community Facilities," as of 2013.
[61] NYC Department of Homeless Services "Homebase" homeless prevention locations offer individualized services to low-income families at risk of becoming homeless through a community-based network of providers. These services include: emergency rental assistance, landlord mediation, job training, among others.
[62] NYAM primary data findings, September, 2014.

forged during that time period, and then they came to take on health because that's sort of, you know, housing, health education, as far as kind of primitive needs that we all want… So the strength of the earlier community struggles around housing, I think, has helped us in terms of the, the pertinent things around health.

- **Food Pantries, Community Gardens, Farmer's Markets**[63]

There are 154 food banks in the Bronx, including 120 food pantries and 30 soup kitchens.[64] In addition, there are 32 community gardens and 45 farmers markets.[65] Although CNA respondents noted an increase in farmers markets and more nutritious food available through food pantries, as well as nutrition and exercise programs, these assets are noticeably absent from Pelham-Throgs Neck and Northeast Bronx, where the obesity rate is the highest in the borough (See Appendix A. Map 70.) In addition, 42.4% of survey respondents reported that healthy food was "not very available" or "not available at all" in their neighborhood.[66]

- **Financial Assistance and Support including Clothing and Furniture Banks**

Approximately 89 organizations throughout the Bronx provide some type of financial assistance to their participants. Some of these organizations serve special populations including but not limited to: people with developmental disabilities, low-income homeowners, people with mental illness, older adults, pregnant women, mothers and children, immigrants, and families at risk of eviction. Four Financial Empowerment Centers that offer free individual, professional financial counseling are located in the Bronx: two in Highbridge-Morisania, one in Central Bronx and another in Southeast Bronx. There are also 23 WIC programs throughout the Bronx.[67]

Additionally, based on HITE data, at least 13 community-based organizations in the Bronx provide "material goods" services, free clothing and/or furniture and about four community-based organizations provide utility assistance. There are also 3 clothing banks located in the Bronx.[68]

- **Specialty Educational Programs for Special Needs Children**

The NYC Department of Education's District 75 provides citywide educational, vocational, and behavior support programs for students who are on the autism spectrum, have significant cognitive delays, are severely emotionally challenged, sensory impaired and/or have multiple disabilities. District 75 consists of 56 school organizations, home and hospital instruction and vision and hearing services.

[63] If an organization provides multiple services, they are included under each header for which they provide services.
[64] Food Bank for New York City "Food Bank Locator," Accessed July 2014.
[65] New York State Department of Agriculture & Markets "New York State Farmers' Markets," accessed July 2014. New York City Department of Health and Mental Hygiene "New York City Farmers Markets," accessed July 2014.
[66] NYAM primary data findings, September, 2014.
[67] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[68] Seedco, Earn Benefits Online "Clothing Resources Spreadsheet," accessed August, 2014.

- **Community Outreach/Social Service Agencies**

A review of the HITE website yielded over 234 organizations that provide a variety of services and volunteer opportunities to Bronx residents, including faith-based fellowship, assistance to individuals recently released from prison, park conservation efforts, assistance to at-risk youth, employment referrals and career development help, and health-related support (i.e., fitness classes). Some 21 organizations in the Bronx including community service organizations, care management agencies and treatment and prevention programs, including syringe exchange/harm reduction programs, among others, that conduct outreach activities ranging from mobile outreach and syringe exchange to outreach and crisis intervention. They attempt to meet the needs of many different populations that are considered to be among the most vulnerable and difficult to engage, including but not limited to: homeless populations, veterans, victims of domestic violence, PLWHA, and people who inject drugs (PWID)/active drug users.[69]

> *We define ourselves by the problems and the issues that we're facing and confronting in the Bronx through, you know, driven by poverty, lack of access to medical care, and some of the other issues like food and nutrition and HIV and Hepatitis and drug overdoses that are really disproportionate in the Bronx. … what separates us from a Lincoln Hospital or a Montefiore Medical Center, a lot of things, but primarily is that our primary target population community that we're trying to reach are those who are most marginalized, most stigmatized. That's very intentional in our work. And I would say that hospitals, healthcare organizations, managed care plans, federally qualified health centers, for the most part, have – their primary intent is to open up access to medical care for everybody. And while they may see people who are very marginalized and stigmatized, it's not their primary purpose and their vision and mission. (key informant, community based organization)*

- **Transportation Services**

Based on analysis of HITE data, there are approximately 21 organizations in the Bronx that provide varying types of transportation services. Four of these provide transportation for seniors and one provides transportation services for the disabled.[70] While there may be other organizations that provide transportation services to their participants, no directory or inventory of these services seems to exist. Access-a-Ride is the Metropolitan Transit Authority's (MTA) para-transit service, available to those certified as eligible due to mobility restrictions. However, CNA participants reported that the services are structured in such a way, with long and unpredictable wait times, that makes it difficult for those targeted to use it to access scheduled appointments. Access-a-Ride also seems to have limitations within the Bronx and regarding drop-off at accessible bus stops that are impractical for those with mobility issues.

> *I have Access-a-Ride. Access-a-ride doesn't take me anywhere in the Bronx. It goes to Queens, Brooklyn and Staten Island. But I cannot use it here in the Bronx. Now, the last time I called them for them to take me to [Manhattan], I went over to 5th Avenue to the hospital. She told me "you can take this bus, and it will take you to Manhattan, and that bus will drop you off." And then I said,"'so what do I do now? I have difficulty walking." And where they were gonna drop me off would have been at least two blocks and that hospital I was going to I know for a fact, two blocks is like four. I'm gonna have to walk. And I couldn't walk so I said "I have to walk there. What*

[69] Ibid.
[70] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.

do you suggest I do?" "Uh well uh ma'am." I said "You can't help me. Thank you very much." (focus group participant)

Transit services are particularly important in the Bronx as large portions of the borough are not accessible by subway and there are no trains that travel east-west, meaning that many trips outside a particular neighborhood require both bus and subway travel and may require payment of two fares:

When you go [to the health center], you always got to get a referral for this, for that, and the third. So you are going to end up in a two fare zone. To get to that referral, because they never conduct it on site. They could say, 'Okay you have a problem with your left eye. Here is a referral to go 40 blocks away, and that's where you have to go, and you come back here for your results. But then I might give you a referral to go to the GYN that is 50 blocks away," and so forth and so on. So either way you look at it, you are getting on the train, while they are right around the corner. (focus group participant)

Still, about 90% of survey respondents identified transportation as "available" or "very available."[71]

- **Religious Service Organizations**

New York City contains tremendous diversity in the numbers of faith-based organizations, many of which provide charity care. There is no single database that lists all locales of worship and connected service organizations. The New York State Department of Health catalogued the various programs and services provided by faith-based organizations in a 2012 resource directory.[72] However, this is not a comprehensive listing of faith-based services or ministries in New York City as the organizations have to request voluntarily to be listed. In the Bronx, there are 31 Christian churches of various denominations, four Interdenominational churches and one Muslim organization that provide a variety of services which include emergency assistance funding, employment and housing referrals, food pantries and HIV care support. A review of UJA-Federation of New York website found that there are over 20 Jewish community-based organizations throughout New York City that provide relief services and support.[73]

Faith organizations provide a number of valuable services, including health education, health fairs, food pantries, visiting the homebound, and social support, as well as specific programing that promotes weight loss, physical activity, and proper nutrition.[74] However, it is important to note that many people travel to faith institutions, and they may serve a broader—rather than their local—community.

- **Not for Profit Health and Welfare Agencies**

Not for profit health and welfare agencies provide a variety of social services and disseminate essential information to the community at no fee, including recreational activities tailored for various age groups, direct service delivery (meals,

71 NYAM primary data findings, September 2014.
72 Faith-based Ministries and Services Resource Directory, https://www.health.ny.gov/diseases/aids/consumers/faith_communities/directory_instruction.htm, accessed October 28, 2014
73 UJA-Federation of New York, http://www.ujafedny.org/who-we-are/our-network-of-agencies/network-agencies-directory/, accessed October 28, 2014
74 Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.

clothing and toiletries), printed materials about specific illnesses or risk factors, health workshops, hosting of support groups and legal and medical referrals. Examples of voluntary health and welfare organizations are the YMCA, the United Way, and the American Heart Association. There are approximately 441 non-profit social service agency sites scattered throughout the Bronx.[75] Over one third of survey respondents reported that social services were "not very available" or "not available at all."[76]

- **Specialty Community-based and Clinical Services for Individuals with Cognitive or Developmental Disabilities**

Both the community based and clinical resources for individuals with intellectual and developmental disabilities are included in the health care resources section above. Serving individuals with developmental disabilities is considered to be challenging in the changing healthcare environment, as they may also have multiple co-morbidities, providers are not trained to recognize or address behaviors associated with developmental disabilities, and accommodations may be required (e.g., to visit length) due to issues around comprehension.[77]

- **Peer, Family Support, Training and Self- Advocacy Organizations**

Based on a review of HITE data, there appear to be approximately 26 organizations in the Bronx that offer peer, family support and self-advocacy programs and services to populations with psychosocial issues including individuals with mental illness, disabilities, alcohol/drug use, involvement in the criminal justice system and their families, among others.[78] There may be additional organizations providing these services as part of their broader menu of services, but a complete directory with that information does not appear to exist.

- **Youth Development Programs**

There are 336 Department of Youth and Community Development (DYCD)-funded programs located in the Bronx of the following types: 239 after-school programs; 25 family support programs including housing programs and fatherhood initiatives; 30 employment and/or internship programs; 60 summer programs and 3 runaway and homeless youth programs, among others. There are also 53 Mayor's Office Programs offering education, employment, health and justice programming.[79] Both DYCD-funded and Mayor's Office programs seem to be clustered in Southern Bronx in the Hunts Point – Mott Haven, Highbridge – Morrisania and Crotona – Tremont, and less densely spread throughout Pelham – Throgs Neck, Northeast Bronx and Kingsbridge – Riverdale. (See Appendix A, Maps 92-93.) In addition, there are approximately 65 organizations including public libraries, shelters, housing facilities, community centers, recreation centers, and other types of community-based organizations, that offer after-school and/or youth group services in the Bronx. 38 organizations in the Bronx have summer youth programs and 30 organizations offer tutoring.[80]

[75] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[76] NYAM primary data findings, September 2014.
[77] Ibid.
[78] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[79] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[80] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.

- **LGBT Resources**

New York City has a large number of Lesbian, Gay, Bisexual and Transgender persons, as well as individuals who self-identify using other categories such as gender queer or questioning. Healthcare resources include facilities that have earned the Human Rights Campaign's designation of "leader in LGBT healthcare equality," a list of which can be accessed at http://www.hrc.org/hei/leaders-in-lgbt-healthcare-equality#.VE_lMDTF98E. Nineteen facilities in the city are listed as "leaders" for 2014, including 10 from the New York City Health and Hospitals Corporation.

Other resources available in the city include the Callen-Lorde Community Health Center, the Transgender Legal Defense and Education Fund, the LGBT Community Center; Lambda Legal, the nation's oldest and largest legal organization working for the civil rights of lesbians, gay men, and people with HIV/AIDS, various community centers in the boroughs, SAGE for older LGBT persons, and PFLAG NYC which provides information for parents, family, friends, schools and teachers of lesbian, gay, bisexual, transgender people children and adults.

- **Libraries with Open Access Computers**

All New York City public libraries provide open access computers to its customers, enabling users to access a myriad of websites including health information. Access requires that the individual be a resident of the borough in which the library is located and have a library card and PIN to log onto a computer. In some cases, individuals can purchase a daily pass in order to log onto a computer.In the Bronx, there are approximately 33 public libraries operated by the New York Public Library; all have open access computers.[81] They are scattered somewhat evenly throughout the in the borough, though some ZIP Codes such as 10474 in Hunts Point – Mott Haven and 10465 in Pelham – Throgs Neck, have no libraries. (See Appendix A, Maps 94-95.)

- **Education: Schools, Community-Based Education Programs Including Programs For Health Professions/Students, Libraries**

There are approximately 541 schools in the Bronx, including 158 public elementary schools, 69 public middle schools, 20 public junior/senior high schools, 109 public high schools, 44 public charter schools, and 101 private/parochial schools. Particularly in the South Bronx, school quality is reported to be poor and dropout rates are high, impacting future opportunities for individuals as well as the strength of the community.

> *The poverty is there and the low education levels, which I think are worth noting. There are areas of the South Bronx where seven percent of the adults have a college degree. That means 93 percent of adults do not have a college degree. That is like a staggering educational segregation. You know, I don't remember off the top of my head what Manhattan is like, but it's like 40 or 50 percent of adults have a college degree. So, the young people who are growing up in these areas, the odds that they meet a grown-up from their neighborhood who has a college degree is exceedingly low. And that reverberates through the health impact as well. So people often think about the poverty piece, which is huge, but one of the ways that gets reflected is in the education level, so also that area, also has low rates of four-year high school graduation. I don't know exactly what it is, but for the city it's only 63 percent or something, so if you're talking about young men in the South Bronx, I don't have the data exactly current—but it's gotta be less than 50 percent. So that means the high schools are mostly creating*

[81] New York Public Library, www.nypl.org, accessed October 24, 2014

dropouts and not successful high school graduates, and that has a huge health impact and the long-term employment impact and all of those things…You know, the school system can try as hard as it can, but it's very ill-equipped to deal with and under-resourced to deal with all the myriad of issues that, that young people present in high school. (Key informant, government)

There are four public colleges located in the Bronx: Hostos Community College (CUNY) in Highbridge-Morrisania, Herbert H Lehman College (CUNY) in Bronx Park-Fordham, Bronx Community College (CUNY) in Central Bronx and Maritime College at Fort Schuyler (SUNY) in Southeast Bronx.[82]

There are also 135 community-based organizations in the Bronx providing education services such as GED/High School Equivalency (HSE) preparation, ESL, citizenship classes, SAT prep classes, job readiness training, financial literacy and vocational skills programs. Some of these organizations offer education services to special populations including out-of-school youth and adults, children with developmental disabilities, formerly incarcerated and immigrants.[83] There are approximately three Associates' Degree Nursing programs and two Health Worker programs located in the Bronx.[84]

- **Local Governmental Social Service Programs**

There are 43 local governmental agencies located in the Bronx such as food stamp programs, a Medicaid office, job centers, a home care program and a drop-in center**.** They are predominantly located in central and southwest Bronx. (See Appendix A. Maps 81-82.)[85]

- **NAMI, a Self-Advocacy and Family Support Organization**

The National Alliance on Mental Illness (NAMI) Bronx Families & Advocates, is located in Southeast Bronx and serves all of Bronx County. NAMI offers family, peer, teacher and provider education, training and support through support and recovery groups and other programs.[86]

- **Individual Employment Support Services**

About 66 organizations in the Bronx provide employment/vocational support services to varying populations including but not limited to: people with developmental disabilities, people who are homeless or formerly homeless, people who are homebound, minorities, immigrants, high-risk adolescents, unemployed women, people with mental illness and Native Americans.[87] However, a majority of survey respondents, 64.3%, reported that job training was "not very available" or "not available at all" in their community.[88]

[82] New York City Department of City Planning "Selected Facilities and Program Sites," as of June, 2014.
[83] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[84] New York State Education Department Office of the Professions "New York State Nursing Programs" and New York State Department of Health "Community Health Worker Programs," Accessed July, 2014.
[85] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[86] National Alliance on Mental Illness (NAMI) Website.
[87] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[88] NYAM primary data findings, September, 2014.

- **Peer Supports (Recovery Coaches)**

Peer supports (recovery coaches) provide assistance to individuals managing a chronic health condition (e.g., substance abuse recovery, diabetes, HIV/AIDS or hepatitis C) in staying engaged in treatment over time and in resolving obstacles that may arise. These obstacles can be psychological, physiological or structural; without the support of trained said recovery coaches, these obstacles may impede individuals' ability to succeed in handling their conditions.

From a review of the HITE database, we have identified institutions, which vary from healthcare facilities to community-based organizations, that facilitated or offered peer support services. Although these organizations operate from a particular borough, many of the organizations serve clients regardless of where they are domiciled. In the Bronx, there are approximately 31 organizations that connect clients with recovery coaches, peer groups and mentoring to assist the clients in managing their health condition.

- **Reentry Organizations and Alternatives to Incarceration**

There are approximately ten organizations that offer criminal justice offender services located in the Bronx. These services include: civic engagement, linkage to employment and educational services, transitional and supportive housing, recreational events, mental health care, HIV/AIDS services, peer education, peer support, case management and substance use treatment.[89] Given the high need within this population, services seemingly are inadequate:

> *People are also chronically - in the same way that folks are chronically homeless, they're chronically involved in our jail system. And those folks are the same folks that you would expect to see in the shelters or that are the folks that came out of prison and come back [to Rikers]. Folks come out of prison, they don't really necessarily have the tools that they need to be successful on the outside, and that includes folks that come out with, you know, very serious health conditions. (Key informant, government)*

- **HIV Programs, including Ryan White Programs, Prevention/Outreach and Social Service Programs**

There are numerous HIV/AIDS related services located in the Bronx. A comprehensive search of the HITE database using the keywords" HIV/AIDS" identified 14 non-profit organizations in the Bronx which provide housing support, substance abuse and mental health counseling, legal assistance, health education, benefits assistance and case management services.[90] Many of the organizations had a focus on specific population, based on racial or ethnic identity or sexual orientation. A search of the Ryan White or CDC Prevention funded HIV programs in the borough was also conducted. In the Bronx, there are also 21 Ryan White or CDC Prevention funded HIV programs in the borough.[91] A small number of the sites identified via the HITE database (approximately 1-3 sites) are also funded via the Ryan White program. These programs include HIV Prevention and Outreach efforts such as sexual and behavioral health for HIV prevention, condom distribution, harm reduction, testing and linkage to care, and syringe exchange. Additionally there are programs to

[89] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of August, 2014.
[90] Greater New York Hospital Association (GNYHA) Health Information Tool for Empowerment (HITE) data, as of October, 2014
[91] Public Health Solutions Service Site Locator. http://www.healthsolutions.org/hivcare/?event=page.locations Services as of August 2014.

support HIV positive patients such as supportive counseling, home care, housing services, food and nutrition support, and care coordination. These Ryan White and CDC Prevention programs are provided at 259 service sites in the borough by 37 individual agencies.[92]

iii Domain 2 Metrics

See Appendix B, Table 42.

SECTION B. DESCRIPTION OF THE COMMUNITY TO BE SERVED

Section i: Demographics of the Bronx Population

The Bronx's large population of 1.4 million is approximately 17% of the total NYC population, and approximately 7% of the statewide population. Almost two thirds of the Bronx's population is working age adults (aged 18-64); over one quarter is children (aged 0-17) and about ten percent is older adults (aged 65+). The age of the Bronx's population is slightly younger than the NYS and NYC populations, with about 5% more children and slightly lower proportions of older and working age adults. A little over half of the Bronx population is female, roughly analogous to the populations of NYC and NYS. (See Appendix B, Table 43-44.)

Age

Medicaid covers a high concentration of children and adolescents, with approximately 44% of the Bronx Medicaid population between the ages 0 to 19 years. This statistic suggests that efforts to enroll eligible children and adolescents in Medicaid are mostly successful. There are low numbers of uninsured pediatric patients, which is also due to the Child Health Plus program. Child Health Plus provides coverage for children and adolescents who do not qualify for Medicaid. These data suggest that there is a need for more pediatric capacity within safety net health care provider systems to ensure that there is adequate access for patients with chronic health conditions.

The uninsured population is heavily weighted toward the 20-39 age group in the Bronx (56%), suggesting that resources should be leveraged towards preventing chronic diseases for this relatively young population, promoting child and maternal health (as a large percentage of uninsured are of reproductive age) and promoting sexual health to avert HIV/STD infections. A relatively small percentage of the uninsured population consists of older adults aged 65 and over, while nearly 11% of the Medicaid population in the Bronx falls into this age group, suggesting a relatively greater need for senior health and community resources among the Medicaid population.

[92] HIV Health and Human Services Planning Council of New York, DOHMH. Needs Assessment for HIV Services New York Eligible Metropolitan Area Ryan White Part A 2014. http://www.nyhiv.org/pdfs/Needs%20Assessment_Full%20Final.pdf

Table 5 - Total Population by Age Group with No Health Insurance Coverage

	No Health Insurance Coverage																		
Region	**Total**	**< 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	1.5	1.5	2.0	4.9	14.6	16.5	13.3	10.7	9.3	8.1	6.7	5.4	3.9	0.8	0.3	0.2	0.1	0.1
		9.9				55.1				33.5					1.5				
Bronx (%)	100	2.0	2.0	2.6	5.7	15.6	16.2	12.8	11.0	8.9	8.3	6.2	4.7	2.8	0.5	0.2	0.1	0.1	0.1
		12.3				55.7				30.9					1.1				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 6 - Total Population by Age Group with Medicaid/Low Income Medical Assistance

	Population with Medicaid/Low Income Medical Assistance																		
Region	**Total**	**< 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	11.4	10.1	9.7	9.3	7.1	5.4	4.9	4.7	5.2	5.6	5.1	4.5	4.0	3.2	3.0	2.5	2.2	2.3
		40.4				22.1				24.4					13.1				
Bronx (%)	100	12.1	11.1	10.6	10.4	7.2	5.2	4.9	4.6	5.5	5.5	5.0	4.1	3.5	2.9	2.4	2.0	1.6	1.4
		44.2				21.9				23.6					10.3				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 7 - Total Population by Age Group with Other Insurance

	Other Insurance																		
Region	**Total**	**< 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	5.1	4.5	4.7	5.2	6.4	8.9	8.5	7.5	7.5	7.3	7.3	6.7	5.9	4.7	3.4	2.6	1.9	1.8
		19.5				31.4				34.6					14.5				
Bronx (%)	100	5.1	5.0	5.6	6.7	6.4	6.7	6.9	6.8	7.7	8.1	7.7	6.9	5.7	4.7	3.6	2.6	1.8	1.9
		22.5				26.9				36					14.6				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Race/Ethnicity, Immigration

The Bronx's population is racially and ethnically diverse. Approximately one in three (34.7%) people in the Bronx identify as Black or African American, a much larger proportion than NYC as a whole (25.1%) or NYS (15.9%).[93] In fact, the Black/African American population in the Bronx accounts for approximately 16% of the total Black/African American population in New York State.[94] The Black/African American population includes US born and immigrant populations, including significant numbers from Caribbean nations, and increasing numbers from Africa.[95] Over half (54%) of the Bronx population identifies as Hispanic/Latino of any race, accounting for approximately 22% of this population statewide.[96] Historically, Latinos in the Bronx were from Puerto Rico. There are now reportedly more immigrants from the Dominican Republic and Central America. About 4% of people in the Bronx identify as Asian. According to key informants, the population of the Bronx is increasingly diverse with increasing numbers of South Asian (primarily Bangladeshi and Pakistani) and Southeast Asian immigrants. (See Appendix B, Table 45.)

Of those with no health insurance, 58% are foreign born, compared to 28% for population with Medicaid/Low Income Medical Assistance and 30% for those with other health insurance coverage.

Table 8 - Nativity by Insurance Status

Region	No Health Insurance Coverage		Population with Medicaid/Low Income		Other Insurance	
	% Foreign	% Native	% Foreign	% Native	% Foreign	% Native
New York City	62%	38%	35%	65%	32%	68%
Bronx	58%	42%	28%	72%	30%	70%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

The Bronx's cultural diversity is underlined by the places of birth among the foreign born when comparing those with no health insurance and those with Medicaid. (See Tables 9 and 10.) The top 10 countries among those with no health insurance include Mexico, Dominican Republic, China, Ecuador, Jamaica, Guyana, Korea, Trinidad &Tobago, Colombia, and India.[97] In contrast, the top 10 nations among those with Medicaid/Low Income Medical Assistance Insurance include Dominican Republic, Jamaica, Mexico, Ecuador, Ghana, Bangladesh, Honduras, Guyana, Albania and Nigeria. China, Korea, Trinidad &Tobago, Colombia and India, representing half of the top 10 nations among the uninsured, ranked lower among populations with Medicaid. Within each nationality, there was limited variation by

[93] US Census American Community Survey, 5 year table, 2008-2012.
[94] Ibid.
[95] NYAM primary data findings, September 2014.
[96] US Census American Community Survey, 5 year, 2008-2012.
[97] US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

residing neighborhood and insurance status. Each of the nationalities is, however, concentrated in several neighborhoods, allowing for targeted efforts by country of birth.

Foreign Born and Uninsured

The 2008-2012 5-year American Community Survey estimated that 131,665 (or 60.7%) of the total number of 217,009 uninsured Bronx residents were foreign born.[98] Of these 131,665 foreign-born uninsured residents, the largest number were born in Latin American countries (86,572, 65.8%), followed by those born in non-Hispanic Caribbean countries (16,070, 12.2%), African countries (13,699, 10.4%), Balkan and Eastern European countries (3,349, 2.5%), and South Asian countries (2,766, 2.1%).[99]

Uninsured foreign born Latinos live primarily in the South Bronx and west of the Grand Concourse, with approximately 11,000-13,000 living in each of the following Community Districts (CD): CD 1&2, Hunts Point, Longwood, and Melrose; CD 9, Castle Hill, Clason Point, and Parkchester; CD 4, Concourse, Highbridge, and Mount Eden; CD 5, Morris Heights, Fordham South, and Mount Hope; and CD 7, Bedford Park, Fordham North, and Norwood. Those uninsured born in non-Hispanic Caribbean countries reside primarily in CD 12, Wakefield, Williamsbridge, and Woodlawn. African-born uninsured residents reside mostly on either side of the Grand Concourse, in CD 3&6, Belmont, Crotona Park East, and East Tremont; CD 4, Concourse, Highbridge, and Mount Eden; and CD 5, Morris Heights, Fordham South, and Norwood. Uninsured residents born in Balkan and eastern European countries live primarily in CD 11, Pelham Parkway, Morris Park, and Laconia; and uninsured residents born in South Asian countries live primarily in CD 9, Castle Hill, Clason Point, and Parkchester.

[98] Ibid.
[99] Ibid.

Table 9 - Top Places of Birth among Foreign Born With No Health Insurance

PUMA Name	No Health Insurance Coverage										
	Total	Mexico	Dominican Republic	China	Ecuador	Jamaica	Guyana	Korea	Trinidad & Tobago	Colombia	India
New York City	724,452	131,000	74,765	60,385	56,982	32,639	25,737	23,941	20,659	17,511	15,482
Bronx	131,665	35,802	32,721	10,767	5,985	4,850	4,309	2,593	2,319	2,297	2,137
Riverdale, Fieldston & Kingsbridge	7,743	989	2,735	180	142	290	131	38	124	98	-
Wakefield, Williamsbridge & Woodlawn	12,287	845	840	6,500	88	458	11	313	-	341	181
Co-op City, Pelham Bay & Schuylerville	3,681	253	686	570	306	261	55	-	-	158	-
Pelham Parkway, Morris Park & Laconia	12,205	3,707	1,006	1,137	364	239	393	63	249	237	182
Belmont, Crotona Park East & East Tremont	13,353	3,850	3,304	446	398	773	620	450	612	177	411
Bedford Park, Fordham North & Norwood	15,787	5,434	4,530	340	964	412	745	54	387	228	-
Morris Heights, Fordham South & Mount Hope	17,700	4,473	7,085	469	723	831	655	648	248	98	368
Concourse, Highbridge & Mount Eden	15,790	3,967	6,099	321	346	1,078	267	515	267	91	652
Castle Hill, Clason Point & Parkchester	16,912	5,465	3,145	646	2,058	367	155	245	175	781	198

Hunts Point, Longwood &	16,207	6,819	3,291	158	596	141	1,277	267	257	88	145

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 10 - Top Places of Birth among Foreign Born with Medicaid/Low Income Medical Assistance

PUMA Name	Population with Medicaid/Low Income Medical Assistance										
	Total	Dominican Republic	Jamaica	Mexico	Ecuador	Ghana	Bangladesh	Honduras	Guyana	Albania	Nigeria
New York City	1,280,549	223,746	62,456	54,940	54,338	9,474	40,962	13,617	54,137	6,605	7,721
Bronx	222,960	96,328	18,517	12,646	9,611	7,756	6,603	6,167	6,126	2,807	2,547
Riverdale, Fieldston & Kingsbridge	14,336	7,028	311	544	326	398	17	49	243	155	204
Wakefield, Williamsbridge & Woodlawn	20,984	2,354	8,718	626	253	752	187	135	1,460	32	914
Co-op City, Pelham Bay & Schuylerville	8,107	1,090	1,365	181	285	155	86	196	290	169	215
Pelham Parkway, Morris Park & Laconia	18,662	3,441	2,965	1,290	372	399	999	310	561	1,512	71
Belmont, Crotona Park East & East Tremont	25,053	13,125	679	1,299	1,036	694	11	1,255	352	230	326
Bedford Park, Fordham North & Norwood	26,328	13,163	1,107	1,274	1,198	477	1,585	180	639	322	103
Morris Heights, Fordham South & Mount Hope	30,304	19,276	880	1,523	1,217	1,412	104	720	465	152	66
Concourse, Highbridge & Mount Eden	30,233	17,932	694	1,734	917	1,569	520	560	343	-	261
Castle Hill, Clason Point & Parkchester	24,893	7,487	1,367	1,731	1,991	841	3,034	623	1,679	235	271
Hunts Point, Longwood & Melrose	24,060	11,432	431	2,444	2,016	1,059	60	2,139	94	-	116

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Citizenship Status and Language Spoken at Home

According to available data, approximately one in five (19%) people in the Bronx are not US citizens, comparable to NYC (18%) but higher than the State rate of approximately one in ten people (11%).[100] Approximately 468,927 people, or approximately one-third of the Bronx population, were born outside of the United States.[101] High proportions of non-citizens are found throughout the Bronx and especially high rates are on the western edges of Crotona-Tremont and Fordham-Bronx Park. These areas, along with Hunts Point-Mott Haven, also have high rates of residents who speak English less than "very well."[102] (See Appendix A. Maps 9-10.) These numbers likely underestimate the undocumented population, which is reported to be substantial in the Bronx. The concerns of other immigrant populations are magnified among the undocumented. Access to most services is limited, and the fear of deportation results in lower utilization of services that are available, including health services. Providers report that people who are undocumented want to avoid providing their information regarding their citizenship and identity, and avoid "the system" to the greatest extent possible.[103] Those who are not US citizens and who speak English less than "very well" may experience additional regulatory or cultural barriers to health care access. Although bilingual providers and interpretation may be available for the largest language groups, smaller populations feel the burden of translation and interpretation falls on them. In addition, residents complain about the quality and reliability of language services offered, whether in person or by phone.

> *So we have heard of folks that are living up in the Bronx, perhaps because that's where they got placed in NYCHA housing[104], but all of their services are in Brooklyn. So they go to the grocery in Brooklyn. Their friends are there. Their doctors are there. So that's a tremendous amount of time to be able to travel to get culturally-competent, language-accessible programs and services. So then that's a real big challenge that we're seeing across a lot of communities, in the Asian-American community (Key informant CBO)*

Over half (57%) of Bronx residents reported speaking a language other than English at home.[105] Approximately half (46.4%) speak Spanish or Spanish Creole; approximately 3% speak African languages, and approximately 1% each speak French (including Patois and Cajun), Italian, Indic or Indo-European languages. (See Appendix B, Table 18.) It is important to distinguish the category called Limited English Proficiency (LEP), which "means persons who are unable to communicate effectively in English because their primary language is not English and they have not developed fluency in the English language. A

[100] Ibid.
[101] Ibid.
[102] Ibid. This is self-reported data in response to the American Community Survey questions: a) Does this person speak a language other than English at home? If YES, b) What is the language?, and c) How well does this person speak English? Very well; Well; Not well; Not at all.
[103] NYAM primary data findings, September, 2014.
[104] There are approximately 97 NYCHA Developments and 124 NYCHA Community Facilities located in the Bronx. , NYCHA community facilities and shelters appear to be located predominantly in the southern Bronx neighborhoods of Crotona – Tremont, High Bridge – Morrisania and Hunts Point – Mott haven (though the eastern portion of Hunts Point – Mott Haven appears to have very few of these resources). Comparatively, Northeast Bronx, Kingsbridge – Morrisania and Pelham – Throgs Neck seem to have few housing resources. (See Appendix A, Maps 88-89.)
[105] US Census, American Community Survey, 5 year data, 2008-2012

person with Limited English Proficiency may have difficulty speaking or reading English. An LEP person will benefit from an interpreter who will translate to and from the person's primary language. An LEP person may also need documents written in English translated into his or her primary language so that person can understand important documents related to health and human services."[106]

Populations with no health insurance are more likely to report LEP, at 41% in the Bronx, compared to 26% for Medicaid/Low Income Medical Assistance and 14% for Other Insurance reporting LEP.

Table 11 - Limited English Proficiency by Insurance Status

	% Low English Proficiency		
Region	**No Health Insurance Coverage**	**Population with Medicaid/Low Income Medical Assistance**	**Other Insurance**
New York City	40%	29%	14%
Bronx	41%	26%	14%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Citywide, 90% of LEP uninsured populations speak one of 12 languages, with the vast majority, 72%, speaking Spanish or Chinese. Overall, there is a wider variance of languages spoken among the LEP Medicaid population compared to the LEP uninsured population, although this varies by borough. In the Bronx, over 86% of Medicaid/Low Income Assistance insured and uninsured populations that have LEP speak Spanish.

Income

The median household income in the Bronx is approximately $34,300 per year, significantly lower than NYC ($51,000) and NYS ($57,000). Over one-quarter (29%) of households in the Bronx lives below the federal poverty level, compared to just under one-fifth (19%) in NYC and approximately 14% in NYS. These figures are not adjusted for the higher cost of living in New York City compared to other parts of the State. There are relatively high rates of poverty throughout the Bronx, with the highest rates of poverty in Hunts Point-Mott Haven, where nearly half of households have incomes below the federal poverty level (FPL).[107] There are also high rates of poverty in Highbridge-Morrisania, Crotona-Tremont and Fordham-Bronx Park where approximately 25%-40% of households have incomes below the FPL.[108] These are also the areas of the county with the highest rates of unemployment. As described by key informants, poverty has implications for communities and families.(See Appendix A. Maps 4-5.)

[106] U.S. Department of Health and Human Services. http://www.hhs.gov/ocr/civilrights/resources/specialtopics/lep/ Accessed October 30, 2014.
[107] US Census, American Community Survey, 5 year data, 2008-2012
[108] Ibid.

Living in poor community, you have poor quality schools. You have lack of safety in your streets. The air quality is bad. (Key informant, provider)

It's cheaper to eat rice and chicken. So finances have a lot to say also with food choices, because if you have a large family and you want, you know, the food to go longer or further with the number of people in the household, what is it you're buying? Is it more expensive to buy oranges, grapes, strawberries and watermelon than it is to have other items that may not be as nutritious? (Key informant, community based organization)

Education

Educational levels in the Bronx are substantially lower compared to citywide averages, independent of insurance status. Citywide, the uninsured have higher rates of completion of some college or higher relative to the Medicaid population (41% compared to 31%). This relationship is less strong in the Bronx. Thirty-one percent of the uninsured in the Bronx have completed some college, compared to 27% for those with Medicaid insurance. Within NYC, this finding may be explained by a sizable proportion of immigrants completing higher education credentials in their native lands. This may suggest that less educated immigrant groups are migrating to the Bronx. Still, in context, these education figures are far lower when compared to other types of insurance, with 45% of this population completing some college in the Bronx.

Table 12 - Educational Attainment for Population with No Health Insurance

Region	No Health Insurance Coverage			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	30%	29%	20%	21%
Bronx	39%	30%	20%	11%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 13 - Educational Attainment for Population with Medicaid/Low Income Medical Assistance

Region	Population with Medicaid/Low Income Medical Assistance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	40%	29%	19%	12%
Bronx	47%	26%	20%	7%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 14 - Educational Attainment for Populations with Other Insurance

Region	Other Insurance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	11%	22%	22%	45%
Bronx	18%	26%	28%	27%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Employment Rates

The unemployment rate not seasonally adjusted for New York City was 6.1% in September 2014, according to the New York State Department of Labor.[109] The Queens rate was 5.4%; Bronx, 8.5%; Brooklyn, 6.6%, and Manhattan, 5.1% .[110] For young adults, the employment situation is dire.

> *There's little doubt that New York is facing a youth employment crisis. In 2012, the unemployment rate for young adults ages 16 to 24 was 18.6 percent—more than double the citywide average, and twice as high as for any other age cohort. Last year, only 29 percent of 16 to 24 year olds were employed or seeking work. In 2012, among the nation's 100 largest metro areas, New York City ranked 92nd in the rate of 16-19 year olds employed, and 97th for 20-24 year olds.*[111]

Interpretation of labor statistics is made difficult by a number of factors. Since unemployment rates count only persons still in the labor forces, a disproportionate number of persons of color who no longer seek work would lower those groups' unemployment rates. Additionally, there is no accurate count of employment by informal arrangement such as day labor, domestic labor and child care.

It is noteworthy that, currently and historically, unemployment rates are higher for persons with less than a college degree[112] and persons of color.[113] Low educational attainment and a high proportion of persons of color in our service areas can correlate to high unemployment in groups served by our healthcare system. Medicaid beneficiaries and the uninsured are more likely to have higher rates of unemployment or employment in low-paying positions, some of which may be "off the books." Employment with insurance benefits is hard to come by for many low income and/or immigrant populations as jobs are hourly or seasonal.

Medicaid

Medicaid beneficiaries in the Bronx represent 14.1% of the Medicaid beneficiaries in New York State (821,339 of 5,835,794), while comprising 7.1% of the overall State population. The percentage of the

[109] New York State Department of Labor. http://labor.ny.gov/stats/laus.asp. Accessed November 7, 2014.
[110] http://www.labor.ny.gov/stats/PressReleases/county_rates.pdf
[111] Gonzalez-Rivera, C., (September 2014) *Bridging the Disconnect. https://nycfuture.org/research/publications/bridging-the-disconnect. Accessed November 7, 2014.*
[112] http://www.bls.gov/emp/ep_chart_001.htm
[113] http://www.bls.gov/web/empsit/cpsee_e16.htm

total population who are Medicaid beneficiaries varies across ZIP Codes from 17.5% to 84.2%, with an overall percentage for the borough of 59.2%. (See Appendix A, Map 1.) The highest proportion of the population who are Medicaid beneficiaries are in a single large cluster that reaches from the Fordham – Bronx Park area between the Botanical Garden and the Harlem River in the north, and continues southward along both sides of the Grand Concourse through Morris Heights, Mouth Hope, Highbridge – Morrisania, to Mott Haven.

Older Adults/ Dual Eligible Beneficiaries

There are a number of low-income adults who are dually-eligible for Medicaid and Medicare the Bronx. Approximately 60% of the Bronx older adult population of 147 thousand is dually eligible for Medicaid and Medicare.[114] Bronx "duals" account for approximately 20% of all dually eligible individuals in NYC, and approximately 10% in NYS.[115] Dual eligible individuals live in many parts of the borough with the highest numbers in parts of Fordham-Bronx Park, Crotona-Tremont, and Highbridge-Morrisania. (See Appendix A, Map 2 and Appendix B, Table 23.)

Uninsured

In the Bronx, approximately 217,000 people are uninsured, accounting for approximately 10% of all the uninsured individuals in New York State.[116] Adults between the age of 18 and 65 account for the largest proportion of uninsured in the Bronx, with a rate of 20% versus approximately 2% among those aged 65 and older, and approximately 5% among children aged 0-17. (See Appendix B, Table 22.) Within the borough, the highest number of uninsured are clustered in parts of Fordham-Bronx Park south through to Hunts Point-Mott Haven. (See Appendix A, Map 3.)

A significant portion of the uninsured in the Bronx may be undocumented.[117] Despite health reform, data suggest insurance coverage remains problematic (or is increasingly problematic) even for those eligible.[118] Income restrictions for Medicaid are considered unrealistically low, and self-purchased coverage is repeatedly described as too expensive, given the difficulties of paying for basic necessities including food and housing.

> *I would say that poverty is the main concern because people are finding it - number one, they're unemployed or they're underemployed or they're working places where they cannot get health insurance and now with the new law, they must have health insurance. So they - like I said, if - when people have to decide between having health insurance and having food in their stomach, they'd rather eat (Key informant, community based organization)*

[114] New York State Department of Health, 2012 data. Note, it is possible to be dually eligible for Medicare and Medicaid if you have a low-income and are long term disabled, without being over the age of 65.
[115] Ibid.
[116] US Census, American Community Survey, 5 year data, 2008-2012.
[117] NYAM primary data findings, September 2014.
[118] Ibid.

Lack of health insurance was reported to result in reduced use of preventive and community based care and increased emergency department use.[119]

Effects of New York State Health Exchange

Largely due to the establishment of the New York State Health Exchange in January 2014, more than 660,000 New York City residents enrolled in Medicaid and an additional 157,000 enrolled in a Qualified Health Plan (QHP). [120] Given that 93% of Medicaid enrollees and 63% of QHP enrollees were uninsured at the time of enrollment, it has been estimated that a more current number of citywide uninsured is 450,000.[121,122]

The greatest increase in recent Medicaid enrollees occurred in neighborhoods that had the highest uninsured rates.[123] As an example, Sunset Park West in Brooklyn previously had approximately 25 percent of its 54,000 population uninsured. Over the past year, the 11220 ZIP Code which overlaps with Sunset Park West saw 16,303 people enroll in Medicaid and 1,667 enroll in a QHP. Flushing, Queens also previously had an uninsured rate above 25 percent of its 72,000 population. Over the past year, the 11355 ZIP Code enrolled 13,434 in Medicaid and 2,203 in a QHP, and ZIP Code 11368 enrolled 12,480 people in Medicaid and 1,625 people in a QHP.[124]

Ambulatory Difficulties and Disability

Among Bronx households, 29.1% have a disabled household member (someone with a hearing, vision, cognitive, ambulatory, self-care, or independent living difficulty). The comparable percentage for NYC is 21.2% and for New York State is 22.5%.

Approximately 44.2% (64,949) of Bronx residents aged 65 and older have an ambulatory difficulty, comparable to NYC (42.5%) and NYS (39.8%).[125] Among Bronx residents aged 18-64, approximately 7% (60,771) have an ambulatory difficulty, higher than the rate in NYC (4.3%) overall and NYS (4.4%).[126] Within the Bronx, ambulatory difficulty among the age 65+ population is concentrated in Mott Haven and Hunts Point, extending to the northeast through Soundview, Parkchester and Pelham Parkway. For those aged 18-64, the rates are much lower but ambulatory difficulty still affects a sizable number of people, with a similar concentration in Mott Haven and Hunts Point but extending more directly north rather than northeast. (See Appendix A, Maps 11-12 and Appendix B, Table 25.)

Individuals with disabilities and ambulatory difficulties may have multiple barriers to access to care, including inadequate transportation services, providers that lack appropriate accommodation for

[119] Ibid.
[120] Dan Goldberg, "Dan Mapping Obamacare by New York City ZIP Code," *Capital New York*, October 20, 2014, accessed October 30, 2014
[121] New York State Department of Health: The Official Health Plan Marketplace 2014 Open Enrollment Report, June 2014
[122] Goldberg.
[123] Ibid.
[124] Ibid.
[125] Ambulatory difficulty is self-reported data in response to the American Community Survey question "Does this person have serious difficulty walking or climbing stairs?" Source: US Census American Community Survey 5-year, 2008-2012.
[126] Ibid.

individuals with disabilities or are insensitive to these individuals, and practice rules (e.g., visit lengths that are inconsistent with appropriate care).[127] Examples of access barriers—and their implications—were described by a key informant working in the field. The barriers are considered even more significant in community provider settings as compared to hospital settings.[128]

- *A requirement, for example, that you come to an appointment timely, or if you miss an appointment three times, you can be dis-enrolled from a program or a provider. If you use Access-a-Ride for example, it is almost impossible to know when you will arrive at a location on a consistent basis. The service is simply of such poor quality that if you cannot use the subways where you need to go, or the buses, and you need door-to-door transportation, you need flexibility in appointment scheduling.*

- *In the health setting, practitioners are often listed – clinics are often listed as being wheelchair accessible in managed care program directories. But in fact, according to a survey by the Community Service Society, it was found that these practitioners have steps at their front entrance. The providers don't even know what accessibility means. And so they list themselves as accessible, but when you go to their site or you call them on the phone, they'll say, "Oh yes, we have a few [steps] at our entrance, but that's no big deal."*

- *We have people who avoid health practitioners because they are routinely stigmatized and humiliated. The No. 1 problem people with disabilities have cited to us in studies is that they're dealing with practitioners who do not understand their disability, and who do not treat them with respect. People will go to the health practitioner, and if there's an aide with them, the health practitioners will address themselves entirely to the aide. As if the person sitting with a disability in front of them is not the person to whom they should be directing their comment, is not in charge of themselves, is not able to communicate, is not a thinking person. People with disabilities that are physical often complain that people treat them as if they have a low IQ.*

Housing: Types and Environment

Approximately 30% of Bronx households are headed by a female with no spouse, accounting for approximately 14% of all such households in NYS.[129] Approximately 30% of all households in the Bronx are comprised of a single person living alone.[130] (See Appendix B, Table 19.) A number of focus group participants expressed concerns about single parent households, feeling that they are in need of supports:

> *Like counseling for a lot of people in this community because we have a lot of broken families, which is single mothers, and single fathers, too. And that's why a lot of our youth have the tendency to don't continue in school, and get into drugs. And also men, you know, and women are getting into drugs. So I think that we should have more services – programs, services that*

[127] NYAM primary data findings, September 2014.
[128] Ibid.
[129] US Census American Community Survey, 5 year data table, 2008-2012.
[130] Ibid.

they could allot for counseling regarding help about how to deal with divorce, how to deal with a parent leaving, things like that. (focus group participant)

Serious Housing Violations[131] and Housing Environment

Many lower income populations live in apartments with poor maintenance, but given the restricted options, they have little leverage when advocating for repairs. Higher rates of serious housing violations per 1,000 units are found along either side of the Grand Concourse from Highbridge to Fordham – Bronx Park.[132] (See Appendix A, Map 15.) Concerns about housing, including high rents and poor conditions, are a significant source of stress for lower income residents.[133]

Housing big, big need. You have individuals that are complaining that landlords are converting their buildings into shelter-like settings and offering tenants that have been there for several years $5,000, $6,000 to move out so that they can convert that building and secure city funding and reimbursement for that type of client profile or tenant profile (key informant, community based organization)

As noted above, there are approximately 97 NYCHA Developments and 124 NYCHA Community Facilities located in the Bronx. [134] NYCHA community facilities and shelters appear to be located predominantly in the southern Bronx neighborhoods of Crotona – Tremont, Highbridge–Morrisania and Hunts Point – Mott haven (though the eastern portion of Hunts Point – Mott Haven appears to have very few of these resources). Comparatively, Northeast Bronx, Kingsbridge – Morrisania and Pelham – Throgs Neck seem to have few housing resources. (See Appendix A, Maps 90-91.)

Homeless Population

The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed, and which may be, in turn, further exacerbated by homelessness. According to a key informant that works with the homeless:

A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients.

[131] "Serious housing violations" are Class C (immediately hazardous) housing code violations issued by the NYC Department of Housing Preservation and Development.
[132] State of New York City's Housing and Neighborhoods in 2013: The Bronx. NY: NYU Furman Center; 2013:22.
[133] Ibid.
[134] This compares to 103 NYCHA developments and 146 community facilities in another large NYC borough, Brooklyn, and 352 NYCHA developments and 536 community facilities in NYC overall. New York City Housing Authority (NYCHA) "NYCHA Development Data Book," as of 2014. New York City Housing Authority "Directory of NYCHA Community Facilities," as of 2013.

I think on the Families with Children side, there is a very significant proportion of our families coming in because they are domestic violence [DV] victims. And, they may not qualify for a DV shelter. That's something that's determined at our intake center. Or, they may decline going to a DV shelter – even though they qualify for it. Of course, the psychological and sometimes physical ramifications of having been a DV victim – for both the Head of Household – the responsible parent – and for the kids is very, very significant.

Homeless New Yorkers tend to be disconnected from primary care and a medical home and are reportedly frequent users of emergency departments. According to the key informant cited above:

Our clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street.

She attributes a portion of this lack of coordination to hospital and provider practice:

If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not happening. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our Family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient.

Key informants in multiple fields emphasized the importance of supportive housing for high need homeless. Other recommendations included improved coordination of care, more efficient use of services, and improved health focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service.

Group Quarters - Institutionalized Populations

In the Bronx, there are approximately 47,000 residents living in Group Quarters with 25,000 residing in institutional settings. Nearly half of the institutionalized population lives at Riker's Island. In total, 12,100 live in Adult Correctional Facilities, 450 live in Juvenile Facilities, 11,700 live in nursing facilities (including skilled nursing facilities) and 1,200 live in other institutional facilities (comprises hospital, inpatient hospice, psychiatric hospital, military treatment facilities and residential schools for people with

disabilities)[135]. There are another 15,000 residents living in other non-institutionalized facilities (comprises shelters, adult group homes, adult residential treatment facilities, and religious or work group quarters) in the county. The PUMA neighborhoods with the largest institutional populations include – Co-op City (1,200), East Concourse-Concourse Village (700), North Riverdale-Fieldston-Riverdale (1,200), Hunts Point (900), Van Cortlandt Village (800), Spuyten Duyvil-Kingsbridge (900), Kingsbridge Heights (900), Allerton-Pelham Gardens (1,600), Van Nest-Morris Park-Westchester Square (700), Williamsbridge-Olinville (900) and Riker's Island (11,000).

Crime and Jail Admissions

While crime has been declining overall in NYC for the past 15 years, the issue persists in parts of the Bronx.[136] Data suggests that the highest rates of serious crime in the borough are in the South Bronx. (See Appendix A, Map 14.) Residents describe a proliferation of guns, particularly among young people, and fear of "who's crazier than you out there." Despite reported declines, violence and safety were significant concerns in certain Bronx communities, limiting engagement in physical activity for children and adults.[137]

Along with a declining crime rate and Rockefeller drug law reforms in 2009, the number of new NYC Jail and NYS Prison admissions has been steadily declining over the past 15 years.[138] Despite the reductions in crime and incarceration, concerns around aggressive policing practices remain a concern to key informants that work with affected populations, who emphasized the diminished life chances resulting from involvement in the criminal justice system. Key informants also highlighted the need to place a greater emphasis on alternative to incarceration and disincentives for inappropriate guilty pleas, particularly for crimes, like sex work, that may be motivated primarily by the need to survive rather than by criminal intention.[139]

> *I mean we're big supporters of not having young, black and Latino men get criminal records that early in their lives. Then what happens to them when they're at Rikers and in the prison system? And then what happens when they come back and are there jobs for them, and what are they going to wind up doing, and what kind of diseases are they exposing themselves to? (Key informant, community based organization)*

[135] Source: U.S. Census Bureau, 2010 Census, Population Division - New York City Department of City Planning (July 14, 2011).
[136] Brennan Center "How NYC Reduced Mass Incarceration". Accessed August , 2014 at http://www.brennancenter.org/sites/default/files/publications/How_NYC_Reduced_Mass_Incarceration.pdf
[137] NYAM primary data findings, September, 2014.
[138] Brennan Center for Justice at New York University School of Law "How NYC Reduced Mass Incarceration".
[139] Ibid.

Domestic Violence

Domestic violence is a topic that resonated with several interviewees and focus group participants as a significant community concern that has received inadequate attention. Of Bronx survey respondents, 31% reported that health education or programs on domestic violence are needed in their community. Although not necessarily more prevalent, domestic violence issues were particularly relevant in immigrant communities, due to possibly different standards in their home country as compared to the US, stigma, lack of linguistically and culturally appropriate resources, and fear of deportation—particularly in mixed immigration status families. Immigrant groups coming from war-torn countries may also perpetuate the violence they experienced. Examples of comments from key informants and focus group participants include:

> *There are these young men in his community that the image that they have always seen when they were growing up was the way that their fathers would treat their mothers, right? And then they realized later on when they were kind of able to unpack it and get treatment was really, when you come from communities who have been just so devastated by war and by trauma, that what was happening to the fathers and their uncles is that a lot of times they didn't get treatment. They were totally traumatized, and they were taking it out on the mothers. So that's how – so these young men were growing up thinking, well, that's how you treat women. (key informant, immigrant focused organization)*

A provider, working for many years with low-income children, described the perceived pervasiveness of domestic violence:

> *Our psychologist in our early childhood program I asked him what percentage of kids in our early childhood program he thought has [observed] domestic violence and he said 100 percent (key informant, provider)*

Population Trends

New York City is projected to grow from 8.2 million persons in 2010 to 8.5 million in 2020, an increase of 308,000 or 3.7 percent. Between 2020 and 2030, the growth rate in New York City is projected to increase by 3.2 percent. The Bronx is projected to grow from 1,385,000 in 2010 to 1,447,000 in 2020, an increase of 4.5 percent—the highest level of growth among the city's boroughs. From 2020 to 2030, the growth rate will expand further to 5%, adding another 72,000 Bronx residents. High growth age groups (defined as a 20% increase) among males from 2010 to 2020 include 25-29, 60-64, 65-69, 70-74 and 75-79 years while it is expected that there will be a population decline (of more than 5%) among 15-19, 40-44 and 45-49 year old males. Among females over the same time period, high growth age groups include 60-64, 65-69, 70-74 years, while it is expected that there will be a population decline among females aged 15-19, 40-44, and 45-49 years.

The Bronx is expected to have a 2.3% decrease in school-age children from 2010-2020, this population decreasing from 266,000 in 2010 to 259,000 in 2020. From 2020-2030, the growth rate is expected to rebound and grow to 7.3%, adding 19,000 school-age children in the Bronx. The population aged 65 years and older in the Bronx is expected to grow 17.8% from 2010 to 2020, expanding by 26,000 (from 146,000 to 172,000). The growth rate is expected to expand to 23.6% from 2020 to 2030, adding an additional 41,000 seniors to the Bronx population. [140]

Section ii: Health Status

According to Bronx residents completing the CNA survey, the greatest health concerns in their community are diabetes (55%), drug and alcohol use (47%), hypertension (41%), asthma (39%), obesity (35%), and cancer (34%). The most common self-reported health problems were hypertension (26%), asthma (20%), chronic pain (20%), high cholesterol (19%), and depression or anxiety (19%). Approximately 34% of respondents were overweight and 31% were obese; 25% described their health as fair or poor. Community residents participating in focus groups echoed these concerns and also added behavioral health issues such as depression and anxiety. Violence was also commonly cited as a significant problem in the Bronx. These overall findings correlated to information provided by key informants and focus group participants, for example:

> *I'm looking at obesity, I'm looking at smoking, I'm looking at and hearing as well as diabetes, hypertension. You know, we have a senior population that's also in poverty mode (key informant, community based organization)*

Leading Causes of Death and Premature Death

In New York City in 2012 the leading causes of death were diseases of the heart, which included coronary artery disease (CAD) and myocardial infarction, malignant neoplasms (cancer) and influenza and pneumonia. (See Table 15.) Heart disease and cancer accounted for 57% of all deaths in New York City. (See Table 15.)

Table 15 - Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%
2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%

[140] New York City Department of City Planning, New York City Population Projections by Age/Sex and Borough, 2010-2040 (Updated from the original PlaNYC Projections, 2000-2030), Accessed November 6, 2014.

8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

In the Bronx, the top six causes of death mirrored those of the city overall. In the Bronx, the seventh leading cause of death was "use of or poisoning by psychoactive substance," typically a drug overdose. The eighth leading cause of death in the Bronx was HIV disease, accounting for 2% of all deaths. (See Table 16.)

Table 16 - Leading Causes of Death, Bronx, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	2,650	30.6%
2	Malignant Neoplasms	2,028	23.4%
3	Influenza (Flu) and Pneumonia	405	4.7%
4	Diabetes Mellitus	321	3.7%
5	Chronic Lower Respiratory Diseases	281	3.2%
6	Cerebrovascular Disease	242	2.8%
7	Use of or poisoning by psychoactive substance	192	2.2%
8	Human Immunodeficiency Virus Disease	173	2.0%
9	Essential Hypertension and Renal Diseases	165	1.9%
10	Accidents Except Drug Poisoning	156	1.8%
	All Other Causes	2,036	23.5%
	Total	8,649	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Leading Causes of Death by Age

Table 32-34 (See Appendix B) provides the leading causes of death for City residents in 2012 by age groupings that include persons from less than one year old to age 85 and older. It is notable that assault ranked as the number one cause of death for age group 15-24; malignant neoplasms were the leading cause of death in age group 1-14 and all age groups 35-74. In the latter age groups, diseases of the heart was the second most common cause of death and the most common cause of death for persons 75 and older. For City residents ages 25-54, use of/accidental poisoning by psychoactive substances was the first leading cause of death, accounting for 27% of deaths in that age group.

Causes of Death by Sex

The three leading causes of death in 2012 were the same for men and women, with similar percentages of mortality. For men, the fourth and fifth leading causes of death were the same as for the City as a whole—diabetes and chronic lower respiratory diseases. For women, the fourth leading cause of death was cerebrovascular disease, followed by diabetes mellitus. For men, accidents (except for drug poisoning) were a prominent cause of death, ranked at number 6; for women it was the ninth leading cause of death. Death by use of - or poisoning by - psychoactive substance exposure, typically a drug overdose, was the eight leading cause of death for men in the City, followed by essential hypertension and renal disease, and HIV disease. For women, Alzheimer's Disease was the eighth leading cause of death, followed by accidents (except drug poisoning) and septicemia. (See Table 17.)

Table 17 - Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total Reported	%	Causes of Mortality	Total Reported	%
	Males			**Females**		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%
4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory Diseases	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and Renal Diseases	562	2%
8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Causes of Mortality by Race

Causes of death differ by racial grouping. Diseases of the heart and malignant neoplasms were the first two leading causes for Hispanics, White non-Hispanics and Black non-Hispanics in 2012. Among Asians and Pacific Islanders, the order of these two causes was reversed. For non-Hispanic Whites, the two leading causes accounted for 62% of mortality, while the two leading causes accounted for 51% of deaths in Hispanics and 57% of deaths for Asians and Pacific Islanders. The remaining leading causes of death varied by racial group. Altogether, the 10 leading causes of death account for 74% of mortality in Hispanics, 80% in non-Hispanic Whites, 79% in non-Hispanic Blacks, and 81% in Asians and Pacific Islanders. (See Table 18.)

Table 18 - Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			White, Non-Hispanic			Black, Non-Hispanic			Asian and Pacific Islander		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Trends in Mortality Causes in New York City

From 2002 to 2012 the three leading causes of death in the City overall have remained the same: diseases of the heart, malignant neoplasms, and influenza and pneumonia. In 2002, HIV disease was the fifth leading cause of death; in 2012 it is no longer in the top 10. In 2002, cerebrovascular disease, diabetes and chronic lower respiratory disease each accounted for 3% of deaths; the percentages did not change in 2012 although their relative rankings varied. The percentages of deaths from hypertension and renal disease rose one point in 2012 relative to 2002 and 2007, from 1% to 2%. In 2012, Alzheimer's Disease appeared in the top ten causes for the first time in 2012 (at number 10), accounting for 1% of deaths that year. Percentages of deaths due to accidents (except for drug poisoning and use of - or poisoning by -psychoactive substance) did not change from 2002 through 2012.

Table 19 - Leading Causes of Death, NYC, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			2007			2012		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Premature Deaths

In New York City in 2012 the leading cause of premature deaths, that is, deaths before the age of 65, was cancer, followed by diseases of the circulatory system (including heart disease), and accidents. Overall, 14,407 premature deaths were recorded in 2012, with 224,047 years of life lost. (See Table 20.)

Table 20 - Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in the Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drownings	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010
Homicide and Legal Intervention	400	14,196	341	12,356	59	1,840
All Other Causes	2,324	39,249	1,357	22,315	967	16,934

Premature death is defined a death before age 65. Years of Life Lost (YLL) is calculated by subtracting the age of death from age 65.
Source: The New York State Department of Health, Vital Statistics, 2012, accessed December 2, 2014

Leading causes of death by payer

The data in the table X below compares decedents who were enrolled in Medicaid in the year before their deaths and those who were not enrolled. The top four leading causes are the same: heart disease, cancer, chronic lower respiratory disease (CLDR) and cerebrovascular disease. Suicide is ranked in the top ten causes of death for non-enrollees, but not for Medicaid enrollees. Alzheimer's disease ranks higher among those enrolled in Medicaid, and while hypertension is among the top ten causes of death for enrollees, it is not ranked among non-enrollees.

Table 21 - Ten Leading Causes of Death by Medicaid Status, New York State, 2012

	Non-Medicaid		Medicaid*	
Rank	Underlying Cause of Death	Deaths	Underlying Cause of Death	Deaths
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

Source: MJ Sharp, LD Schoen, T Wang, TA Melnik. Leading causes of death, New York State, 2012. New York State Department of Health, Office of Quality and Patient Safety, Bureau of Vital Statistics. Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.

Hospitalizations by Age Payer Group, and Diagnoses

Of the 1.08 million inpatient discharges by NYC hospitals in 2013, 16% were made by patients ages 0 to 17; 27%, ages 18 to 44; 26%, ages 45 to 64, and 30%, age 65 and older. Fifty-five percent of visits were by female patients, with 45% by males. Medicaid was the primary payer for 39% of visits, Medicare 32% Commercial 24%, Uninsured 3.4%, and Other payers 2%. Over the 4 year time period from 2010 to 2013, inpatient discharges decreased 7.4% city wide and the average length of stay declined 1.1% from 5.69 to 5.63 days. The greatest decrease in the number of discharges occurred in Queens with a decline of 9.6%, while the Bronx had the smallest decline, at 6.6%.

The main causes for hospital admissions were stable between 2010 and 2013, and across boroughs. Newborn and newborn related was the main reason for admission in all four boroughs and both time periods. Heart disease, digestive disease, and respiratory disease all had similar rates in all boroughs, with the exception of the Bronx, where respiratory disease was more common. Table X lists primary diagnoses for discharges Citywide and by borough in 2010 and 2013.

Table 22 - Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/ Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/ Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	**1,160,535**	**1,075,159**	**199,603**	**185,181**	**223,597**	**208,937**	**353,202**	**325,700**	**210,057**	**189,945**

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Among leading potentially avoidable admissions, circulatory conditions followed a similar pattern, having higher rates than respiratory and diabetes in all boroughs except the Bronx, where respiratory

conditions was more common. Observed (actual) rates of admission for all three disease categories declined from 2009 to 2012 in all boroughs.

Table 23 - Potentially Avoidable Inpatient Discharges (Composite PQI), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	2012	2009	2012	2009	2012	2009	2012
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	1,547	1,360	1,453	1,318
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	1,615	1,398	1,874	1,641
	Observed/Expected	1.46	1.38	0.99	1.06	0.96	0.97	0.78	0.80
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	246	230	243	225
	Expected Rate Per 100,000	369	336	337	289	250	227	296	272
	Observed/Expected	1.50	1.47	1.15	1.20	0.99	1.01	0.82	0.83
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	357	304	289	269
	Expected Rate Per 100,000	493	437	458	378	365	319	426	374
	Observed/Expected	1.69	1.60	0.96	1.04	0.98	0.95	0.68	0.72
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	425	350	427	386
	Expected Rate Per 100,000	590	499	590	464	456	380	543	462
	Observed/Expected	1.40	1.31	1.04	1.08	0.93	0.92	0.79	0.83

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Emergency Department Visits

Of the 2.9 million ED visits by city residents in 2013 (excluding Staten Island), 24% were by patients ages 0 to 17; 44%, ages 18 to 44; 23%, ages 45 to 64, and 9%, age 65 and older. Fifty-four percent of visits were by were female patients, with 46% by males. Medicaid was the primary payer for 46% of visits, Commercial 19%, Medicare 10%, Uninsured 19%, and Other payers 4%. The table immediately below lists primary diagnoses for ED visits in 2010 and 2013.

Table 24 - ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013

Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Compl. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Access to an adequate amount, and mix of outpatient care and other community resources can reduce hospitalizations and ED visits related to Ambulatory Care Sensitive Conditions (ACSC) -- medical problems which could potentially be prevented, or for which early intervention could prevent complications or more severe disease.

The Gap Between Community Resources and Needs

The number of potentially avoidable ED visits and admissions therefore represents the Gap between community resources (provider and non-provider) and the needs of the Medicaid community, or unmet need. The Gap between resources and needs among neighborhoods and boroughs can be compared to each other, or to the Statewide average after adjusting for demographic differences, such as age, gender, and race / ethnicity. Neighborhoods with greater challenges such as higher disease prevalence, poverty rate, or English language proficiency may require a greater level of and perhaps different mix of resources.

The following categories of potentially avoidable hospital utilization are discussed throughout this section:

1. Medicaid Potentially Avoidable ED visits (PPV)
2. Medicaid Adult Overall Conditions Composite Hospitalizations (PQI 90)
3. Medicaid Adult Acute Conditions Composite Hospitalizations (PQI 91)
4. Medicaid Adult Chronic Conditions Composite Hospitalizations (PQI 92)
5. Medicaid Adult Respiratory Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Medicaid Adult Respiratory Conditions Composite Hospitalizations (PQI S03)
        i. Asthma Prevalence and percent with a hospital admission and ED visit
        ii. COPD and Asthma in Older Adults Hospitalizations (PQI 05)
        iii. Asthma in Younger Adults Hospitalizations (PQI 15)
        iv. Pediatric Asthma ages 2-17 Hospitalizations (PDI 14)
6. Medicaid Adult All Circulatory / Cardiovascular Disease Conditions
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Circulatory Conditions Composite Hospitalizations (PQI S02)
        i. Hypertension Hospitalizations (PQI 07)
        ii. Heart Failure Hospitalizations (PQI 08)
7. Medicaid Adult All Diabetes Composite
    a. Prevalence; Percent with a hospital admission and ED visit
    b. All Diabetes Composite Hospitalizations (PQI S01)
8. Medicaid Behavioral Health
    a. Prevalence; Percent with a hospital admission and ED visit
    b. Mental Health Prevalence and percent with a hospital admission and ED visit
    c. Substance Abuse Prevalence and percent with a hospital admission and ED visit

9. Total Population HIV/AIDS
    a. People living with HIV/AIDS (PWHA)
    b. Prevalence; Percent with a hospital admission and ED visit

Note that a limitation in this way of measuring the gap between resources and needs is that while it does allow comparison across diseases and across geographic areas, it does not identify the amount and type of resources needed to reduce the gap, for example additional primary care providers and which type; language and cultural sensitivity; patient education; and transportation.

The terms used to measure ambulatory care sensitive conditions are as follows:

- Prevention Quality Improvement (PQI) is a set of measures developed by the federal Agency for Healthcare Research and Quality (AHRQ) for use in assessing the quality of outpatient care for a set of ACSC conditions. The PQIs are measured as a number of discharges or a discharge rate for a specific condition or disease for a given population. See Appendix E for a list of all condition (disease) specific PQI discharges and rates by neighborhood.
    - Observed PQIs may be described as the "actual" number of discharges. The Observed PQI rate (per 100,000 people) is the number of PQI discharges divided by the population. Lower rates represent better results.
    - Expected PQIs are Observed PQI discharges adjusted for age, gender, and race / ethnicity. The expected PQI rate (per 100,000 people) is the number of PQI discharges divided by the population.
    - Risk Adjusted PQI rate (per 100,000 people) is calculated by dividing the observed PQI rate by the expected PQI rate, multiplied by the statewide PQI rate. This has the effect of adjusting for demographic and case mix factors.
    - Observed to Risk Adjusted Expected gap quantifies the gap in absolute numbers of potentially avoidable hospital encounters.
    - Observed / Risk Adjusted Expected rate ratio is the ratio of "actual" PQI discharges to expected discharges, adjusted for age, sex, and race/ethnicity. Lower number is better.

- Potentially Preventable Visits (PPVs), based on proprietary 3M software, are emergency visits for ambulatory care sensitive conditions (ACSC) that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or eliminated with adequate patient monitoring and follow up. Unlike with PQIs, which can be disease specific, there is only one PPV indicator which represents all potentially avoidable ED visit regardless of condition or disease.
    - PPV Events are observed or "actual" ED visits that meet the criteria of an ACSC visit as defined by the 3M software. The Observed Rate is the number of PPV events divided by the population.
    - Risk Adjusted Expected Visits are PPV visits adjusted by age, gender and race/ethnicity. The Expected rate is the number of Expected visits divided by the population.
    - Risk Adjusted Expected Rate is the observed PPV rate divided by the expected PPV rate, multiplied by the statewide PPV rate. A lower number is better.

While not considered in this analysis an ambulatory care sensitive condition, Potentially Preventable admissions are included in this section due to their nature of being avoidable.

- Potentially Preventable Readmission (PPR), is based on proprietary 3M software and as used in this report, identifies hospital admissions clinically related to an initial admission within a 30-day time period from the discharge date of the initial admission. A PPR approximates admissions that may have resulted from a deficiency in the process of care and treatment at the initial hospitalization or lack of post discharge follow up, and exclude unrelated admissions such as admissions for trauma. Therefore, PPR readmissions are linked to the initiating hospital regardless of whether the readmission is to the same or different hospital.
    - At-Risk Admissions are the total number of admissions at a hospital that could be followed by a PPR readmission as defined the software.
    - Observed PPR Chains are the number admissions at the initiating hospital followed by a readmission. Observed PPR Rate is the ratio of observed chains (readmissions) to At Risk admission.
    - Expected PPR Chains are the number of admissions at the initiating hospital followed by a readmission, adjusted for patient severity of illness (APR-DRG) and age. Expected PPR rate is the ratio of expected chains (admissions) to at-risk admissions.
    - Risk Adjusted Expected PPR Rate is the ratio of the Observed rate to the Expected rate, multiplied by the Statewide PPR rate. A lower number is better.

Source: New York State DOH Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Data Update

The PQI and PPV data used in this Appendix E reflects the most current updates, November 26, 2014 and may not match exactly comparable statistics in the report, which used original data as of June and August, 2014. Any changes resulting from the November update have not affected the findings of the report.

ASTHMA/RESPIRATORY CONDITIONS

While the observed rate of PQI respiratory admissions has declined in the Bronx since 2009, it remains far above the expected rate, with an Observed/Expected ratio of 1.42 for the Respiratory Composite PQI. (See Appendix B, Tables 75-76.) There were 4,116 Respiratory Composite (PQI S03) PQI hospitalizations in the Bronx in 2012. (See Appendix B, Table 75-76.) This includes 3,383 COPD or Asthma in Older Adults (PQI 05) PQI hospitalizations and 733 Asthma in Younger Adult (PQI 15) PQI hospitalizations. (See Appendix B, Table 75.) The areas of the Bronx with the highest PQI respiratory composite hospitalizations are located in a corridor that runs from parts of Fordham-Bronx Park south along both sides of the Grand Concourse to Hunts Point – Mott Haven. (See Appendix A. Map 41.)

When looking at the location of asthma health care resources in relation to Respiratory Composite PQI hospitalizations (See Appendix A Map 73), there appears to be fairly good alignment of health care resources to need; however, the relationship of these resources to the prevention of PQI hospitalizations is uncertain, especially when considering additional socio-demographic variables that may be influencing the PQI hospitalization outcome. Limited data is available regarding home environmental triggers. However, data on the rate of serious housing violations by Community District, (i.e., housing code violations that are considered "immediately hazardous or serious") show prevalence in many of the same neighborhoods with high numbers of preventable respiratory PQI hospitalizations (See Appendix A, Map 15).

Asthma in younger adults and children

The highest total Medicaid PQI hospitalizations for asthma among young adults occur along the same corridor as does the PQI respiratory composite. (See Appendix A, Map 52.) Among children in the Bronx who are Medicaid beneficiaries, the asthma rate of 701.47 per 100,000 is higher than the NYC overall rate of 426.91 per 100,000 and the NYS overall rate of 210.39 per 100,000.[141] Childhood asthma rates in the borough range from 418.8 per 100,000 in Kingsbridge-Riverdale to 987.9 per 100,000 in Hunts Point. Additionally, DOH data suggests that the majority, 981 of the 1,865 (52.6%) of pediatric asthma preventable PDI hospitalizations in 2012 were among very young children, aged 2-5.[142]

Asthma in Older Adults

Among older adults in the Bronx, the COPD/Asthma PQI O/E ratio is 1.38, significantly higher than the city ratio of 1.01. (See Appendix B, Table 75) Consistent with other asthma indicators, the highest number of Medicaid PQI hospitalizations for COPD and asthma in older adults are clustered in the corridor from Fordham-Bronx Park south to the South Bronx. (See Appendix A, Map 44.)

CNA participants reported that asthma was among the most significant health concerns in their communities, with causation commonly attributed to indoor and outdoor environmental conditions, some of which are difficult to affect.[143]

> *If you start looking at the statistics, it's very mind-boggling the statistics on asthma in the Bronx. It's mainly related to the built environment. I mean there is a genetic predisposition, no doubt. … But we call it the asthma alley because …you have I87 Highway, you have the Cross Bronx [Expressway], then you have I95. So, there's a triangle in the South Bronx, and the number of trucks—the traffic, 24/7 is jam-packed. And the inner roads all [have] pollution, particulate*

[141] Medicaid Prevention Quality Indicators, 2012.
[142] The asthma PDI is reported for children aged 2-17, but the PDI chronic composite (which includes asthma and diabetes) is reported only for those aged 6-17. Thus the difference (decrease) in numbers between those two measures is a result of the loss of the asthma admissions for children aged 2-5 in the chronic composite. Thus, it is the young children aged 2-5 that represent the bulk of the asthma PDI numbers. As explained in an email transmission from the NYS DOH dated August 25, 2014: "Each PDI has a different age criteria, asthma is 2-17 years, diabetes is 6-17 years, gastroenteritis and uti are both 3 months to 17 years. These 4 PDI make up the overall composite PDI, however, that age criteria is 6-17 years. This results in the loss of patients age 3 months up to 6 years, hence the decrease in numbers. The same situation occurs in the acute and chronic composites. The composite age group is 6-17, however, that doesn't reflect the actual age groups in the individual measures."
[143] NYAM primary data findings, September, 2014.

matter. All those things contribute a lot. And, of course, with the environment of the housing units, you have the mold and the cockroaches, and rodents. People live in conditions which are regularly … We give care to people who come in walking through the door, we don't even do a history of them first, we just treat them in the asthma room. And then we discharge them. So they get the treat right away, but, but, ah, you know, they go back home and they have the same triggers and they get worse. (Key informant, provider)

CARDIOVASCULAR DISEASE

Heart disease is the top cause of mortality among the white, black, and Hispanic populations of the Bronx.[144] It is also second leading cause of premature death in the borough.[145] The age adjusted cardiovascular disease hospitalization rate in the Bronx is 210.8 per 10,000, higher than either NYC (173.6) or NYS (159.9).[146] Similarly the age adjusted mortality rate for diseases of the heart was 225.8 in the Bronx, 212.2 in NYC, and 198.6 in NYS.[147] Within the broad category of heart health , cardiovascular disease , and stroke, the Bronx fares worse than NYC and NYS on all age-adjusted indicators.[148]

In 2012, the number of potentially preventable hospitalizations among Medicaid beneficiaries for circulatory conditions (PQI S02 Circulatory Composite) in the Bronx was 3,173, accounting for about one in five (20.1 %) of all such admissions in the State. (See Appendix B, Table 44.) The ratio of observed/expected (O/E) admissions in the Bronx (1.34) was higher than the ratio for NYC (1.06) for the same time period. (See Appendix B, Table 44.) At the ZIP Code level within the borough, the highest number of preventable hospitalizations and the highest observed / expected PQI ratios for the Circulatory Composite measure are found along the Grand Concourse from Highbridge – Morrisania to Fordham – Bronx Park. (See Appendix A, Map 40 .)

Approximately 185.02 out of 100,000 Medicaid beneficiaries in the Bronx were hospitalized for conditions related to hypertension, compared to 124.02 in NYC and 105.5 in NYS. In 2012, there were 969 potentially preventable hospitalizations among Medicaid beneficiaries for hypertension (PQI 07) in the borough. (See Appendix B, Table 44.) The variation in hospitalization rates for conditions related to hypertension between neighborhoods in the Bronx is wide. For example, the rate in Kingsbridge-Riverdale is 115.66 per 100,000, compared to a rate of 261.85 in the Northeast Bronx. (See Appendix A, Map 45.)

There were 2,013 potentially preventable hospitalizations among Medicaid beneficiaries for heart failure (PQI 08) in the Bronx. (See Appendix B, Table 44.) The range for observed/expected admissions heart

[144] New York City Vital Statistics, "Top Ten Leading Causes of Mortality 2012,"accessed via the EpiQuery interactive tool, August, 2014
[145] Premature deaths (< age 75) for the three years 2010-2012. Vital Statistics Data as of March, 2014, New York State Department of Health - Bureau of Biometrics and Health Statistics
[146] 2009-2011 data reported on the NYS Dept of Health Website County Health Assessment Indicators, https://www.health.ny.gov/statistics/chac/chai/docs/chr_58.htm, accessed September, 2014.
[147] Ibid.
[148] Ibid.

failure was 0.7 to 2.87. The lowest rates in Kingsbridge-Riverdale and highest in Pelham Bay-Throgs neck area. (See Appendix A, Map 46.)

In 2012, adult angina without procedure (PQI 13) accounted for 191 potentially preventable hospitalizations in the Bronx. (See Appendix B, Table 44.) The range for observed/expected admissions for adult angina without procedure is 0.0 to 2.1, with the lowest rates in the Throgs Neck- Pelham Bay and Kingsbridge-Riverdale areas and the highest in Highbridge, Bedford Park, Mott haven, Port Morris, Baychester, Westchester Heights, and Parkchester. (See Appendix A, Map 50.)

The highest rates of cardiovascular-related service utilization (including pharmacy) among Medicaid beneficiaries were found in Kingsbridge – Riverside and Northeast Bronx; however, the highest numbers were found along either side of the Grand Concourse from Highbridge – Morrisania to Fordham – Bronx Park. [149] (See Appendix A, Map 26.) In regard to disease information and support services, these areas of the Bronx with high rates of condition-related utilization and high numbers of circulatory composite PQI hospitalizations appear to have those services available, with the exception of the Fordham – Bronx Park area. Specialty cardiology services similarly appear to be located in or near the areas of greatest need, with the exception of the Fordham – Bronx Park area (See Appendix A, Map 71.)

DIABETES

The diabetes composite PQI (S01) for the Bronx (1.24) is higher than for New York City (1.01) and New York State (1.00).[150] (See Appendix B, Table 44.) Within the Bronx, the range for PQI S01 observed/expected ratios is 0.8 to 2.26. (See Appendix A, Map 39.) Across New York State, only 51% of Medicaid Managed Care beneficiaries with diabetes received all recommended tests in the last year, and 33% of Medicaid Managed Care beneficiaries in NYS with diabetes have poorly controlled HbA1c (>9%).[151]

Hospitalizations

Rates of Medicaid avoidable hospitalizations in the Bronx for short-term diabetes complications are greater than those for New York City and New York State.[152] The rate of hospitalizations for short-term diabetes complications (PQI 01) among Medicaid beneficiaries is higher in the Bronx (151.22 per 100,000) than in the city overall (105.03 per 100,000), and higher than the state overall (110.31 per 100,000).[153] In terms of numbers of avoidable hospitalizations due to short-term diabetes complications, the Bronx overall had 792 PQI 01 hospitalizations with a borough-wide

[149] These numbers and rates reflect possible duplicated counts of beneficiaries if a beneficiary's calendar year utilization was found by NYS DOH to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect the Weighted Number of Beneficiaries with Condition-Related Utilization, and the rates reflect the Weighted Condition Prevalence Among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category.
[150] NYS Dept of Health 2012 data, accessed August, 2014.
[151] QARR, 2011
[152] NYS Dept of Health 2012 data, accessed August, 2014.
[153] Ibid.

Observed/Expected (O/E) ratio of 1.13.[154] (See Appendix B, Table 44.) Within the borough, twelve ZIP Code areas with an O/E ratio greater than 1.00 account for 493 or 62% of these hospitalizations.[155] (See Appendix A, Map 42.) These 493 hospitalizations are found in three clusters: from Highbridge-Morrisania to Crotona-Tremont east of the Grand Concourse; in northeast Bronx from north of Bronx Park to Pelham Bay Park; and in southeast Bronx from Soundview to Throgs Neck (See Appendix A, Map 42.)

Long-term complications from diabetes hospitalization rates among Medicaid beneficiaries in the Bronx vary by neighborhood. Rates of such hospitalizations are highest in Kingsbridge, Mott Haven, and Pelham Bay Park neighborhoods. (See Appendix A Map 43.) Potentially preventable Medicaid hospitalizations for uncontrolled diabetes appear highest in East Tremont. (See Appendix A. Map 51.) Lower extremity amputation rates for Medicaid Beneficiaries with diabetes are largely concentrated in the north east Bronx. The highest rates are found in Eastchester, Baychester, Co-op City, Pelham Gardens, and Mott Haven. (See Appendix A, Map 53.)

The geographic concentration of Diabetes PQI hospitalizations makes the potential return on investment in practice reforms high in terms of reduced PQI admissions. The Diabetes Resources map (See Appendix A, Map 72) appears to show current geographic alignment of diabetes care management resources and need (shown in terms of Diabetes Composite PQI S01 hospitalizations) in or near the Highbridge-Morrisania, Crotona-Tremont, and Bronx Park areas; but apparently less alignment of resources with need in the northeast and southeast clusters where resources are lacking, although the areas between these two clusters do have specialty diabetes clinical resources.

BEHAVIORAL HEALTH

Mental Health

Among the Bronx population as a whole, the age-adjusted percentage of adults with poor mental health for 14 or more days of 9.1%, as well as the age-adjusted suicide rate of 5.4%, are lower than the state rates and roughly on par with citywide rates.[156] However, in the Bronx, 7.1% of all people report experiencing serious psychological distress, compared to 5.5% in NYC overall.[157] (See Appendix B, Table 31.) The Pelham-Throgs Neck area, in particular, appears to be disproportionately impacted by psychological distress with approximately 9% of residents reporting it. Those in Hunts Point-Mott Haven, Highbridge-Morrisania and Crotona-Tremont also report high rates of psychological distress, with approximately 5%-8% of those surveyed reporting it. The myriad of stresses on lower income

[154] NYS Dept of Health 2012 data, accessed August, 2014.
[155] Ibid.
[156] The "poor mental health" measure is from 2008-2009 BRFSS and Expanded BRFSS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard. The suicide rate is for the years 2010-2012 from Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.
[157] Serious psychological distress is a composite measure of 6 questions in the Community Health Survey regarding symptoms of anxiety, depression and other emotional problems. New York City Department of Health and Mental Hygiene, Community Health Survey 2012 data, as reported on Epiquery http://nyc.gov/health/epiquery, accessed August 2014.

residents were considered overwhelming to some and contributed to high levels of depression.[158] Low-income immigrant populations may have additional stressors, as well as poorer access to care, due to insurance and language issues.[159]

Findings from the BRFSS survey are validated by diagnostic data. Among Medicaid beneficiaries in the Bronx, 13.4% (110,000) have a depression CRG diagnosis (includes "Depression"; "Depressive and Other Psychoses "; and "Depressive Psychosis - Severe"), a rate nearly twenty percent higher than the city rate (11.3%). While rates of depression among enrollees in the Bronx are high throughout the county, Kingsbridge/Riverdale (17.8%), Hunts Point/Mott Haven (14.7%) and Crotona/Tremont (13.5%) comprise the UHF neighborhoods with the highest rates.[160] Prevalence of serious psychological distress (SPD), a composite measure of 6 questions regarding symptoms of anxiety, depression and other emotional problems, correlates with the rate of severe mental illness in a population. Citywide, the rate of SPD in the general population is 5.1%, while the Bronx Rate is 7.1%. Neighborhoods with the highest rates of SPD in the Bronx include Pelham/Throgs Neck (9%) and the South Bronx (7.9%).[161]

Alcohol/Drug Use

Community members also indicated that substance use and alcohol abuse are pressing issues in the CNA survey. Indeed, in 2012, the last year for which data is available, an estimated 639.2 per 100,000 emergency room visits in NYC were due to non-alcohol, illicit drugs.[162] In the Bronx, the age-adjusted percentage of adult binge drinking among the total population "during the past month" for the borough was nearly one-in-five (18%) in 2012, similar to the overall NYC rate (19.6%) for the same time period. (See Appendix B, Table 33.) Also, key informants described behavioral health issues as one factor in delaying or precluding appropriate preventive and primary health care. According to the director of a Bronx CBO serving residents with mental health and substance abuse issues, *"Survival is the most important thing, so not health, not seeing a doctor… but that's just – literally hustling to survive each day is the number one goal."*

> *Mental health is an issue because of the complex environment they live in, the poor support. So we see a lot of depression, a lot of anxiety and that leads to an impact on their own health: adherence to medications, adherence to follow-up. Family getting separated because of that. There's a social impact because of their mental health and drug abuse. That's a problem it goes across all demographics (key informant, provider)*

Comorbidities with physical health

There are no PQI measures of preventable hospitalizations related specifically to behavioral health. However,according to New York State Office of Mental Health (OMH) data, over half of the clients

[158] NYAM primary data findings, September, 2014.
[159] Ibid.
[160] New York State Dept. of Health, 2012. https://health.data.ny.gov/Health/Medicaid-Chronic-Conditions-Inpatient-Admissions-a/wybq-m39t.
[161] Community Health Survey 2012 data, as reported on Epiquery http://nyc.gov/health/epiquery, accessed August 2014.
[162] Drug Abuse Warning Network, 2011: New York City – 5 Boros: Drug-Related Emergency Department Visits, 2004-2011 - Illicits (excluding alcohol)Rockville, MD: Center for Behavioral Health Statistics and Quality, SAMHSA, 2013

served by OMH-licensed and OMH-funded programs have one or more physical chronic health conditions, indicating a need for coordinated behavioral and physical health care. Approximately 54.4% (9,215/16,942) of Bronx clients served had at least one chronic medical condition. (See Appendix B, Table 32.) In 2012, 188,401 Bronx Medicaid beneficiaries had behavioral health-related service utilization (including pharmacy). Of these beneficiaries, 62,092 had an inpatient admission during the year, for any reason, the admission was not necessarily related to behavioral health. These 62,092 beneficiaries represent 7.6% of all Bronx Medicaid beneficiaries, and they accounted for a total of 151,167 inpatient admissions in 2012. They were concentrated in neighborhoods located on either side of the Grand Concourse from Fordham–Bronx Park to Highbridge–Morrisania. (See Appendix A., Map 31.)

The geographic distribution of behavioral health resources (see Appendix A, Map 88) appears to match the widespread distribution of behavioral health-related service utilization in the Bronx;[163] however, questions as to the adequacy of these resources in terms of capacity were raised in focus groups and key informant interviews. Per DSRIP behavioral health clinical improvement projects, the integration of behavioral health specialists into primary care clinics could help address this issue if it entails a net increase of behavioral health resources. Further, it may also address low behavioral health services utilization among some beneficiaries resulting from the stigma associated with having a behavioral health condition and seeking treatment at a behavioral health services provider location. Conversely, the integration of primary care services into existing behavioral health services settings could help address the high rates of co-morbidity between behavioral health and chronic physical health conditions for those currently utilizing behavioral health services.

Care Coordination and Disease Management

According to providers themselves, the system is fragmented, with possibly poorer integration within behavioral health services themselves than between physical and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH) with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. Thus, a mental health provider might be limited in the severity of illness that can be treated, the age of the patient, and other factors.[164]

> *Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I*

[163] These numbers and rates reflect possible duplicated counts of Medicaid Beneficiaries if a beneficiary's calendar year utilization was found by the NYS Department of Health to occur across multiple Episode Disease Categories (e.g., hypertension and congestive heart failure) within a single Major Diagnostic Category (e.g., Diseases and Disorders of the Cardiovascular System). Therefore, the numbers reflect Weighted Condition-Related Utilization, and the rates reflect Weighted Condition Prevalence Among Beneficiaries, by multiple counting beneficiaries for utilization across multiple co-morbidity Episode Disease Categories within a Major Diagnostic Category.

[164] Ibid.

mean really become integrated in treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (key informant, multiservice organization)

Disease management is also a challenge. In the Bronx, 46% of Medicaid recipients who were prescribed antidepressant medications continued to use the medication for the entirety of the 12-week acute treatment phase, which is similar to NYC (47%) and slightly lower than NYS (50%).[165] In the Bronx, 64% of children enrolled in Medicaid who were prescribed medication for ADHD completed a follow-up visit with a practitioner within 30 days of starting the medication (the initiation phase), which is on par with NYC (64%) and above the percent in NYS (56%).[166] Also, approximately 56% of adults enrolled in Medicaid in the Bronx who were hospitalized for a mental illness received a follow up within 7 days of discharge, which is just above the rate for all Medicaid beneficiaries in NYC and on par with the rate for Medicaid beneficiaries in NYS.[167] (See Appendix B Table 53.)

HIV/AIDS and STDs

The fourth leading cause of premature deaths in the Bronx is AIDS, accounting for approximately 30% of all such deaths in NYC.[168] As shown in Table XX, the HIV/AIDS prevalence rate for the Bronx (1.7%) is higher than the NYC rate (1.4%) Four UHF neighborhoods in the borough have a higher HIV/AIDS prevalence rate than the city as a whole: Highbridge/Morrisania (2.4%), Hunts Point-Mott Haven (2.4%), Crotona-Tremont (2.3%), and Fordham/Bronx Park (1.7%); and all but one neighborhood has a prevalence rate at or above the 1% level which indicates a generalized HIV epidemic. There are 26,613 people living with HIV/AIDS (PWHA) in the Bronx, and 73.7% of them live in one of these four UHF neighborhoods.[169] (See Appendix B, Table 35.) Table XX also indicates that the age-adjusted death rate in the Bronx (18.6) is significantly higher that the NYC rate (18.6). Neighborhoods with the highest incidence of HIV also have higher rates of concurrent HIV/AIDS diagnoses, and are the same neighborhoods with the highest prevalence: Morrisania/Highbridge, and Mott Haven/ Hunts Point.[170] (See Appendix B, Chart 38.)

[165] QARR 2012
[166] QARR 2012
[167] Ibid.
[168] "County Number of 3-Years Premature [< age 75] Deaths" Vital Statistics Data as of March, 2014, New York State Department of Health - Bureau of Biometrics and Health Statistics.
[169] 2011 data, the latest year for which information is available, from the New York City Department of Health and Mental Hygiene.
[170] Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [HIV/AIDS Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 25 - Rates of HIV diagnoses, People With HIV/AIDS (PWHA), and deaths among PWHA by United Hospital Fund (UHF) neighborhood, New York City 2011

UHF Neighborhood	HIV diagnoses per 100,000 population	Reported PWHA as percent of population	Age-adjusted death rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Bronx	**47.9**	**1.7**	**18.6**	**1,382,480**
Crotona/Tremont	50.0	2.3	19.8	206,116
Fordham/Bronx Park	47.9	1.7	17.9	252,655
High Bridge/Morrisania	69.8	2.4	21.5	207,631
Hunts Point/Mott Haven	71.7	2.4	20.3	136,591
Kingsbridge /Riverdale	22.0	0.6	8.3*	90,892
Northeast Bronx	38.3	1.0	15.1	190,668
Pelham/Throgs Neck	34.2	1.3	16.2	297,927

Rates based on numerators ≤10 are marked with an asterisk (*) and should be interpreted with caution.
Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs Semiannual Report. October 2012

Bronx residents who are HIV positive, or have been diagnosed with AIDS, have rates of viral load suppression (60.19%) slightly lower than New York City (61.2%) and New York State (62.2%).[171] Among Medicaid Managed Care Beneficiaries in the Bronx who are HIV positive, or who have been diagnosed with AIDS, 91% are engaged in care, 69% received appropriate viral load monitoring, and 70% of those 19 or older received syphilis screening.[172] Viral load suppression is a key factor in reducing transmission of HIV and maintaining good health.

Within the borough, there are wide racial disparities in HIV incidence. In 2011, the latest year for which data are available, the rate of new HIV diagnoses among African Americans living in the Bronx was nearly 4 times higher than the new HIV diagnosis rate among Whites living in the Bronx (76.7 compared to 19.1 cases per 100,000 people). The rate of new HIV diagnoses among Latinos living in the Bronx was more than 2 times higher than the new HIV diagnosis rate among Whites living in the Bronx (41.8 compared to 19.1 cases per 100,000 people). (See Appendix B, Chart 37). Furthermore, Blacks and Latinos who are diagnosed report below average levels of adequate service utilization across multiple HIV service categories.[173] Demonstrating the compounding factors experienced by minority and socioeconomically disadvantaged populations related to HIV – they have fewer opportunities to access comprehensive HIV care and when they do enter care they are more likely to have poor adherence to care routines.

[171] HIV Ambulatory Care Performance, 2011
[172] QARR, 2012
[173] Community Health Advisory Information Network (CHAIN) 2011-1b Report. Service Needs and Utilization Tri-County 2010-2011.

Table 26 - HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1
20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361
High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

According to key informants in the field, transmission among injecting drug users (IDUs) in the Bronx has dropped dramatically, likely due to access to clean syringes from syringe exchange programs,although hepatitis C remains a concern, since it is more easily transmitted.

> *In '95 … the new infection rate among injection drug users was 54%, so literally one out of every two people had HIV or AIDS. Now it's under 4%. We've got very few new infections. We have a lot – we see a prevalence around Hepatitis C, because it's so much more communicable, with the cotton and other stuff. (key informant, community based organization)*

The HIV/AIDS Resources map (See Appendix A, Map 75.) suggests a geographic alignment between Medicaid Beneficiaries with an HIV/AIDS service utilization and the location of HIV/AIDS resources, which is also consistent with the prevalence PLWHA by UHF neighborhood.

Given the aging of the HIV/AIDS population, as well as the potential medical complications of HIV medications, they are also at high risk of more common chronic conditions, including diabetes and heart disease. Integration of medical and supportive services is therefore essential.

> *They're giving away a syringe while people's toes are falling off from diabetes and not asking about the diabetes. You're irrelevant if you start doing that….That was the light bulb for me.… doing syringe exchange and …[not] worrying about people's diabetes or psychiatric conditions, and that's what they were dying from. It's immoral, it's wrong to just focus on one thing because that's what you're funded to do. (key informant, community based organization)*

Other STDs

The case rates for Gonorrhea and Chlamydia in the Bronx greatly exceed those of NYC and NYS. While some variation between neighborhoods exists, Kingsbridge/Riverdale is the only neighborhood that has low STD rates. Crotona, Morrisania, Highbridge, and Mott Haven are neighborhoods with the highest rates of Chlamydia, Gonorrhea, and Syphilis inNYC[174]. The all ages case rate for gonorrhea in the Bronx is (240.8 per 100,000) and in NYC (151.8 per 100,000) and NYS (95.8 per 100,000). All ages Chlamydia case rates in the Bronx for both men and women (823.7 males and 1689.4 females per 100,000) are also dramatically higher than in NYC (508.7 males and 973.9 females per 100,000) and NYS (323 males and 674 females per 100,000). Similarly, the pelvic inflammatory disease hospitalization rate for females aged 15-44 years of age is 9.8 per 10,000 in the Bronx, but only 4.8 per 10,000 in NYC and 3.5 per 10,000 in NYS.

MATERNAL/CHILD HEALTH

Over the period 2010-2012, there were 21,867 live births per year on average in the Bronx, representing nearly one in five (18.5%) births in New York City and nearly one in ten (9.1%) in the State over the same

[174] DOHMH. Epi Data Brief. *Geographic Co-occurrence of HIV/AIDs, Viral Hepatitis, Sexually Transmitted Diseases and Tuberculosis in New York City*. December 2012

time period.[175] The percentage of all births in the Bronx that were Medicaid or self-pay was 75.4%, compared to 59.7% in NYC and 50.1% in the State; the percentage of Medicaid or self-pay births across Bronx ZIP Codes ranged from 23.6% to 87.5%. (See Appendix A, Map 8.) Fertility rates are also higher in the Bronx (59 births in the past year per 1,000 women age 15-50) than in NYC (52 per 1,000) and NYS (50 per 1,000).[176] For young women, the difference is even greater, with a rate of 34 births in the past year per 1,000 women age 15-19, compared to 21 per 1,000 in NYC and 17 per 1,000 in NYS.[177] The highest fertility rates are found along the western side of the Grand Concourse from Highbridge to Fordham – Bronx Park, and in the south in Mott Haven, Hunts Point, and Soundview. (See Appendix A, Maps 6-8.) The teen pregnancy rate is also higher in the Bronx than NYC and NYS, at 60.8 per 1,000 compared to 44.2 per 1,000 in NYC and 35.7 per 1,000 in NYS.[178] (See Appendix A, Map 7.)

In 2012, the latest year for which data is available, the percentage of preterm births in the Bronx (12.2%) was higher than in NYC (10.8%) or NYS (10.8%).[179] Preterm birth is associated with low birth weight and poor health outcomes. The overall low birth weight (LBW) rate for the Bronx over the time period 2010-2012 was 9.5%, compared to 8.5% for NYC and 8.1% for the state.[180] Within the Bronx, the LBW rates ranged from 1.9% to 12.8%, with the highest rates found in two clusters of zip codes – one in the south central part of the borough from Mott Haven, Morrisania, to Claremont Village; and the other in the northeast part of the borough in Wakefield, Eastchester, and Co-Op City. These neighborhoods also experience the highest rates of infant mortality. (See Appendix A. Map 6.)

Racial disparities also persist in the borough in the number of preterm births, with 1.4 times the number of preterm births among the black population than among the non-Hispanic white population for the time period 2010-2012 and 1.2 times the number of Hispanic preterm births than non-Hispanic white preterm births in the same time period.[181] (See Appendix B, Table 68). Though, these racial and ethnic disparities were narrower in the Bronx than in NYC and NYS in the same time period.[182]

In the Bronx, the percentage of mothers receiving prenatal care starting in the first trimester was lower than the NYS and NYC rates (71.8% and 70.4%, respectively) by over 10%, and more than one-third (37.0%) of mothers in the Bronx received prenatal care beginning in the third trimester (months 7-9), compared to 23.9% for NYS and 28.7% in NYC.[183] (See Appendix B, Table 61). Additionally, the Bronx neonatal death rate was slightly higher than NYC and NYS at 3.5 per 1,000, compared to 2.9 per 1,000 in NYC and 3.3 per 1,000 in NYS.[184]

[175] NYS Vital Statistics, 2010-2012, http://www.health.ny.gov/statistics/chac/perinatal/, accessed September 2014.
[176] Ibid.
[177] Ibid.
[178] NYS Vital Statistics, 2012
[179] NYS Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.
[180] Ibid.
[181] Ibid.
[182] The ratio of black to white preterm births in NYC was 1.8 and in NYS was 1.62 for the period 2010-2012. The ratio of Hispanic to white preterm births in NYC was 1.39 and in NYS was 1.25 for this time period. Source: NYS Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard, accessed August 2014.
[183] NY State Vital Statistics, 2012
[184] Ibid.

The leading cause of premature death in the borough is cancer.[185] (See Appendix B, Table 27.) Rates for some preventive screening measures in the Bronx are on par with NYC and NYS, e.g., approximately half (53%) of adults Medicaid beneficiaries aged 50-75 years received appropriate colorectal cancer screening in the borough, compared to 52% in NYC and 49% in NYS in 2012, the latest year for which data is available.[186] (See Appendix B, Table 66.) However, the borough lags in other related risk factors, such as obesity.

The incidence rate of colorectal and prostate cancer is higher than expected in the Bronx compared to the New York State incidence, while incidence of lung or bronchus and breast cancer is lower than expected. Incidence data, as of 2007-2011, is available at the ZIP Code level and has been mapped and analyzed. The New York State Cancer Registry provides observed and expected case rates, with the latter rate controlling for the local age distributions, relative to the state age distribution.

Colorectal

There are 3,005 colorectal cancer cases in the Bronx, 7% higher than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Highbridge/Morrisania (450 cases; 14% higher), Pelham/Throgs Neck (784 cases; 11% higher), Northeast Bronx (565 cases; 10% higher), Crotona/Tremont (317 cases; 7% higher), Fordham/Bronx Park (450 cases; 2% higher) and Hunts Point/Mott Haven (221 cases; 2% higher) are neighborhoods in the Bronx with higher than expected rates of colorectal cancer over this time period.

Breast

There are 3,852 breast cancer cases in the Bronx, 15% lower than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Each of the Bronx neighborhoods has lower than expected rates of breast cancer over this time period.

Lung or Bronchus

There are 3,234 lung or bronchus cancer cases in the Bronx, 14% lower than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Highbridge/Morrisania (436 cases; 1% higher) is the only neighborhood in the Bronx with higher than expected rates of lung or bronchus cancer over this time period.

Prostate

[185] Vital Statistics Data as of March, 2014, New York State Department of Health - Bureau of Biometrics and Health Statistics.
[186] State data obtained from the 2012 BRFSS and reports the “Percentage of adults who received colorectal cancer screening according to most recent guidelines." Those complying with recent guidelines included individuals who used a blood stool test at home in the past year; and/or, sigmoidoscopy in the past 5 years and blood stool test in the past 3 years; and/or, had a colonoscopy in the past 10 years. However, the 2012 NYC Community Health Survey only reports the percentage of respondents who received a "colon cancer screening in last 10 years.”

There are 4,596 prostate cancer cases in the Bronx, 13% higher than the state rate, when comparing observed to expected (age-adjusted) state wide rates. Highbridge/Morrisania (659 cases; 40% higher), Crotona/Tremont (601 cases; 33% higher), Northeast Bronx (949 cases; 31% higher), Fordham/Bronx Park (703 cases;9% higher) and Hunts Point/Mott Haven (365 cases; 7% higher)are neighborhoods with higher than expected rates of prostate cancer over this time period.

PAIN MANAGEMENT AND PALLIATIVE CARE

The need for palliative care services will increase significantly as the population of New York City ages, and the prevalence of conditions suitable for palliative care increases. In the Bronx in 2020, 11.9% of the residents will be age 65 or older. In 2030, the percentage will be 14%, or almost one person in seven. About 80% of older adults have one chronic condition, and 50% have at least two.

Clinicians warn that as the population ages, it will be accompanied by, "a marked increase in patients requiring care for disorders with a high prevalence in the elderly. As cancer incidence increases exponentially with advancing age, it is expected that there will be a corresponding surge in older cancer patients that will challenge both healthcare institutions and healthcare professionals (p. 147)".[187] Moreover, healthcare professionals will face an increase in patients with multiple age-related conditions.

Within the HHC PPS service areas, there are a high number of hospitalizations related to chronic conditions, particularly among older age groups. For example, there were XXX Bronx residents hospitalized with at least one of nine chronic conditions (arthritis, CHF, COPD, ESRD, HIV, hypertension, mental health, obesity and diabetes). Although the majority of these individuals are age 65 and older, a significant percentage is between ages 45 and 64.[188]

Pain management is particularly needed among residents of nursing home residents. The percentage of nursing home short-stay residents who self-report moderate-to-severe pain is 19% and 14%, nationally and statewide, respectively. Among long-stay patients, the percentage self-reporting moderate-to-severe pain is 8% and 3%, nationally and statewide, respectively.[189]

ACCESS TO AND QUALITY OF HEALTH CARE IN NEW YORK STATE BY INSURANCE STATUS

Compared with commercially insured populations, Medicaid Managed Care adult beneficiaries are less satisfied with their primary care providers and specialists, and generally rate the quality of their health care lower. Adult Medicaid Managed care populations are also less likely to have received care when needed. Child Medicaid beneficiaries appear to receive care at a rate on par with commercial plans.[190] The following discussion notes differences in access to and quality of health care between Medicaid Managed Care and commercially insured populations in New York State.

Overall Satisfaction

[187] Berger et. al (2006). Cancer in the elderly. *Transactions of the American Clinical and Climatological Association, 117,* 147-156.
[188] Unpublished analysis by the Healthcare Association of New York State, 2013.
[189] Nursing Home Compare website, accessed September 2014. A sample based dataset of individuals receiving community-based long-term care services.
[190] "2013 Health Plan Comparison in New York State," New York State Department of Health

High ratings on patient satisfaction measures are directly correlated with better patient engagement in clinical decision-making and more interaction between patients and their physicians[191]. Engaged patients are more likely to manage their health and health care, which is correlated with lower health care costs.[192]

Fewer Medicaid Managed Care beneficiaries reported satisfaction with healthcare services when compared to beneficiaries of commercial Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) in NYC. Table 22 provides a comparison of several measurements of patient satisfaction by payer status. In all categories, on average, the commercial organizations performed better than the Medicaid Managed Care organizations.

Table 27 - Selected Patients' Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. Data are for 2011

In Table 27, "Satisfaction with Communication" is the percent of members who responded "usually" or "always" when asked how often their doctors listened to them carefully, explained things in a way they could understand, showed respect for what they had to say, and spent enough time with them. "Satisfaction with Personal Doctor" and the "Satisfaction with Specialist" measures are the percentage of members who rated their doctors 8, 9 or 10 (on a scale of 0-1, where 0 is the lowest). Additionally, patients were asked a series of questions to determine if they received necessary care and if they were able to get an appointment for routine care as soon as desired. "Received Needed Care" reflects the percent of members who responded "usually" or "always" in regard to receiving urgent care, and "Got Care Quickly" represents the percentages of members who responded "usually" or "always" in regard to expediency. Commercial organizations performed better than Medicaid Managed Care organizations across all measures.

Access to Care for Adults

Compared to commercial organizations, adult Medicaid Managed Care populations are often less likely to have received care when needed. Table 23 presents selected quality of care measures for several illnesses by payer.

[191] "The CAHPS Improvement Guide," AHRQ, June 17, 2012.
[192] "Health Policy Brief: Patient Engagement," Health Affairs, February 14, 2013.

Table 28 - Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO		Commercial PPO		Medicaid Managed Care*	
Controlling High Blood Pressure	59%		57%		63%	
Poor HbA1c Control in Diabetics* (Lower is better)	27%		42%		33%	
Use of Appropriate Medications for People with Asthma	89%		90%		82%	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

. Source: 2013 Health Plan Comparison in New York State," New York State Department of Health. Data are from 2011

"Controlling High Blood Pressure" represents the percent of Medicaid beneficiaries, ages 18 to 85 years, with hypertension whose blood pressure was adequately controlled (below 140/90). Medicaid Managed Care beneficiaries generally fared better than other payer types. "Poor HbA1c Control" is the percentage of members with diabetes whose most recent HbA1c level (a measure of long-term glucose control) indicated poor control (>9.0%). Commercial HMOs performed best in this category. "Use of Appropriate Medications for People with Asthma" is the percentage of members, ages 19 to 64 years, with persistent asthma who received at least one appropriate medication to control their condition during the measurement year. Medicaid Managed Care on average performed worst, 7% lower than the average of Commercial PPOs. "Behavioral Health: Follow-up after Hospitalization for Mental Illness" concerns members, ages 6 years and older, who were hospitalized for treatment of selected mental health disorders and has two time-based components. The first column is the percentage of members who were seen on an ambulatory basis or who were in intermediate treatment with a mental health provider within 7 days of discharge. The second column is the percentage of members who were seen in the same settings within 30 days.

Access to Care for Children and Adolescents

There is less variation between Medicaid Managed Care to Commercial organizations in regard to access to care for children and adolescents, as demonstrated in Table 24.

Table 29 - Access and Quality Measures for Children and Adolescents, Statewide Average by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83
Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health.. Data are from 2011

.

The measure "Well-Child and Preventive Care Visits in the first 15 months" is the percentage of children who had five or more well child visits with a primary care provider in their first 15 months of life. Both types of commercial groups on average performed at about the same rate, seven to eight percentage points higher than the average of Medicaid Managed Care organizations. The "Well-Child and Preventive Care Visits 3-6 measure is the percentage of children in those ages who had one or more well-child visit with a primary care provider during the measurement year. There is little variation between payer types (range 79%-84%). The "Adolescent Well-Care Visit" measure is the percentage of youth ages 12-21 that had at least one comprehensive well-care visit to a PCP during the measurement year. Medicaid managed care organizations and commercial HMOs performed about equally, with commercial PPOs on average performing several points lower. "Appropriate Treatment for Upper Respiratory Infection" is the percentage of children ages 3 months to 18 years who were diagnosed with an upper respiratory infection (common cold) and were not given a prescription for an antibiotic. Medicaid Managed Care plans performed on average four points higher than the average of commercial HMO and PPO providers.

OBESITY

The prevalence of obesity in the Bronx is the highest of the city boroughs, with nearly one in three (32%) of all adults obese, versus approximately one in four (24.2%) in NYC and NYS (23.6%).[193] (See Appendix B, Table 66.) The obesity rate varies widely within the borough with the highest rates in a corridor from parts of Fordham-Bronx Park down to the South Bronx. There are also very high rates in parts of

[193] This is 2012 data for Bronx and NYC from the Community Health Survey, 2012. It is 2008-2009 data for New York State from the NYS Department of Health, County Health Assessment Indicators, 2010 –2012.

Pelham-Throgs Neck.[194] (See Appendix A. Maps 17-18.) Among women and children participating in the United Stated Department of Agriculture Food and Nutrition Service Women Infant and Children (WIC) program, approximately 29% or pregnant women were overweight, and 27% of pregnant women were obese in the Bronx in the time period 2010-2012. The Bronx rates are higher than the corresponding rates in NYS (approximately 27% overweight, 24% obese) and NYC (approximately 27% overweight, 22% obese).[195]

In the Bronx, a mere 6% of adults report eating five or more fruits or vegetables per day, compared to approximately 9% in NYC and 27% in NYS.[196] Roughly 70% of adults reported participating in a leisure time physical activity in the last 30 days, slightly lower than NYC (72%) and NYS (76%) rates. Focus group participants attributed obesity to a number of causes, including the limited access and relatively high cost of healthy food. They also described the challenges of changing dietary behavior in general—and of losing weight, in particular—despite obvious negative health consequences. Cultural preferences for fried and certain high caloric foods were acknowledged.

> *The South Bronx: number one, it's a healthy food desert. I think it's getting better because of concerted efforts by a lot of people, businesses and funders and City Harvest and Food Bank have done remarkable work on that. But I think for the most part, if you walked into a bodega you wouldn't find a piece of fruit or a vegetable, and if you did, it would be like a plantain. Everything is canned. We've got people who are obese who are starving because they're eating empty calories. Chips and fried chicken and fried this and fried that. And so I think that's diet and a sedentary lifestyle and lack of access to fresh foods is a huge driver of the poor health of the Bronx, and the South Bronx in particular (key informant, community based organization)*

Although obesity was commonly attributed to individual motivation and community conditions, more comprehensive and consistent messaging from providers was also recommended:

> *Talking about obesity would also be really helpful, because … that's not something that doctors are really talking about or feel – they may feel uncomfortable raising or ill-equipped to talk to, talk about to people. …Community members have reported back that doctors and health care professionals, in general, talk about certain illnesses, like diabetes, hypertension, heart – a lot of these things are inevitable, right? Or kind of like, "Okay, you have hypertension, here's your medication," as opposed to actually there are things that you can do, lifestyle changes that you can make. (key informant, health advocacy)*

[194] It should be noted these rates are by UHF neighborhood, as rates are not available at the ZIP Code level, so there could be variation within these UHF neighborhoods that is not captured here.
[195] Source: Bronx County: County Health Assessment Indicators, 2010 – 2012 data http://www.health.ny.gov/statistics/chac/chai/chai_58.htm#bronx, accessed August 2014.
[196] 2008-2009 data found at Bronx County: County Health Assessment Indicators, 2010 – 2012 data http://www.health.ny.gov/statistics/chac/chai/chai_58.htm#bronx, accessed August 2014.

TOBACCO USE/CESSATION

The Domain 4 project on this topic is intended to "promote tobacco use cessation, especially among low SES populations and those with poor mental health."[197] The percentage of cigarette smoking among adults in the Bronx is roughly on par with NYC and NYS rates (15.8% in the Bronx versus 15.5% in NYC and 16.2% in NYS in 2012), but rates vary by neighborhood. Approximately one in five of adults in Pelham-Throgs Neck (21.2%) and the South Bronx (18.2%) report being a current smoker compared to less than one in ten in Kingsbridge-Riverdale (7.3%) and Fordham-Bronx Park (7.5%).[198] (See Appendix B, Table 34.)

DRUG OVERDOSE

About 9,000 city residents died of an unintentional drug poisoning (overdose) from 2000-2012, an average of 700 overdose deaths per year.[199] In 2012 nearly all unintentional drug poisoning deaths involved more than on substance, including alcohol, licit and illicit drugs, most commonly identified as heroin, cocaine, benzodiazepines, prescription opioid analgesics and methadone, according to DOHMH.

Section iii: Domain 3 and 4 Metrics

- **Domain 3 Metrics: Clinical Improvement**

See attached Appendix B.

- **Domain 4 Metrics: Improve Health Status and Reduce Health Disparities**

See attached Appendix B.

[197] New York's MRT Waiver Amendment Delivery System Reform Incentive Payment (DSRIP) Plan, Attachment J."NY DSRIP Strategies Menu and Metrics," 2014.
[198] These neighborhood estimates should be interpreted with caution. The estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, or the 95% Confidence Interval half width is greater than ten, making the estimate potentially unreliable. Source: NYC DOHMH Community Health Survey, 2012
[199] New York City Department of Health and Mental Hygiene. *Unintentional Drug Poisoning (overdose) Deaths in New York City, 2000-2012.* Epi Data Brief, Sept. 2013, No. 33

The population in the Bronx is burdened by a myriad of health challenges and socioeconomic circumstances that foster poor health outcomes. It is the least healthy county in New York State, and has high rates of chronic disease such as diabetes, cardiovascular disease, and respiratory disease including asthma/COPD, cancer and high rates of obesity.[200] The Bronx leads New York State in the percentage of premature deaths in people aged less than 65 years;[201] the leading causes of these deaths in the county are cancer, heart disease, unintentional injury, AIDS and diabetes.[202] The Bronx also outpaces NYC overall in household poverty and low educational attainment, and is approximately on par with city rates of unemployment and health insurance.[203] More than half of the Bronx population speaks a language other than English in the home, and many are immigrants, presenting possible additional cultural and regulatory challenges to health care access.[204] Among the Medicaid population, the Bronx ranks highest among all boroughs in NYC in the rate of potentially preventable inpatient admissions, including for chronic conditions overall, and for certain chronic conditions such as circulatory conditions, respiratory conditions and diabetes.[205] It also ranks second among the NYC boroughs in the rate of preventable emergency room visits (PPV).[206]

Behavioral Health Risks

Tobacco use, alcohol consumption, physical activity and diet, sexual practices, and disease screenings exert strong influences on health. These behavioral risk factors contribute to numerous diseases, and have long been viewed a major contributors to deaths in the United States. For example, a World Health Organization (WHO) report shows the burden of disease and death attributed to tobacco use in developed countries was substantially higher than that attributable to any other risk factor including alcohol use, unsafe sex, hypertensions, and physical inactivity.[207] Second to tobacco use, the combination of inactivity and poor diet has been ranked as the second leading factor contributing to mortality in the US.[208] Overweight adults are at risk for diabetes, and increased risk for hypertension, coronary heart disease, several forms of cancer, and run the risk of developing gallbladder disease, osteoarthritis, sleep apnea, and respiratory problems.[209]

[200] RWJ County Health Rankings, 2014, available at http://www.countyhealthrankings.org/sites/default/files/state/downloads/CHR2014_NY_v2.pdf , accessed September 2014.
[201] The Bronx figure is 33.9% compared to the NYS figure of 23.9%. Source: "Percentage of premature deaths (before age 65 years), 2012" New York State Prevention Agenda Dashboard, using Vital Statistics Data.
[202] NYC DOHMH Epiquery System, Vital Statistics data, accessed August 2014.
[203] US Census American Community Survey, 5-year table, 2008-2012.
[204] According to US Census data, approximately one in five Bronx residents are not US Citizens (US Census American Community Survey, 5 year table, 2008-2012). It is possible that this number may be underreported due to undocumented individuals.
[205] 2011-2012 Medicaid Prevention Quality Indicators, New York State Department of Health, Office of Quality and Patient Safety, 2014, as reported by the Office of Health Systems Management.
[206] Ibid.
[207] Murray C, Lopez A. "The Global burden of disease." Geneva: World Health Organization. 1996.
[208] McGinnis, JM, Foege WH. "Actual Causes of Death in the United States. " *Journal of the American Medical Association:* 270, pg. 2207-2212. 1993.
[209] USDHHS (US Department of Health and Human Services), "Healthy People 2010: Understanding and Improving Health." Washington, DC. 2000.

Table 30 - Risk Factors by Select Bronx Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current Smoker
NYC	24.1%	19.7%	22.2%	15.6%
Kingsbridge and Riverdale	18.4%	16.9%	22.4%	6.4%
The Northeast Bronx	26.6%	18.3%	20.2%	16.3%
Fordham/Bronx Park	37.3%	21.5%	16.9%	8.4%
Pelham/Throgs Neck	32.8%	14.7 %	26.0%	22.3%
The South Bronx	30.1%	20.6%	27.2%	17.3%

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012. Values are not adjusted for age.

Environmental Risk Factors

Environmental risk factors, which include the presence of roaches, rodents, and mold in the home, pose considerable consequences for the residents of New York City. Vulnerable populations typically face greater environmental risks. For example, data suggest that Citywide, 40% of uninsured and 37% of Medicaid beneficiaries reported having seen cockroaches inside their home in the past month.

Table 31 - Environmental Risk Factors in Selected Neighborhoods in the Bronx

	NYC	Bronx	Crotona-Tremont	Fordham-Bronx Pk	Highbridge-Morrisania	Hunts Point-Mott Haven	Kingsbridge-Riverdale	Northeast Bronx	Pelham-Throgs Neck
Indoor Air Quality									
Homes with cockroaches (2011)	24%	37.7%	44.9%	38.8%	48.9%	47.9%	32.8%	23.5%	29.6%
Adults reporting second-hand smoke at home (2011)	4.9%	6.7%	9.4%	6.6%	9.4%	9.4%	1.5%	n/a	7.1%
Adults reporting mold in the home (2012)	9.5%	12.9%	11.8%	18.7%	11.8%	11.8%	9.5%	8.9%	14.4%
Adults reporting mice in the home (2012)	15.5%	23.4%	30.9%	30.2%	30.9%	30.9%	15.2%	15.8%	13.6%
Home Safety and Maintenance									
Homes with cracks or holes (2011)	15.7%	24.7%	29%	26.1%	29.3%	33%	19.5%	18.2%	20%
Homes with leaks (2011)	20.6%	28.1%	30.3%	31.6%	29.3%	30.6%	27.4%	22.3%	26%
Households rating neighborhood structures good or excellent (2011)	75.2%	58.8%	43.3%	58.6%	50.6%	48.7%	74.3%	70.8%	66.2%

Sources: New York Community Health Survey (CHS), New York City Housing and Vacancy Survey (HVS), 2011, 2012.

Socioeconomic Factors

The Bronx has the highest proportion of non-white residents in the city, with very significant numbers of Black/African American residents (including US-born and immigrant populations coming from Caribbean nations and increasingly from Africa), as well as Latinos. Among the borough's Latino population, Puerto Ricans predominate, though an increasing number of immigrants are from the Dominican Republic and Central America. There is also a growing South and Southeast Asian population, though small in comparison to other immigrant groups.

The concerns of other immigrant populations are magnified among the undocumented. Access to most services is limited, and the fear of deportation results in lower utilization of available services, including health services. Providers report that people who are undocumented want to avoid providing information about themselves, and avoid "the system" to the greatest extent possible.

CNA participants were consistent in their reports of very long work hours among multiple foreign born groups. Descriptions of 12 - 16 hours days, six or seven days a week were not uncommon, with people working multiple jobs (often under hazardous conditions) because pay is low. Such long work hours impact health and access to health care services:

> *The guy working 2 jobs, one in the morning, the other at night, he doesn't have time to take care of his health, and then it's too late. You don't have time for yourself.* (Focus group participant)

Concerns about language access, coupled with appropriate knowledge and skills, were voiced by many CNA participants. Although many respondents described a significant capacity for Spanish speaking providers in the Bronx, there were complaints about use of telephonic services when a bilingual provider was not available. There was also some concern regarding training and skills of dual role interpreters (i.e., bilingual staff who are asked to interpret on an *ad hoc* basis), as well as gaps in services for immigrant groups newer to the Bronx, including Africans, South Asians, and Southeast Asians.

> *So we have heard of [Asian] folks that are living up in the Bronx, perhaps because that's where they got placed in NYCHA housing, but all of their services are in Brooklyn. So they go to the grocery in Brooklyn. Their friends are there. Their doctors are there. So that's a tremendous amount of time to be able to travel to get culturally-competent, language-accessible programs and services. So then that's a real big challenge that we're seeing across a lot of communities, in the Asian-American community* (key informant CBO)

Independent of work and language access issues, key informants and focus group participants described cultural, attitudinal, perceptual and knowledge-based barriers to care among the foreign born, including greater stigmatization of particular health conditions (including HIV and mental health issues), difficulties navigating the health insurance and care system, low prioritization of preventive care services, and fear of medical bills and deportation.

> *It's a cultural issue. Where we come from greatly impacts our behaviors, and it's clear, in Africa, health is not a priority. It's a fact. The fact that health isn't a priority and the financial difficulties, they go together, this combination is devastating for us. I have a certain level of*

education, but I swear, as long as I'm not caput, I won't go to the hospital. (Focus group participant)

Basic Necessity Resources

According to the resident survey, the main health issues identify by residents of the Bronx include diabetes, obesity, cancer, cardiovascular disease, asthma, violence and behavioral health issues, including anxiety, depression and substance use.[210] Community members connect these common health conditions to conditions of poverty, including—but not limited to—insecurity with respect to housing and other basic needs, unsafe environments, and poor access to healthy foods. Health problems were also associated with depression. However, the link between depression and poverty was also particularly obvious, as people worried about jobs, housing, entitlements, and the safety of their streets. The linkage to poverty makes the search for solutions more challenging.

> *You have to fight poverty. It doesn't necessarily always mean getting everybody a job but you can get people at least the entitlements, SNAP entitlements, the things that we fight for, get them into the shelter system or housed. I think those – that's why we spend so much time doing that work. It becomes easier to knock down the barriers to access to medical care and behavioral health… the Bronx, the Bronx Health County rankings came out again a week or two ago and that's what I brought up is we were 62 out of 62 again. So what you guys have been doing, hospitals, it ain't working. You can talk about – you can shift the conversation to population health and managing population health. It's not working, guys, and what I'm doing is not working. (key informant, community based organization)*

A dramatic indicator of poverty, with obvious health implications, is food insecurity, which was described by multiple respondents.

> *It's just stunning to me the amount of hunger. We call our congregate food program an emergency food program, but the fact is even with food stamps, we've still got a lot of people coming to the program because food stamps aren't enough. (key informant, community based organization)*

> *Patients that are going hungry and they don't even ask the question – is there enough food in the home or do you need a referral to a food pantry or Meals on Wheels program? And then, you know, if they're going through their treatment and there are all these other medications and you don't have food, it upsets everything and it contributes to another visit to the hospital (key informant, community based organization)*

Barrier Free Access

Individuals with physical and/or cognitive disabilities have disproportionately lower SES, higher unemployment rates, and higher rates of co-morbidities, including obesity, hypertension, and cardiovascular disease than individuals without disabilities. Despite a high need for services, they report

[210] NYAM primary data findings, September, 2014
[210]

frequently delays in seeking care because of poor accommodation (e.g., absence of ramps, absence of sign language interpreters, poor transit services) and/or providers that are insensitive to their capabilities and limitations. These access barriers—and their implications— were described by CNA participants.

> *I have access-a-ride. Access-a-ride doesn't take me anywhere in the Bronx. It goes to Queens, Brooklyn and Staten Island. But I cannot use it here in the Bronx. Now the last time I called them for them to take me to [Manhattan], I went over to Fifth Avenue to the hospital. She told me "You can take this bus, and it will take you to Manhattan, and that bus will drop you off." And then I said, "so what do I do now? I have difficulty walking." And where they were gonna drop me off would have been at least two blocks and that hospital I was going to I know for a fact, two blocks is like four. I'm gonna have to walk. And I couldn't walk so I said "I have to walk there. What do you suggest I do?" "Uh, well uh ma'am." I said "You can't help me. Thank you very much."* (focus group participant)

Unfortunately, barriers are more commonly encountered in community setting than hospital settings, so may become more pronounced as—consistent with the goals of DSRIP—services move into the community. As explained by a key informant in the field:

> *A requirement, for example, that you come to an appointment timely, or if you miss an appointment three times, you can be dis-enrolled from a program or a provider, [is discriminatory]. If you use Access-a-Ride, for example, it is almost impossible to know when you will arrive at a location on a consistent basis. The service is simply of such poor quality that if … you need door-to-door transportation, you need flexibility in appointment scheduling.*
>
> *In the health setting, practitioners are often listed – clinics are often listed as being wheelchair accessible in managed care program directories. But in fact, according to a survey by the Community Service Society, it was found that these practitioners have steps at their front entrance. The providers don't even know what accessibility means. And so they list themselves as accessible, but when you go to their site or you call them on the phone, they'll say, "Oh yes, we have a few [steps] at our entrance, but that's no big deal."*
>
> *They don't have exam tables that will lower so that you can transfer from a wheelchair. Or they don't provide ASL interpreters, either in person or by video phone or other system. They don't give you longer times for your appointment if it's going to take you a long time to dress and undress.*

Factors Related to Health Insurance and Health Services

The costs incurred, in terms of both time and money, for medical care remains very problematic and acts as a barrier to effective use of prevention and disease management services from the perspective of community members. The income criteria for Medicaid are described as unrealistic, given the cost of living in New York City, and the working poor who do not qualify for Medicaid cannot afford the premiums of insurance offered through the NYS Health Insurance Exchange.

Most people are leery as to whether they're going to be charged, what they can charge for and not be charged for. It basically boils down to money. You know, you make a choice. 'Do I go to the grocer or see the doctor? Do I pay my rent?' It's a money issue. (focus group participant)

And sometimes simply can't afford them, because not everybody's eligible for Medicaid, you know. And then there is this group of individuals that fall in between Medicaid and private health insurance. Unfortunately, that group is much larger than any of us would like to see (key informant, community based organization)

Community members (and providers) consistently describe long wait times for appointments and long wait times at the time of a visit. Furthermore, the possible need for multiple visits (e.g., for tests or specialist services), discourages timely use of care and makes the emergency department a rational choice for "one stop shopping".[211]

Lack of trust or engagement (or possibly time) in care coordination on the part of medical providers also was considered to limit the potential effectiveness of care coordination models.

What's missing is … saying to individual providers that this is important, and you need to be responsive, and you need to talk to people, and you need to interact with care coordinators. One of the biggest problems and flaws in the system is that in all of our contracts… we're required to go to providers, individual PCP's and psychiatrists, and get information from them both about their care that they're providing to our client or their patient or the lab work that's been done, tests, reports, anything that they're doing with our patient. We need to get access to that information so that we can help to provide better care and to guide that person along in the care that they're getting. So if they get prescribed a specific medication, we can say, "Are you taking that medication? Where are you at with it? Have you filled the prescription?" Those kind of things. The problem is, on the provider's side, they don't get paid. No one's telling them – no one's saying to them from the funder level … "You must communicate with these people."… so the providers ignore us. (key informant, multiservice organization)

Finally, a consistent electronic health record was described as a challenge for agencies offering care coordination services, as they had to utilize multiple systems.

The State's not equipped to be able to mandate [a consistent electronic health record]. So everybody is left on their own to be able to design their own or to pick and choose an on-the-shelf or off-the-shelf package. And that's been what's causing the mess. So then not only do you have that, but you also don't have the communication between Health Homes to talk about a client, where a client is… being able to get some kind of a text message or an email saying a client is in an emergency room or a hospital. …that should be really enhanced where we have much more access to the client's status, where that client is, when the client is in crisis, so that we can intervene and help the client. (key informant, multiservice agency)

Key informants participating in the CNA, representing a cross-section of professions and fields, described multiple distinct populations with particular health care – and health – challenges. For example, individuals with severe alcohol or substance abuse disorders, who often have high rates of mental

illness, physical illness and homelessness, are frequent users of emergency department services. However, emergency departments lack the resources to address the psychosocial needs that might increase stability within this population and decrease their use of health care services.

> *Drug abuse is still a big problem. Alcoholism is a huge problem. And, we see a lot of admissions, a lot of patients with some sort of drug abuse or alcohol misuse. (key informant, provider)*

Undocumented residents are described as hesitant to use health care services due to cost considerations and fear of deportation. When they do access medical services, it is late and sporadic.

> *When you have a borough that has so many immigrants, undocumented immigrants and no matter how much you try to convince them that, "Look, if you come in for healthcare, it has nothing to do with immigration, nobody's gonna report you, you don't have to be concerned," people still stay away (key informant, community based organization)*

Policy Environment

The policy environment presents a number of challenges to residents and providers. For example, funding and regulatory agencies have differing requirements, which 1) limits continuity of care for patients with multiple healthcare needs and 2) puts excessive demands on provider organizations that work with multiple systems. Funding for high-demand services, such as care coordination, are limited and consequently salaries for the positions are relatively low. Low salaries make hiring difficult and may necessitate selection of candidates that are under-qualified, particularly considering the expectations of the job.

> *We have to find people that are from the managed care world, that are from the hospital world. We have to find professionals that understand those worlds and they also have to be database professionals, they have to be able to navigate Navitar, they have to be able to navigate Dashboard, they have to be able to input information into these databases, and into our own database, and to be able to do it many times offsite. You're stuck between a rock and hard place, because people with enough skills and training to work with such a high acuity, in most cases, group of clients. But then also they'll have, like the background is more like data entry… You want them to come in with some of the skills, 50% of the skills, I mean, maybe we have to teach them the other 50%. Maybe they come in with substance abuse skills but they don't know mental health and they don't diabetes and primary healthcare concerns, or maybe it's the other way around. It feels like [it's too much to ask of a person], but you have to make it work. (Key informant multiservice agency)*.

Service Gaps Related to Primary Care

A key component of the DSRIP program is to reduce avoidable services by bolstering primary care providers and community based organizations (CBOs) to enhance coordination of care andprevention and disease management, particularly for those with chronic conditions. Yet, we find the distribution of primary care providers uneven in Brooklyn, with sparse numbers in certain low-income neighborhoods. In addition, while community providers have made concerted efforts over the years to improve outreach to both community members and hospital providers,[212] concerns remain within the community

[212] See, for example, IPA factsheets provided by AW Medical Offices and referenced in Section A(i) of this report.

regarding the adequacy and accessibility of outpatient care.[213] According to CNA participants, ambulatory care providers' capacity, perceived quality, linkages to broader health care delivery systems, and insufficient evening and weekend service, exacerbates access issues in some high need areas, for example in northern and central Brooklyn.[214] The data, including responses from large numbers of key informants and focus group participants, also suggest there is a lack of culturally and linguistically competent specialists[215] and multi-specialty centers that could provide a 'one-stop shopping' experience that many patients seek. For example:

> *When you look at specialty care, say around mental health, for example, if an individual wants to go to someone who's culturally competent, we don't have a lot of Asian-Americans who are going into fields like mental health or behavioral health issues.*

From the community perspective, the costs incurred— in both time and money — in seeking medical care remains very problematic and acts as a barrier for low income populations to effectively use prevention and disease management services. The concerns are illustrated by the followingcomments from respondents:

> *I just walked out. I was there for like, 4 hours. I mean, I can't do that. I've been here since 10 AM. Why am I not seen yet? People get frustrated. (focus group participant)*

> *I played it smart. I had an emergency and I went to the emergency room. They took care of me so quick. I was there for like 30 minutes. When you go to see a doctor, you must have an appointment with the doctor. That's my beef. Two weeks, or two months. It depends. (focus group participant)*

> *People say it's not rational to go to the emergency room for care, but when we talk to people, they would say things like, "Well, I tried to make an appointment with my doctor, and it's like four months in advance." What rational person is going to wait four months rather than go [to the ER?] (key informant)*

The brief amount of time doctors spend with patients, and a perception that providers do not have the best interests of patients in mind (i.e., they will do what is expedient rather than what represents highest quality care) also present a challenge. Such concerns have an impact on acceptance of services:

> *First, for preventive care you have to be aware that there's benefit to being screened for a disease that you may have no symptoms of and show no signs of. And you have to trust the provider is going to use the information you give them in a way that won't be to your detriment and ….you need to know that if you are diagnosed with something you are screened for, that there is a route to access to treatment that you can afford (Key informant, CBO)*[216]

[213] NYAM primary data findings, as of September 15, 2014

[214] NYAM primary data findings, as of September 15, 2014. Brooklyn Healthcare Improvement Project (B-HIP) "Final Report: Making the Connection to Care in Northern and Central Brooklyn," August, 2012.

[215] Ibid.

[216] NYAM primary data findings, as of September 15, 2014.

Factors Related to Health Insurance

Focus group participants, in response to a question regarding what should change in health care, overwhelming cited insurance, including its expense, complications, and the limitations it places on choice. Limitations on choice were particularly problematic for individuals with special needs, including individuals with disabilities and limited English proficient individuals. A key informant explained:

> *So if you signed up for a plan and that doctor that takes care of your community isn't on that plan then there's not a whole lot you can do. And the other issue is you might be signed up for a provider who says he accepts this plan and then halfway through the year you're locked into the plan, [even] if the provider drops it…They do not have any commitment and so that's been – there's no accountability on the provider side in terms of staying in it. And this is particularly important for immigrants … when you talk about languages of lesser infusion, where there are not that many providers that speak those languages or have the cultural competence. (key informant, health advocacy)*

Lack of insurance was, not surprisingly, a more common problem in immigrant communities, due to limitations on immigrant eligibility for public insurance programs, as well as more limited access to employer-sponsored care (due to restricted job opportunities). However, community members and key informants also report that income restrictions for Medicaid are unrealistically low, and self-purchased coverage is felt to be too expensive for low-income populations, given the difficulties of paying for basic necessities like food and housing in NYC. Many low-income, previously uninsured, community members had been receiving free or very low cost services at FQHC's or HHC facilities; insurance is perceived to be expensive in comparison.

> *We have lots of people who are low income families, but they're not eligible for Medicaid and they can't afford Obamacare. (key informant, CBO)*

> *Lots of people don't get Obamacare. If we pay the violation for not having insurance, it is cheaper than paying each month's fee. (focus group participant)*

Lack of insurance coverage resulted in neglect of primary care, preventive services, and dentistry; limited access to prescription medications; and use of emergency care for non-urgent issues. For example:

> *I go to emergency room. That's where most people have to go if they don't have a doctor. That's where everybody has to go if you don't have health insurance. (focus group participant)*
> *As you know we have the Affordable Care implementation, but that has to do with your choices of what do you prioritize? You prioritize buying food, paying for your kids' education, or going to check this pain that you have in your chest. Do you think you can do it later? Until you have a massive heart attack, right? Certain of the type of work that people do, in those fields you don't have a lot of health insurance coverage prior to this Affordable Care. A lot of our community work in construction, a lot of community works in service area, restaurants, small business things. So they don't receive healthcare through work-related insurance. So emergency room becomes the place that they go to – and so they don't have a primary physician care, they don't have a continued care. (key informant, CBO)*

I lost my job, but I was not qualified for Medicaid. I had high blood pressure but there was nothing free and accessible. It's a problem for people who are born here; working people cannot afford health care. I want to drop my insurance. I can't afford it. I pay $150 month premium and $50 co-pays. It's worse when you are undocumented but it's a problem for people raised here. People who have minimum wage jobs are not given health insurance or enough hours of work but make too much for Medicaid, so the guidelines need to be changed. If you make more than $104 a week and that's with taxes, you can't live like that. I couldn't get sick. I had to fend for myself. That alone would make you sick, stress you out. (focus group participant)

SECTION D: SUMMARY OF THE ASSETS AND RESOURCES THAT CAN BE MOBILIZED

The health and human services infrastructure in the Bronx provides a solid base for launching collaborative programs to reduce the over utilization of acute care services and support public health interventions. The borough has an extensive array of public and private hospitals, hospital outpatient extension clinics, FQHCs, community health centers, independent community based primary care providers, and community based organizations (CBOs) that are coming together to establish targeted care coordination, health prevention, and disease management strategies through initiatives such as DSRIP, the Interboro and Healthix RHIOS, HHC's and Montefiore's Health Homes, and Health Center Controlled Networks. HHC's Bronx hospitals as well as other providers such as Bronx Lebanon, Montefiore, and Albert Einstein College of Medicine also accommodate physician residency programs which spur the growth of community-based primary and specialty care capacity in medically underserved areas. Expanded capacity, enhanced quality, technological linkages to broader health care delivery systems and operating hours adjusted to patient need are crucial in medically underserved areas such as Mott Haven, Highbridge and Morris Heights.

This approach is supported by the New York State Department of Health, which is leveraging the policy objectives and financial resources from the federal Affordable Care Act and New York State's Medicaid Redesign strategy to invest in primary care service delivery funding for community health center development and capacity expansion, as well as increasing the number of insured individuals and families who will have greater access to community-based health care services. In addition, funding for establishing Patient Centered Medical Homes and EHR Meaningful Use are significant incentives to attain care coordination and quality outcome goals that are so integral to the success of DSRIP.

New York City is fortunate in that its local health department, NYC DOHMH, has been led by visionary public health experts who, with Mayoral support, have established trailblazing population health programming and policy initiatives. These efforts include broad anti-smoking campaigns, a ban on transfats in local restaurants, targeted efforts to increase physical activity (e.g. City Share bike share program, incentivizing active design in new building developments) and healthy eating initiatives such as expanding the presence of local farmers markets in low-income neighborhoods and establishing nutritional standards in schools and other public institutions. These are just a few examples of the broad impact that DOHMH has on improving the health of local communities.

DOHMH is also supporting new initiatives such as the new Center for Health Equity, which will focus on reducing health disparities citywide, and a new community health worker program that is being piloted in East Harlem. Overall, there may be greater opportunities for synergies between the NYC DOHMH and the health systems in the Bronx to replicate these programs across the borough.

Community-based organizations (CBOs) such as BronxWorks, Inc., the Hispanic AIDS Forum, and Narco Freedom provide crucial social and enabling services to neighborhoods and specific constituencies, and will continue to be vital resources for culturally and linguistically targeted health education and chronic disease management, health insurance enrollment, treatment adherence and linkages to additional community resources. CBOs also encompass faith-based organizations and religious institutions that are often the initial, trusted source of referrals for local community services.

Bronx CBOs are potent activists in advocating for social and regulatory change that will positively impact on health outcomes in areas including but not limited to:

- Supportive housing and increased affordable housing development.
- Behavioral health care reform, including integration with primary care and other behavioral service providers.
- Immigration, education, and correctional services reform.
- Legal assistance in multiple languages related to immigration and housing issues, domestic violence, and emergency financial assistance from organizations such as Asian Americans for Equality, the New York Immigration Coalition and the New York City Housing Authority.
- Social services programs including SNAP, Medicaid and subsidized child care (NYC Human Resources Administration, the NYC Administration for Children's Services and Catholic Charities).

GLOSSARY OF KEY TERMS

Avoidable Hospital Use: "This term is used to designate all avoidable hospital service use including avoidable emergency department use, avoidable hospital admissions and avoidable hospital readmissions within 30 days. This can be achieved through better aligned primary care and community based services, application of evidence based guidelines for primary and chronic disease care, and more efficient transitions of care through all care settings." (New York State Department of Health, "NYS DSRIP Glossary")

Clinical Improvement Milestones: "Noted under Domain 3, these milestones focus on a specific disease or service category, e.g., diabetes, palliative care, that is identified as a significant cause of avoidable hospital use by Medicaid beneficiaries. Milestones can either relate to process measures or outcome measures and can be valued either on reporting or progress to goal, depending on the metric. Every Performing Provider System must include one strategy from behavioral health. Payment for performance on these outcome milestones will be based on an objective demonstration of improvement over baseline, using a valid, standardized method." (New York State Department of Health, "NYS DSRIP Glossary")

Community District (CD): New York City has 59 community districts: 12 in Brooklyn, 12 in the Bronx, 12 in Manhattan, 14 in Queens and three in Staten Island. Each community district appoints a community board, an advisory group that is comprised of 50 volunteers to assist neighborhood residents and to advise on local and city planning, as well as other issues.

Community Needs Assessment (CNA): As defined in the NYS DOH CNA guidance, "this process includes a description of the population to be served, an assessment of its health status and clinical care needs, and an assessment of the health care and community wide systems available to address those needs." (New York State Department of Health, "Guidance for Conducting Community Needs Assessment Required for DSRIP Planning Grant and Final Project Plan Applications," as of June, 2014).

The specific aims of the CNA process are to:

- Describe health care and community resources,
- Describe communities served by the PPSs,
- Identify the main health and health service challenges facing the community, and
- Summarize the assets, resources, and needs for the DSRIP projects.

Delivery System Reform Incentive Payment (DSRIP): As defined by NYS DOH, "DSRIP is the main mechanism by which New York State will implement the Medicaid Redesign Team (MRT) Waiver Amendment. DSRIP's purpose is to fundamentally restructure the health care delivery system by reinvesting in the Medicaid program, with the primary goal of reducing avoidable hospital use by 25% over 5 years. Up to $ 6.42 billion dollars are allocated to this program with payouts based upon achieving predefined results in system transformation, clinical management and population health." (New York State Department of Health, "DSRIP FAQs")

District Public Health Office: Three DPHOs were established by NYC DOHMH in 2002 to reduce health disparities in the highest need neighborhoods of the city. They are located in the following neighborhoods:

- East/Central Harlem
- North/Central Brooklyn
- The South Bronx

Domain: "Overarching areas in which DSRIP strategies are categorized. Performing Provider Systems must employ strategies from the domains two through four in support of meeting project plan goals and milestones. Domain one is encompasses project process measures and does not contain any strategies. The Domains are:

- Domain 1: Overall Project Progress
  Domain 2: System Transformation
  Domain 3: Clinical Improvement
- Domain 4: Population-wide Strategy Implementation"

(New York State Department of Health, "NYS DSRIP Glossary")

DSRIP Project Toolkit: "A state developed guide that will provide additional information on the core components of each DSRIP strategy, how they are distinct from one another, and the rationale for selecting each strategy (i.e. evidence base for the strategy and it's relation to community needs for the Medicaid and uninsured population). In addition, the strategy descriptions provided in the toolkit will be used as part of the DSRIP Plan Checklist and can serve as a supplement to assist providers in valuing projects." (New York State Department of Health, "NYS DSRIP Glossary")

MRT Waiver Amendment: "An amendment allowing New York to reinvest $8 billion in Medicaid Redesign Team generated federal savings back into NY's health care delivery system over five years. The Waiver amendment contains three parts: Managed Care, State Plan Amendment and DSRIP. The amendment is essential to implement the MRT action plan as well as prepare for ACA implementation." (New York State Department of Health, "NYS DSRIP Glossary")

New York City Department of Health and Mental Hygiene (NYC DOHMH): New York City's local health department responsible for: disease control, mental hygiene, environmental health, epidemiology, health care access and improvement, health promotion, planning and program analysis and disease prevention and emergency preparedness and response.

Performing Provider Systems (PPS): "Entities that are responsible for performing a DSRIP project. DSRIP eligible providers, which include both major public general hospitals and safety net providers, collaborating together, with a designated lead provider for the group." (New York State Department of Health, "NYS DSRIP Glossary")

Population-wide Project Implementation Milestones: "Also known as Domain 4, DSRIP performing provider systems responsible for reporting progress on measures from the New York State Prevention Agenda. These metrics will be measured for a geographical area denominator of all New York State residents, already developed as part of the Prevention Agenda: http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/index.htm"

(New York State Department of Health, "NYS DSRIP Glossary")

Potentially Preventable Emergency Room Visits (PPVs): "Part of the nationally recognized measures for avoidable hospital use. The measures identify emergency room visits that could have been avoided with adequate ambulatory care." (New York State Department of Health, "NYS DSRIP Glossary")

Potentially Preventable Readmissions (PPRs): "Part of the nationally recognized measures for avoidable hospital use. PPRs measure readmissions to a hospital following a prior discharge from a hospital and that is clinically-related to the prior hospital admission." (New York State Department of Health, "NYS DSRIP Glossary")

Prevention Agenda: "As Part of Domain 4, Population-wide Strategy Implementation Milestones, the Prevention Agenda refers to the "blueprint for state and local action to improve the health of New Yorkers in five priority areas and to reduce health disparities for racial, ethnic, disability, socioeconomic and other groups who experience them", as part of New York State's Health Improvement Plan . Further information: http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/index.htm"
(New York State Department of Health, "NYS DSRIP Glossary")

Prevention Quality Indicators – Adults (PQIs): "Part of the nationally recognized measures for avoidable hospital use PQIs are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. The PQIs are population-based and can be adjusted for covariates for comparison purposes. Additionally there are similar potentially preventable hospitalization measures for the pediatric population referred to as PDIs." (New York State Department of Health, "NYS DSRIP Glossary")

Prevention Quality Indicators – Pediatric (PDIs): "Part of the nationally recognized measures for avoidable hospital use that can be used with hospital inpatient discharge data to provide a perspective on the quality of pediatric healthcare. Specifically, PDIs screen for problems that pediatric patients experience as a result of exposure to the healthcare system and that may be amenable to prevention by changes at the system or provider level. Similarly the PDIs are population based and can be also be adjusted for covariates for evaluation." (New York State Department of Health, "NYS DSRIP Glossary")

Project Progress Milestones: "Also known as Domain 1, measures the investments in technology, tools, and human resources that strengthen the ability of the performing provider systems (PPS) to serve target populations and pursue DSRIP project goals. The Project Progress milestones include monitoring of the project spending and post-DSRIP sustainability. In addition, submission of quarterly reports on project progress specific to the PPS DSRIP project and it's Medicaid and low-income uninsured patient population." (New York State Department of Health, "NYS DSRIP Glossary")

Safety Net Provider (SNP): "Entities that provide care to underserved and vulnerable populations. The term 'safety net' is used because for many low-income and vulnerable populations, safety net

providers are the 'invisible net of protection' for individuals whose lack of health coverage or other social and economic vulnerabilities limits their ability to access mainstream medical care.

Below is the DSRIP specific definition of safety-net provider:
The definition of safety net provider for hospitals will be based on the environment in which the performing provider system operates. Below is the safety net definition:

- A **hospital** must meet one of the three following criteria to participate in a performing provider system:
  1. Must be either a public hospital, Critical Access Hospital or Sole Community Hospital, or
  2. Must pass two conditions:
     A. At least 35 percent of all patient volume in their outpatient lines of business must be associated with Medicaid, uninsured and Dual Eligible individuals.
     B. At least 30 percent of inpatient treatment must be associated with Medicaid, uninsured and Dual Eligible individuals; or
  3. Must serve at least 30 percent of all Medicaid, uninsured and Dual Eligible members in the proposed county or multi-county community. The state will use Medicaid claims and encounter data as well as other sources to verify this claim. The state reserves the right to increase this percentage on a case by case basis so as to ensure that the needs of each community's Medicaid members are met."
- **Non-hospital based providers**, not participating as part of a state-designated health home, must have at least 35 percent of all patient volume in their primary lines of business associated with Medicaid, uninsured and Dual Eligible individuals.
- **Vital Access Provider Exception**: The state will consider exceptions to the safety net definition on a case-by-case basis if it is deemed in the best interest of Medicaid members. Any exceptions that are considered must be approved by CMS and must be posted for public comment 30 days prior to application approval. Three allowed reasons for granting an exception are:
  - A community will not be served without granting the exception because no other eligible provider is willing or capable of serving the community.
  - Any hospital is uniquely qualified to serve based on services provided, financial viability, relationships within the community, and/or clear track record of success in reducing avoidable hospital use.
  - Any state-designated health home or group of health homes.
- **Non-qualifying providers** can participate in Performing Providers Systems. However, non-qualifying providers are eligible to receive DSRIP payments totaling no more than 5 percent of a project's total valuation. CMS can approve payments above this amount if it is deemed in the best interest of Medicaid members attributed to the Performing Provider System. (New York State Department of Health, "NYS DSRIP Glossary")

System Transformation Milestones: "Also known as Domain 2, these are outcomes based on a community needs assessment, which reflect measures of inpatient/outpatient balance, increased primary care/community-based services utilization, rates of global capitation, partial capitation, and bundled payment of providers by Medicaid managed care plans and measures for patient engagement." (New York State Department of Health, "NYS DSRIP Glossary")

United Hospital Fund (UHF) Neighborhood: There are 42 UHF neighborhoods in NYC, 11 of which are in Brooklyn, and each is comprised of adjoining ZIP Codes to approximate community planning districts. (34 neighborhoods are sometimes used to increase the statistical power of the sample size).

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SECTION F: DOCUMENTATION OF THE PROCESS AND METHODS

Methods: Primary Source Data

In support of the overall aims of the CNAs, primary data were collected and analyzed to ensure the perspectives of community members and stakeholders were incorporated into the reported findings and to respond to specific questions that could not be sufficiently addressed through secondary source data alone. In addressing these questions, we were particularly interested in the perspectives of Medicaid and other low-income populations, as well as the uninsured.

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?
- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?
- What are the health related programs and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health care needs and health promotion activities be better addressed overall and for distinct populations?

The protocol for primary data collection, including the instruments and outreach, was developed by the NYAM Center for Evaluation and Applied Research (CEAR) in collaboration with the PPS's at the start of the CNA process. For data collection activities in the Bronx, Brooklyn, and Queens, the protocol was submitted to – and received approval from - NYAM's Institutional Review Board (IRB). For Manhattan, the protocol was approved by the Biomedical Research Alliance of New York (BRANY).

Instruments and Data Collection

Data were collected through key informant interviews, focus groups, and surveys as described below.

- *Resident Surveys:* Approximately 2500 surveys were completed by residents ages 18 and older across the four boroughs. Survey questions focused on basic demographics, health concerns (individual and community-wide), health care utilization, barriers to care, and use of community and other services (see appendix for Resident Survey). Survey respondents were identified and recruited by local organizations, including community based organizations, senior centers, social service and health providers, and through street outreach—at street fairs, subway stops, and other places where people congregate. Although the sample cannot be considered representative of the City, or any individual borough, in a statistical sense, and gaps are unavoidable, the combination of street and organizational outreach facilitated engagement of a targeted yet diverse population, including individuals not currently connected to services. Surveys were self-administered or administered by NYAM or Tripp Umbach staff, or by staff or

volunteers at community organizations (see Partnering with Community-based Organizations section below), who were trained and supported in survey administration. The surveys were translated into 10 languages: Arabic, Bangla, Chinese (simplified and traditional), Haitian Creole, French, Hindi, Korean, Polish, Russian and Spanish. Participants received a Metrocard valued at $10 for completing the survey.

- *Key Informant Interviews:* Eighty-five key informant interviews were conducted with key stakeholders from the four boroughs. Key informants were selected with input from the PPS's. A portion had population specific expertise, including particular immigrant groups, older adults, children and adolescents. Others had expertise in specific issues, including, substance abuse, supportive housing, care coordination, corrections, and homelessness. All key informant interviews were conducted by NYAM staff using an interview guide (see attached Key Informant Interview Guide). All key informants were asked about perceptions of health issues in the community, barriers and facilitators to good health, health care and other service needs, and recommendations for services and activities that may benefit the local population. Follow-up questions, asked on ad hoc basis, probed more deeply into the specific areas of expertise of key informants. The interview guide was designed for a discussion lasting 60 minutes; in fact, interviews ranged from 45 to 120+ minutes. All key informant interviews were audiotaped and professionally transcribed to ensure an accurate record and to allow for verbatim quotations. (See Appendix C for the list of Key Informants by name, position, and organization.)

  Focus Groups: Eighty focus groups were conducted for the Community Needs Assessment by trained staff from NYAM or Tripp Umbach. Most of the focus groups were with community members, including residents from low-income neighborhoods and residents identified as having unique health and service needs, including individuals with behavioral health issues, older adults, LGBTQ, and immigrants and/or other limited English proficient (LEP) individuals. Focus group participants were recruited by local organizations, community based organizations, senior centers, social service providers, tenant associations, and health providers. Community member interest in the focus groups was high, with some groups including up to 30 individuals. In addition to the resident groups, we conducted a small number of focus groups with community leaders, as well as providers, including behavioral health providers, care coordinators, and physicians. These groups were coordinated by collaborating PPS's, so as to ensure that the perspective of key stakeholders was incorporated into the findings.

  Focus groups lasted approximately 90 minutes and were conducted using a semi-structured guide, with questions that included, but were not limited to: perceptions of health issues in the community, access to resources that might promote health (e.g., fresh fruit and vegetables, gyms), use of health services, access to medical and behavioral health care, domestic violence, and recommendations for change (see Appendix C). Follow-up questions were asked on ad hoc basis, based on responses heard. Focus groups in languages other than English, Spanish and French were conducted solely by trained community partners (see Partnering with Community-

based Organizations section below). Participants received a $25 honorarium, in appreciation of their time and insights. All focus groups were audio recorded, so that transcriptions and/or detailed reports could be developed for each, and to allow for verbatim quotations.

Data Management and Analysis

Surveys: Survey data were entered using Qualtrics, a web-based survey platform. They were analyzed according to standard statistical methods, using SAS. Means and proportions were generated. As appropriate, bivariate analyses was conducted to better understand the association between health indicators and geographic, demographic, and socioeconomic characteristics.

Interviews and Focus Groups: Transcripts and focus group reports were maintained and analyzed in NVivo, a software package for qualitative research. Data were coded according to pre-identified themes relevant to health, community needs, and DSRIP, as well as themes emerging from the data themselves (see Appendix C. for code list). Analysts utilized standard qualitative techniques, involving repeated reviews of the data and consultation between multiple members of the research team. Analyses focused on 1) common perceptions regarding issues, populations, recommendations, etc., 2) the unique knowledge and expertise of particular individuals or groups and 3) explanatory information that facilitated interpretation of primary and secondary source data.

Partnering with Community-based Organizations

Consistent with DSRIP CNA guidance, NYAM and Tripp Umbach conducted primary data collection in collaboration with numerous community organizations. Community organizations were identified in collaboration with PPS representatives, and represented a range of populations (e.g., older adults, individuals with chronic diseases, LGBT community members, and immigrant populations) and neighborhoods.

As described above, community organizations assisted in recruitment for and administration of focus groups and surveys. All organizations assisting with survey administration or focus group facilitation were provided with written guidelines including information on data collection and the general research protocol, the voluntary nature of research, and confidentiality. Organizations also participated in an in-person or phone training on data collection conducted by NYAM or Tripp Umbach staff. Community organizations partnering in the research received an agency honorarium consistent with their level of responsibility

Methods: Secondary Source Data

The secondary data analyses followed the recommendations and guidelines set forth in the *Guidance for Conducting Community Needs Assessment* provided by the New York State Department of Health: (http://www.health.ny.gov/health_care/medicaid/redesign/docs/community_needs_assessment_guidance.pdf). Overall, the analyses started with publicly available, de-identified data to assess health care and community resources, disease prevalence, demographic characteristics, and social determinants of health. The aim of this component of study was to assess preventable emergency room visits and hospitalizations, as well as to develop a set of descriptive analyses on the rates of chronic conditions of the population at county and ZIP Code levels, where available.

Our analyses of publicly available data was supplemented with review of the available literature, including reports prepared by the participating providers, the NYS Department of Health, NYC Departments of Health and City Planning, academic institutions, and others. Quantitative data was summarized first with descriptive statistics. More advanced techniques, including regression analysis, was used to explore relationships between relevant variables. Where possible, data was presented in graphical (charts, line graphs, and maps) format to facilitate ease of communication and comprehension.

For the Bronx and Brooklyn reports, NYAM aggregated, analyzed, and interpreted these data in preparation for a final draft report submitted to PPS partners in early October. HHC's Corporate Planning Services later updated and revised these reports. All secondary data analyses for Queens and Manhattan were conducted by HHC's Corporate Planning Services.

Below we list and provide brief descriptions of the data sets used:

- **NYS Community Health Indicator Reports**

These data are used to compare rates of chronic disease-specific morbidity, mortality, hospitalization and other indicators of poor health and associated health care utilization in particular communities to the corresponding rates of NYC and NYS.
http://www.health.ny.gov/statistics/chac/indicators/

- **Behavioral Risk Factor Surveillance System (BRFSS)**

These data are used to describe the population of New York State, New York City and counties/boroughs in terms of health status (e.g., percentage of the population uninsured, percentage with diabetes or obese, etc.). The BRFSS is a telephone survey and the de-identified, individual level data are publicly available for download from the Centers for Disease Control and Prevention. Individual-level metrics on regular source of care, mental health and chronic conditions will be obtained from BRFSS.
http://www.cdc.gov/brfss/

- **Statewide Planning and Research Cooperative (SPARCS)**

Aggregate and individual-level (de-identified) metrics on preventable hospitalizations, emergency department visit rates and hospitalization rates for chronic conditions will be obtained through the publicly available SPARCS data.

https://health.data.ny.gov/Health/Hospital-Inpatient-Discharges-SPARCS-De-Identified/u4ud-w55t

- **Prevention Quality Indicators (PQI)**

These data include preventable hospital admission rates, with observed and expected rate per 100,000 by PQI Name, allowing identification of ZIP Code areas with elevated rates and comparison to NYC and NYS.
https://health.data.ny.gov/Health/Hospital-Inpatient-Prevention-Quality-Indicators-P/iqp6-vdi4

https://health.data.ny.gov/Health/Medicaid-Inpatient-Prevention-Quality-Indicators-P/izyt-3msa?

- **Pediatric Quality Indicators (PDI)**

These data include preventable hospital admission rates, with observed and expected rate per 100,000 by PQI Name, by county, allowing comparison to NYC and NYS.

https://health.data.ny.gov/Health/Medicaid-Inpatient-Prevention-Quality-Indicators-P/64yg-akce

- **Potentially Preventable Emergency Visits (PPV)**

These data include potentially preventable hospital emergency department visits, with observed and expected rate per 100,000, allowing identification of ZIP Code areas with elevated rates and comparison to NYC and NYS.

https://health.data.ny.gov/Health/Medicaid-Potentially-Preventable-Emergency-Visits-/khkm-zkp2

- **Hospital-specific profiles of quality of care for selected conditions**

http://hospitals.nyhealth.gov/index.php?PHPSESSID=8884724aa17728cabe8a127921762546

- **Medicaid Chronic conditions, Inpatient Admissions, and Emergency Room Visits**

These data are de-identified and publicly available by county and ZIP Code for: Diabetes Mellitus, Diseases and Disorders of the Cardiovascular System, Diseases and Disorders of the Respiratory System, HIV Infection, Mental Diseases and Disorders, Newborn and Neonates, and Substance Abuse. Counts of Medicaid beneficiaries and number of ER visits and inpatient admissions by condition are also available by ZIP Code.

https://health.data.ny.gov/Health/Medicaid-Chronic-Conditions-Inpatient-Admissions-a/wybq-m39t

- **Medicaid hospital inpatient Potentially Preventable Readmission (PPR) Rates**

Listing of the number of at risk admissions, number of observed PPR chains, observed PPR rate, and expected PPR rate to help characterize hospital performance on this metric.

https://health.data.ny.gov/Health/Medicaid-Potentially-Preventable-Emergency-Visit-P/cr7a-34ka

- **NYS Prevention Agenda 2013-2017 tracking indicators**

These provide data for counties for a variety of health outcomes including rates of preterm birth, unintended pregnancy, maternal mortality, new HIV cases, new STI cases, immunization rates, obesity, and smoking.
https://health.data.ny.gov/Health/Prevention-Agenda-2013-2017-Tracking-Indicators-Co/47s5-ehya

- **American Community Survey 2012 5-year estimates**

These data are used to estimate demographic information by ZIP Code Tabulation Area and Community District.
http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

- **Vital Statistics**

Aggregate metrics on premature deaths, suicide rates, and Low Birth Weight and preterm births are obtained from the NYSDOH Vital Statistics.

http://www.health.ny.gov/statistics/vital_statistics/

https://www.health.ny.gov/statistics/chac/perinatal/index.htm

- **NYS HIV Surveillance System** and **NYS STD Surveillance System**

We used the latest reports available (2012) to obtain aggregate information on the rates of HIV and STDs for the state, city and boroughs.

http://www.health.ny.gov/diseases/aids/general/statistics/annual/2010/2010-12_annual_surveillance_report.pdf

- **NYC DOHMH HIV Surveillance System**

Data on the number and rates per 100,000 population of People Living with HIV/AIDS by UHF were obtained from NYC DOHMH

http://www.nyc.gov/html/doh/html/data/hiv-eq.shtml

- **NYC DOHMH Community Health Survey**

Data on Obesity, Psychological Distress, Self-Reported Health Status, Binge Drinking and Smoking were obtained from the NYC DOHMH Community Health Survey
http://www.nyc.gov/html/doh/html/data/survey.shtml

- **Mental Health Services Utilization and Co-morbidities**

Aggregate data on utilization by service type and co-morbidities are obtained from the NYS Office of Mental Health

http://bi.omh.ny.gov/cmhp/dashboard

- **Rat sightings by location**

Geo-coded information on rat sightings called into 311 was obtained from NYC DOHMH
https://nycopendata.socrata.com/Social-Services/Rat-Sightings/3q43-55fe

- **Serious Crime rate per 1,000 residents and Serious Housing Violations per 1,000 rental units**

Rates by Community District and borough obtained from the NYU Furman Center
http://furmancenter.org/research/sonychan

- **NYC Department of Corrections Jail admissions**

New jail admissions data were obtained from the NYC Department of Corrections (DOC) at the ZIP Code level through an article in The Gothamist, and at the NYC level from DOC

http://gothamist.com/2013/05/01/these_interactive_charts_show_you_w.php
https://data.cityofnewyork.us/City-Government/DOC-Annual-Statistics/wkaa-8g8b

- **NYS Prison Admissions**

New NYS prison admissions data were obtained from the Justice Atlas of Sentencing and Corrections at the borough, NYC, and State level

http://www.justiceatlas.org/

- **Health Care Resources and Community Based Resources**

In addition to the data sets listed above, the following publicly available data-sets were inventoried and analyzed to assess the capacity, service area, populations served, areas of expertise and gaps in service for healthcare and community resources in the Bronx:

Health Care Resources

- New York State Department of Health Safety Net Lists
- New York State Department of Health Dental Providers that Accept Medicare/Medicaid
- New York State Department of Health AIDS Institute. “AIDS Drug Assistance Program Plus Dental Providers
- New York State Department of Health AIDS Institute. “Ryan White Dental Clinics for People Living with HIV/AIDS

- New York State Department of Health Profiles: Hospitals, Nursing Homes, Hospices, Adult Care Facilities and other health care facilities
- New York State Department of Health Division of Managed Care and Program Evaluation Managed Care Plan Directory
- New York State Department of Health Office Based Surgery Practices in New York State
- Health Resources and Services Administration (HRSA) Health Care Service Delivery and Look-Alike Sites
- Health Resources and Services Administration Health Care Facilities (CMS)
- New York City Department of City Planning. Selected Facilities and Program Sites
- Greater New York Hospital Association Health Information Tool for Empowerment (HITE) data
- NYC Department of Education (DOE) Office of School Health School Based Health Centers
- American Academy of Urgent Care Medicine (AAUCM) website
- City MD website
- NYS Office of Mental Health (NYS OMH) Local Mental Health Programs in New York State
- NYS OMH Residential Program Indicators (RPI) Report Tool
- NYS OMH OMH TCM Programs – Location with Program Capacity
- NYS Office of Mental Health (NYS OMH), Office of Performance Measurement and Evaluation. County Capacity and Utilization Data Book, CY 2012 or 2013. April, 2014
- Bronx Westchester Area Health Education Center website
- New York State Department of Health HCRA Provider List July 2014.
- Center for Health Workforce Studies. 2008-2010 Blended Physician Data: Analysis of Physician Re-registration Data.
- New York State of Health Navigator Agency Site Locations
- Substance Abuse & Mental Health Services Administration Services Administration (SAMHSA) Physicians Certified for Buprenorphine Treatment

<u>Community Based Resources</u>

- NYC Department of Information Technology and Telecommunications (DoITT) Agency Service Centers
- Administration for Children's Services (ACS) Community Partners
- NYS Education Department, Office of the Professions New York State Nursing Programs
- NYS Department of Health Community Health Worker Programs
- NYC Department of Health & Mental Hygiene (DOHMH). "Directory of Child Care and Day Care Information Offices
- GROWNYC Community Gardens
- NYC Department of Transportation (DOT Daytime Warming Shelters
- NYC Department for the Aging (DFTA) DFTA Contracts
- NYC Department of Probation (DOP) Directory of DOP Office Locations

- Department of Youth and Community Development (DYCD) After-School Programs
- New York State Department of Health AIDS Institute Expanded Syringe Access Programs – Healthcare Facilities
- New York City Department of Health and Mental Hygiene New York City Farmers Markets
- New York State Department of Agriculture & Markets New York State Farmers' Markets
- New York City Housing Authority (NYCHA) Development Data Book
- NYC Department of Consumer Affairs (DCA) Financial Empowerment Centers
- NYC Department of Education (DOE) GED Plus Locations
- HRSA Ryan White Programs
- NYC DOHMH / Public Health Solutions HIV Care Services Sites
- NYC Department of Homeless Services Homebase Locations
- NYC Mayor's Office Programs
- National Alliance for Mental Illness (NAMI) Website
- NYC DOE Public High School Programs
- NYC Women's Resource Network Directory
- NYCHA Summer Meal Locations
- NYC DoITT Office of Adults and Continuing Education (OACE) Sites
- NYC Taxi and Limousine Commission (TLC) Paratransit Bases
- Department of Health Prevention Agenda Contractors
- NYCDOHMH Syringe Access Programs
- Department of Small Business Services Workforce 1 Career Center Locations
- NYC DOE Young Adult Borough Centers

MANHATTAN COMMUNITY NEEDS ASSESSMENT
APPENDIX A - MAPS

December 16, 2014

NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

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APPENDIX A: MAPS OF MANHATTAN

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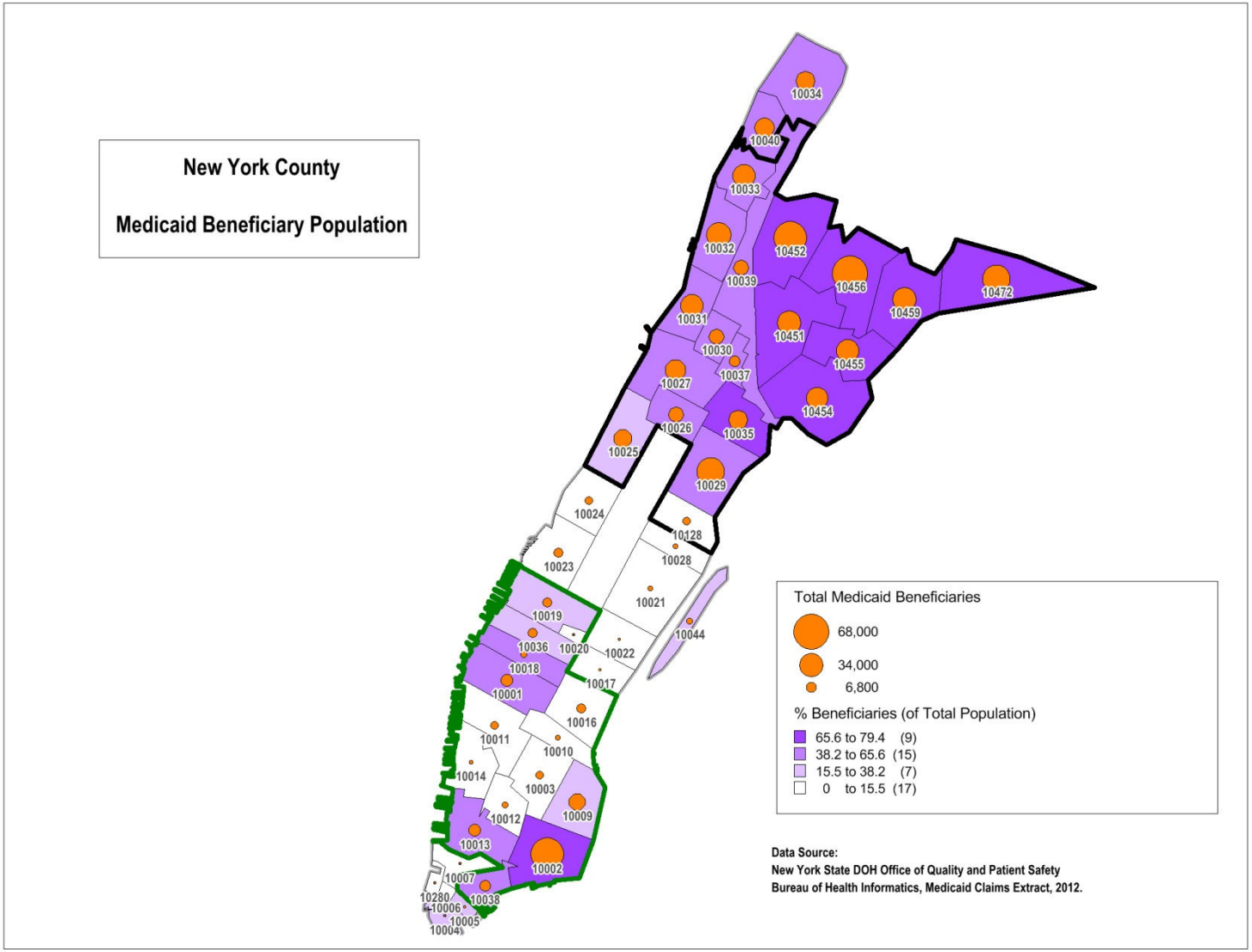
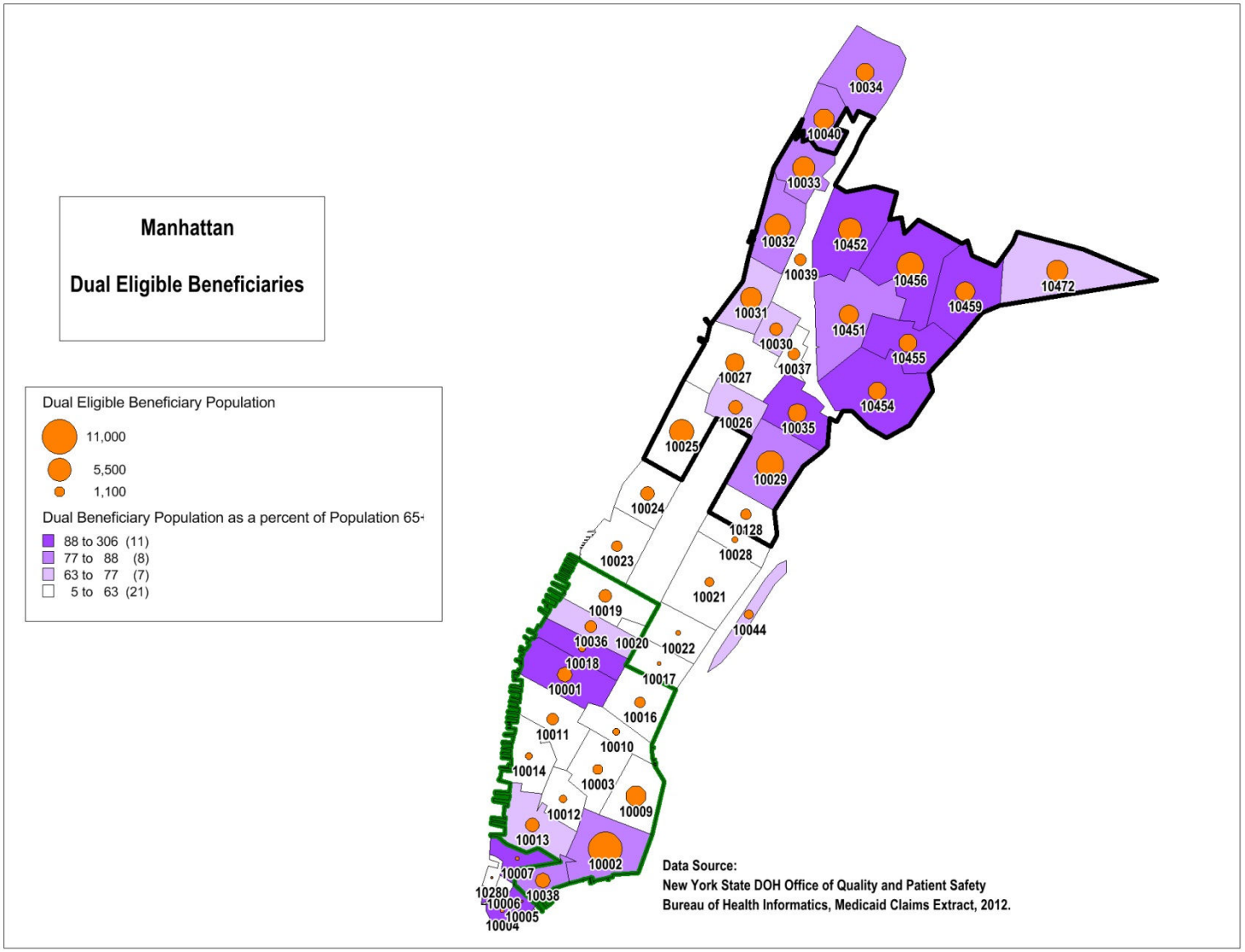
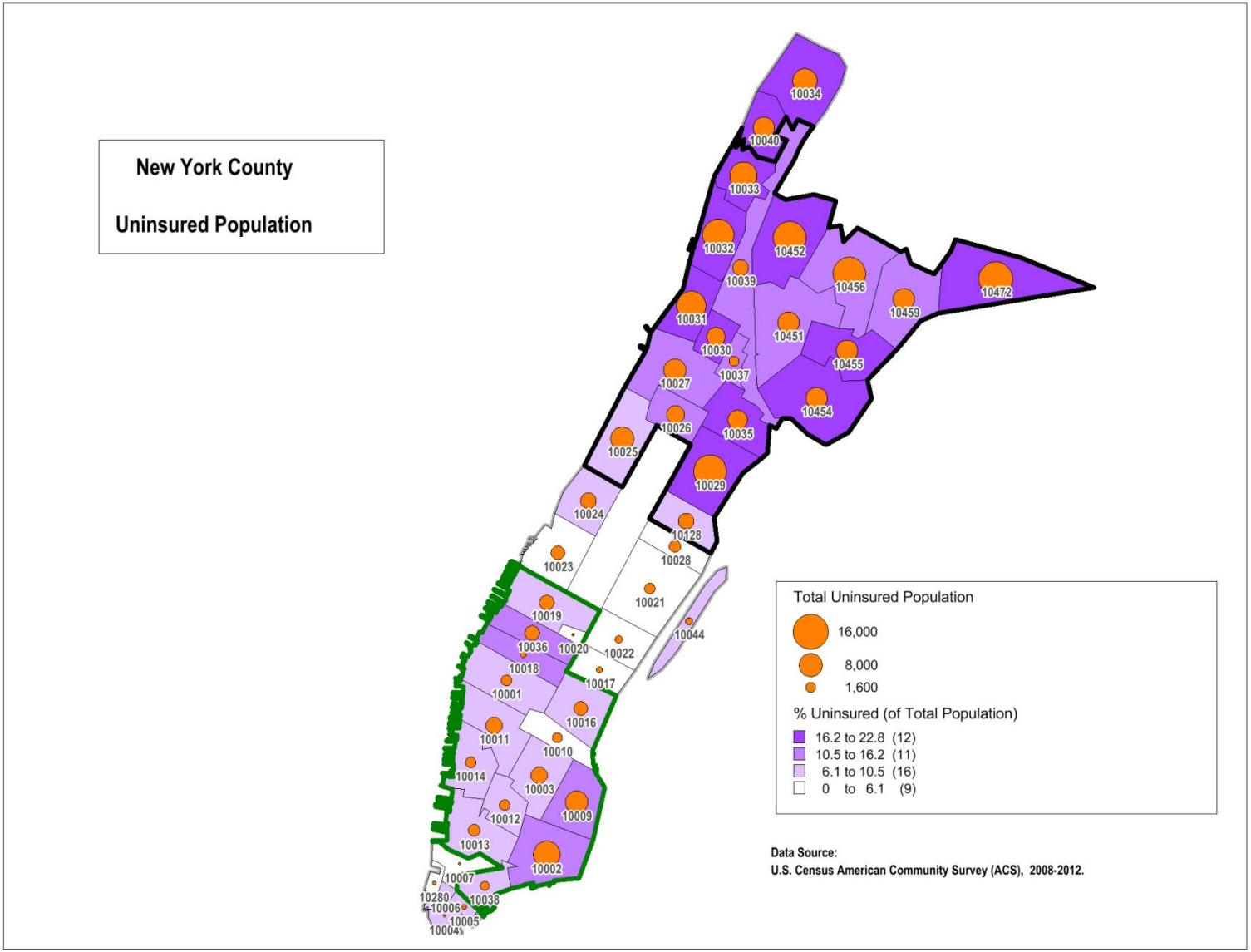


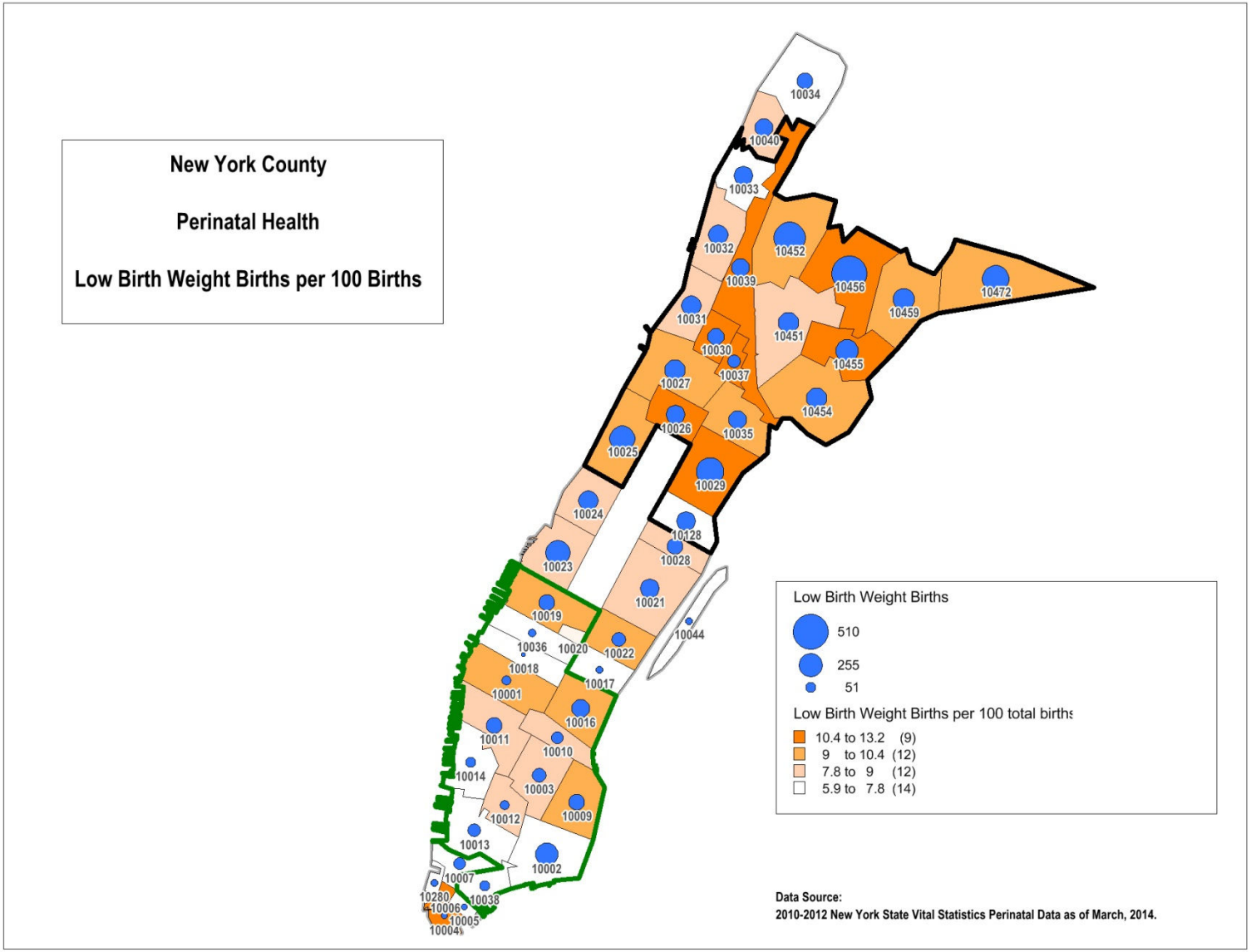
3. Dual-Eligible Beneficiaries by Zip Code



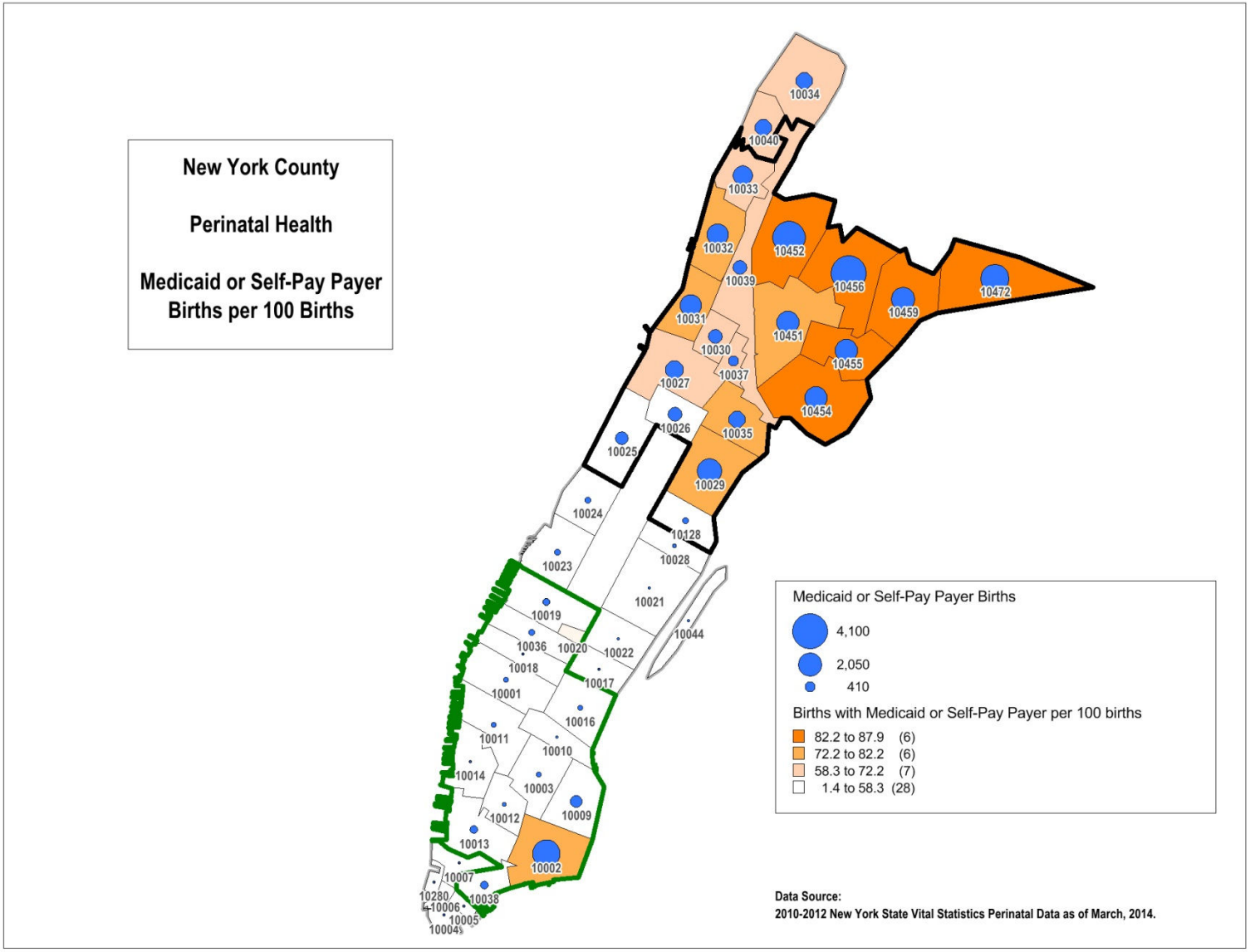
4. Uninsured Population by Zip Code



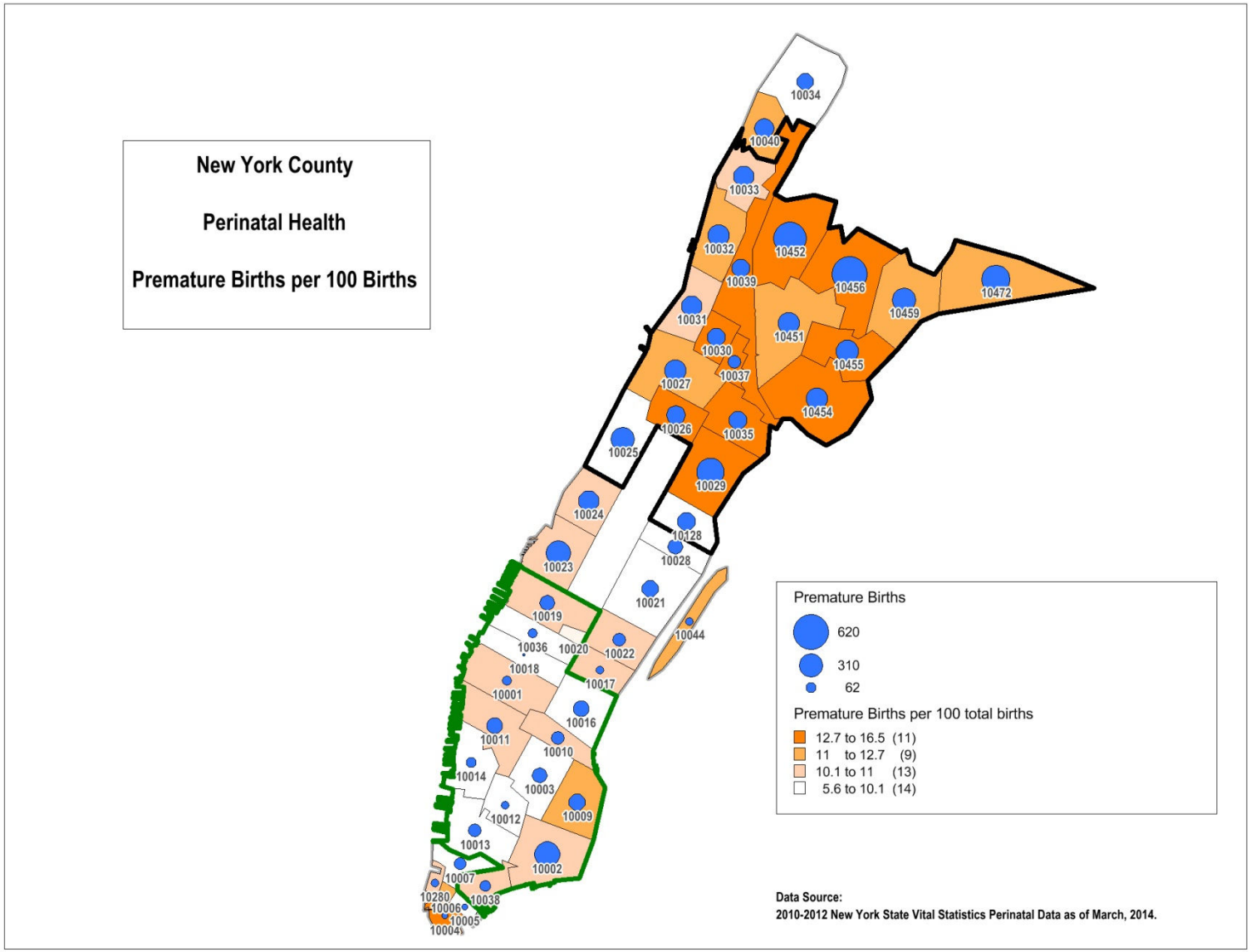
5. Low Birth Weight Births by Percentage of Births by Zip Code



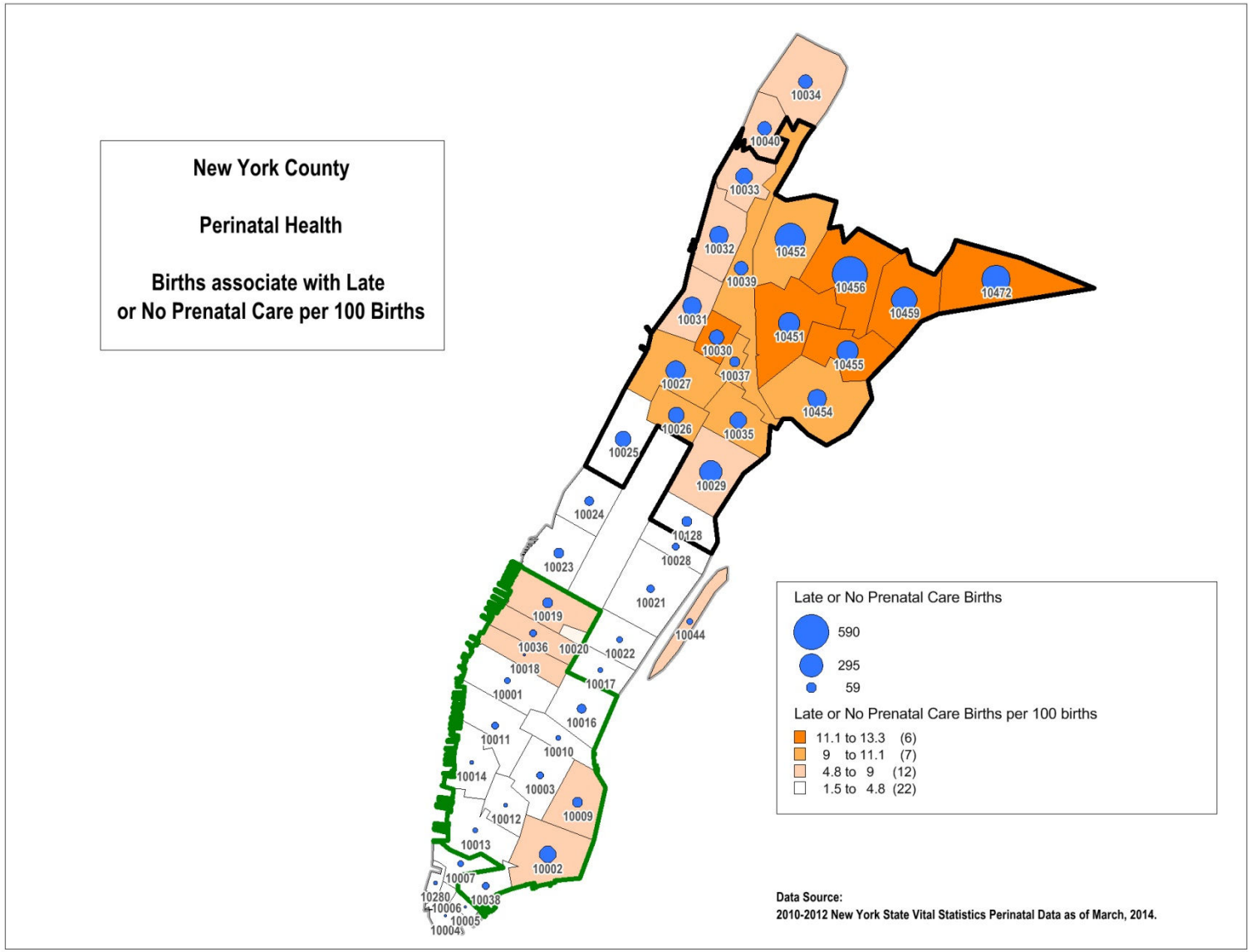
6. Percentage of Births with Medicaid or Self-Pay Payer by Zip Code



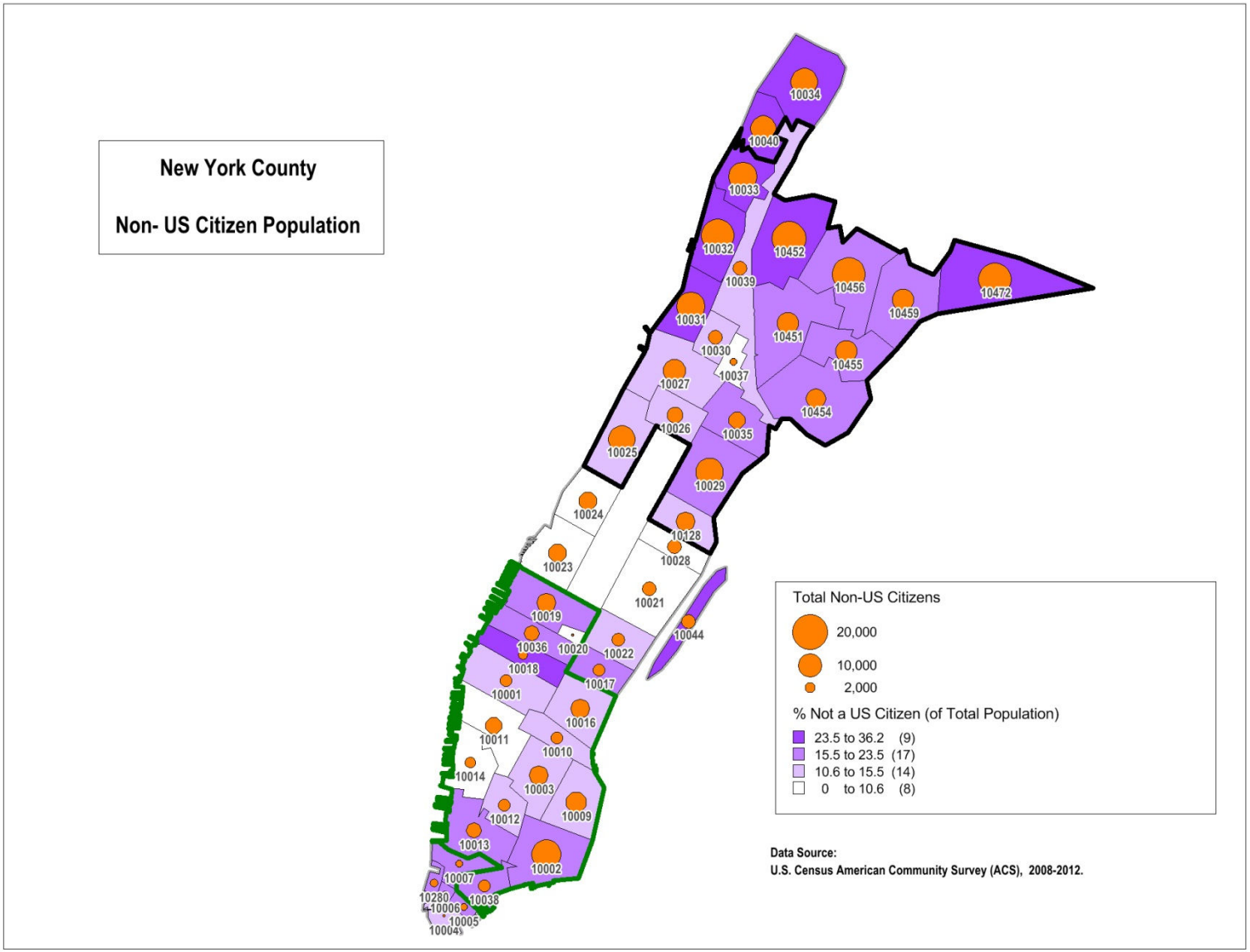
7. Preterm Births by Percentage of Births by Zip Code



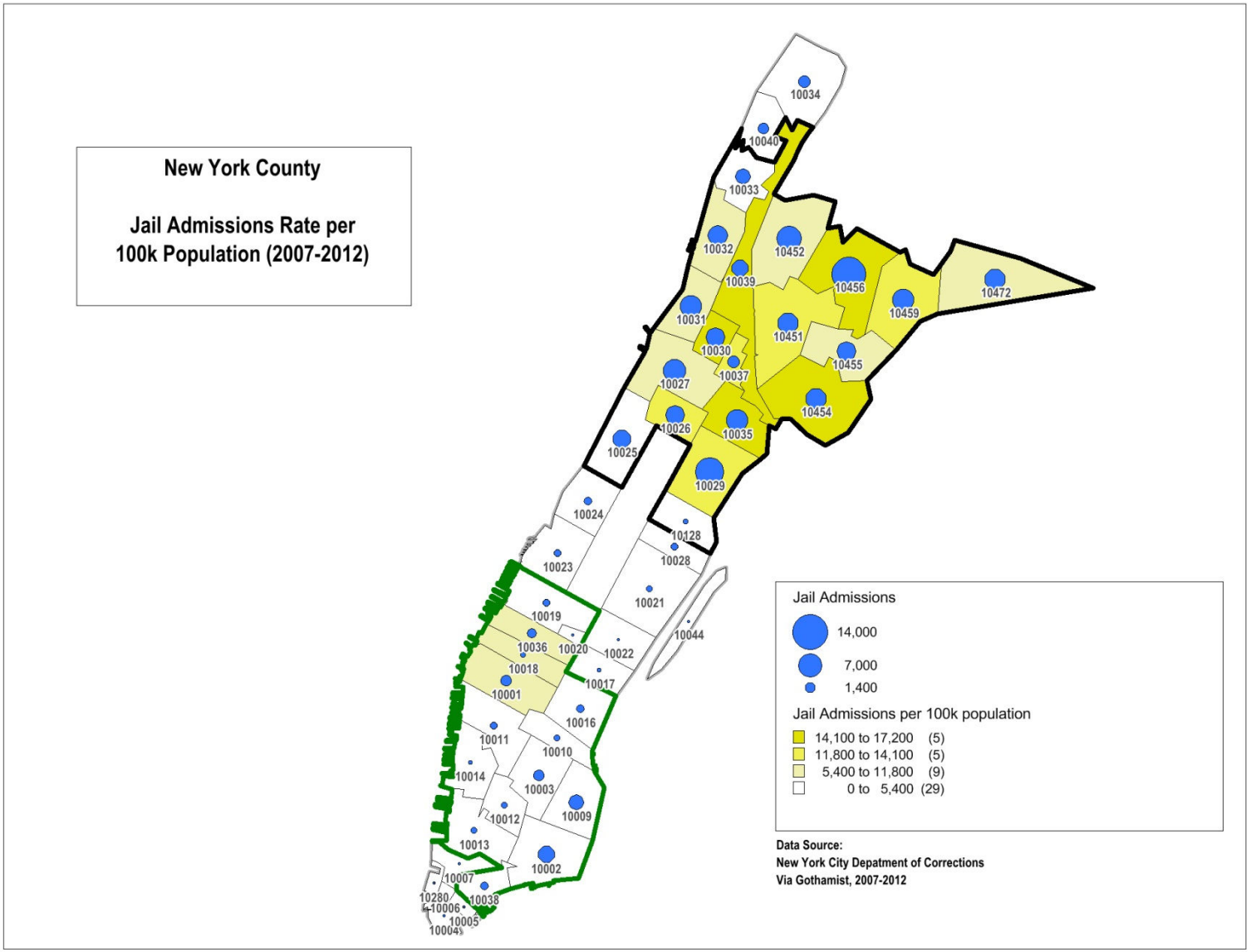
8. Percentage of Births Associated with Late or No Prenatal Care by Zip Code



9. Non US Citizen Population by Zip Code



10. NYC Department of Corrections Average Rate Per 100,000 of Jail Admissions by Zip Code



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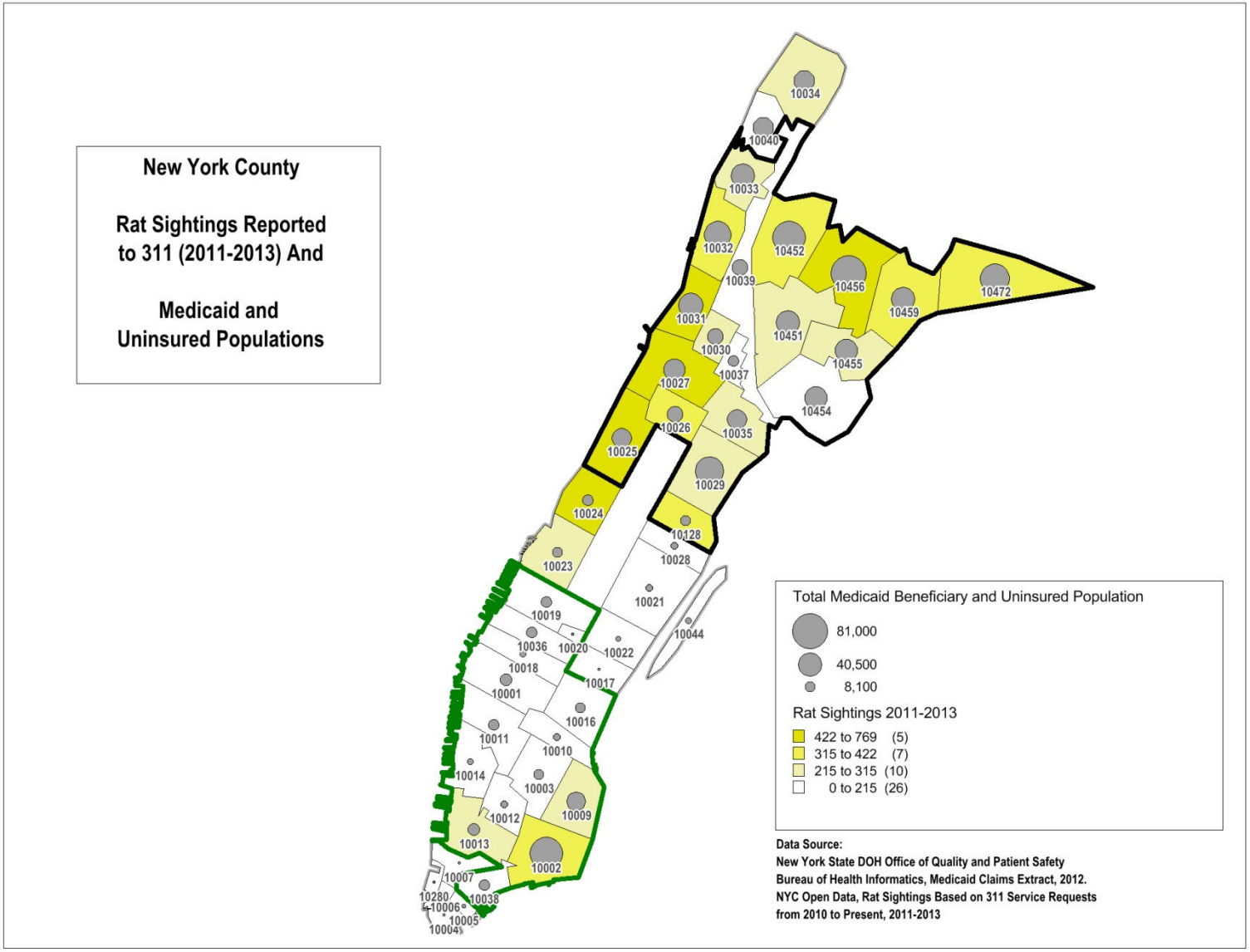

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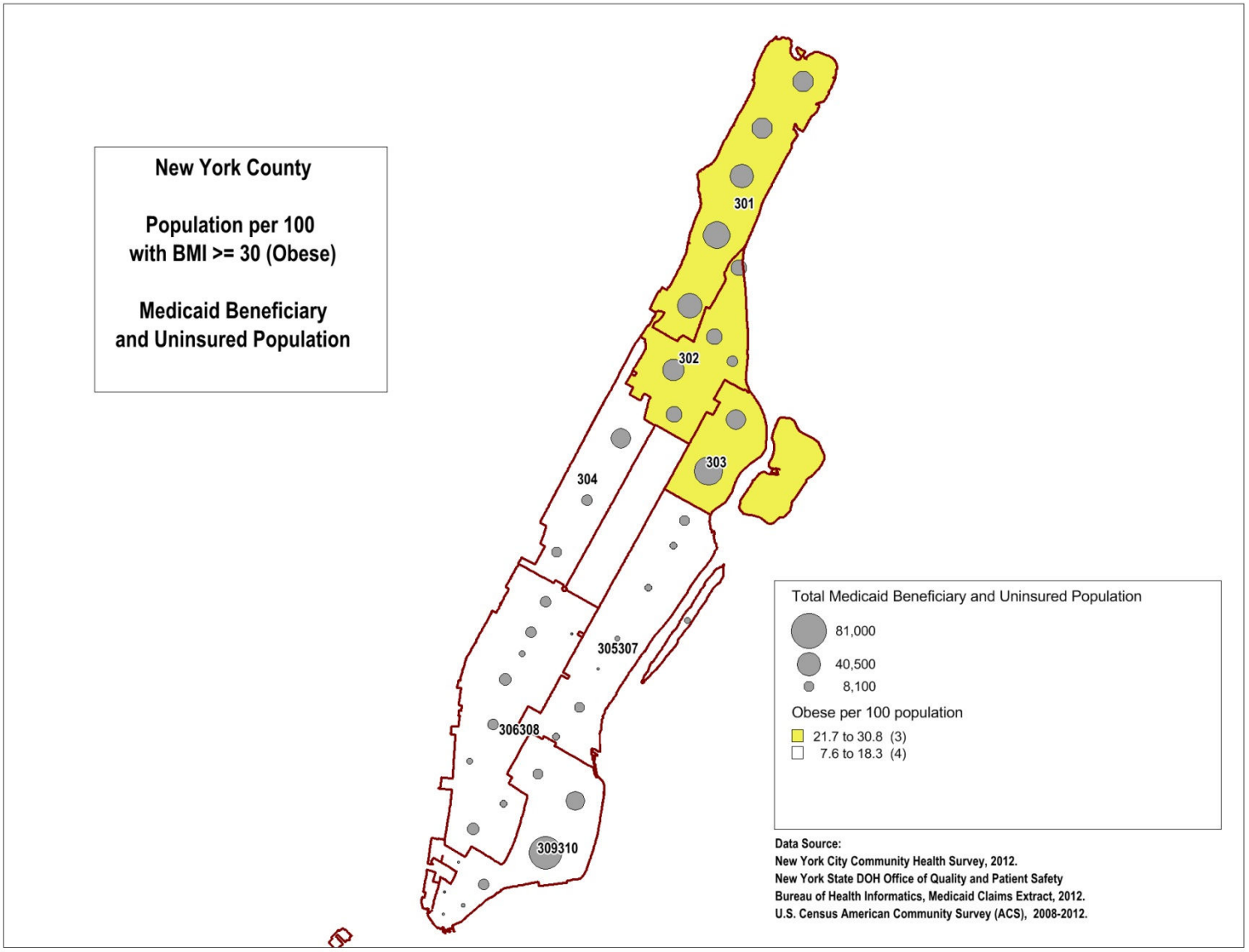

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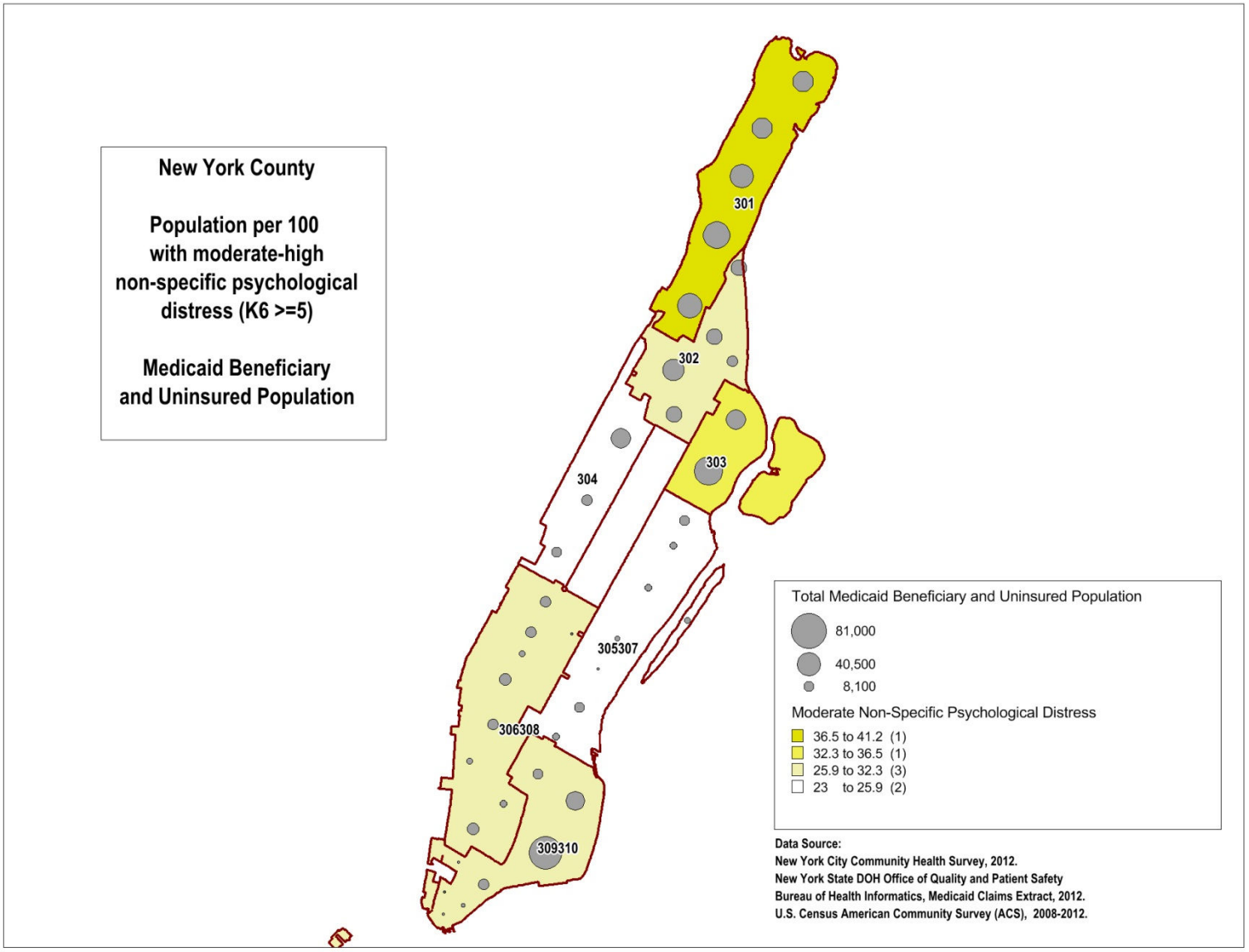

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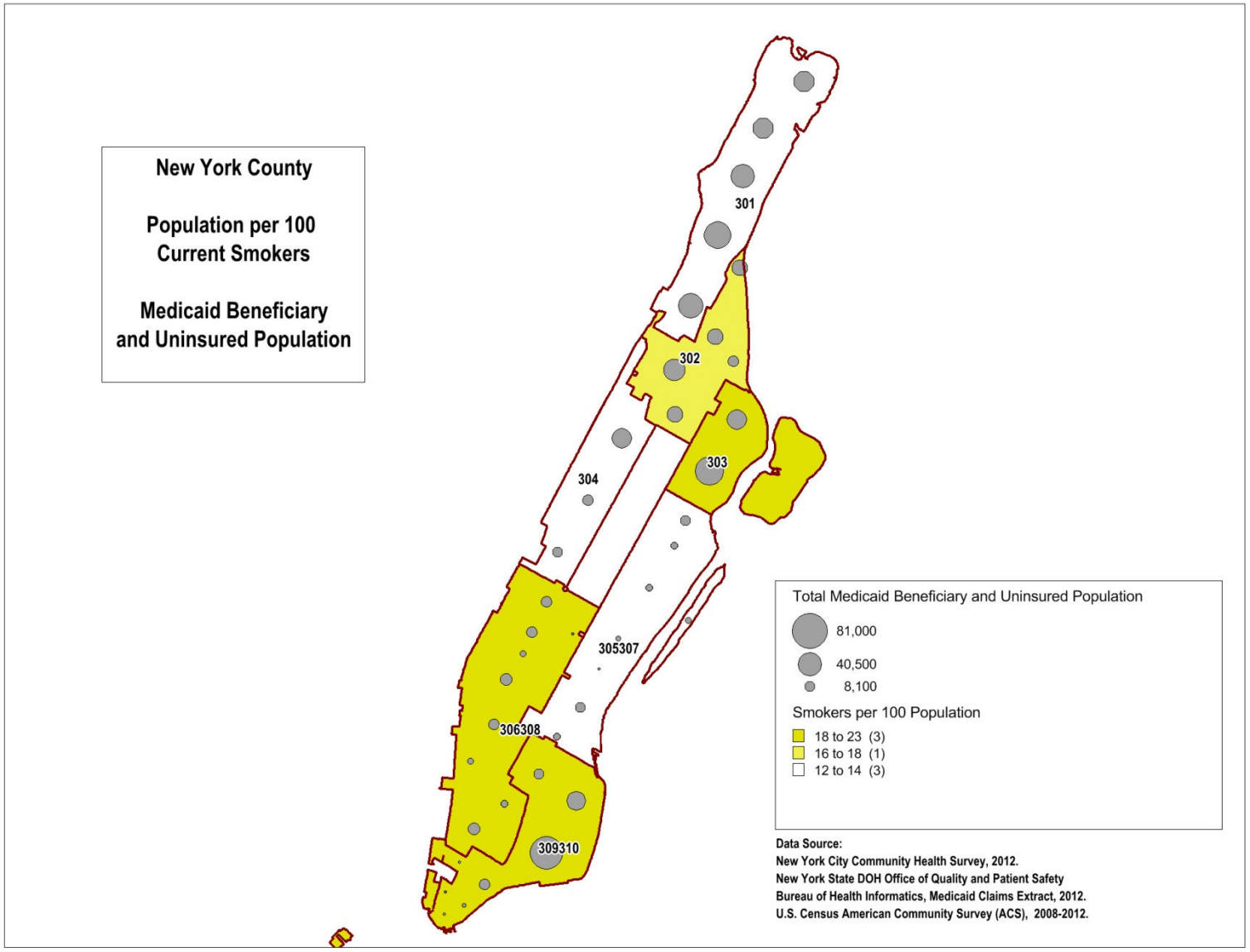

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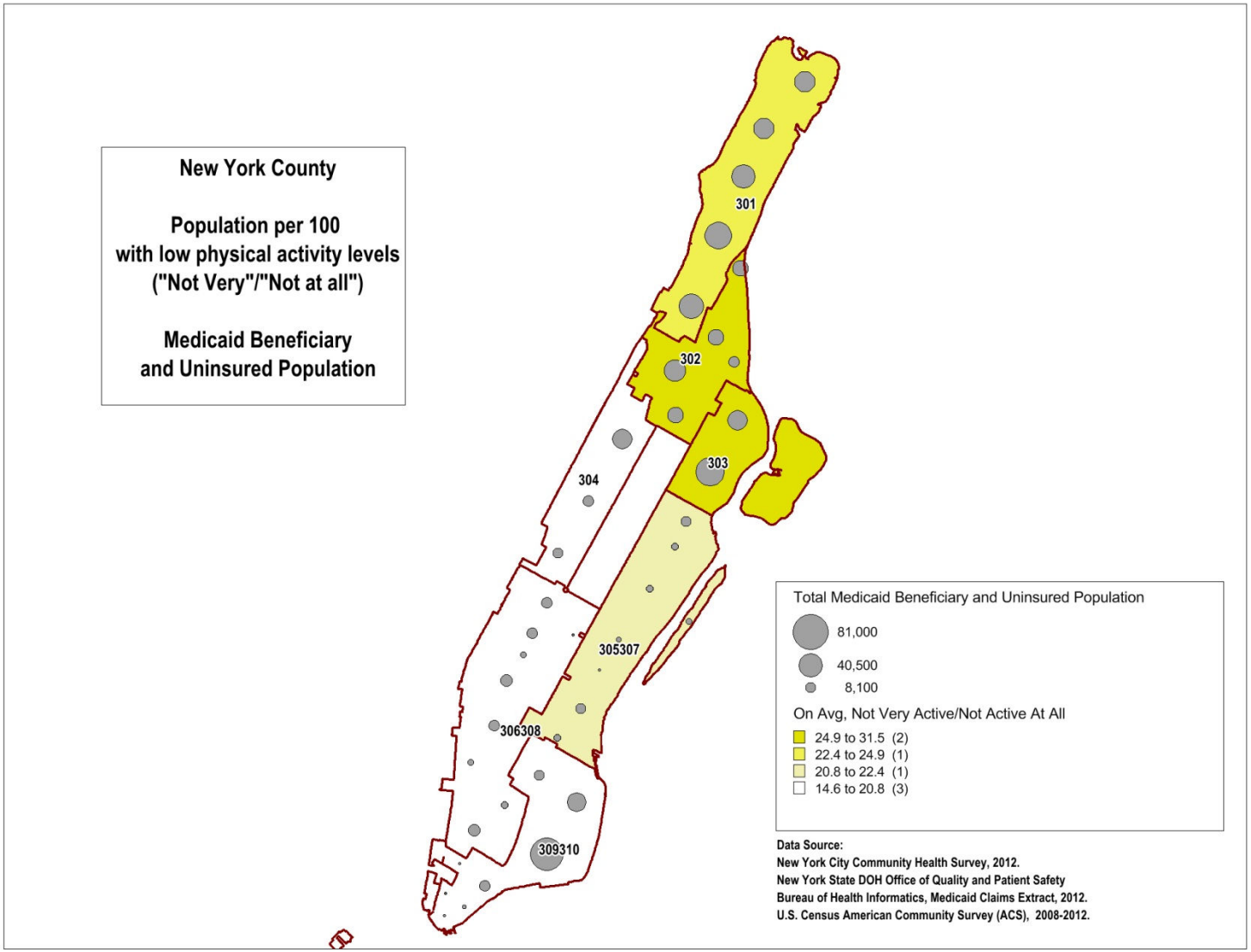

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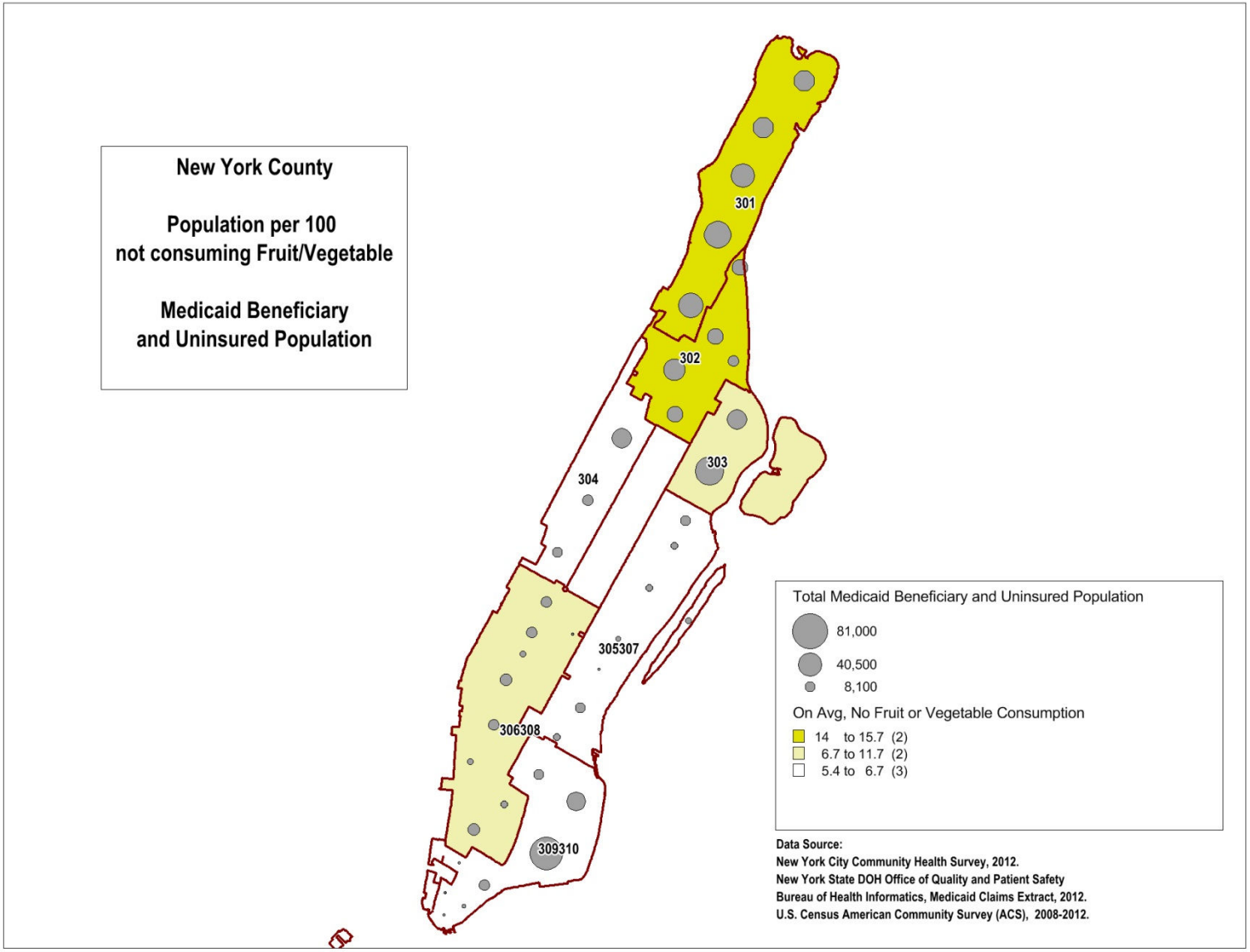

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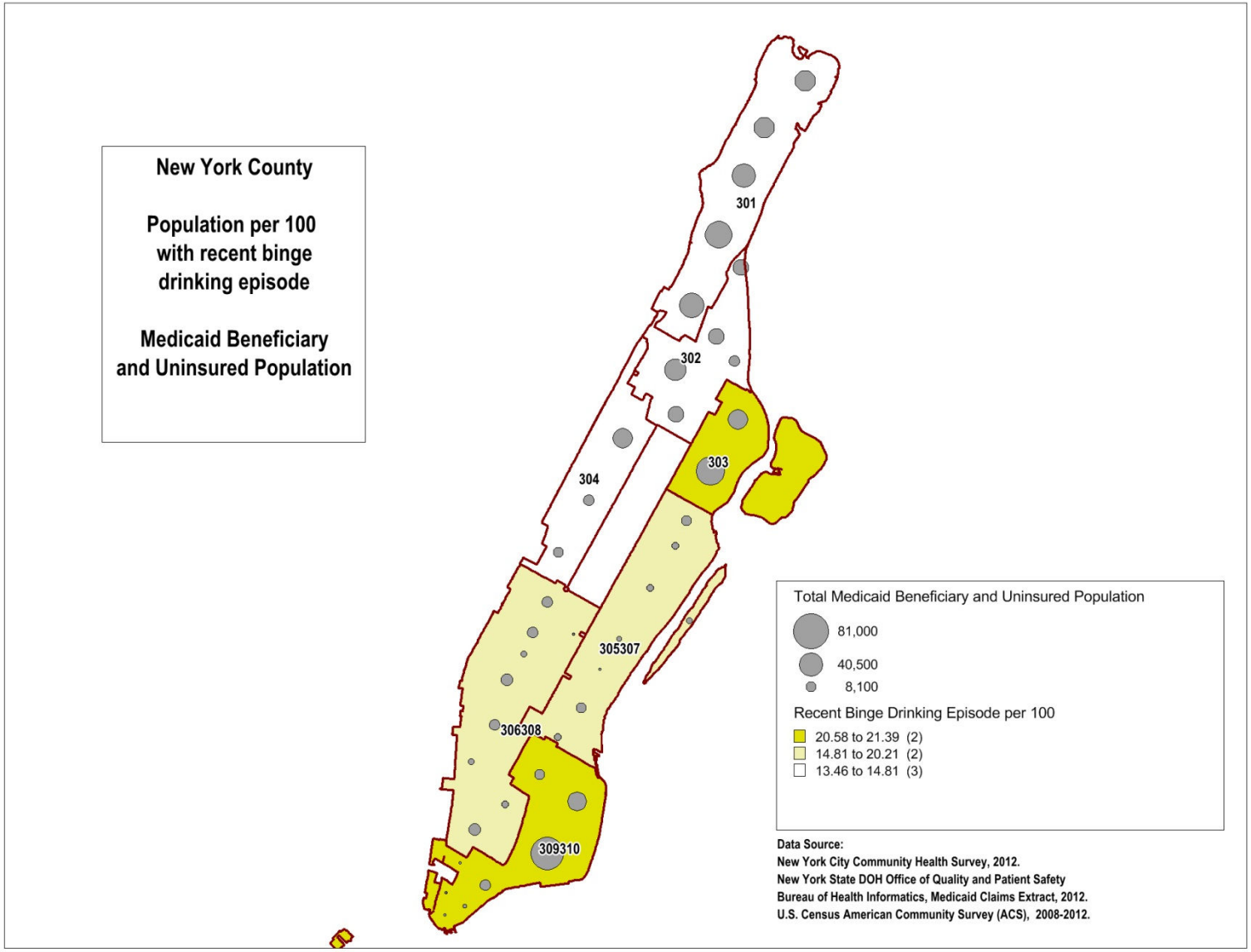

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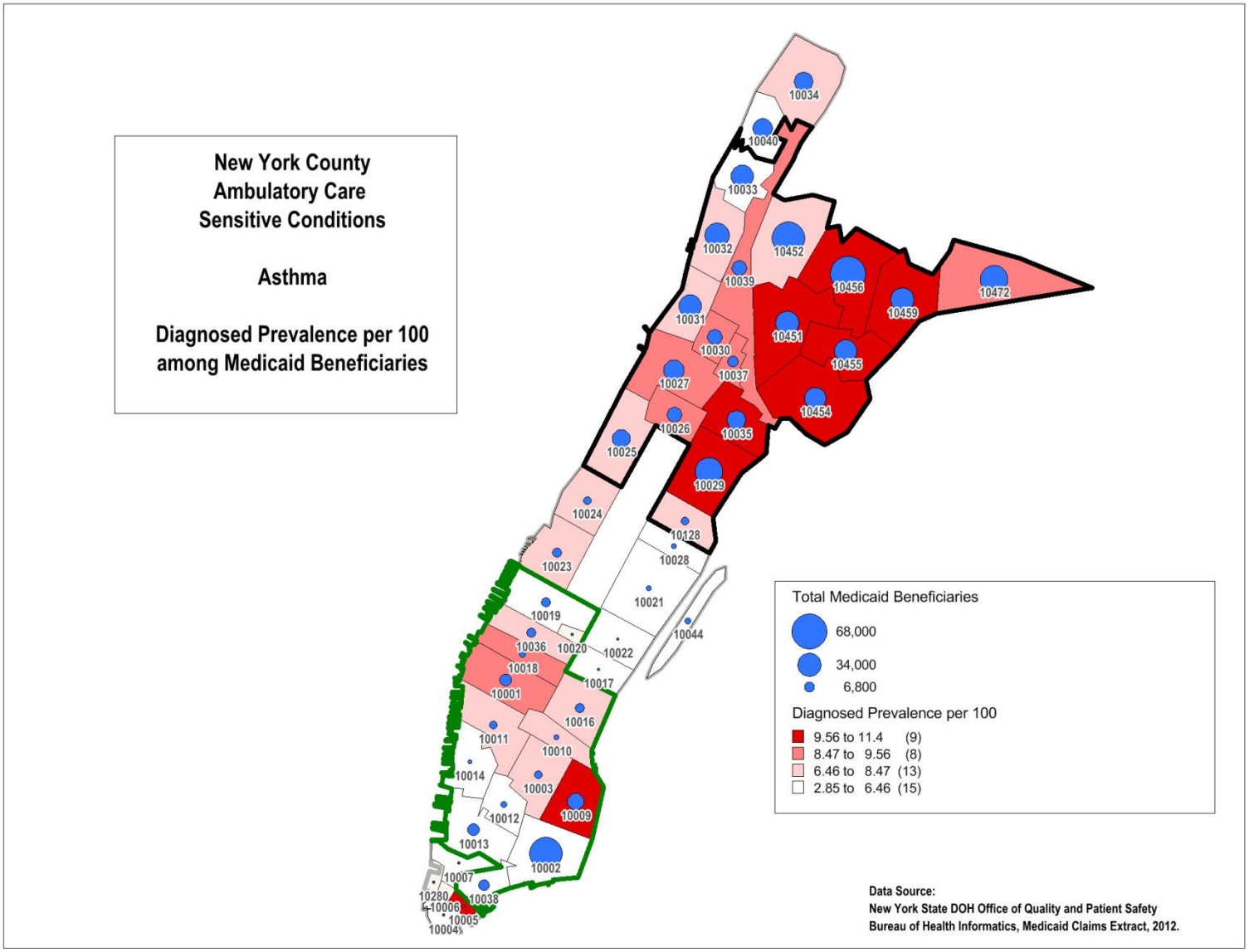
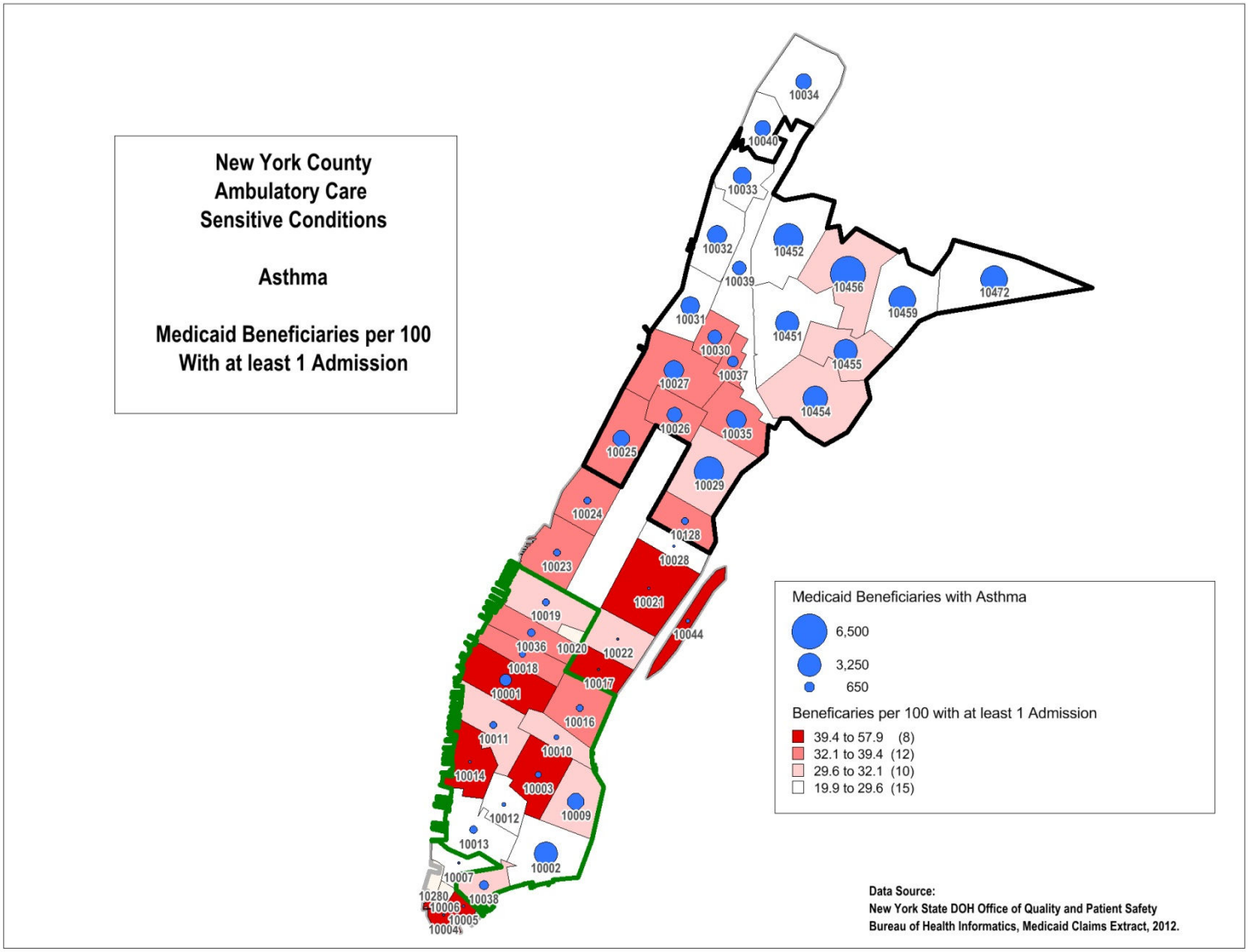


21. Percentage among Medicaid Beneficiaries with Asthma with any inpatient admission (by Zip Code)



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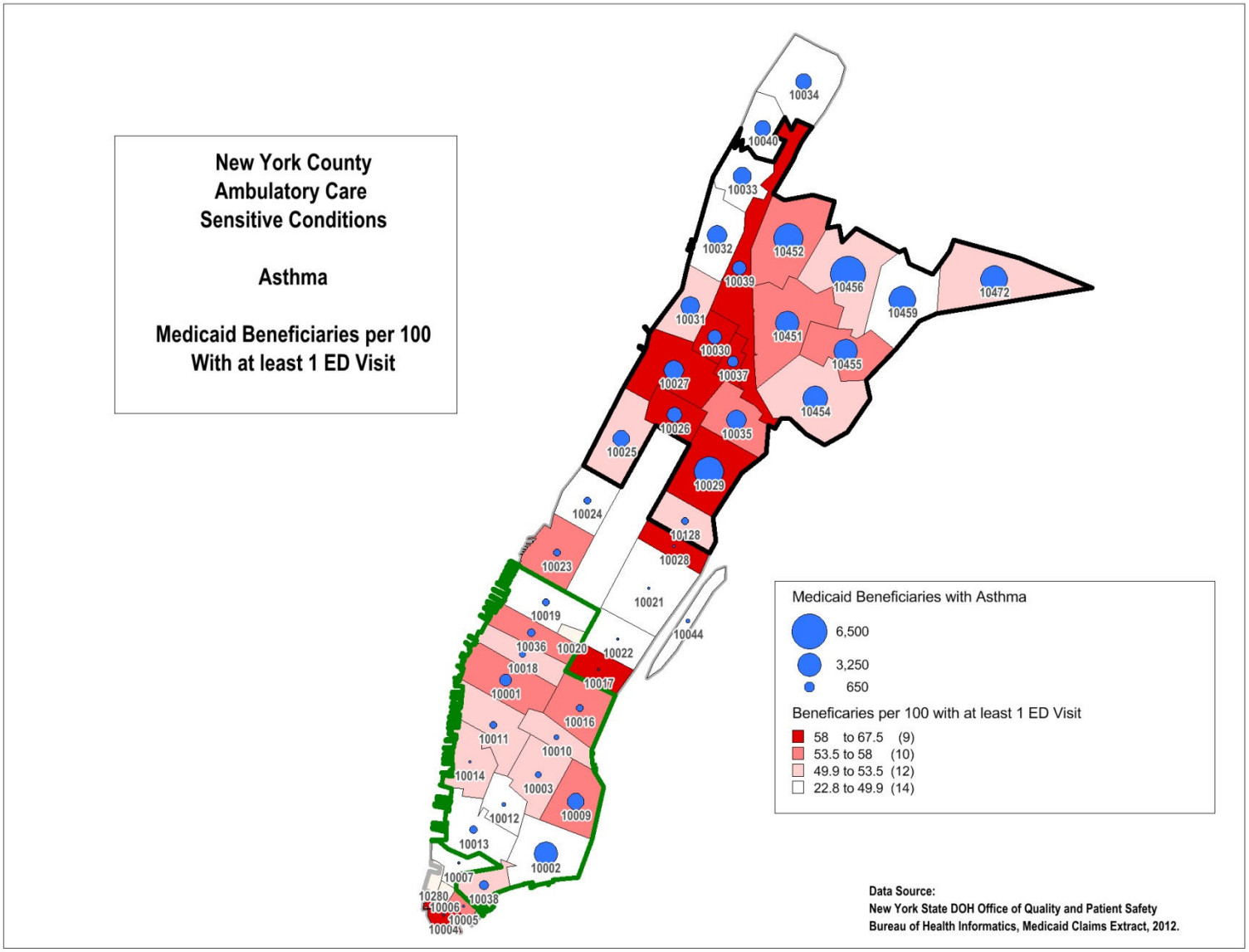

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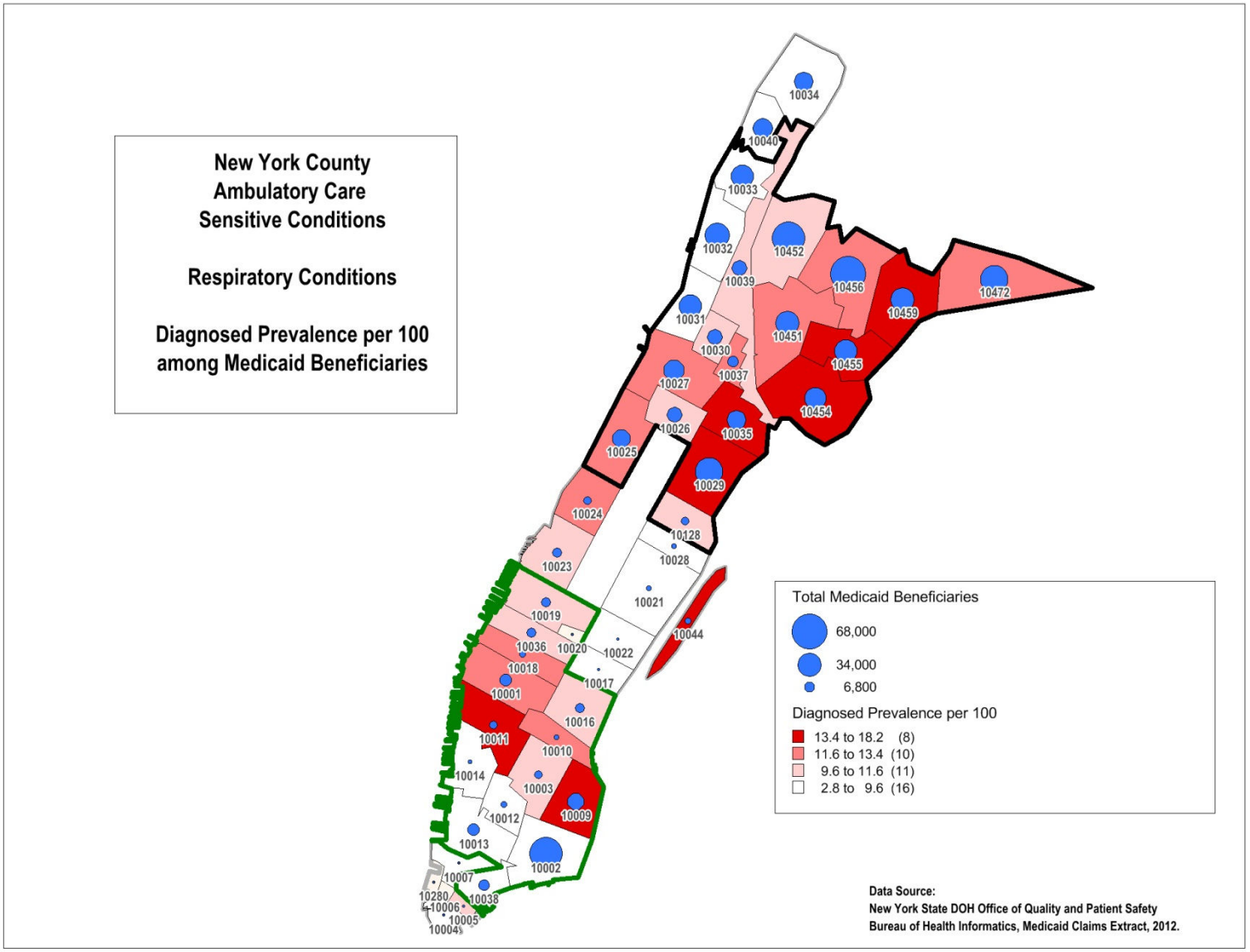

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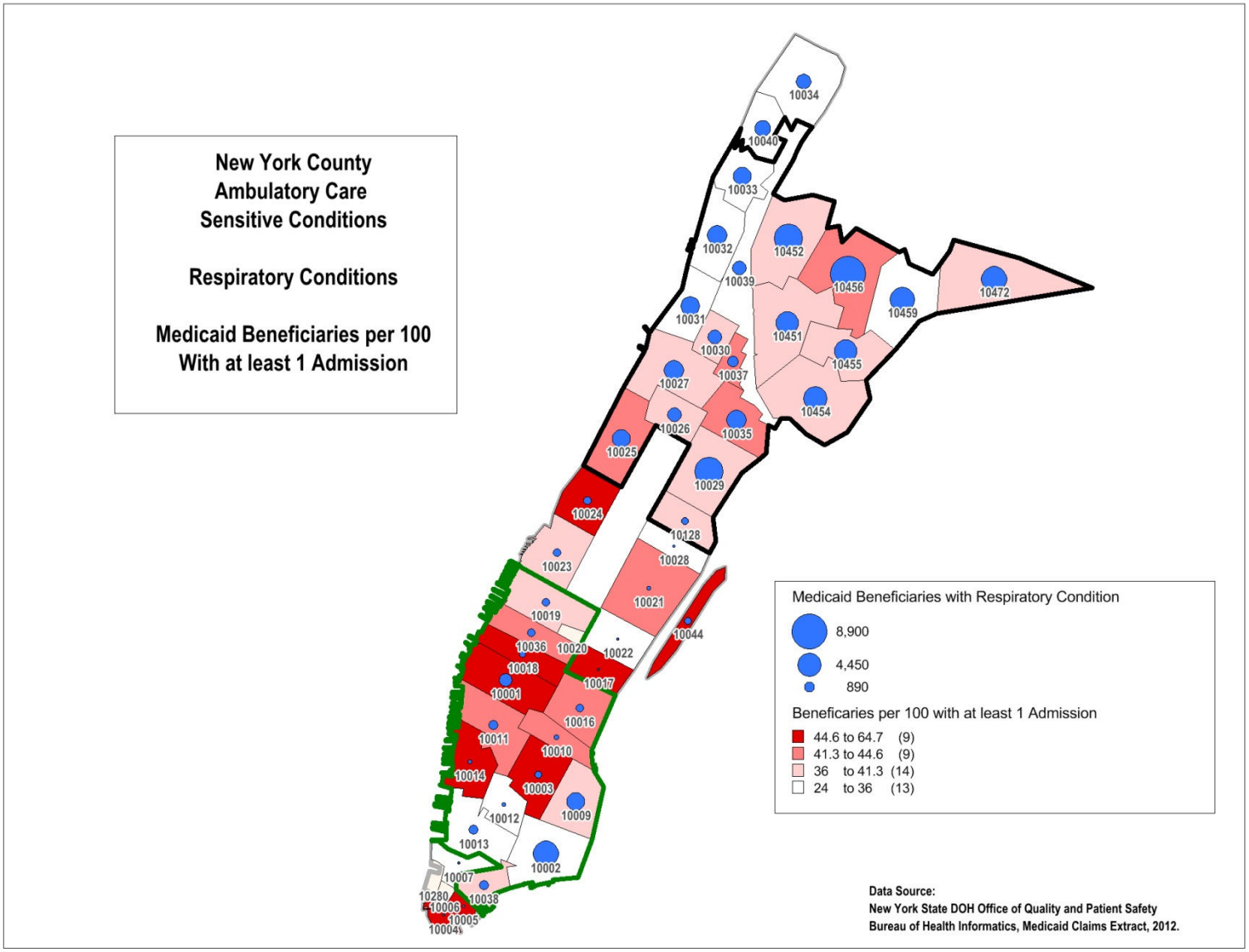
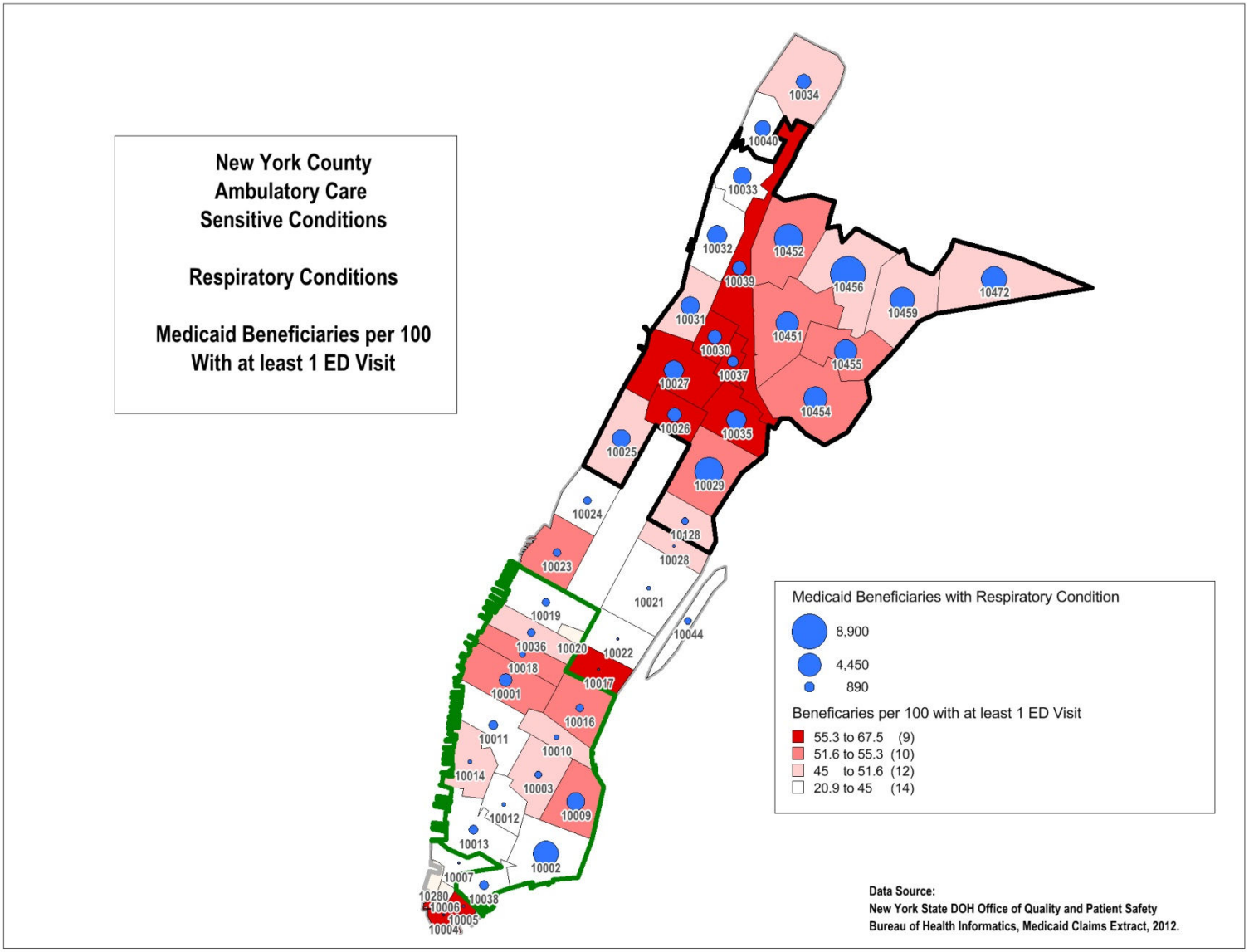
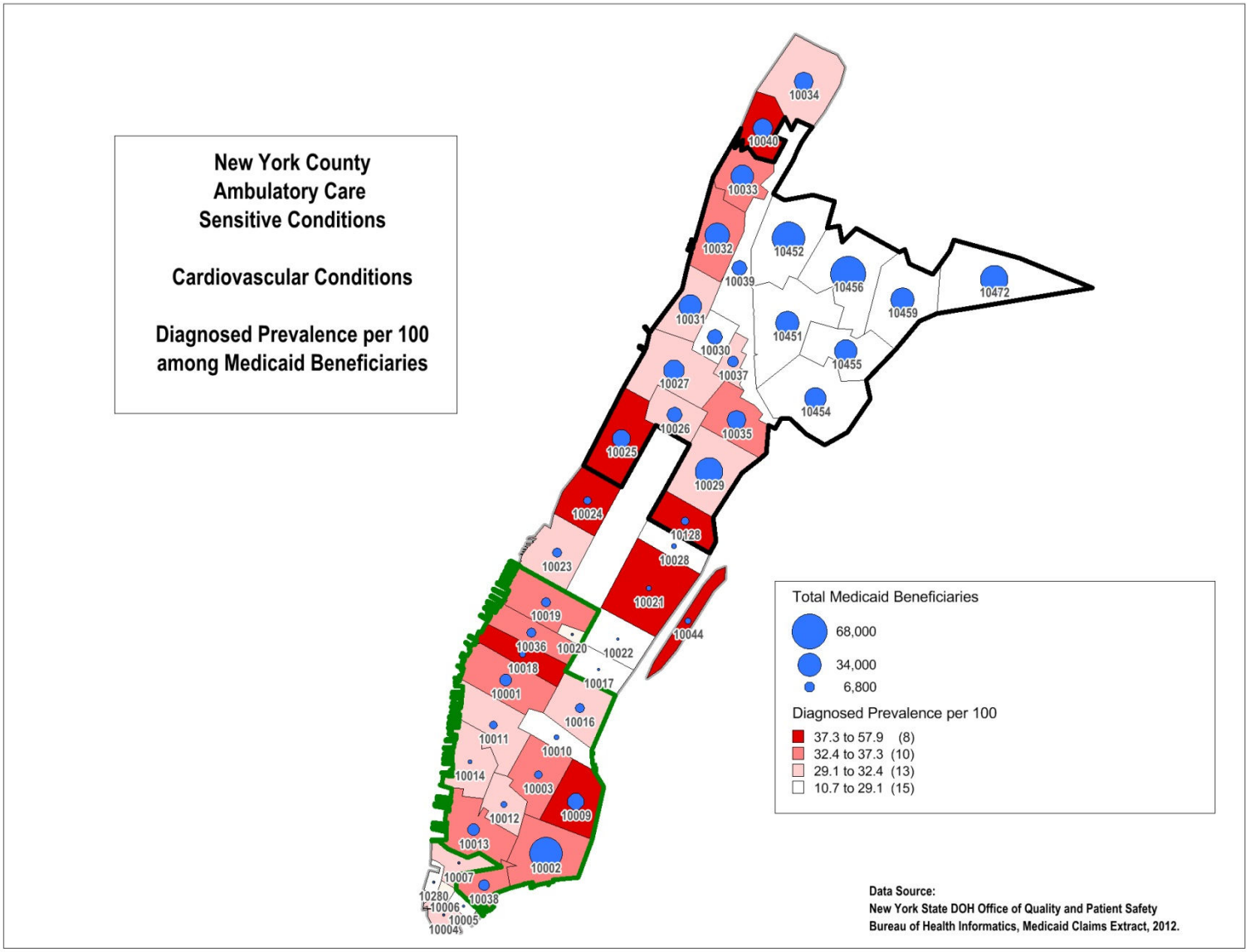


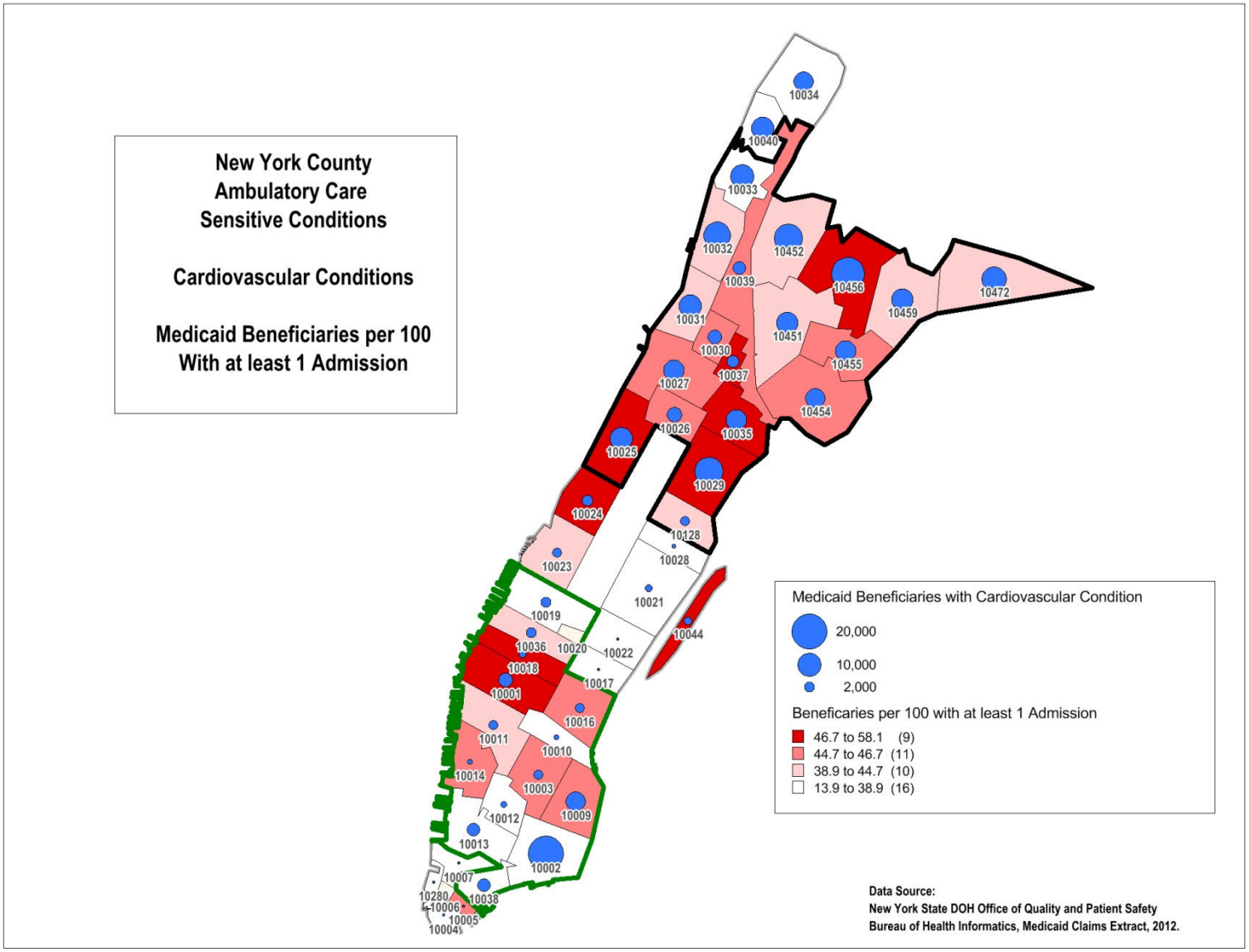
25. Percentage among Medicaid Beneficiaries with Respiratory CRG Diagnosis with any emergency department visit (by Zip Code)



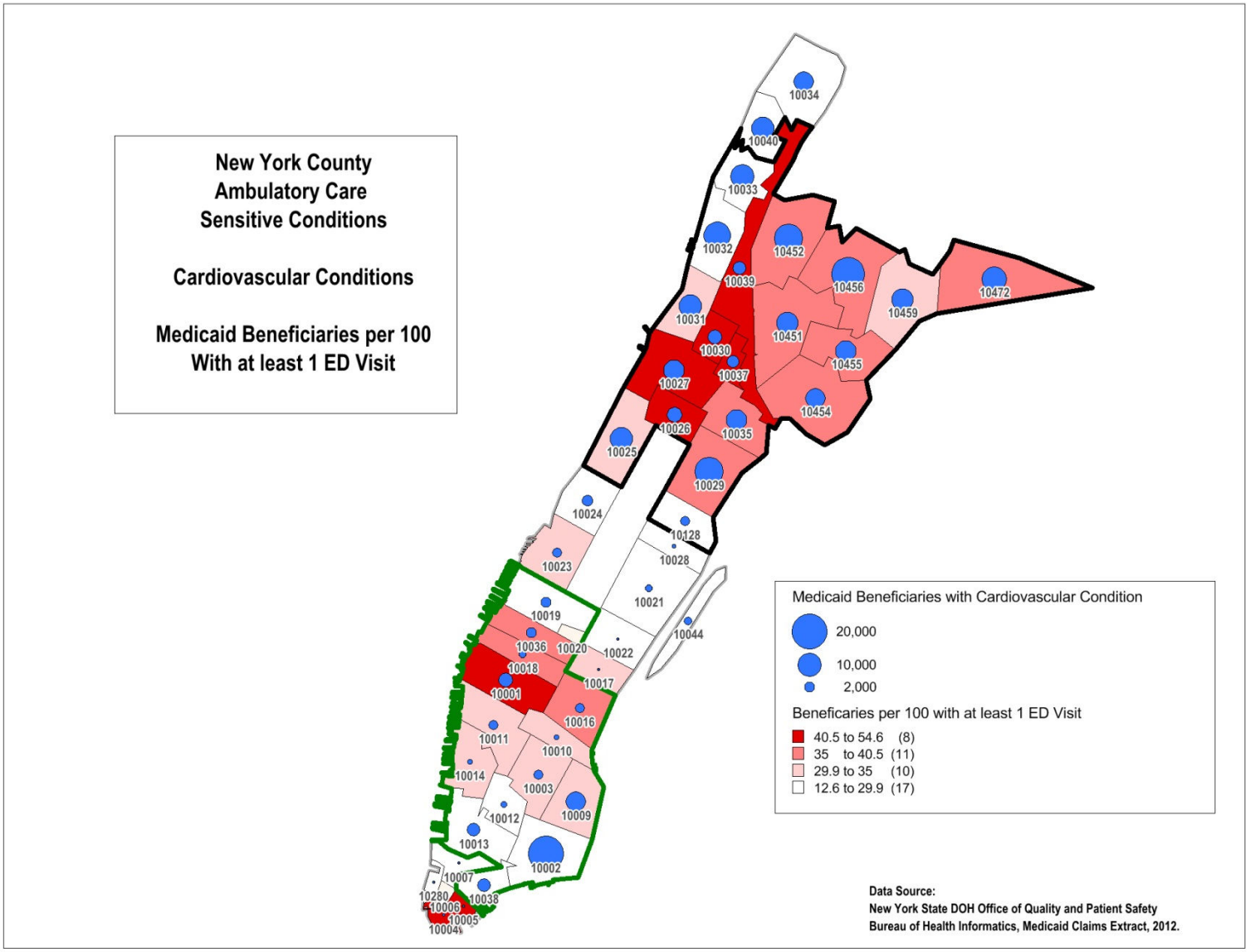
26. Cardiovascular CRG Diagnosis Prevalence Prevalence Among Medicaid Beneficiaries (by Zip Code)



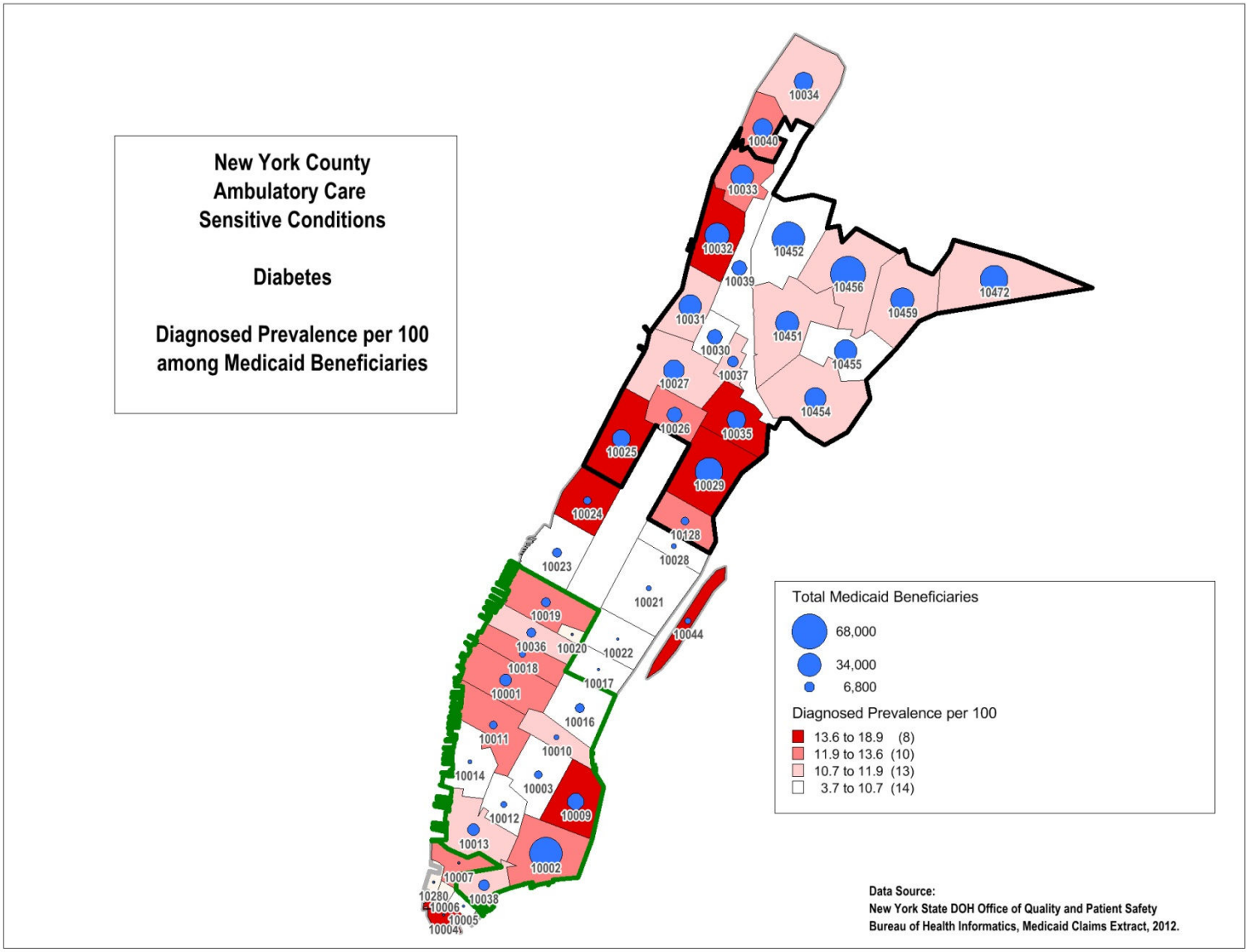
27. Percentage among Medicaid Beneficiaries with Cardiovascular CRG diagnosis with any inpatient admission (by Zip Code)



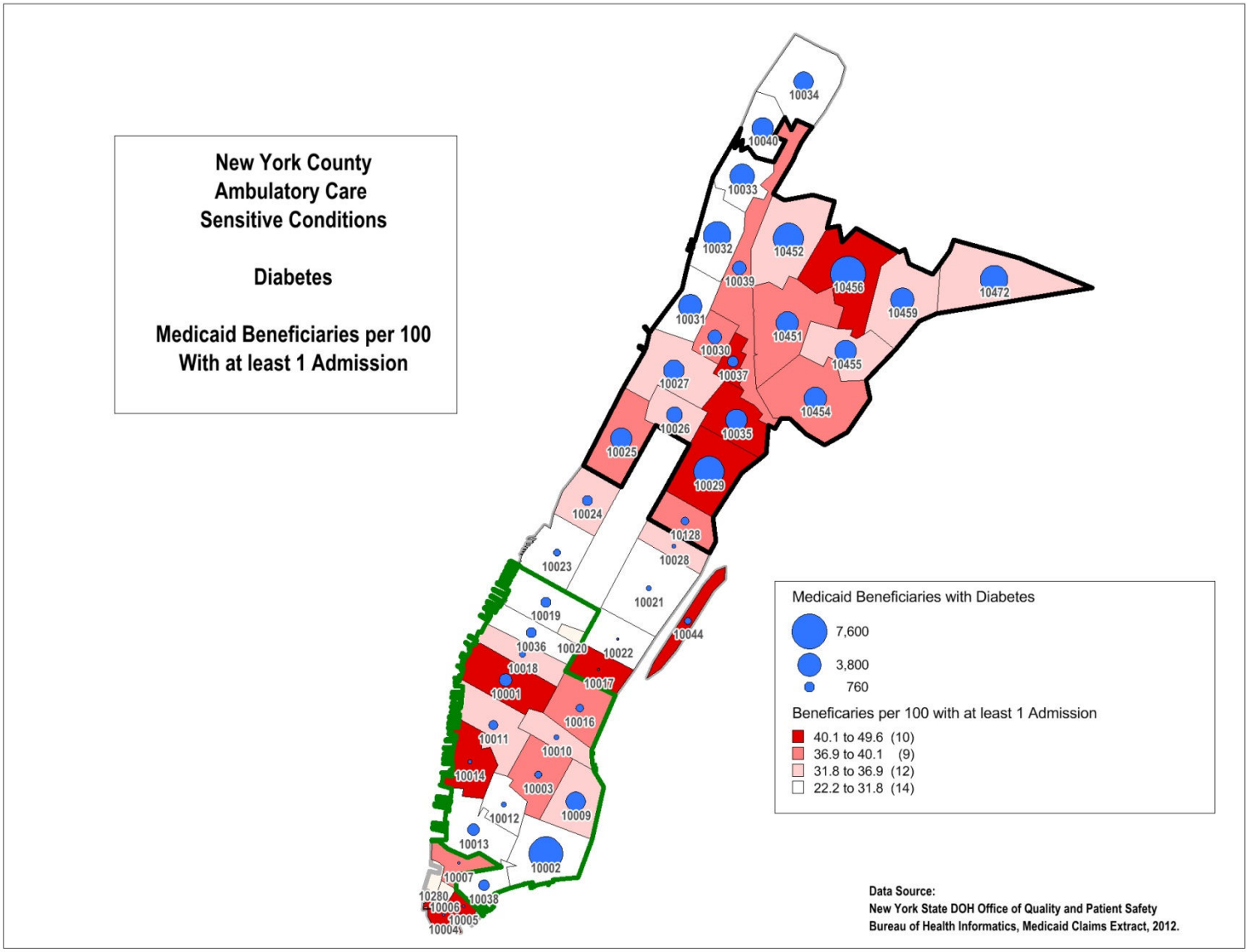
28. Percentage among Medicaid Beneficiaries with Cardiovascular CRG diagnosis with any emergency department visit (by Zip Code)



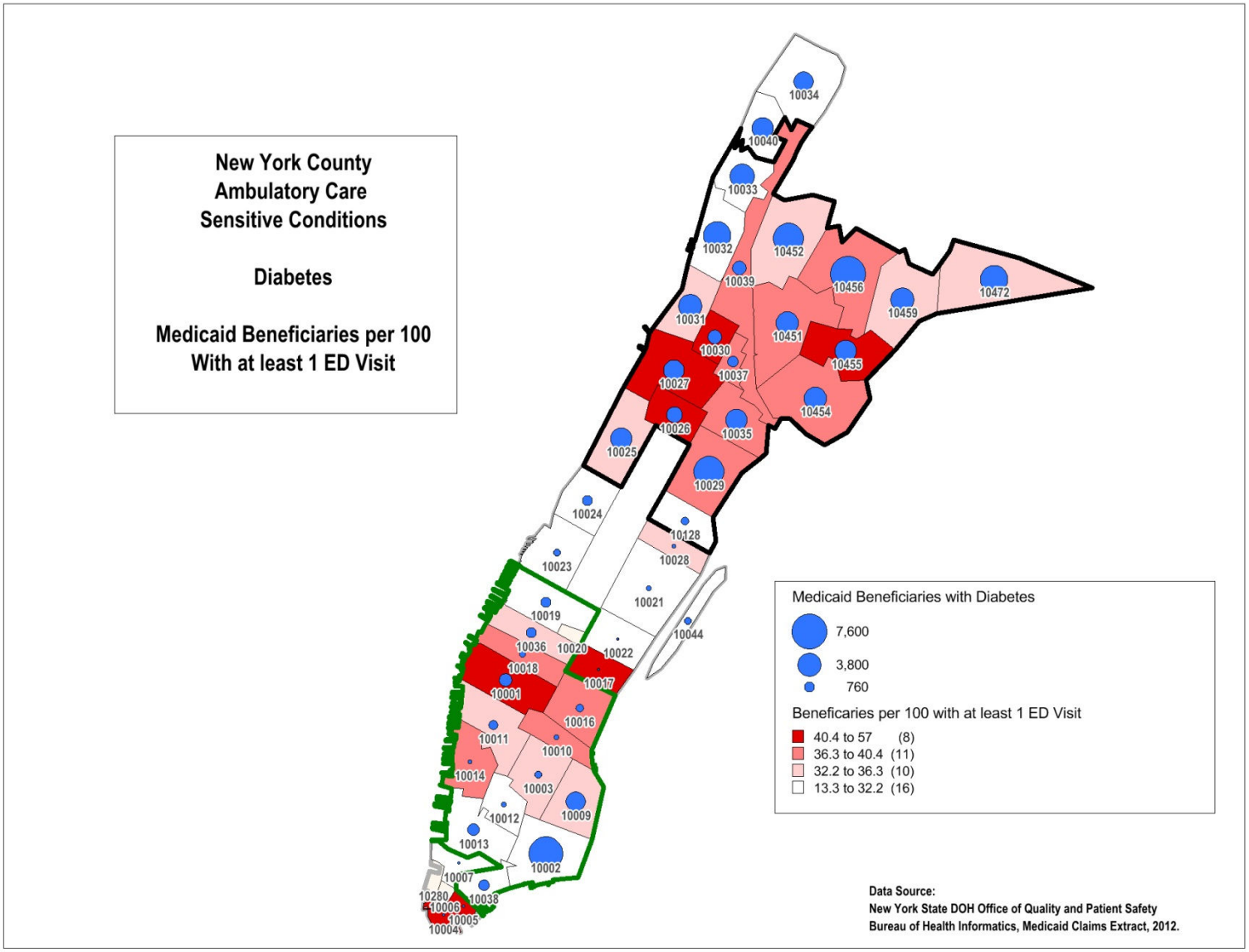
29. Diabetes CRG diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



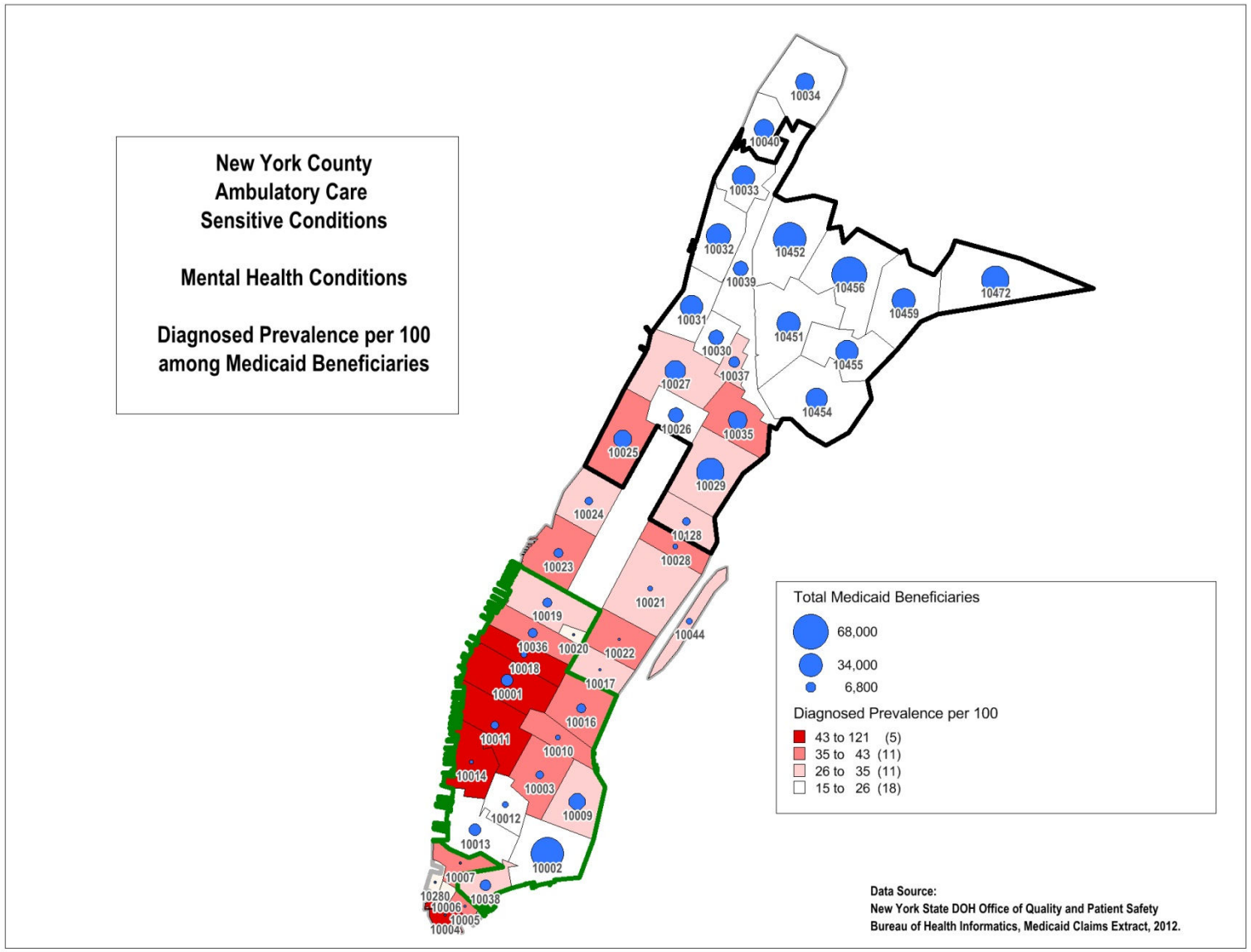
30. Percentage among Medicaid Beneficiaries with Diabetes CRG diagnosis with any inpatient admission (by Zip Code)



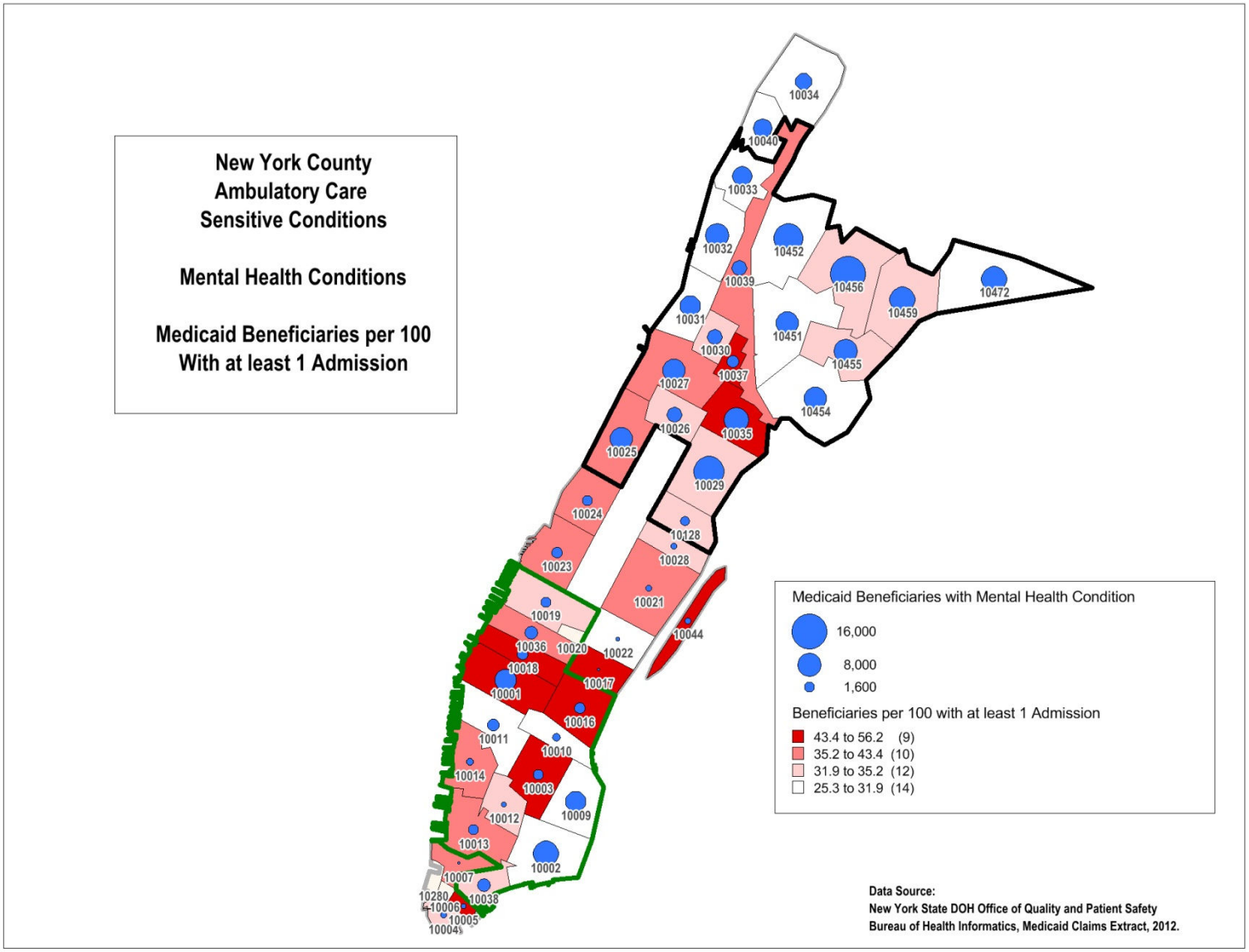
31. Percentage among Medicaid Beneficiaries with Diabetes CRG diagnosis with any emergency department visit (by Zip Code)



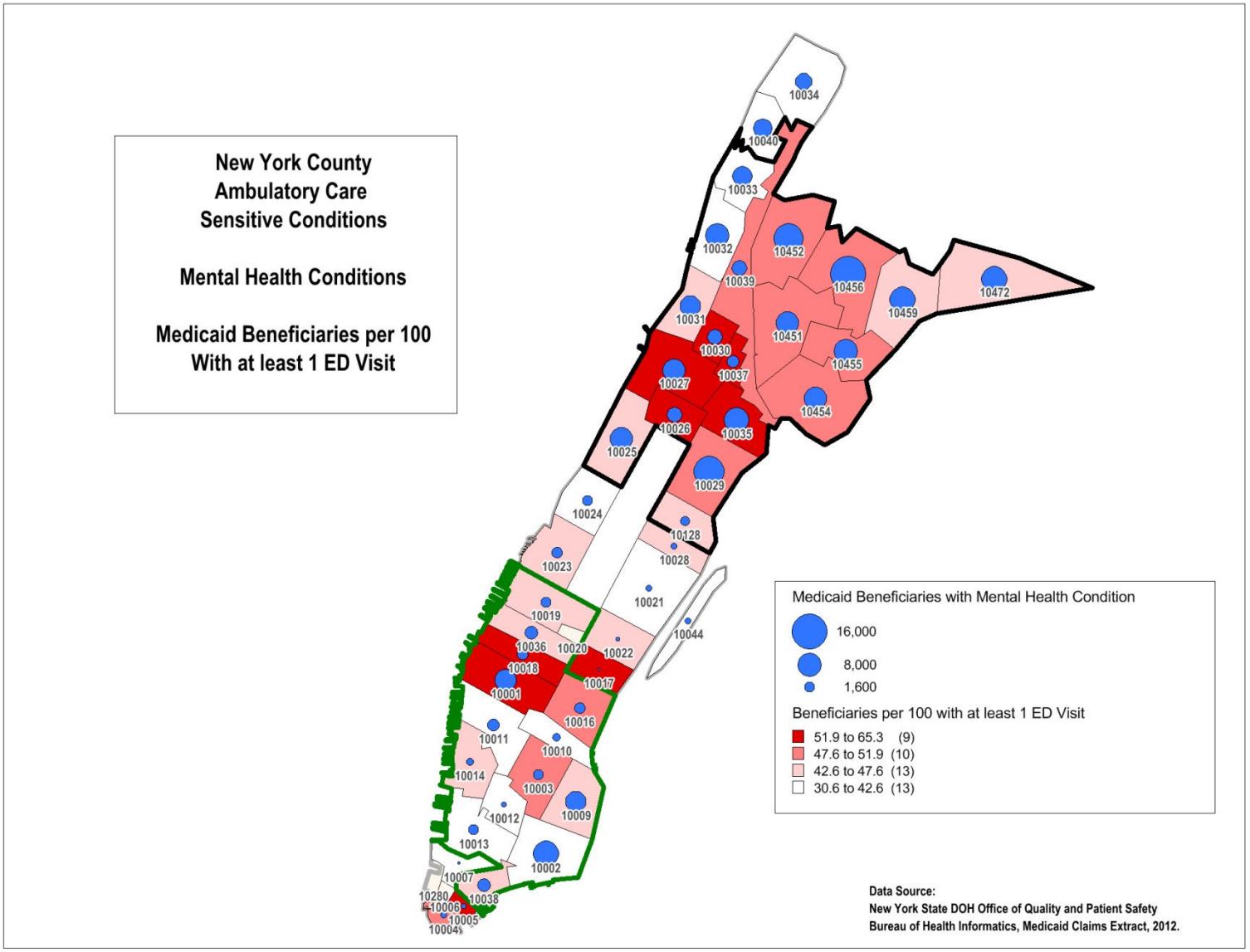
32. Mental Health CRG diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



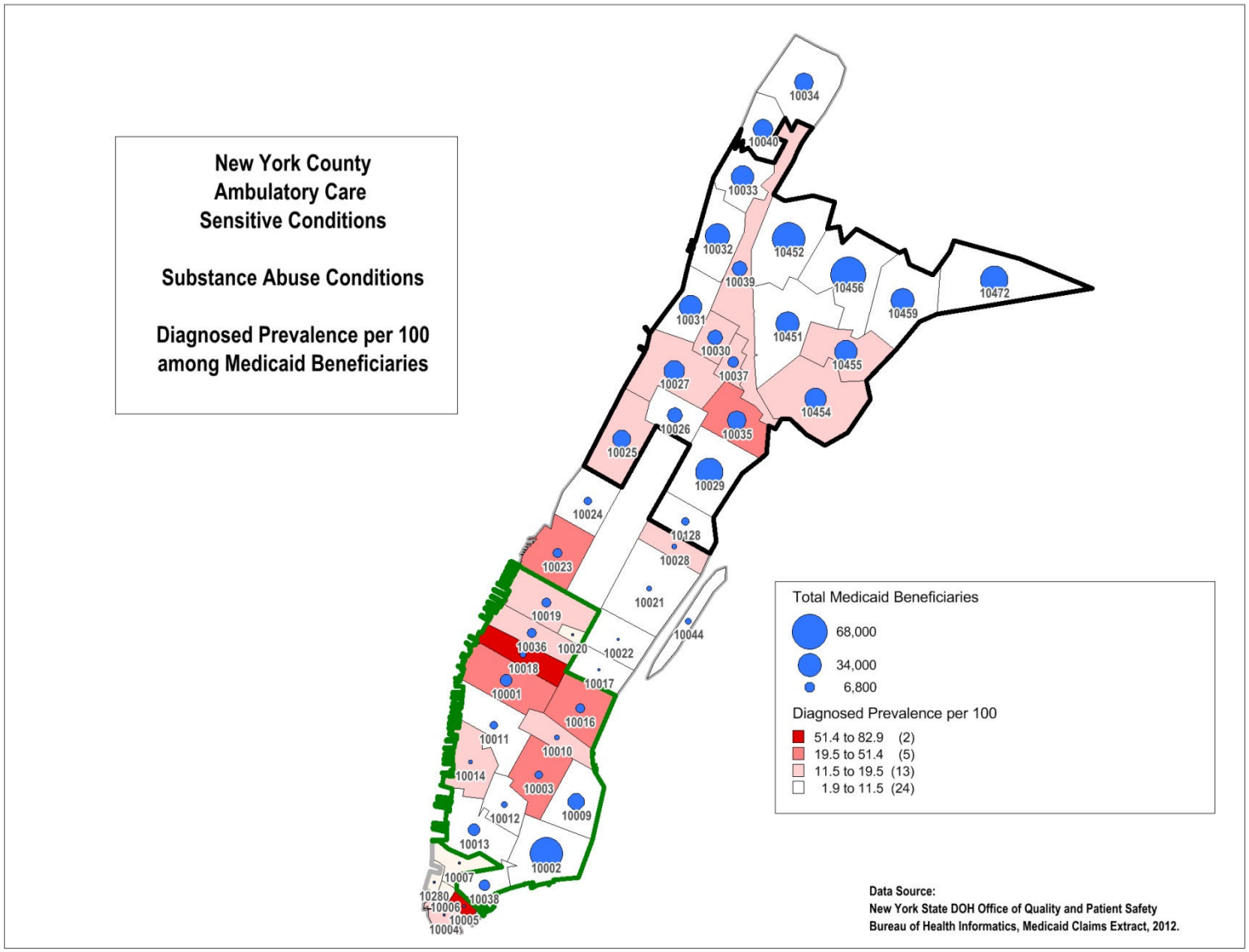
33. Percentage among Medicaid Beneficiaries with Mental Health CRG diagnosis with any inpatient admission (by Zip Code)



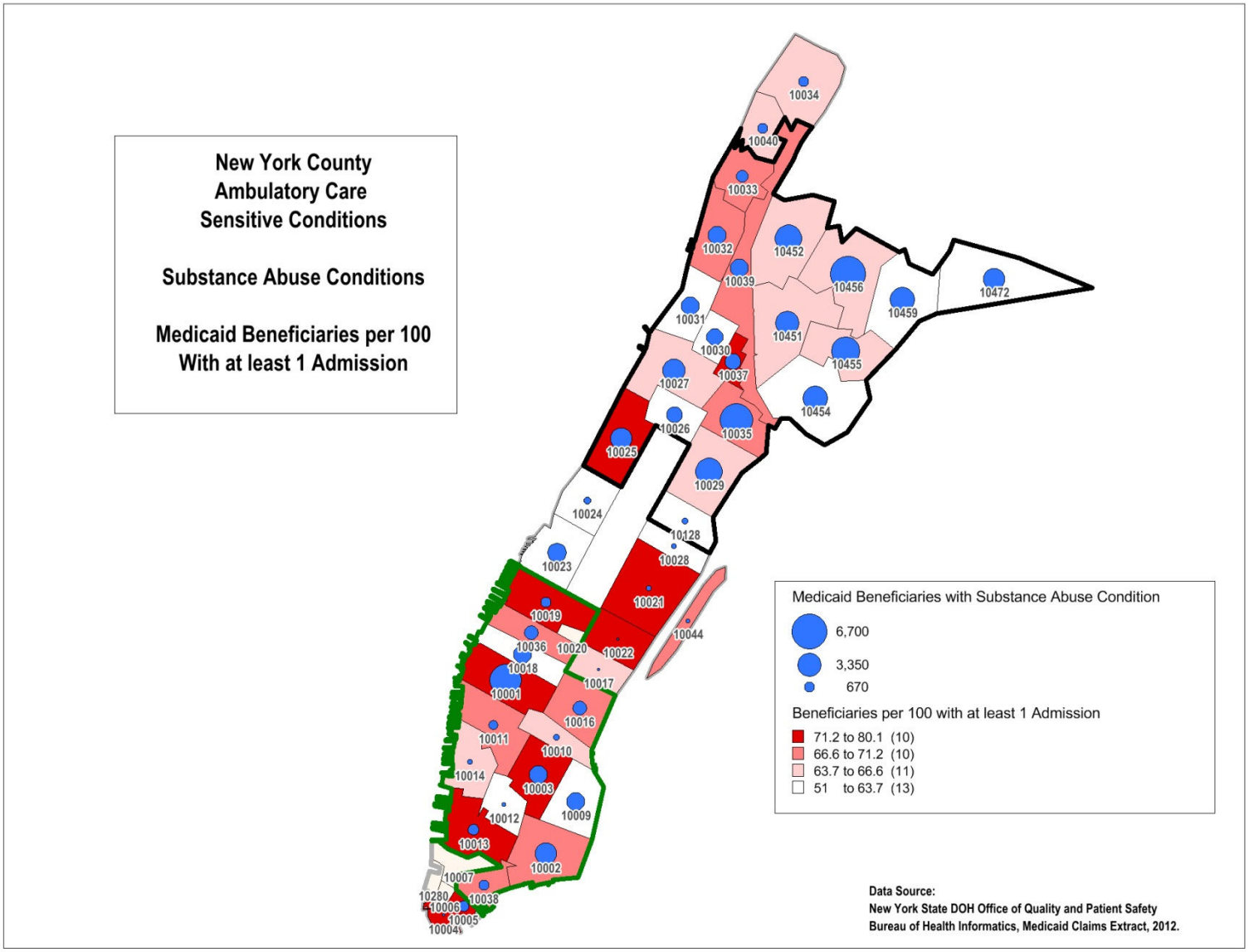
34. Percentage among Medicaid Beneficiaries with Mental Health CRG diagnosis with any emergency department visit (by Zip Code)



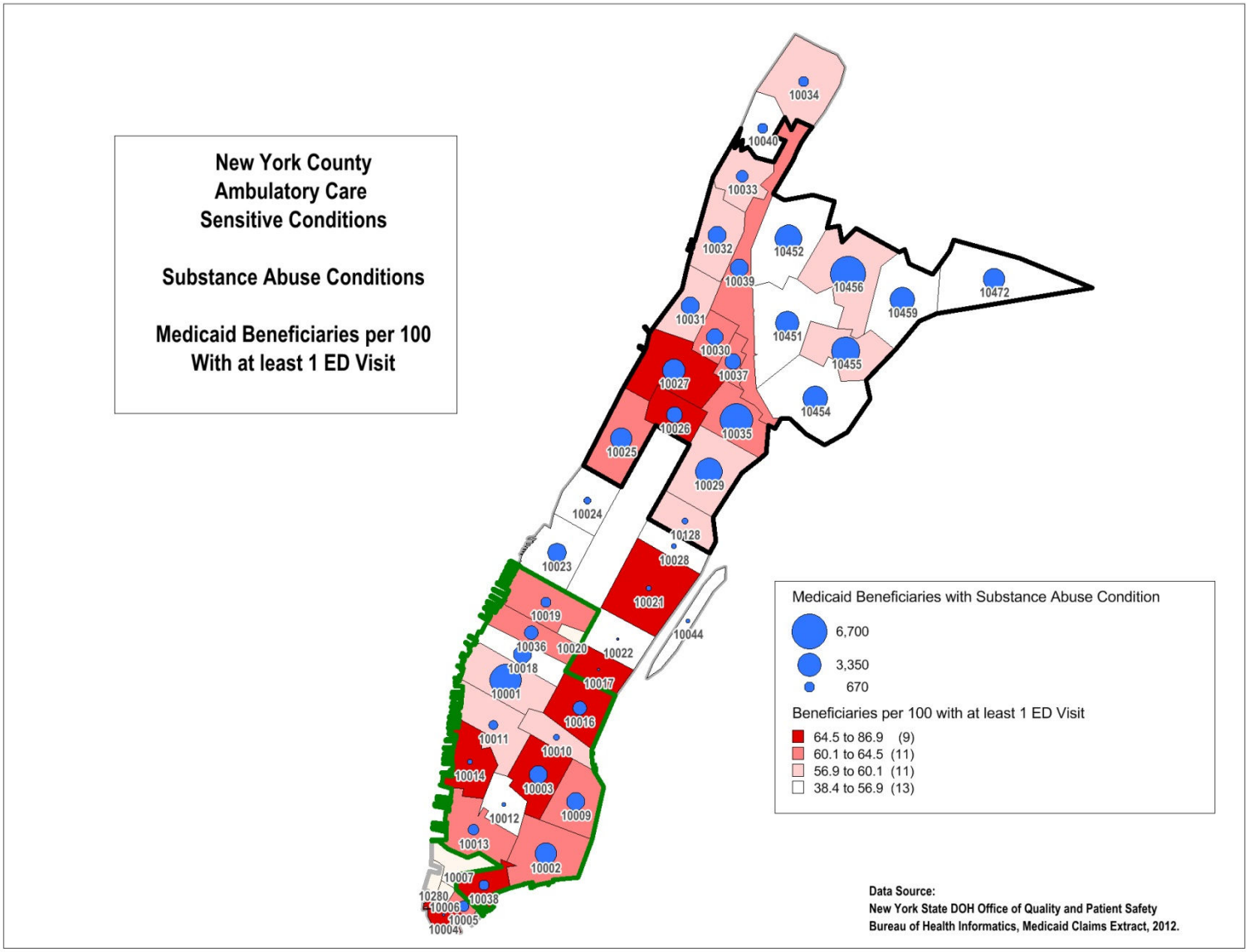
35. Subtance Abuse CRG diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



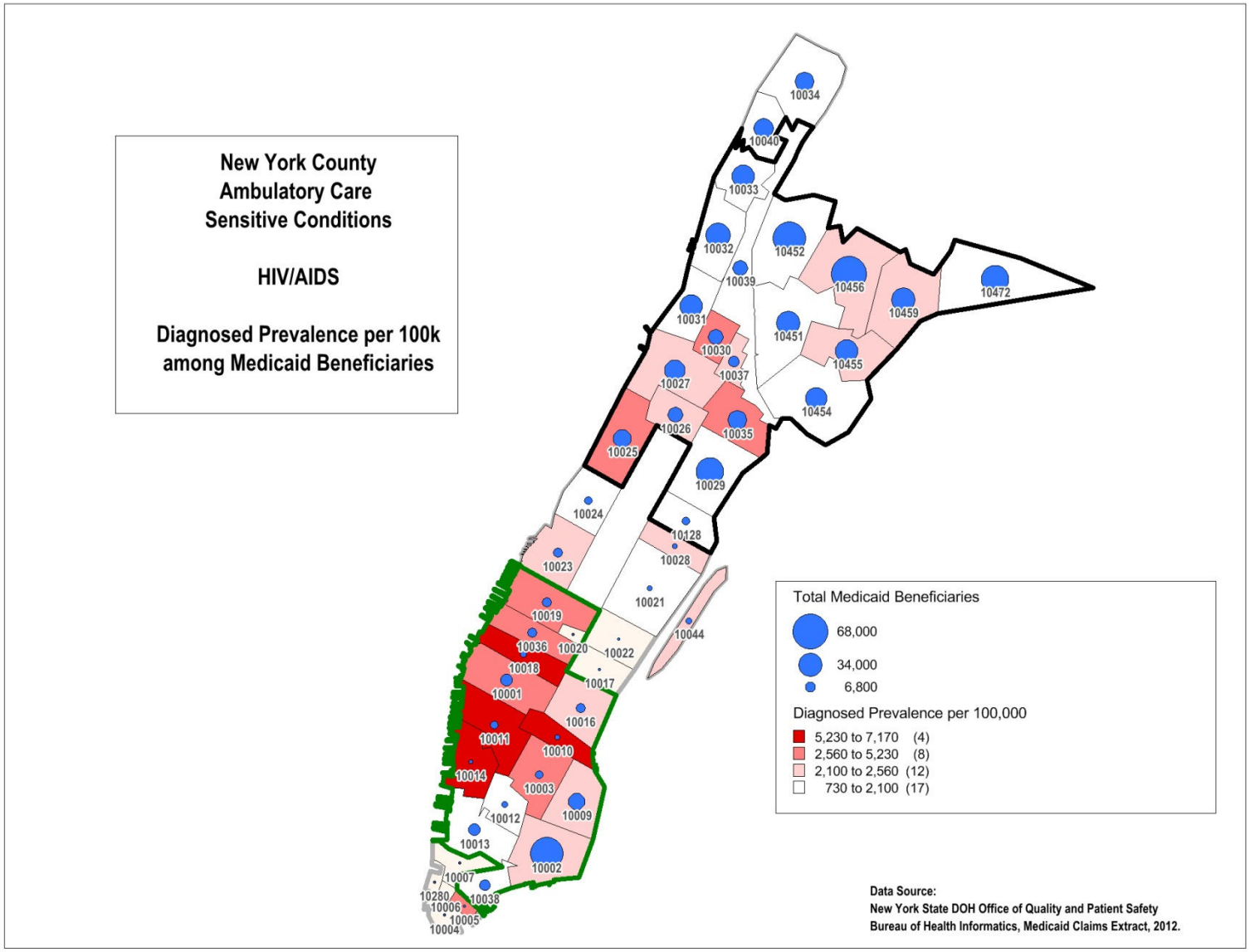
36. Percentage among Medicaid Beneficiaries with Subtance Abuse CRG diagnosis with any inpatient admission (by Zip Code)



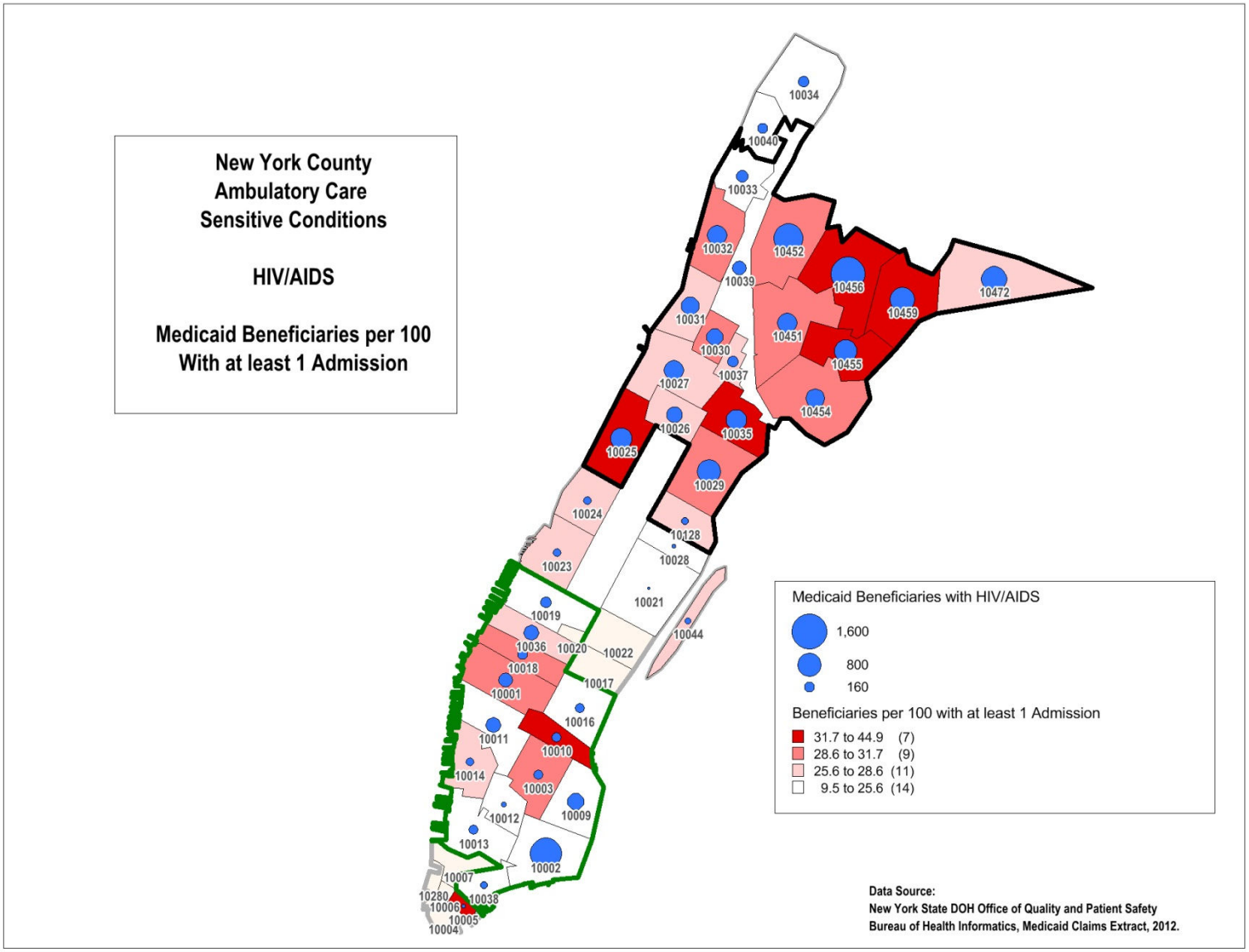
37. Percentage among Medicaid Beneficiaries with Subtance Abuse CRG diagnosis with any emergency department visit (by Zip Code)



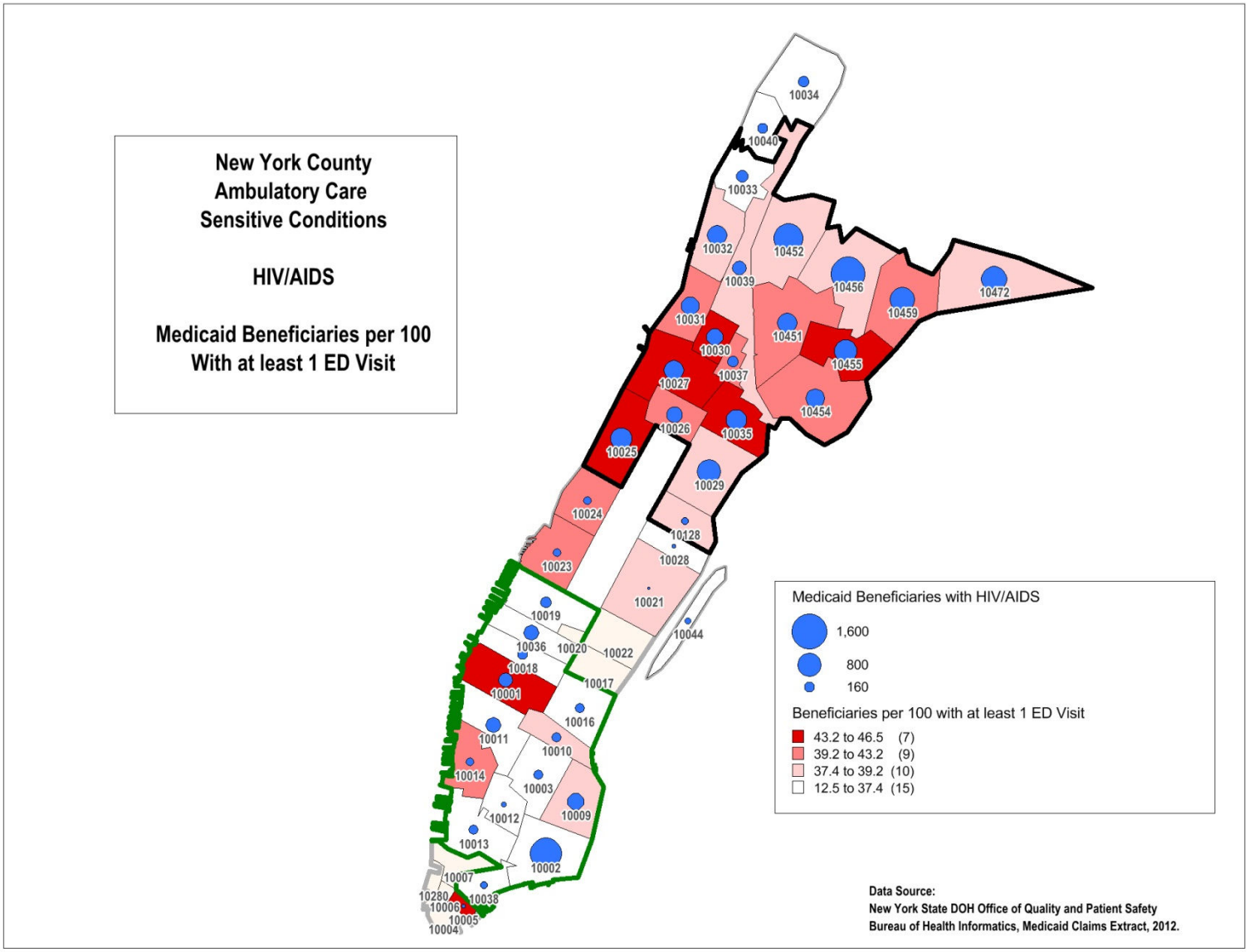
38. HIV Diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



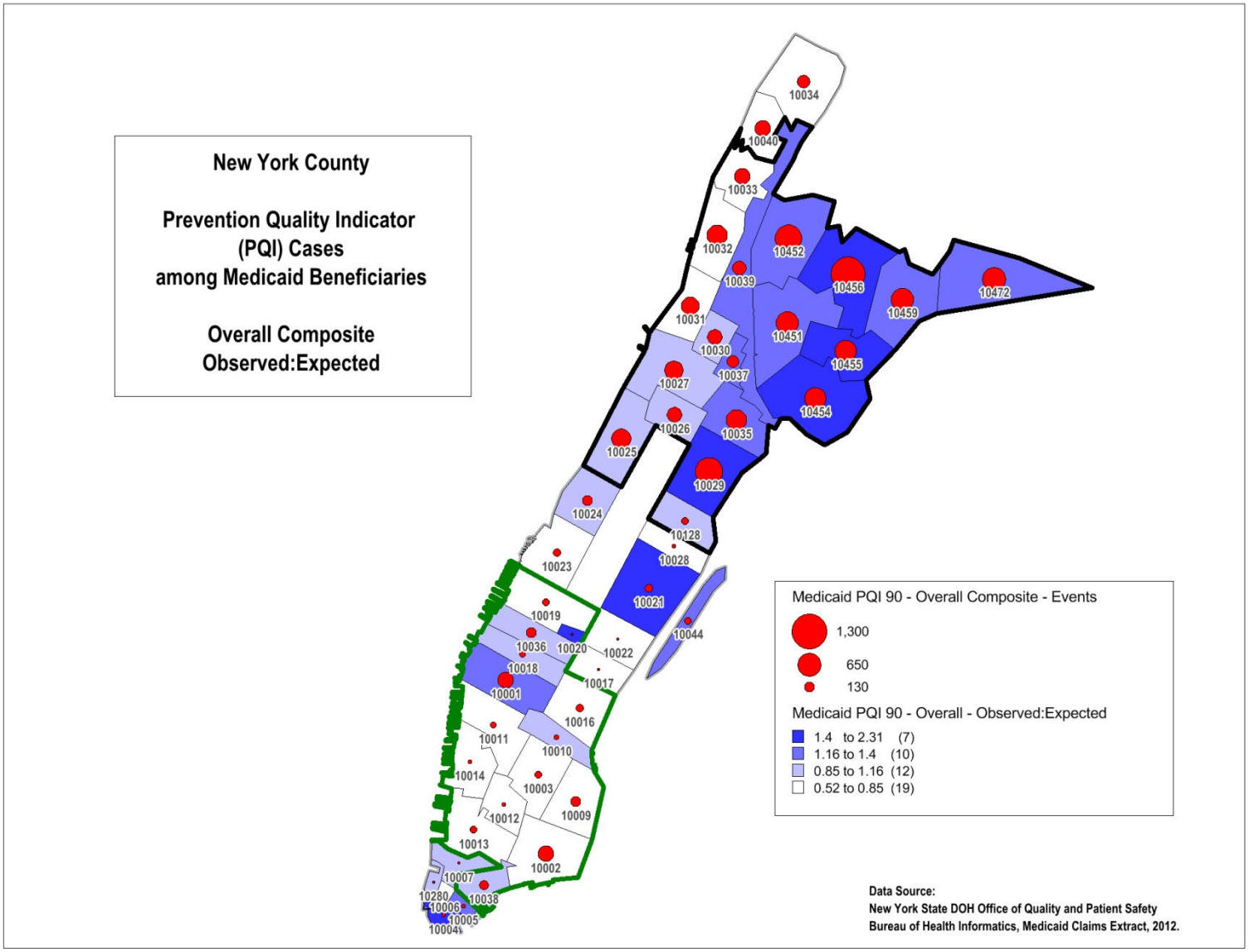
39. Percentage among Medicaid Beneficiaries with HIV Diagnosis with any inpatient admission (by Zip Code)



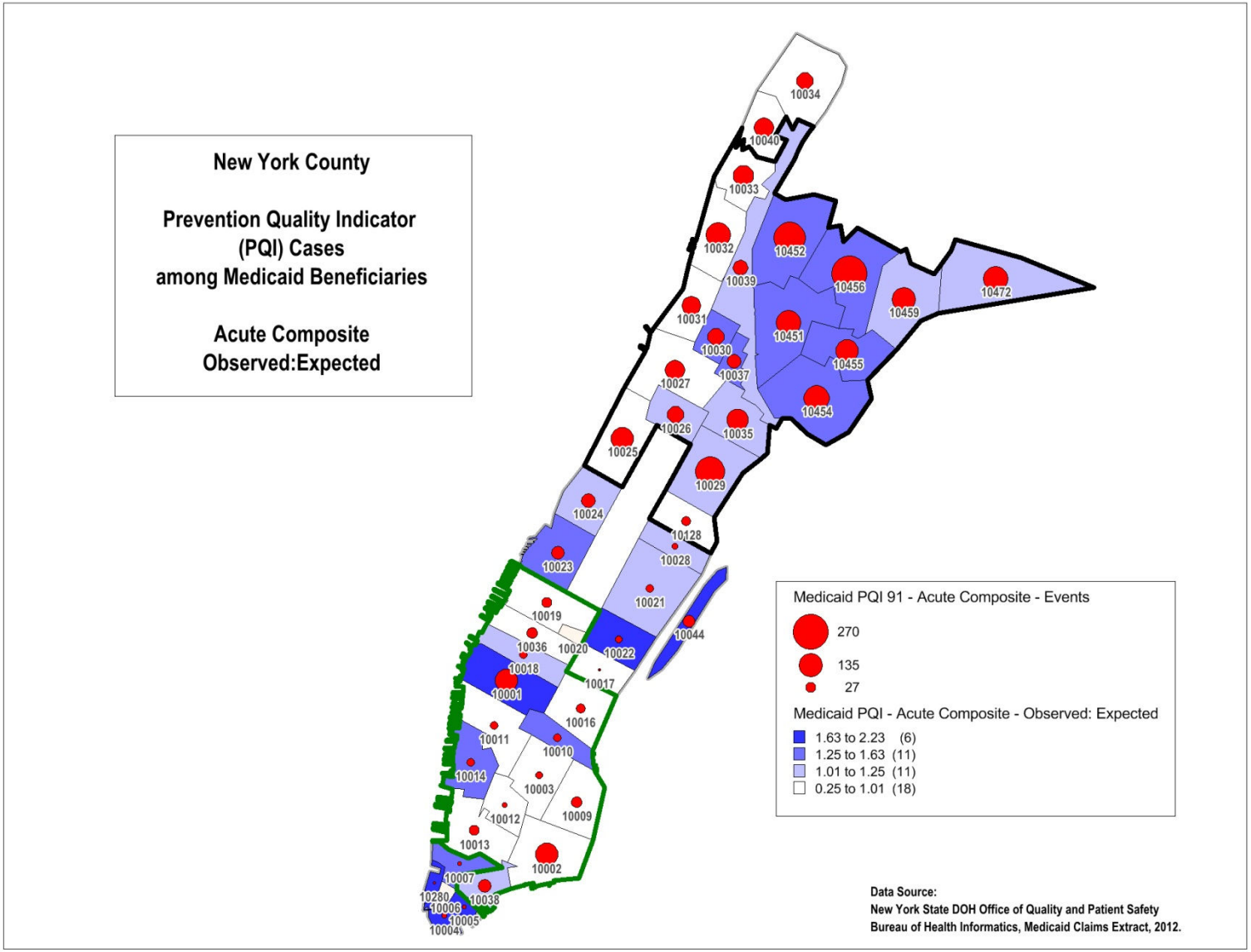
40. Percentage among Medicaid Beneficiaries with HIV Diagnosis with any emergency department visit (by Zip Code)



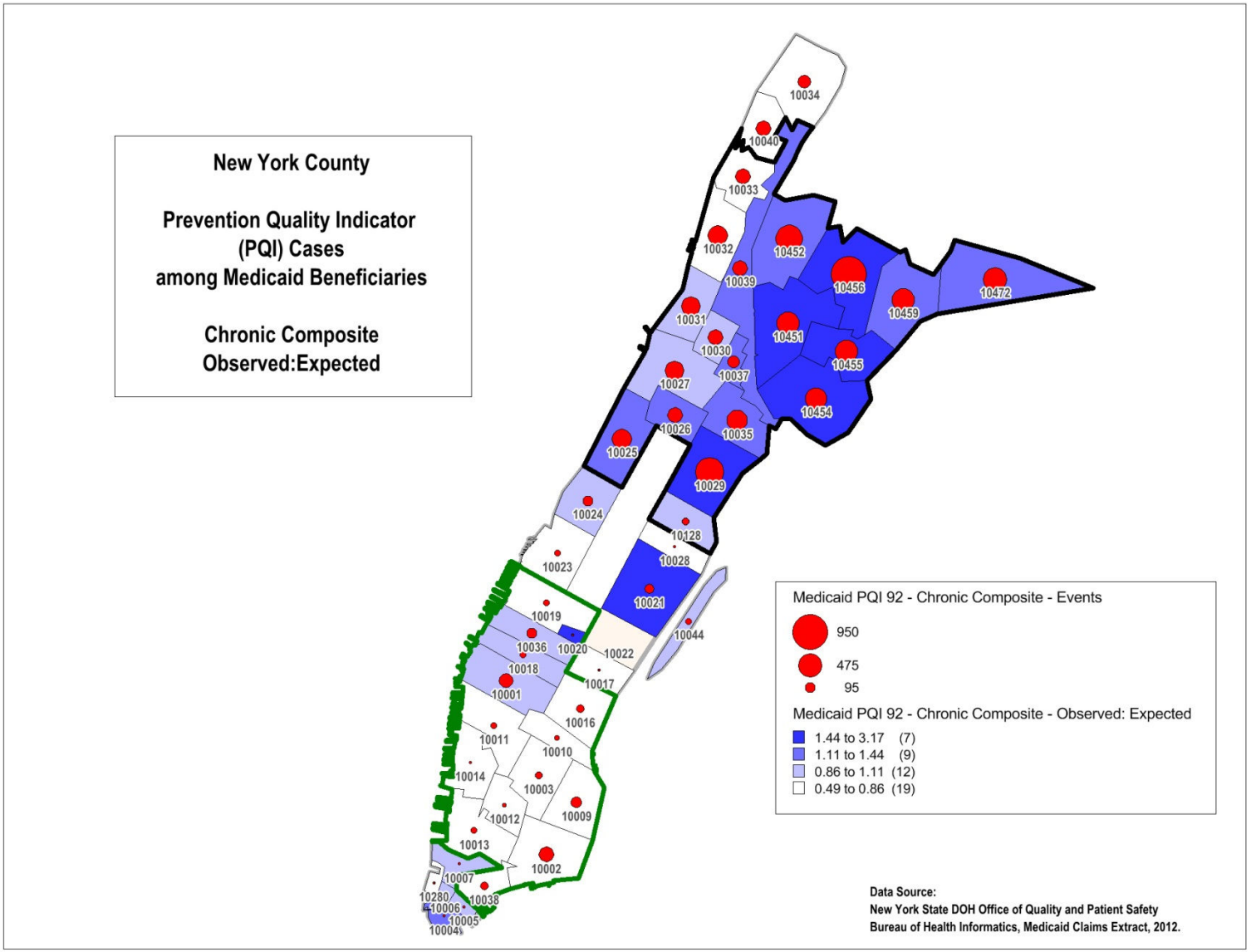
41. PQI Overall Composite Cases (PQI 90) by Zip Code



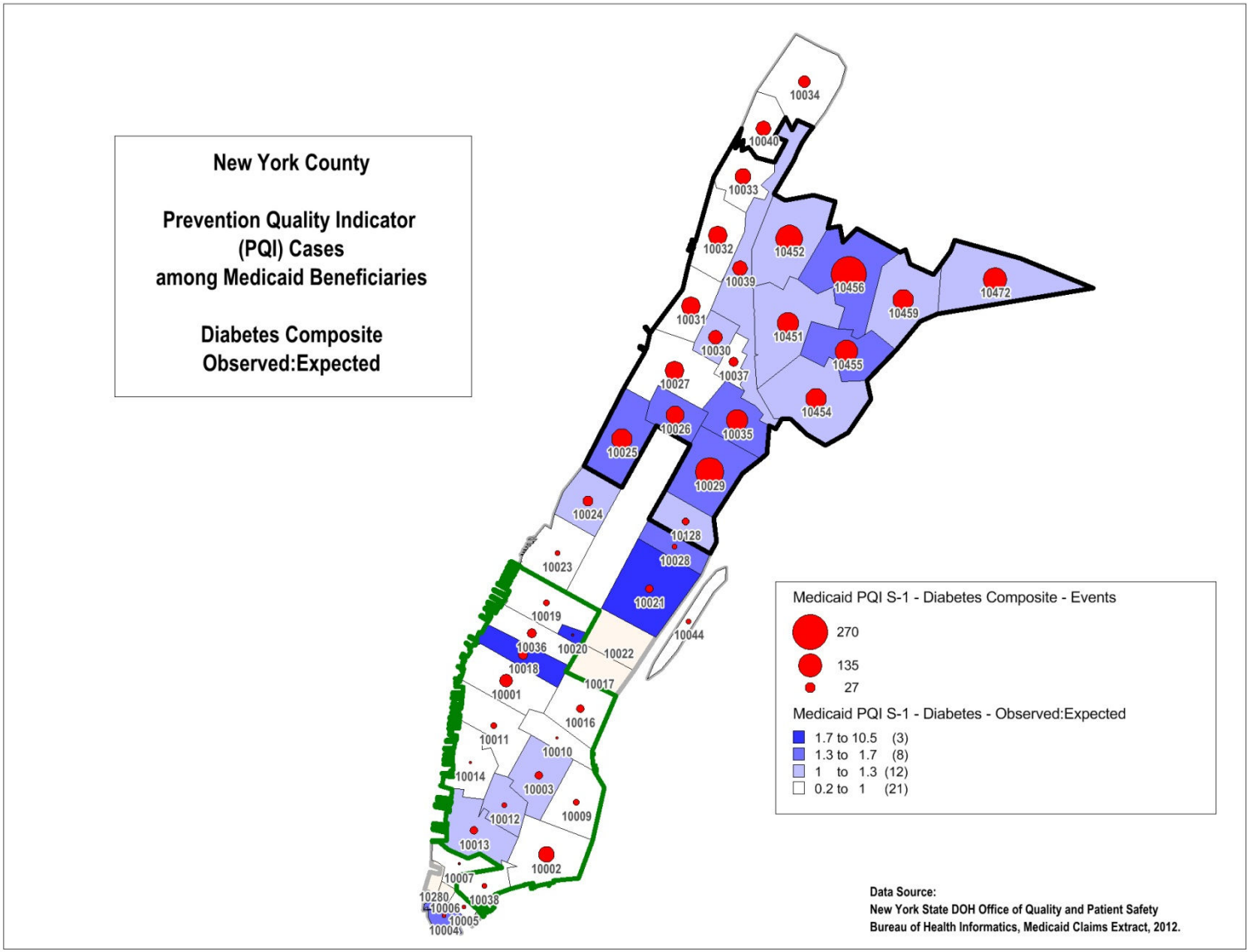
42. PQI Acute Composite Cases (PQI 91) by Zip Code



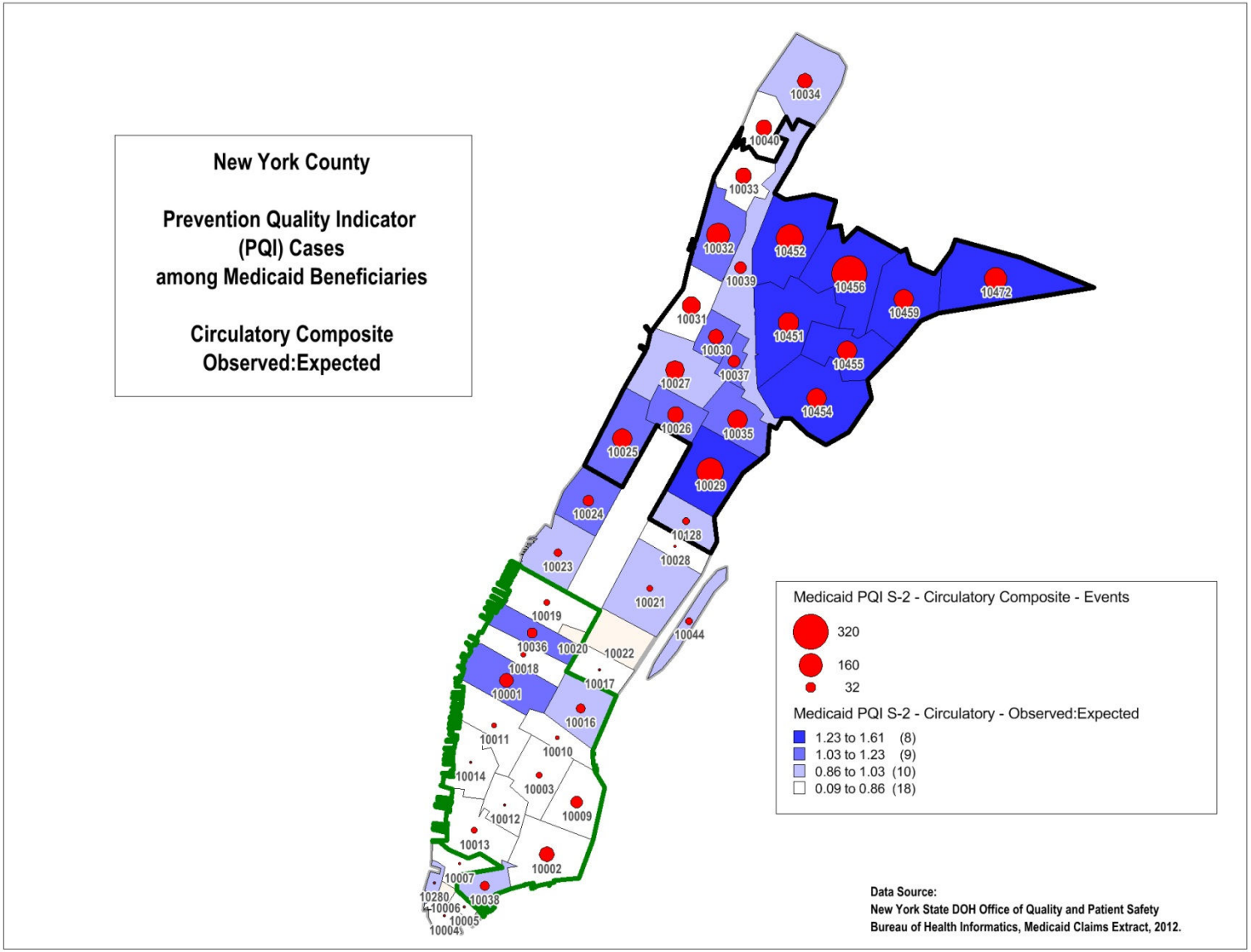
43. PQI Chronic Composite Cases (PQI 92) by Zip Code



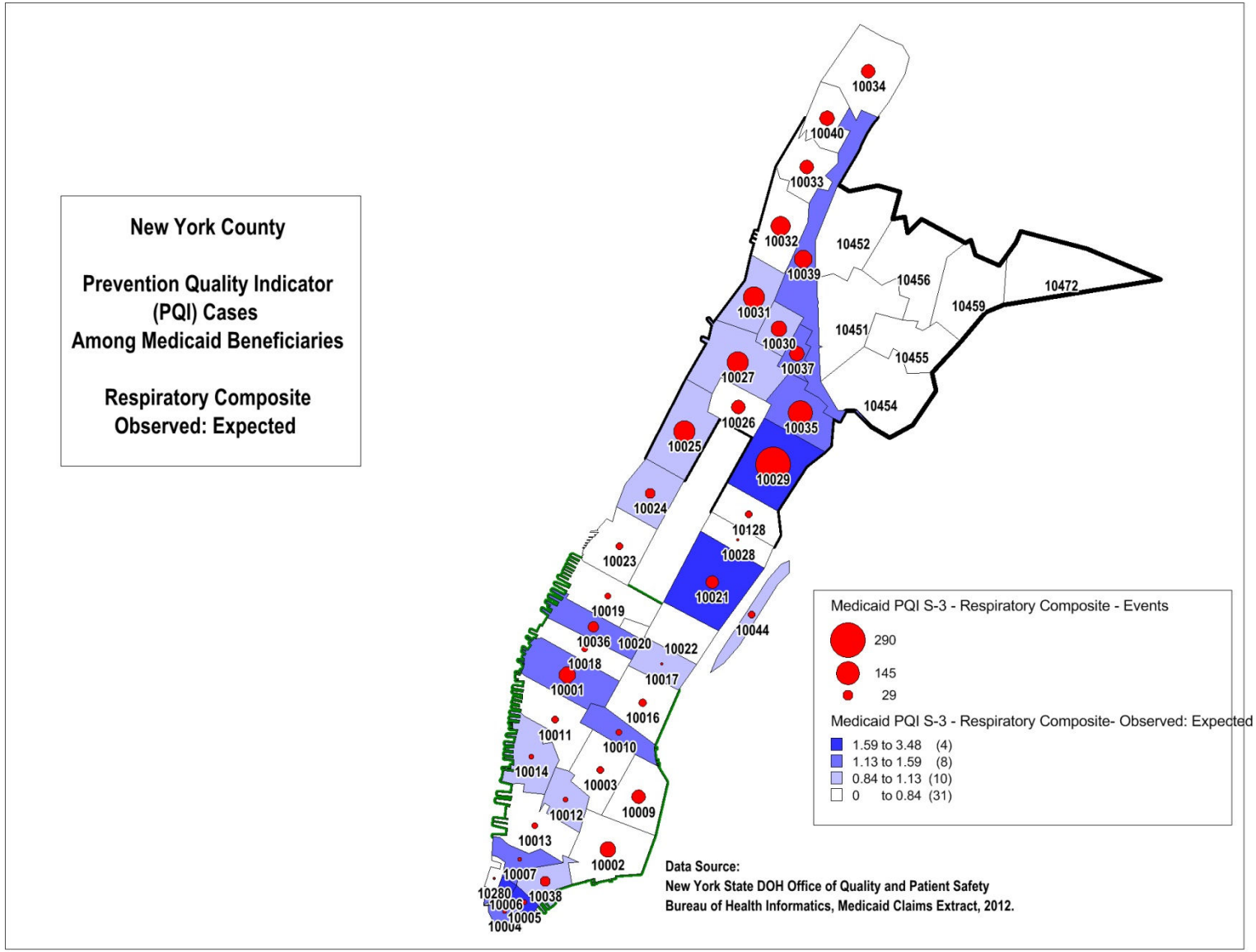
44. PQI All Diabetes Composite Cases (PQI S01) by Zip Code



45. PQI All Circulatory Composite Cases (PQI S02) by Zip Code



46. PQI All Respiratory Composite Cases (PQI S03) by Zip Code



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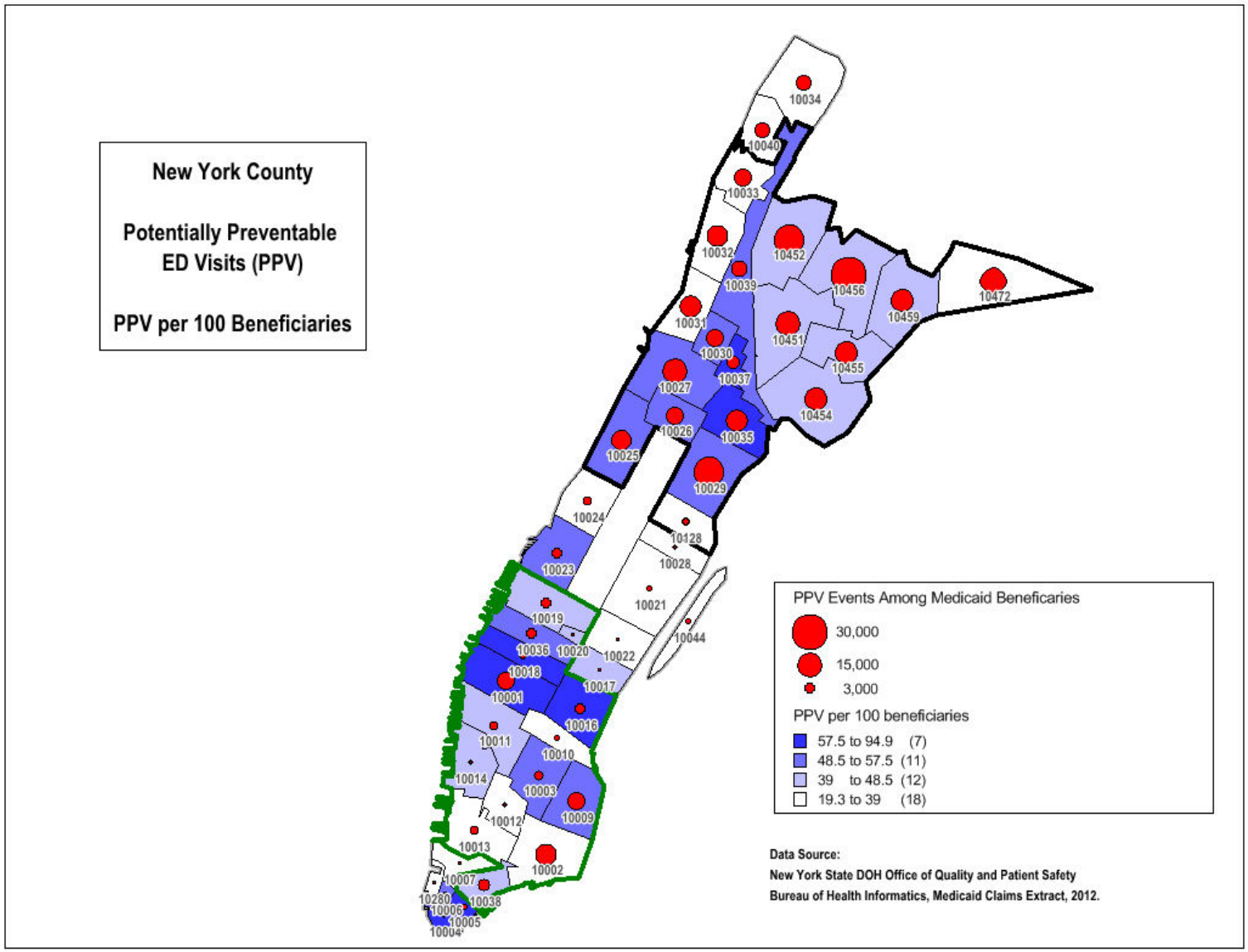

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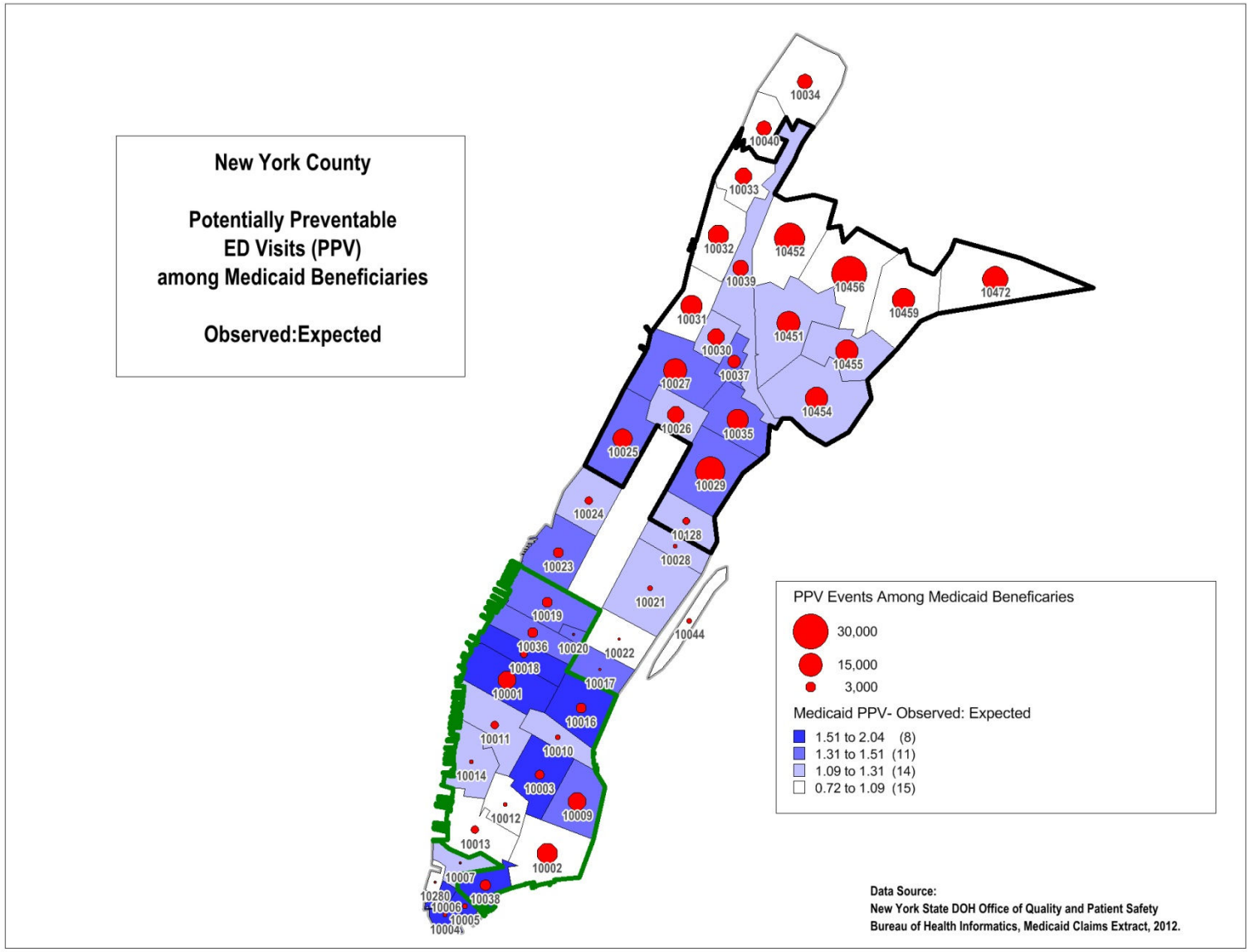
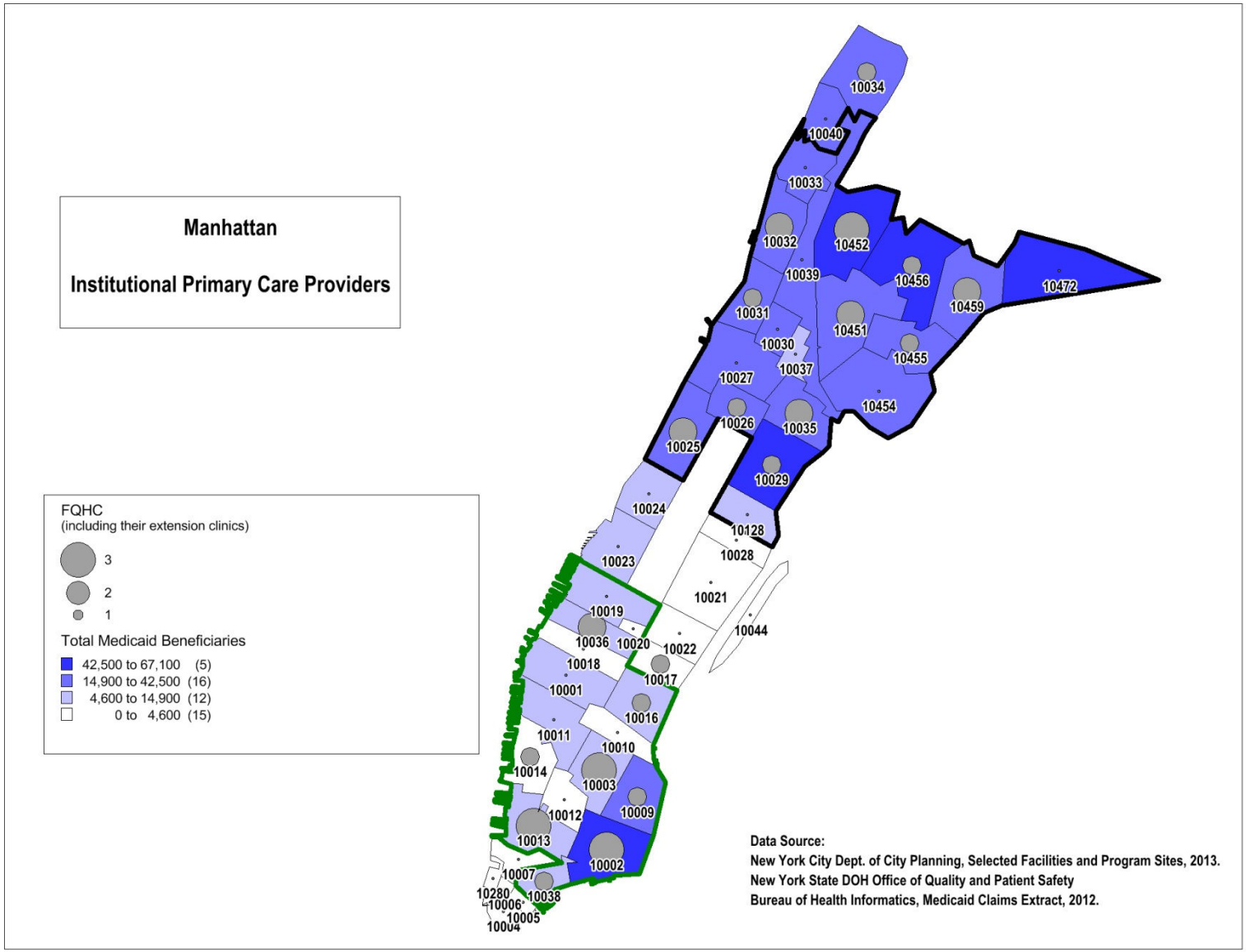
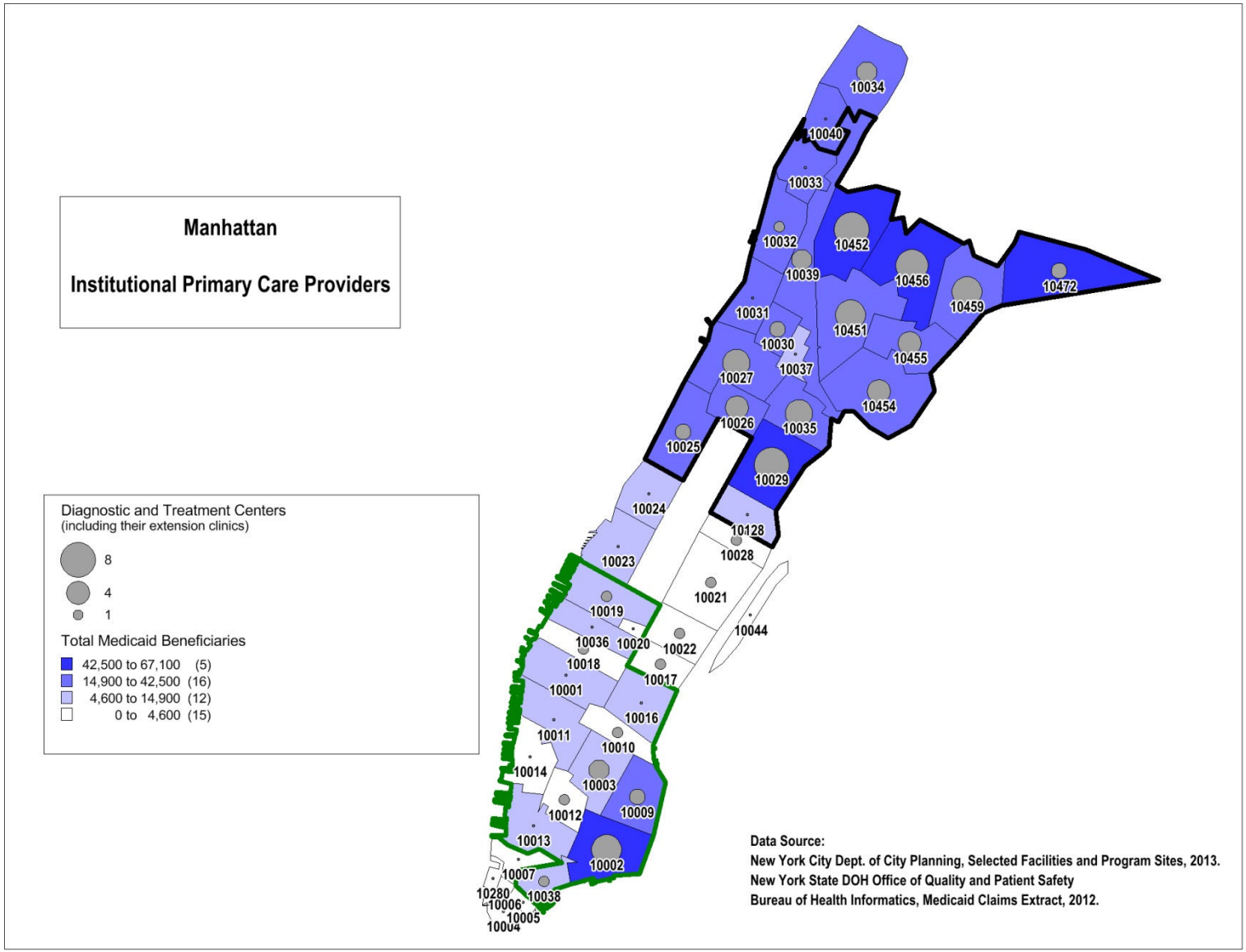


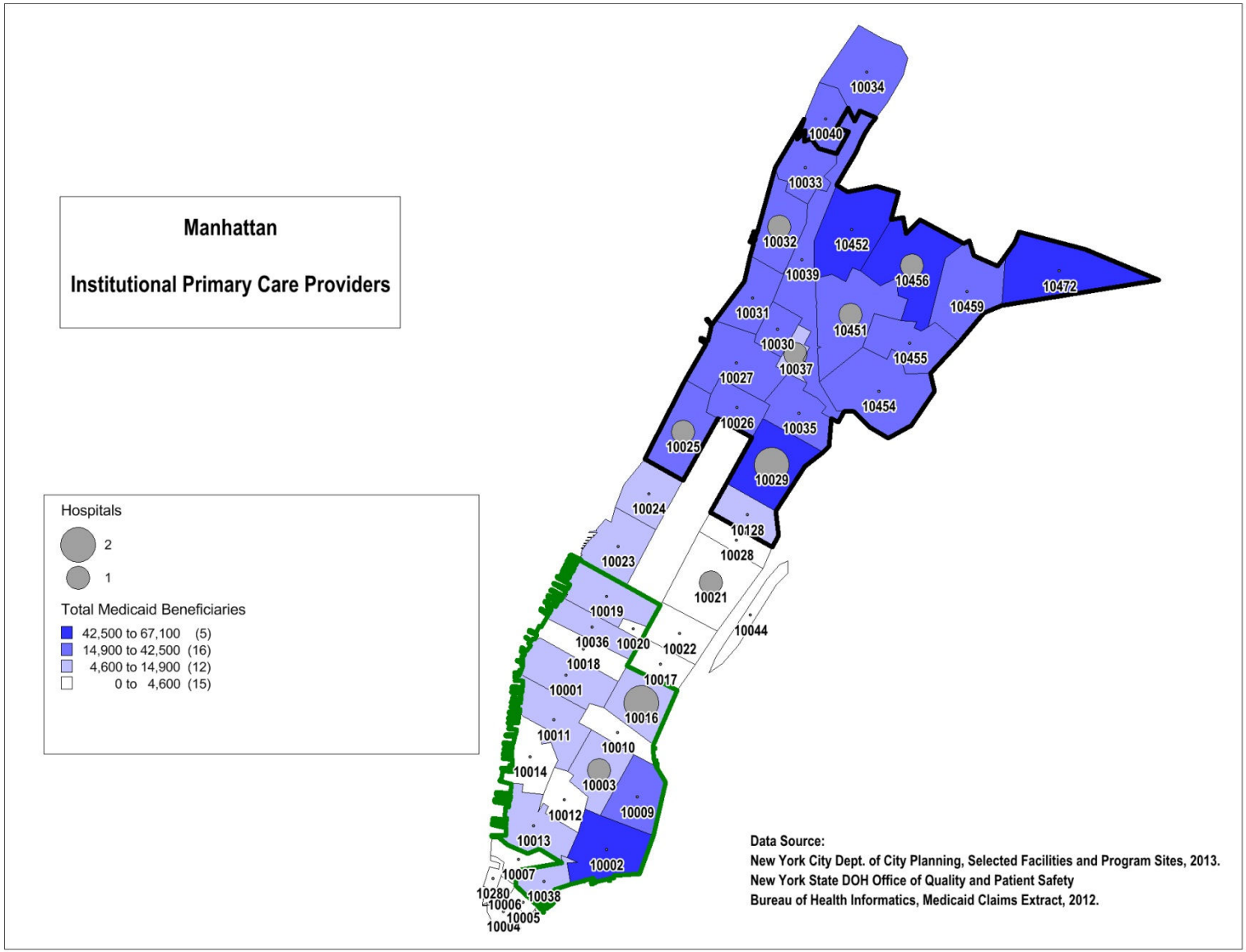
49. FQHC sites, including their extension clinics, and Medicaid Beneficiaries by Zip Code



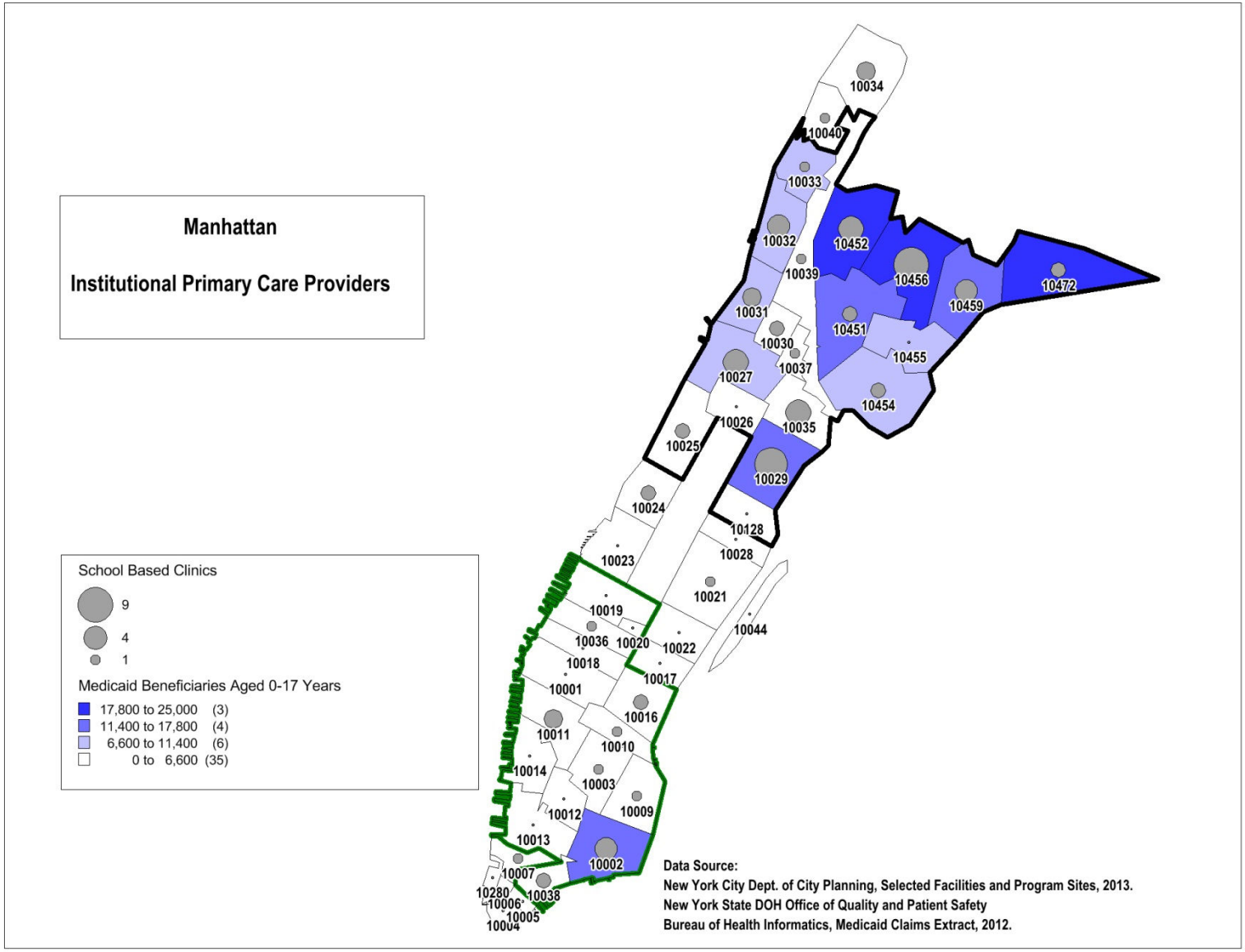
50. Diagnostic and Treatment Centers, including their extension clinics, and Medicaid Beneficiaries by Zip Code



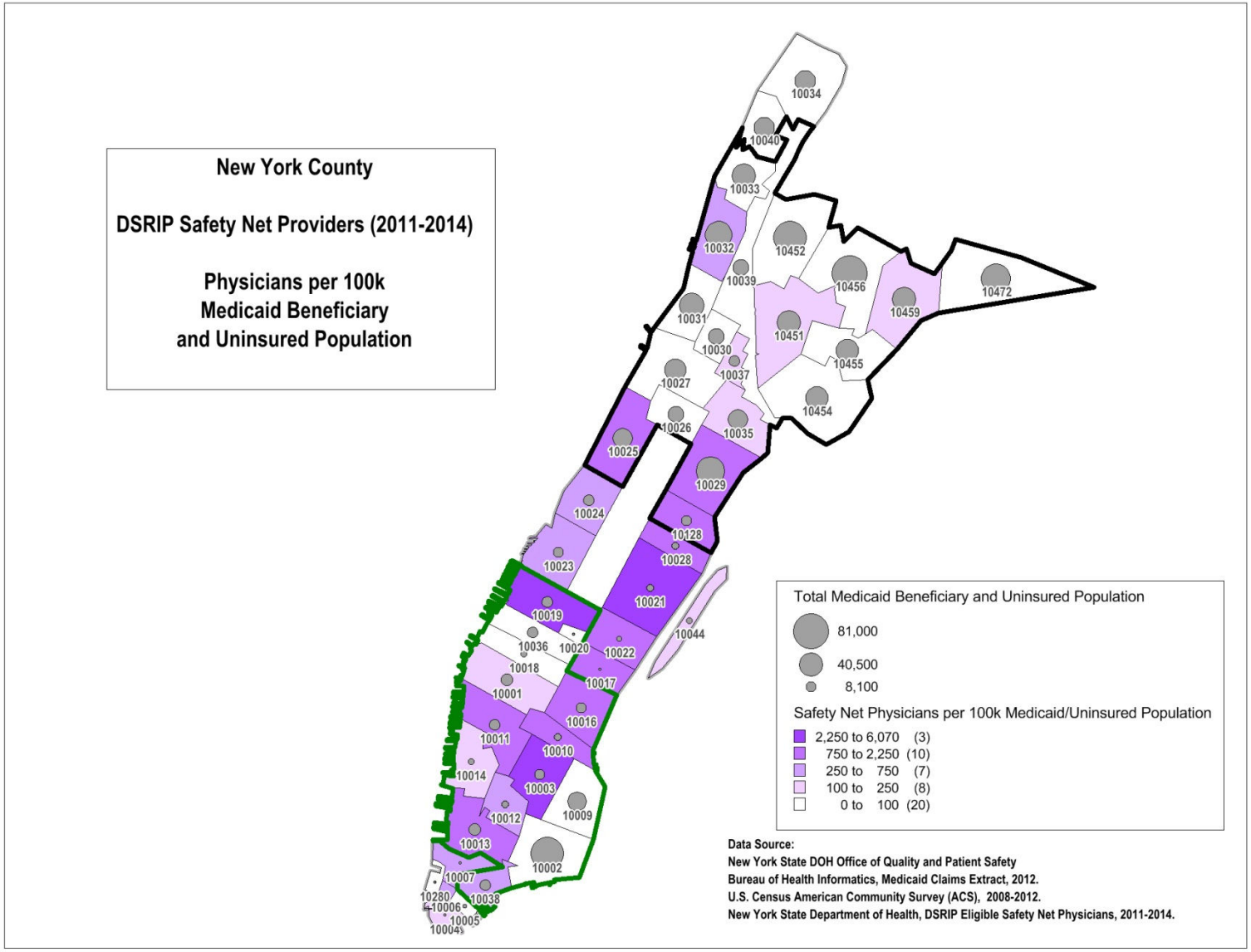
51. Hospital Sites and Medicaid Beneficiaries by Zip Code



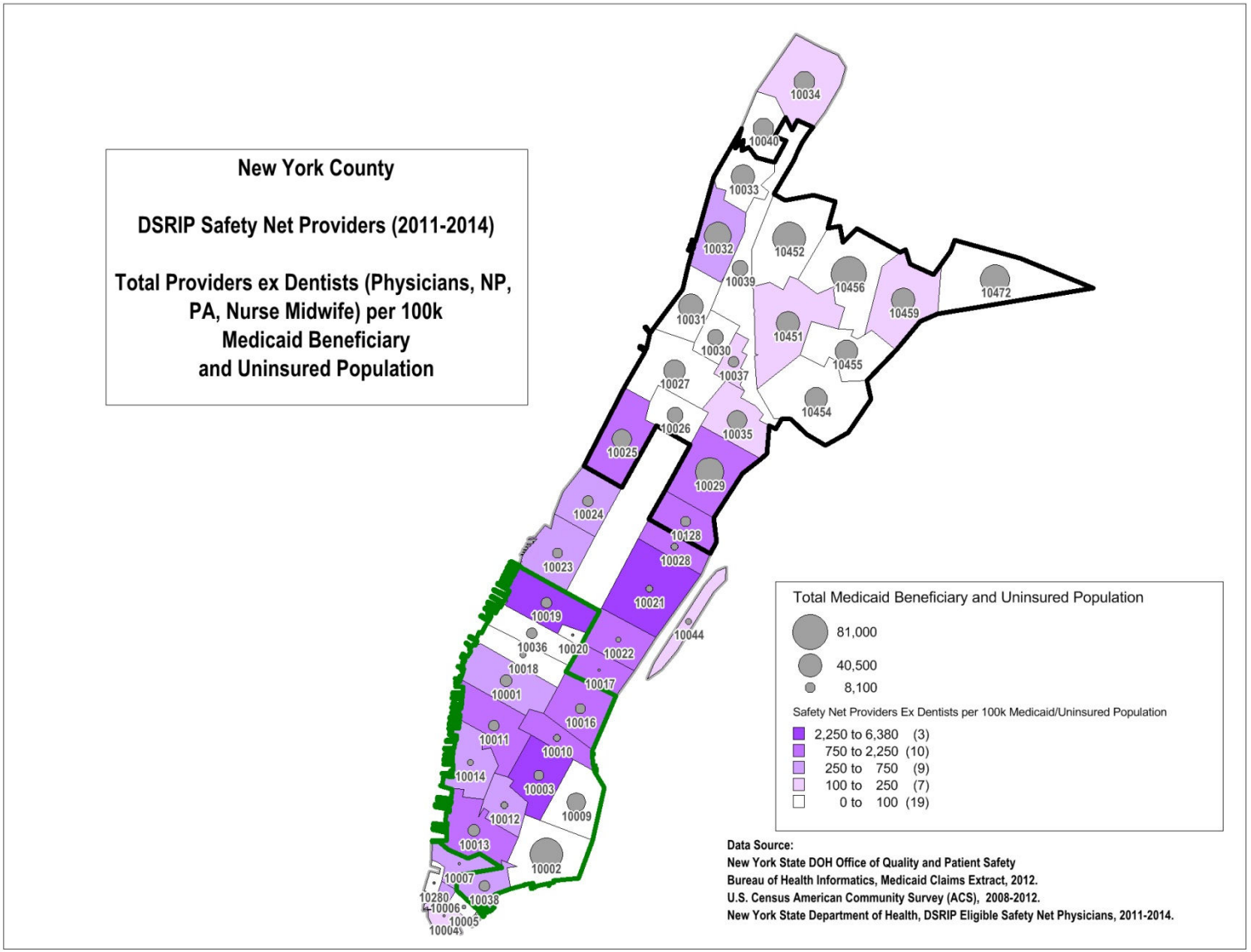
52. School-Based Health Centers and Medicaid Beneficiaries (Ages 0-17) by Zip Code



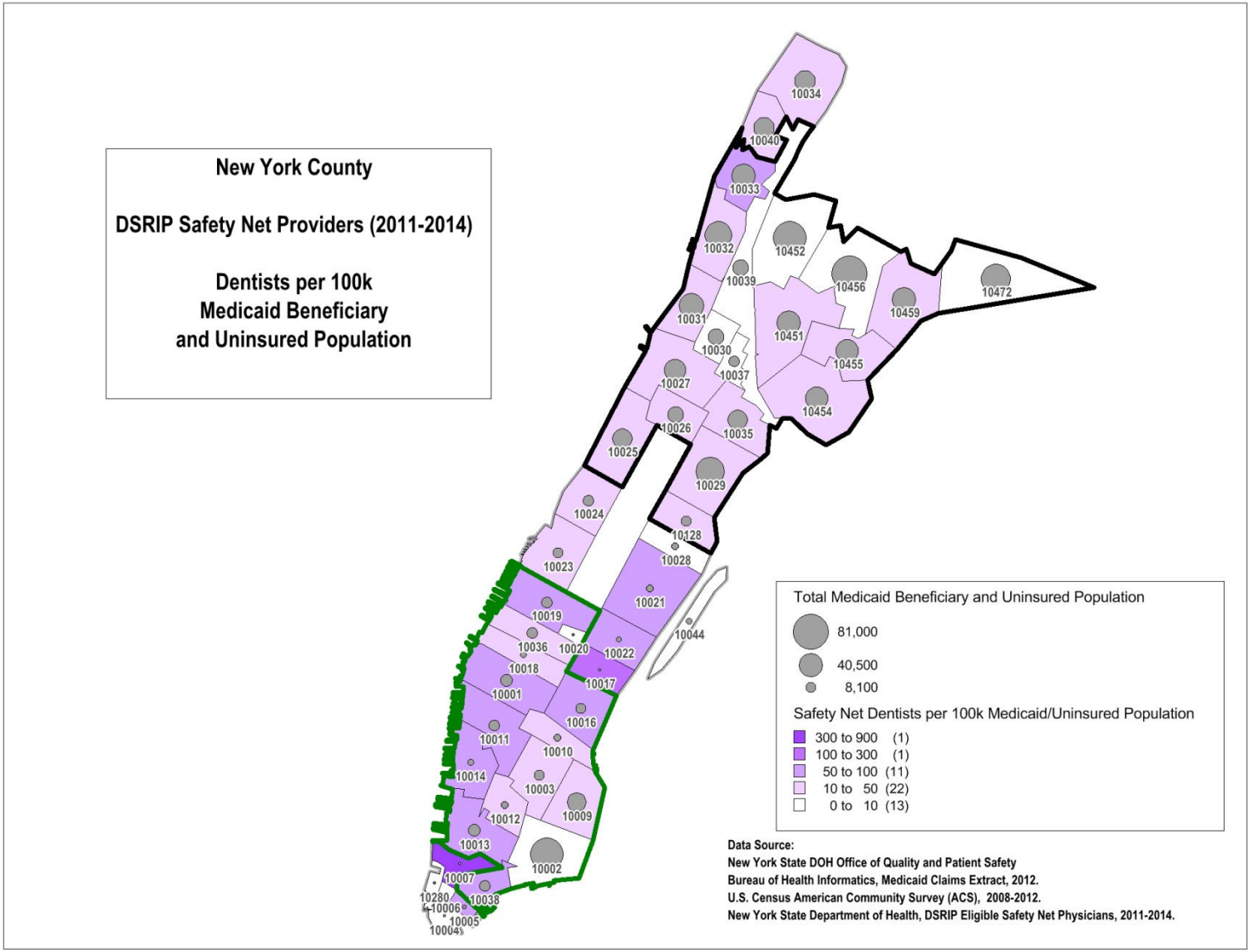
53. Safety Net Physicians per 100,000 Medicaid Beneficiary and Uninsured Population by Zip Code



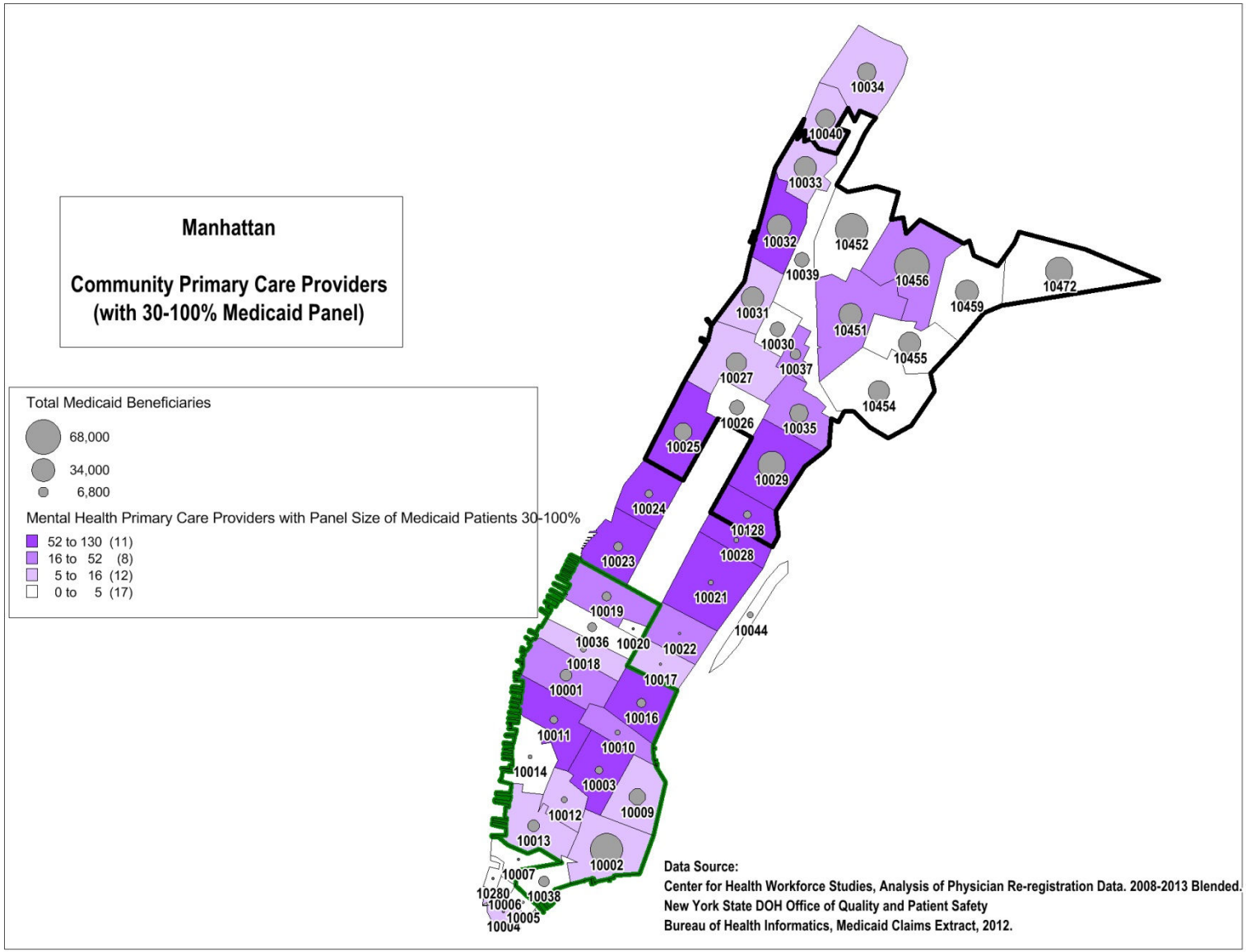
54. Safety Net Providers (Physician, Nurse Practitioner, Physician Assistant and Nurse Midwife) per 100,000 Medicaid Beneficiary and Uninsured Population by Zip Code



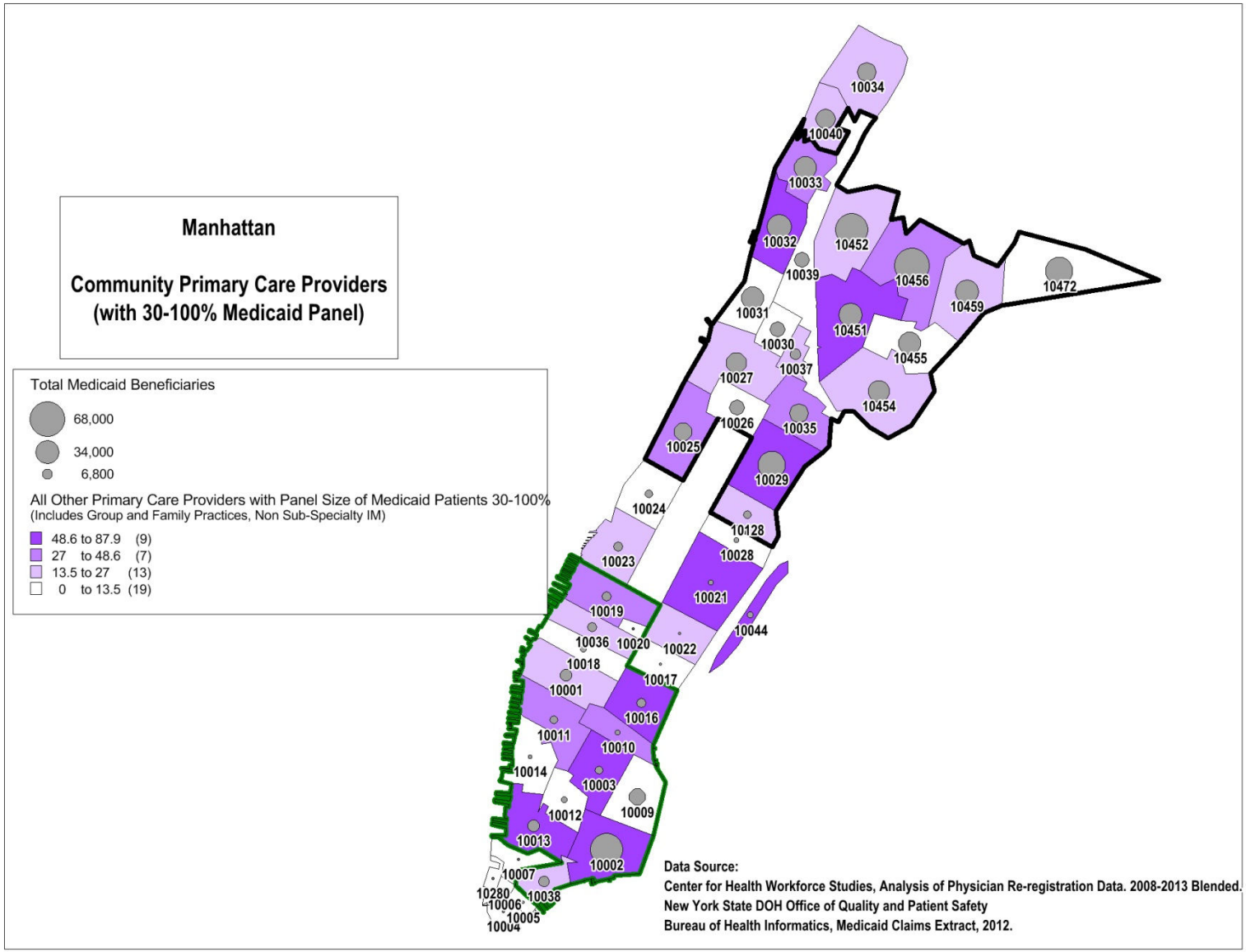
55. Safety Net Dentists per 100,000 Medicaid Beneficiary and Uninsured Population by Zip Code



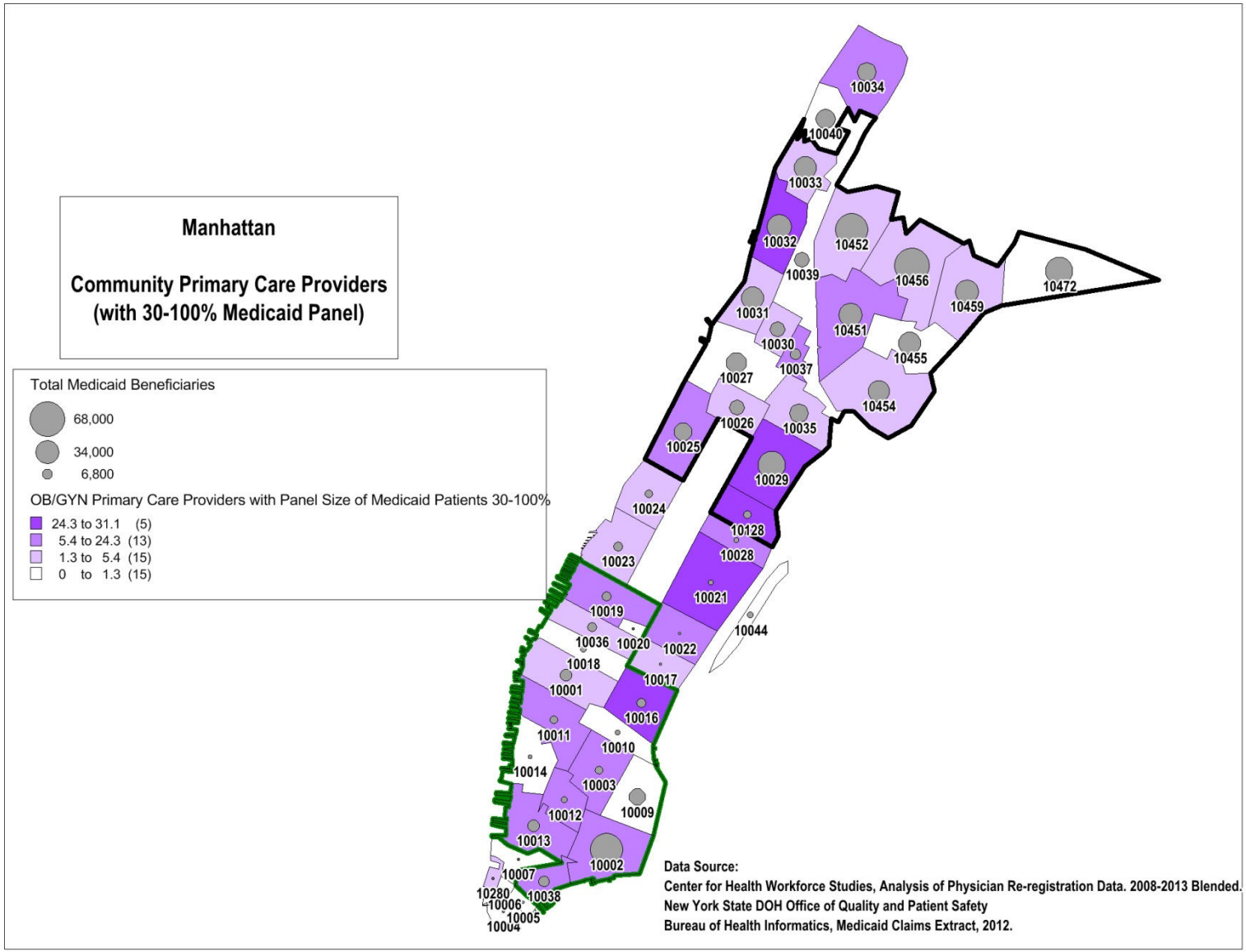
56. Mental Health Physicians reporting 30-100% of panel being Medicaid payer patients and Medicaid population with a Mental Health CRG diagnosis by Zip Code.



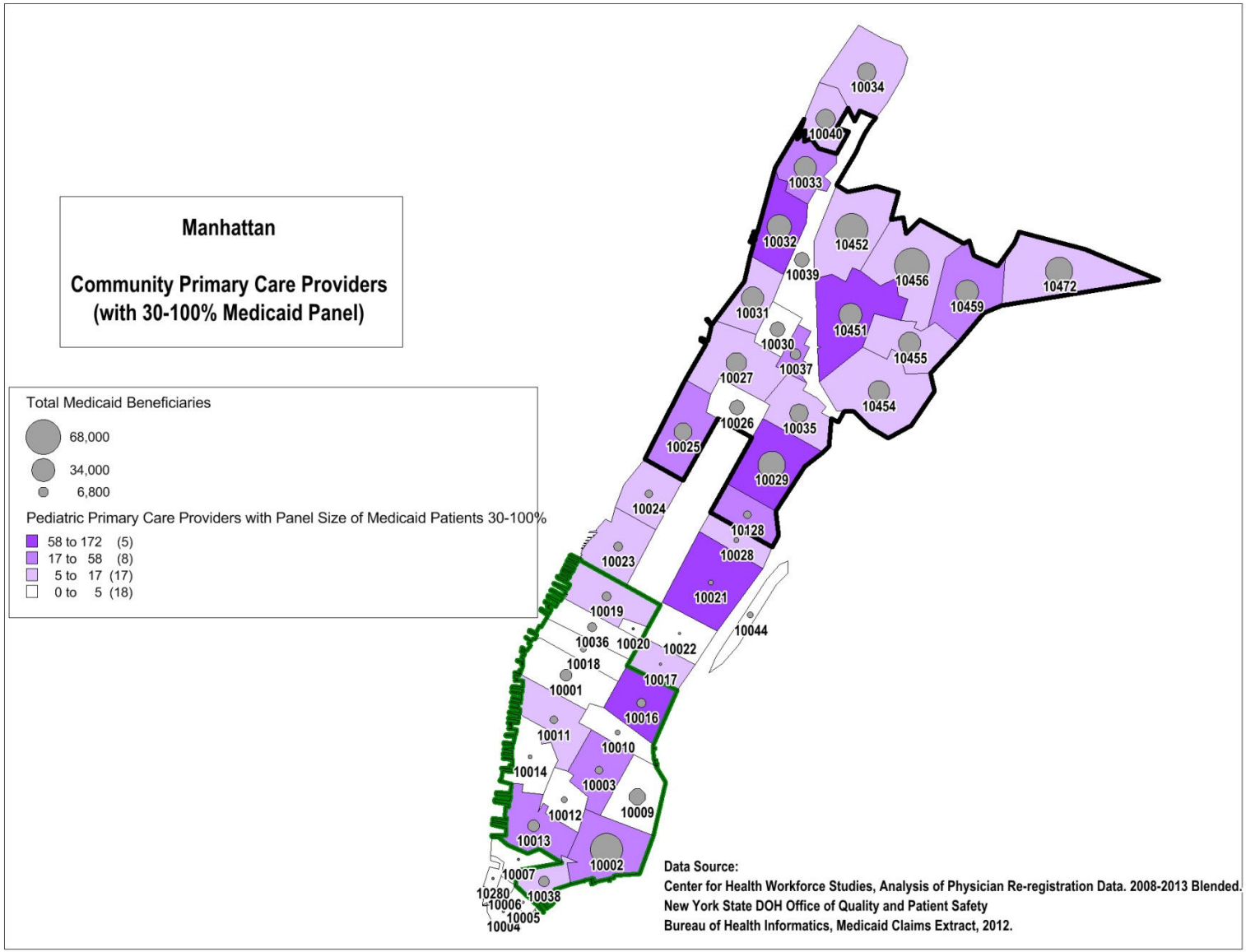
57. Other Primary Care Physicians (Pediatrics, OB/GYN, Family Practice, Group Practice, Non-Specialty Internal Medicine) reporting 30-100% of panel being Medicaid payer patients and Medicaid Beneficiaries by Zip Code



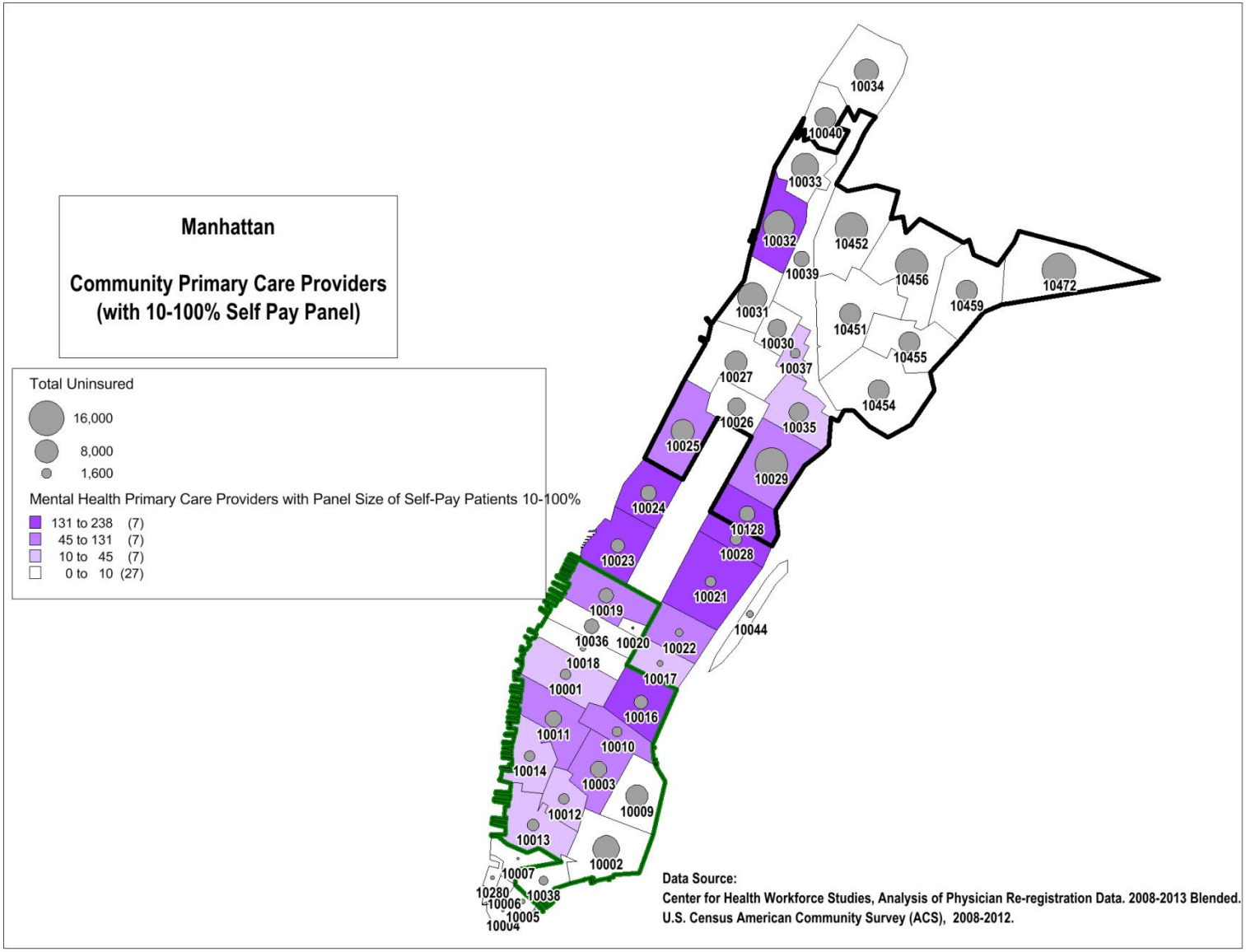
58. OB/GYN Physicians reporting 30-100% of panel being Medicaid payer patients and Medicaid Beneficiaries by Zip Code



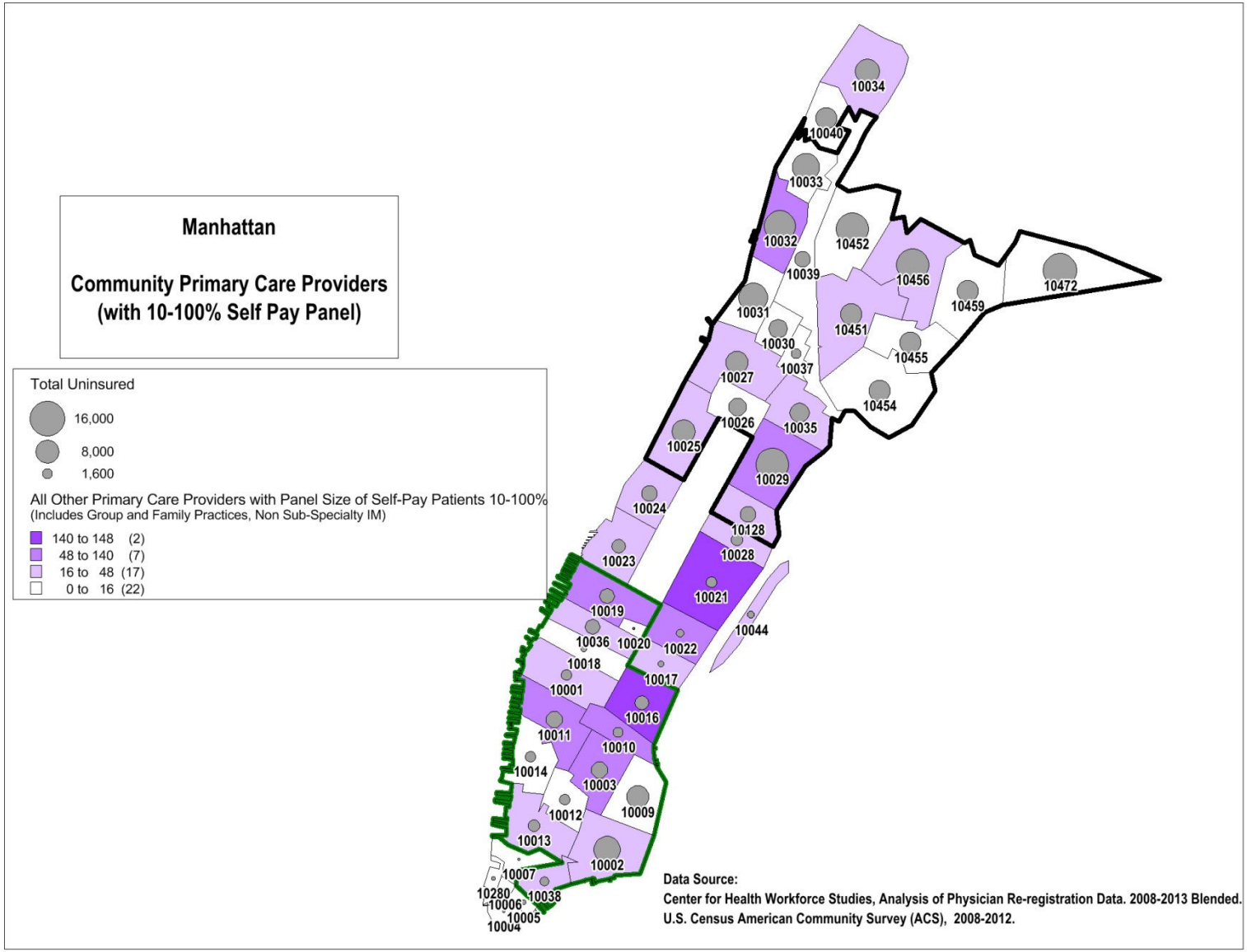
59. Pediatric Physicians reporting 30-100% of panel being Medicaid payer patients and Pediatric Medicaid Beneficiaries by Zip Code



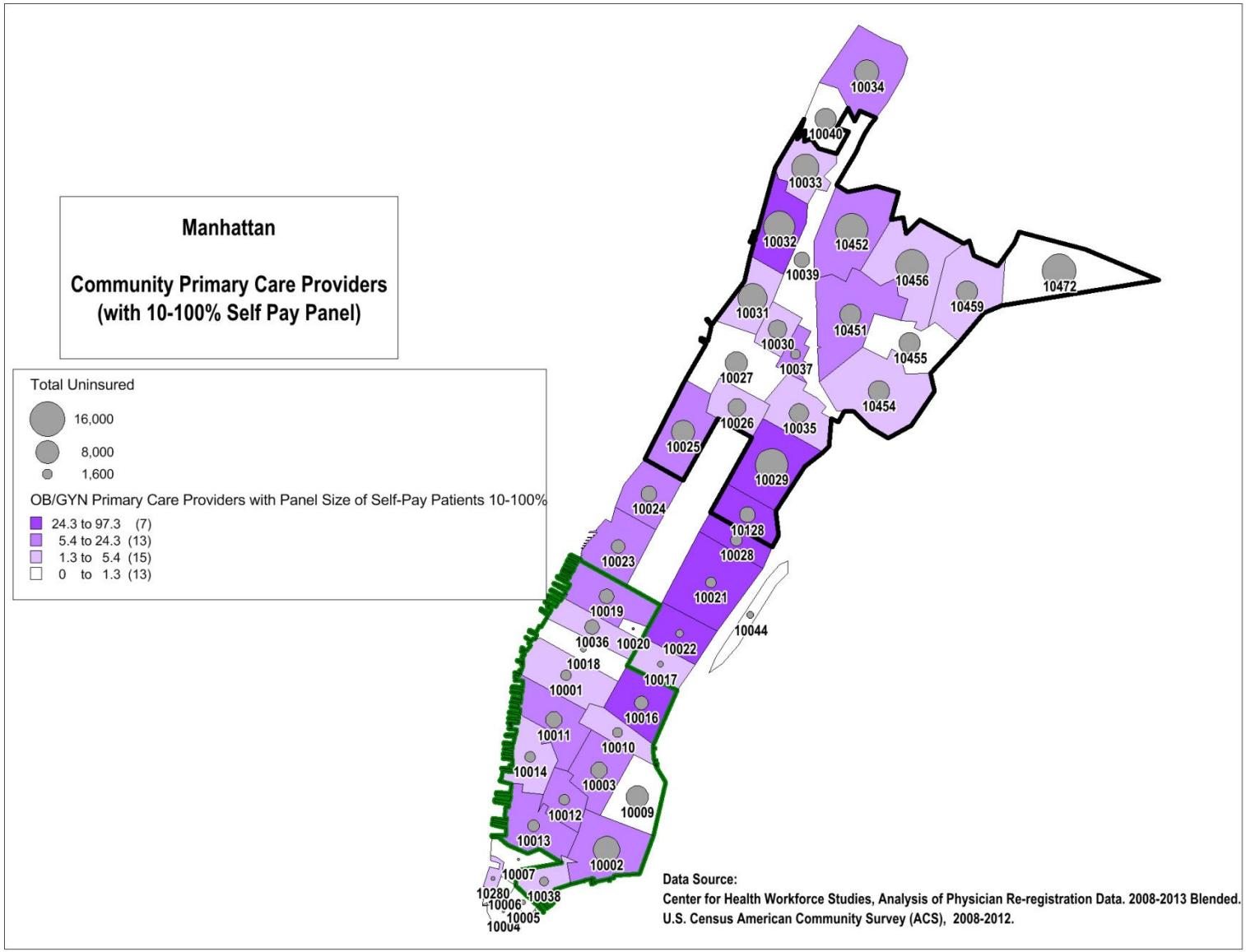
60. Mental Health Physicians reporting 10-100% of panel being Self-Pay payer patients and Uninsured population by Zip Code



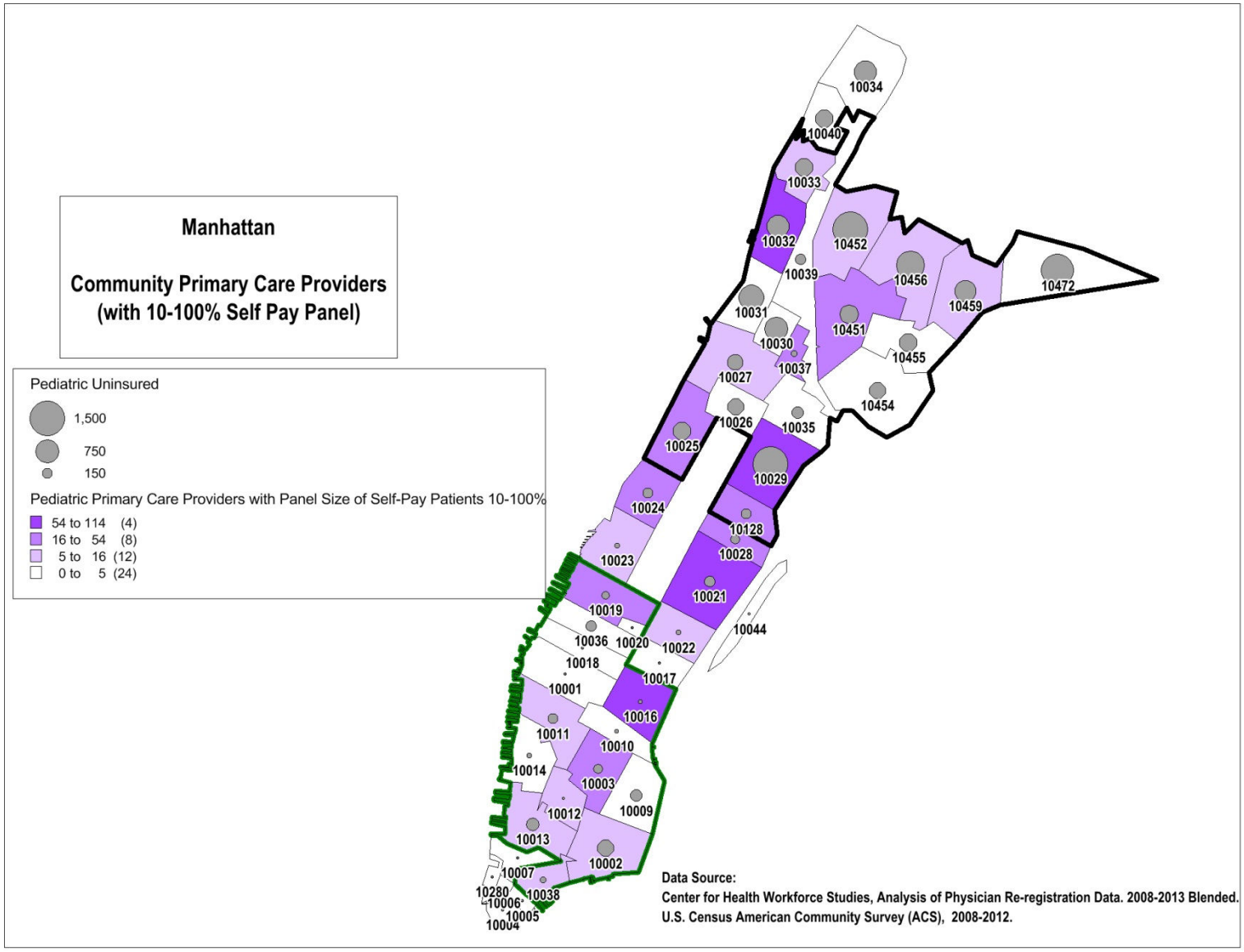
61. Other Primary Care Physicians (Family Practice, Non-Specialty Internal Medicine) reporting 10-100% of panel being Self-Pay payer patients and Uninsured Population by Zip Code



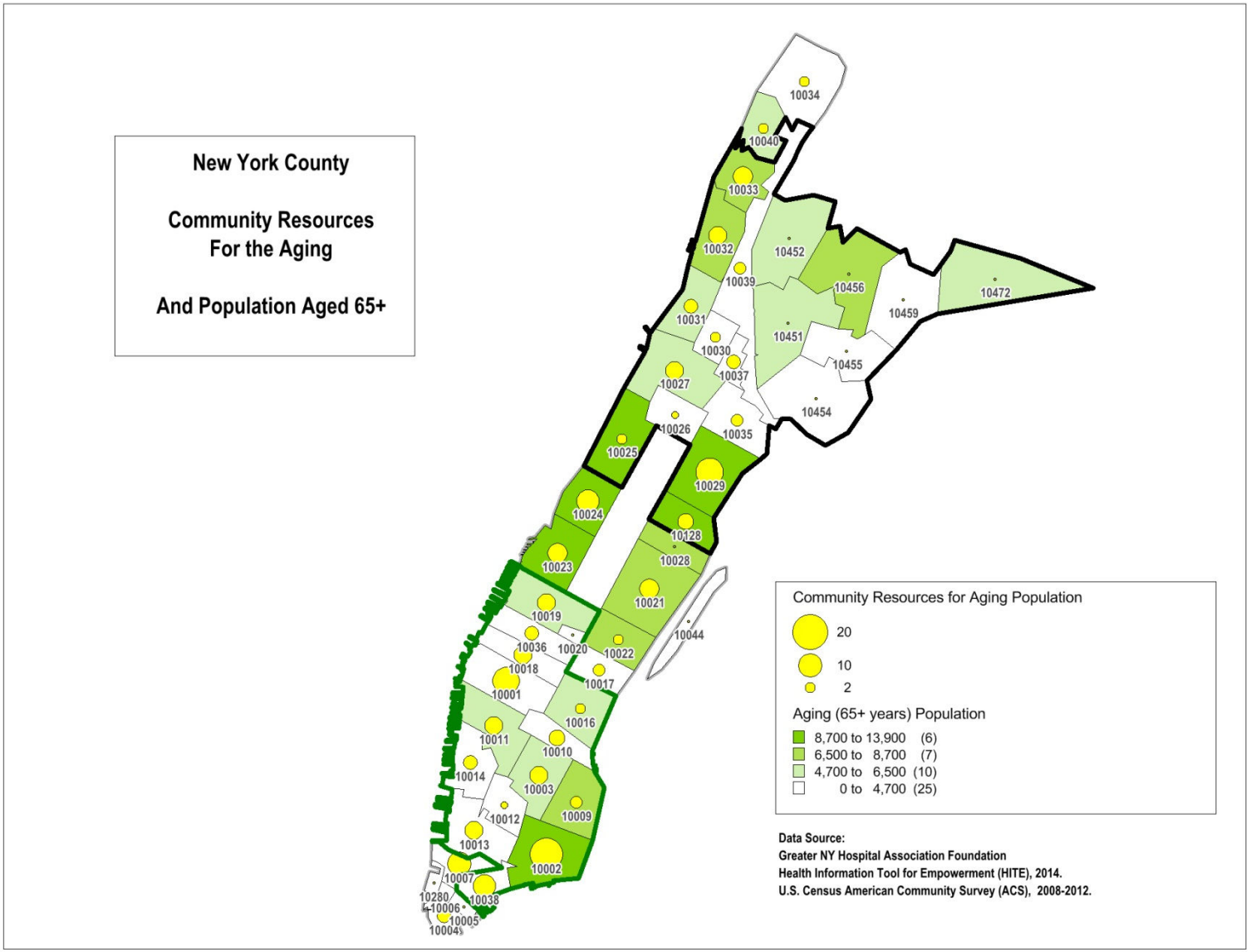
62. OB/GYN Physicians reporting 10-100% of panel being Self-Pay payer patients and Uninsured Population by Zip Code



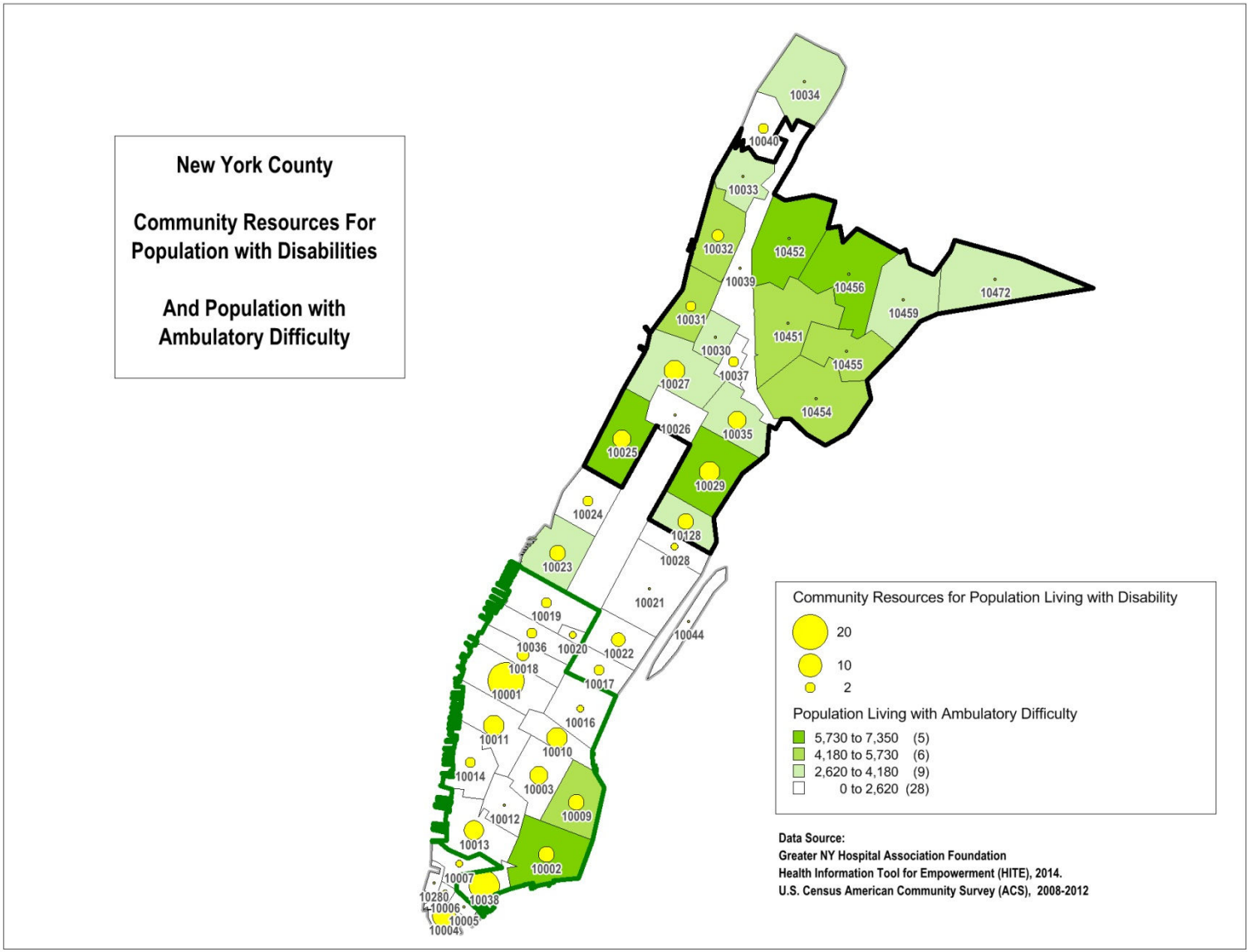
63. Pediatric Physicians reporting 10-100% of panel being Self-Pay payer patients and Pediatric Uninsured Population by Zip Code



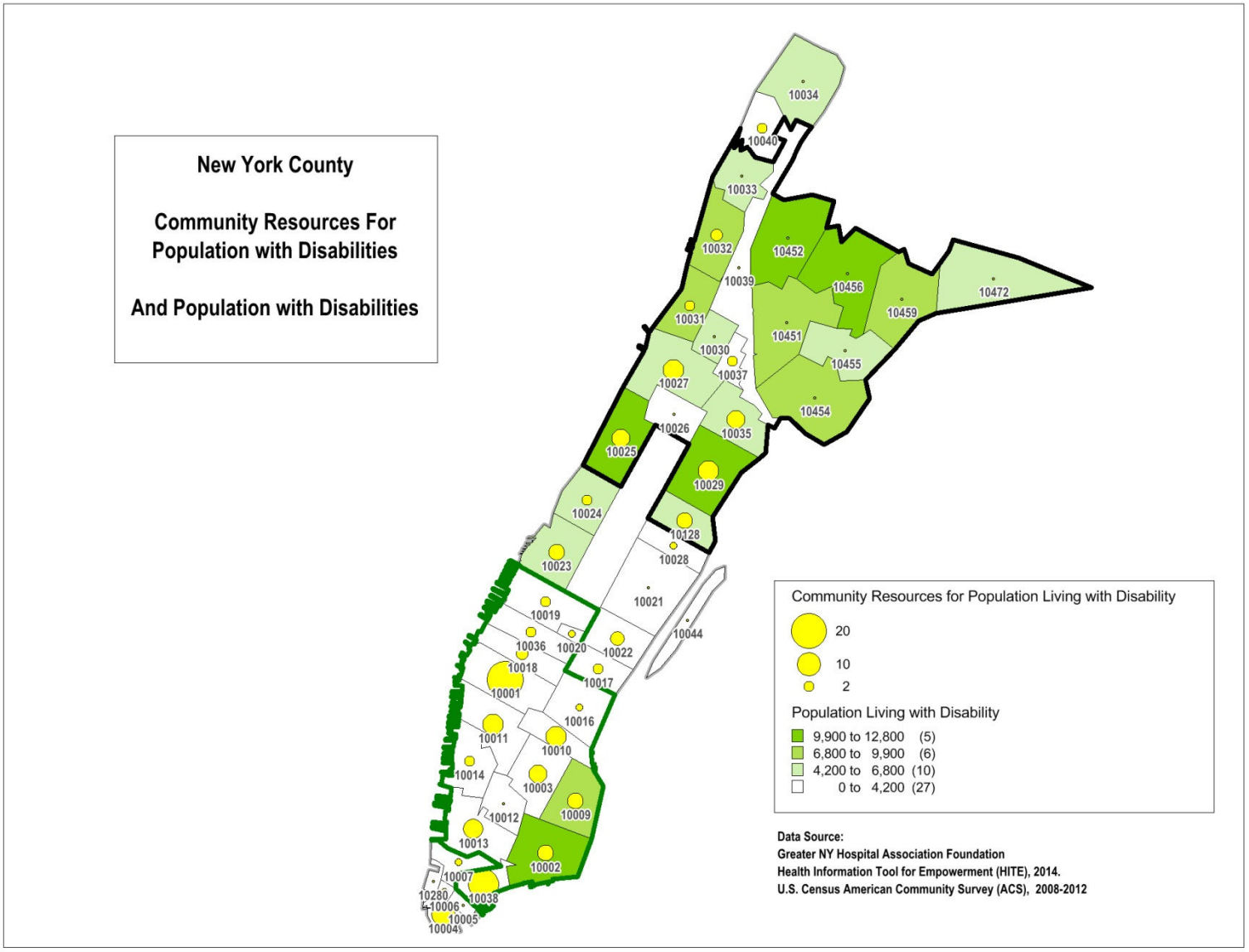
64. Aging Resources and 65+ Population by Zip Code



65. Disability Resources and Population with Ambulatory Difficulty by Zip Code



66. Disability Resources and Population with any Disability by Zip Code



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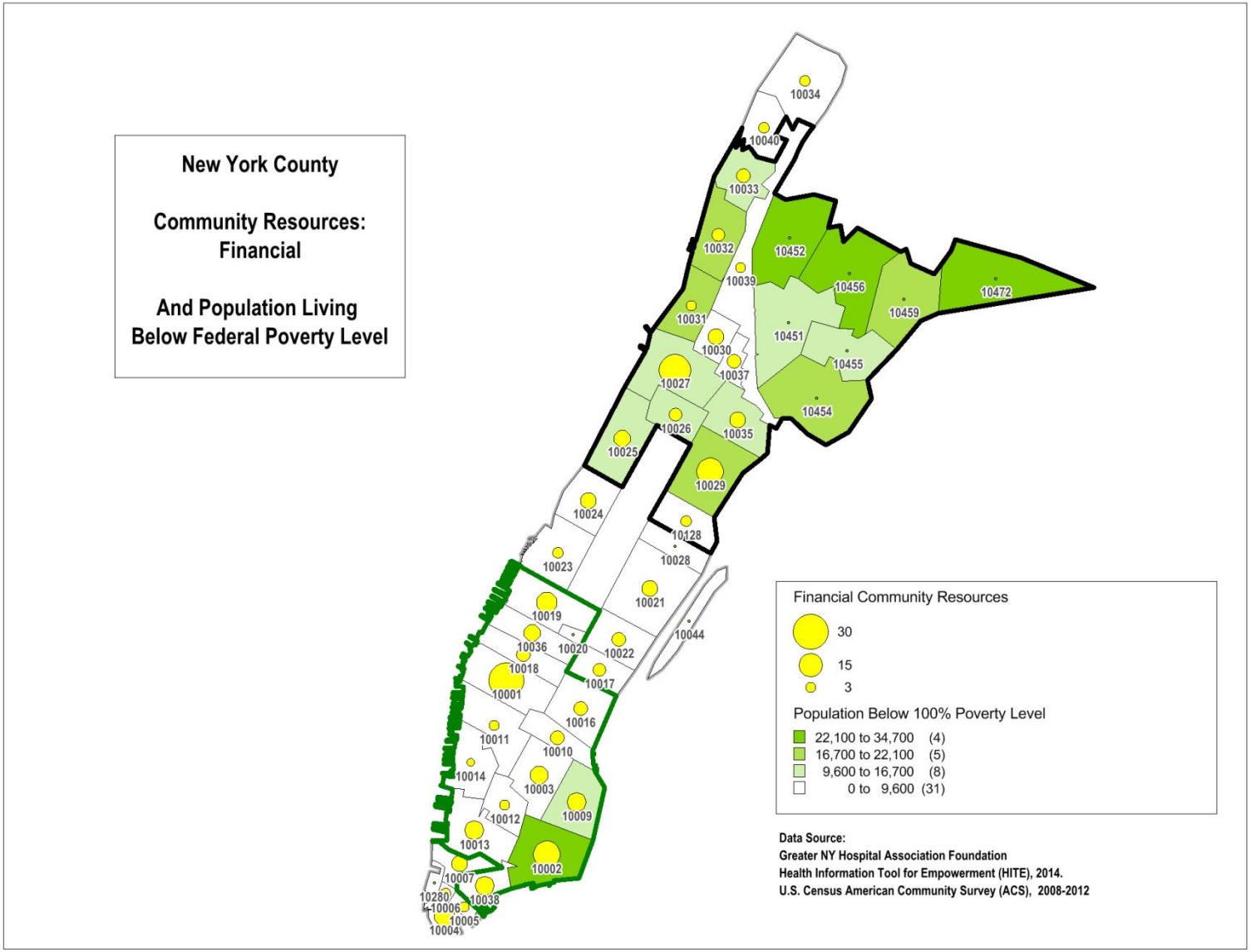

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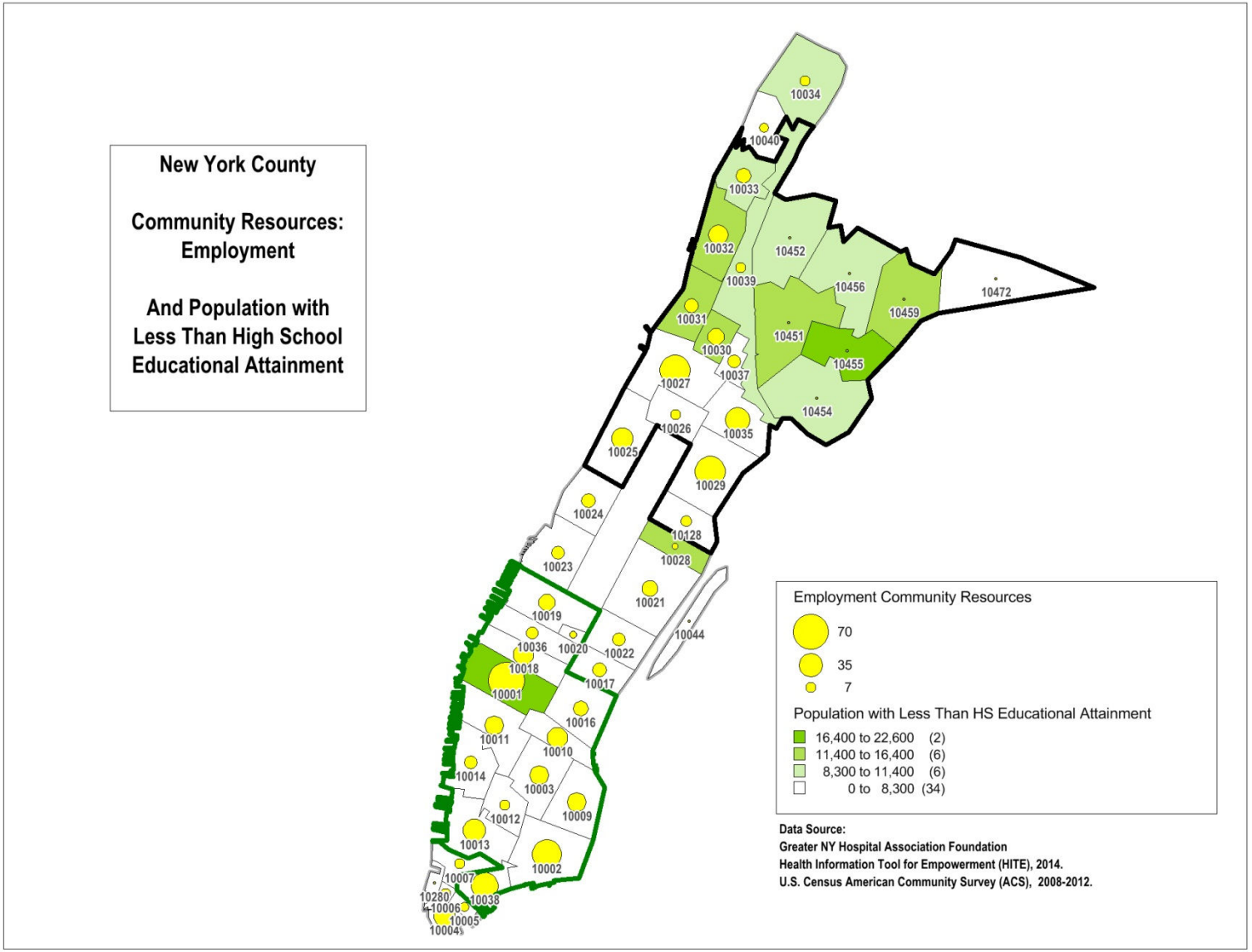

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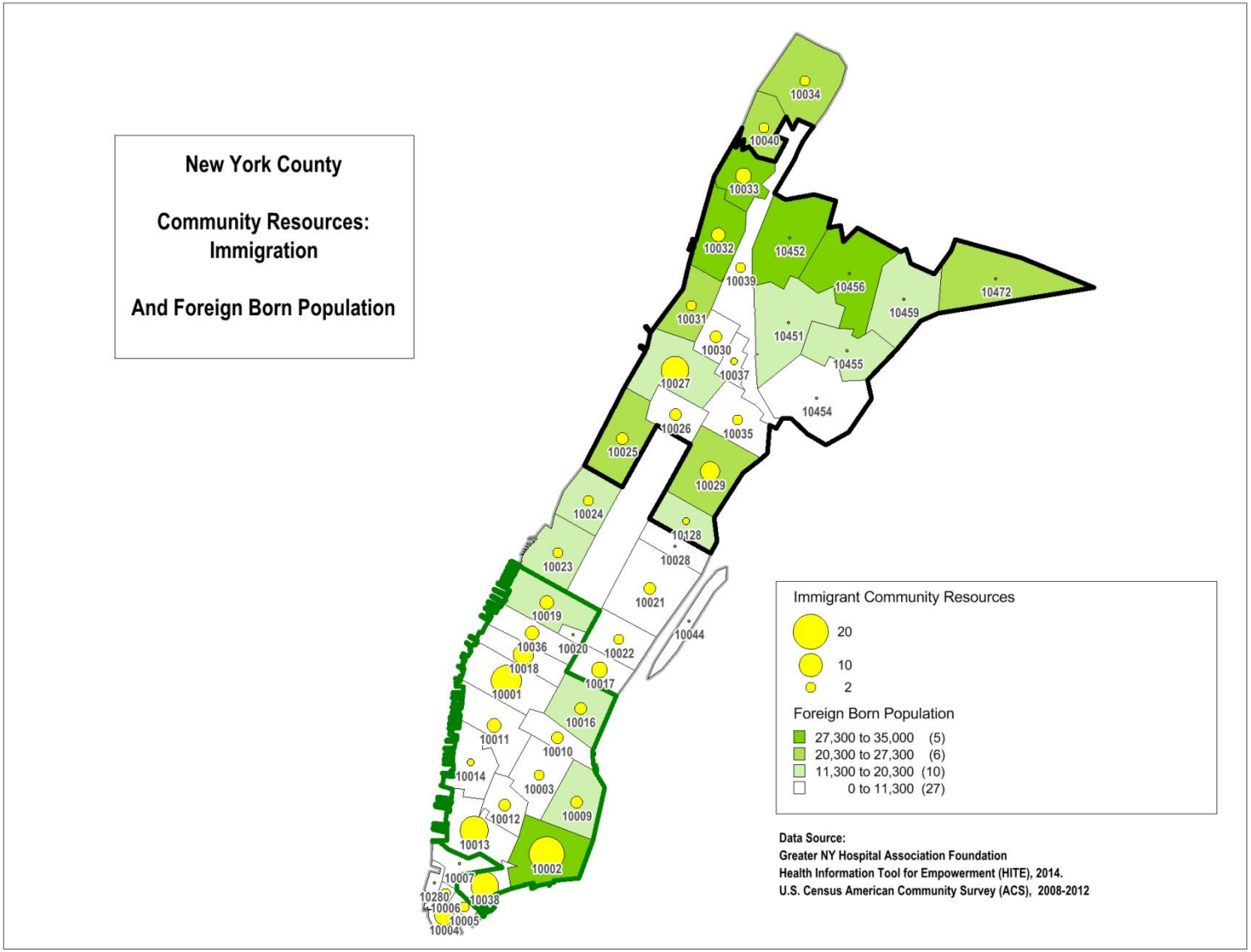
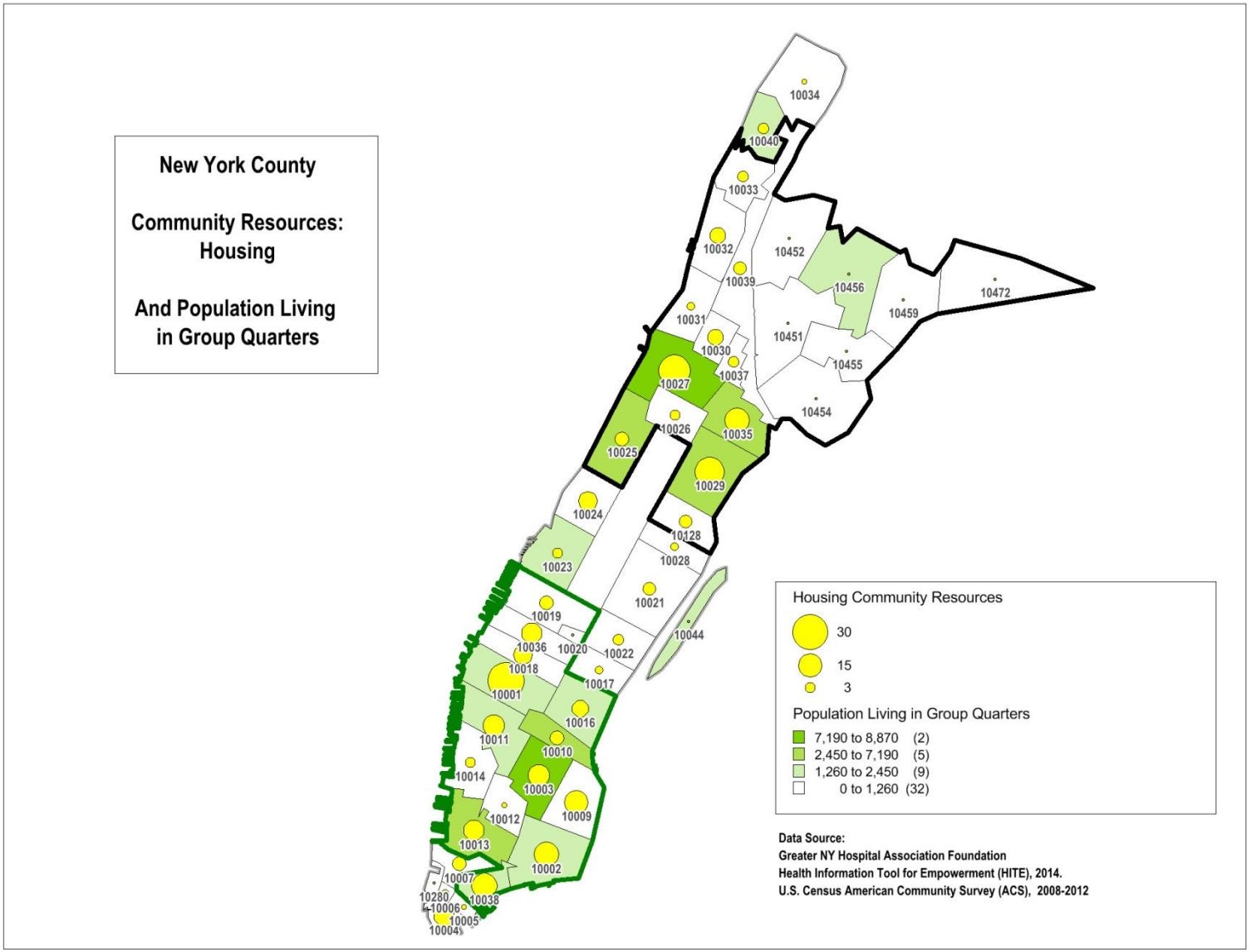
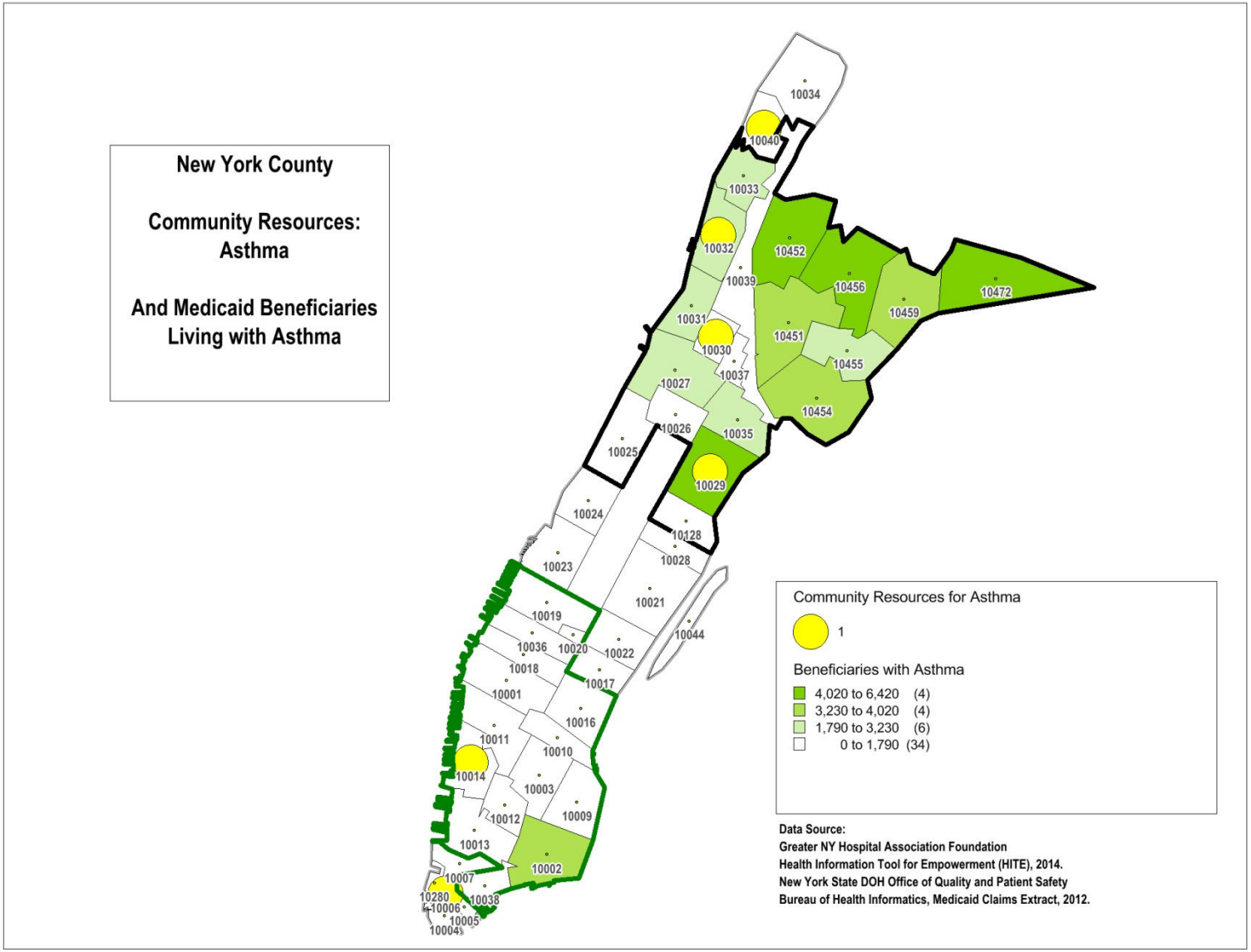


70. Housing Resources and Population Currently Living in Group Quarters by Zip Code



71. Asthma Resources and Medicaid Beneficiaries with an Asthma CRG diagnosis by Zip Code



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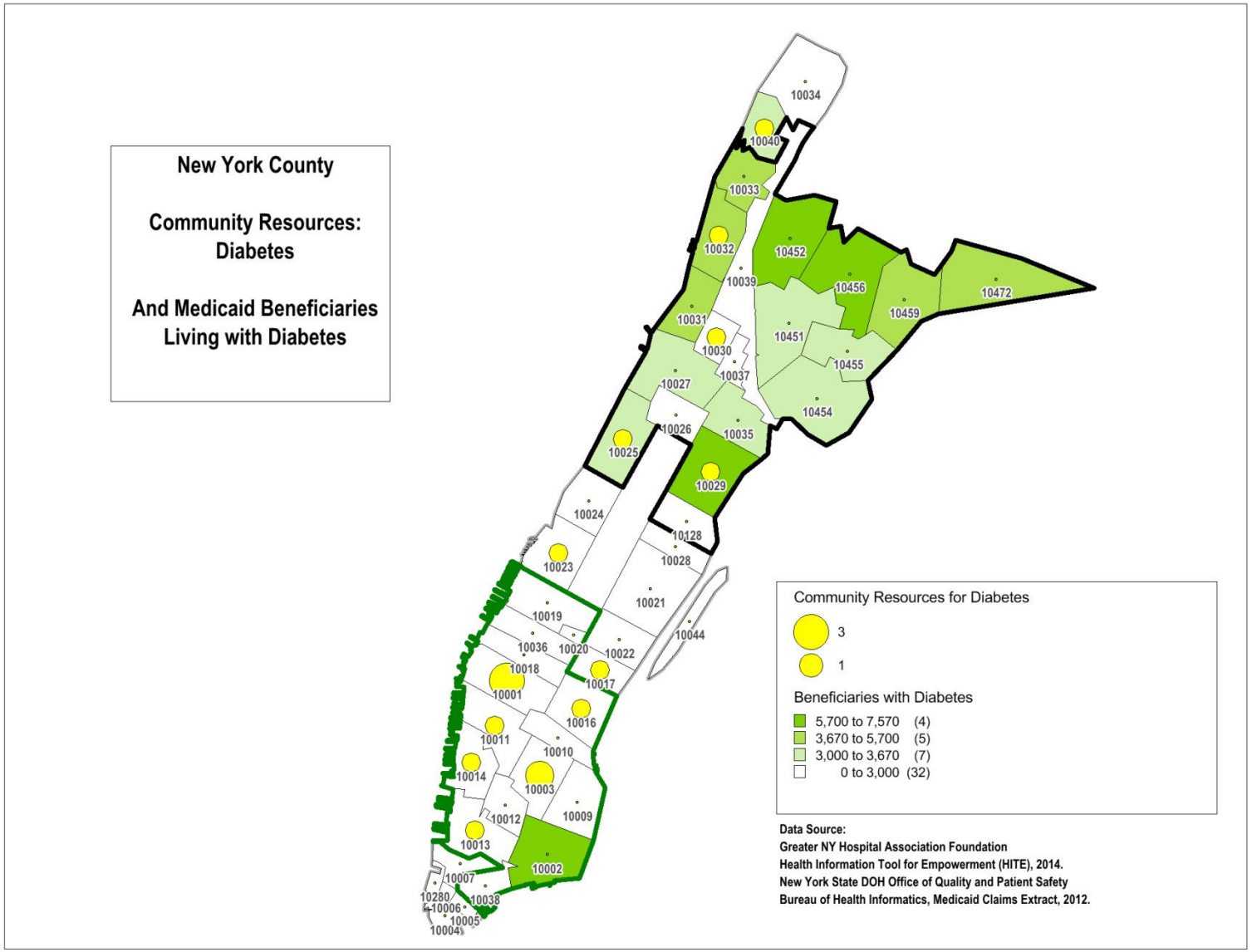

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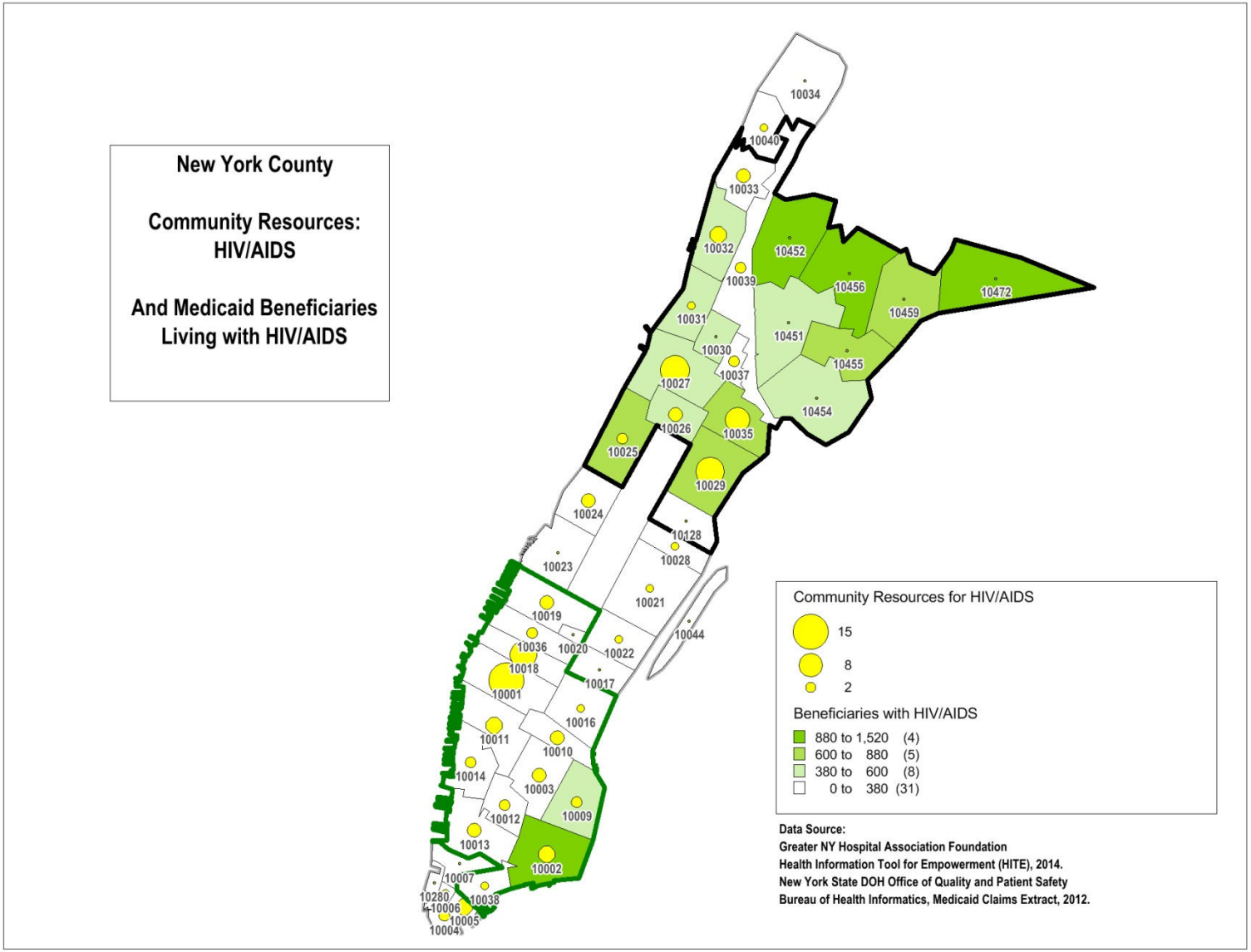

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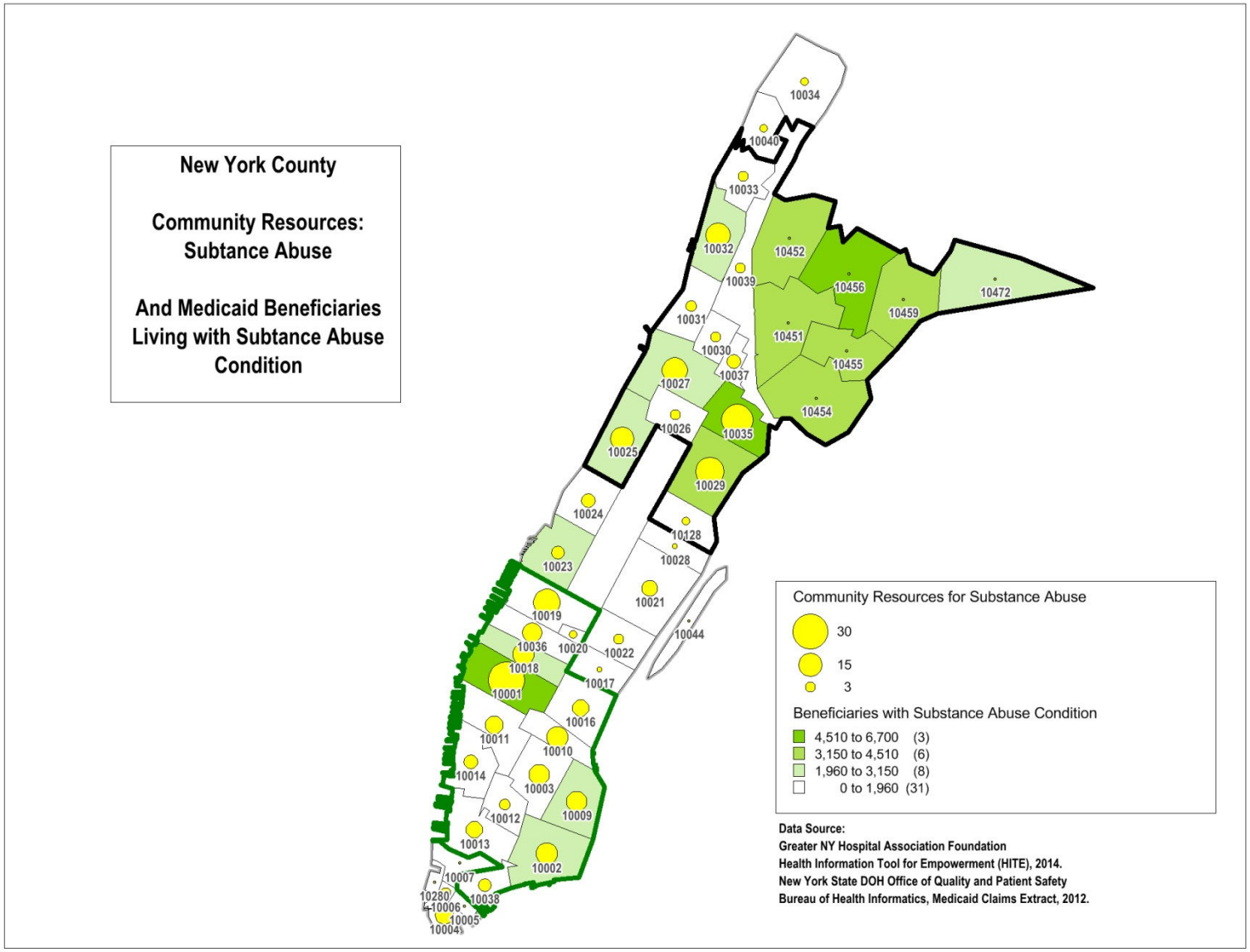

QUEENS COMMUNITY NEEDS ASSESSMENT
APPENDIX A - MAPS

December 16, 2014

NEW YORK CITY HEALTH AND HOSPITALS CORPORATION

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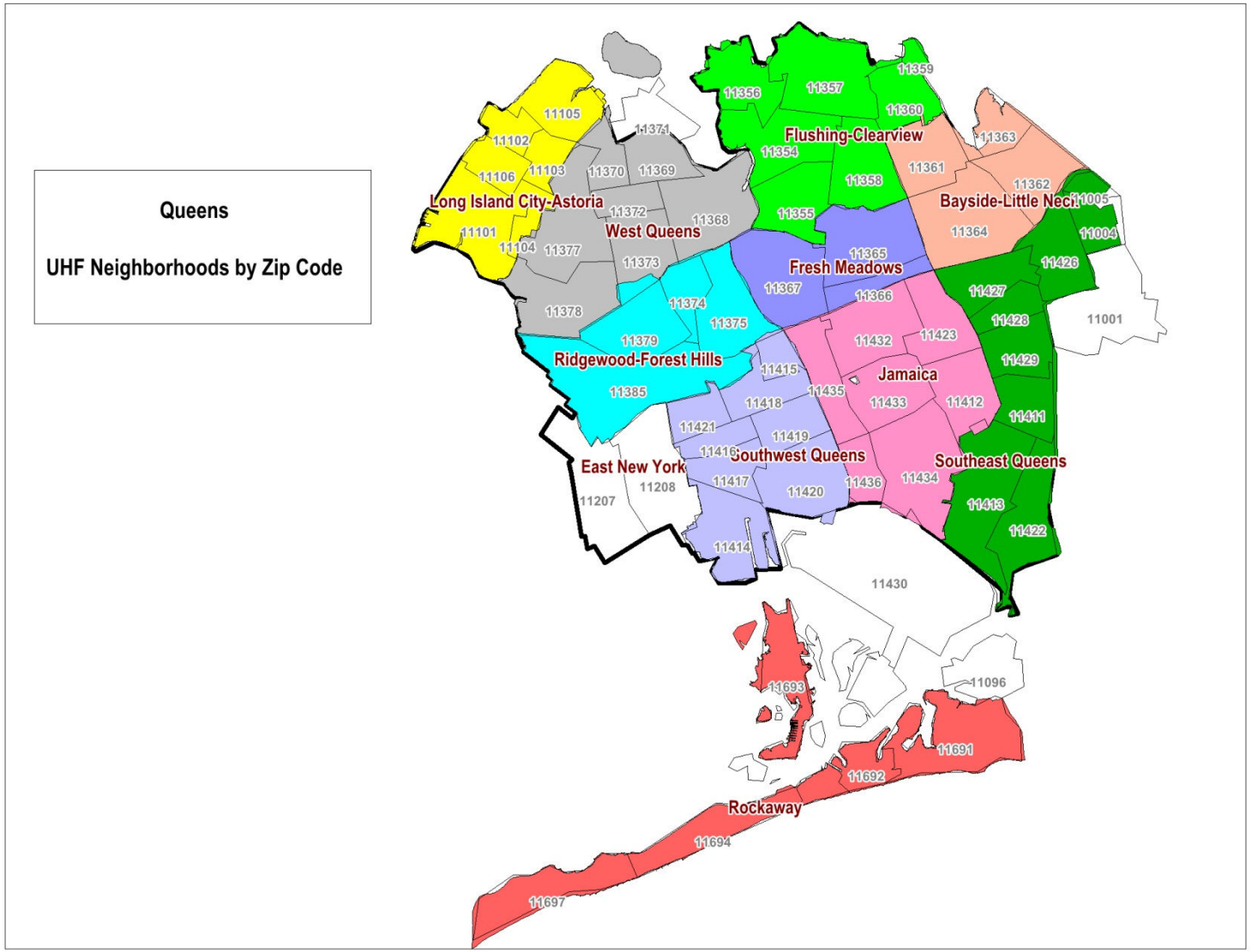
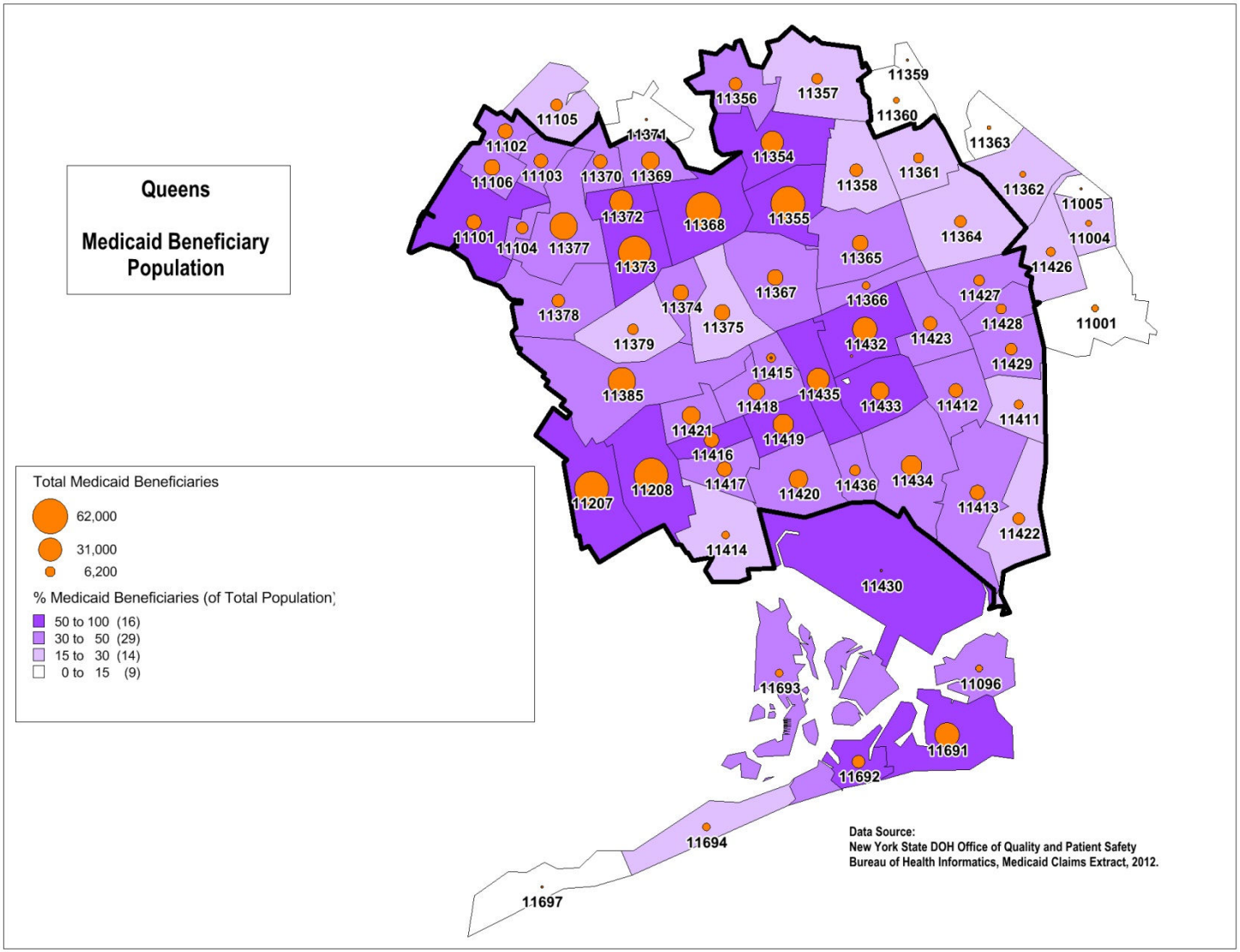
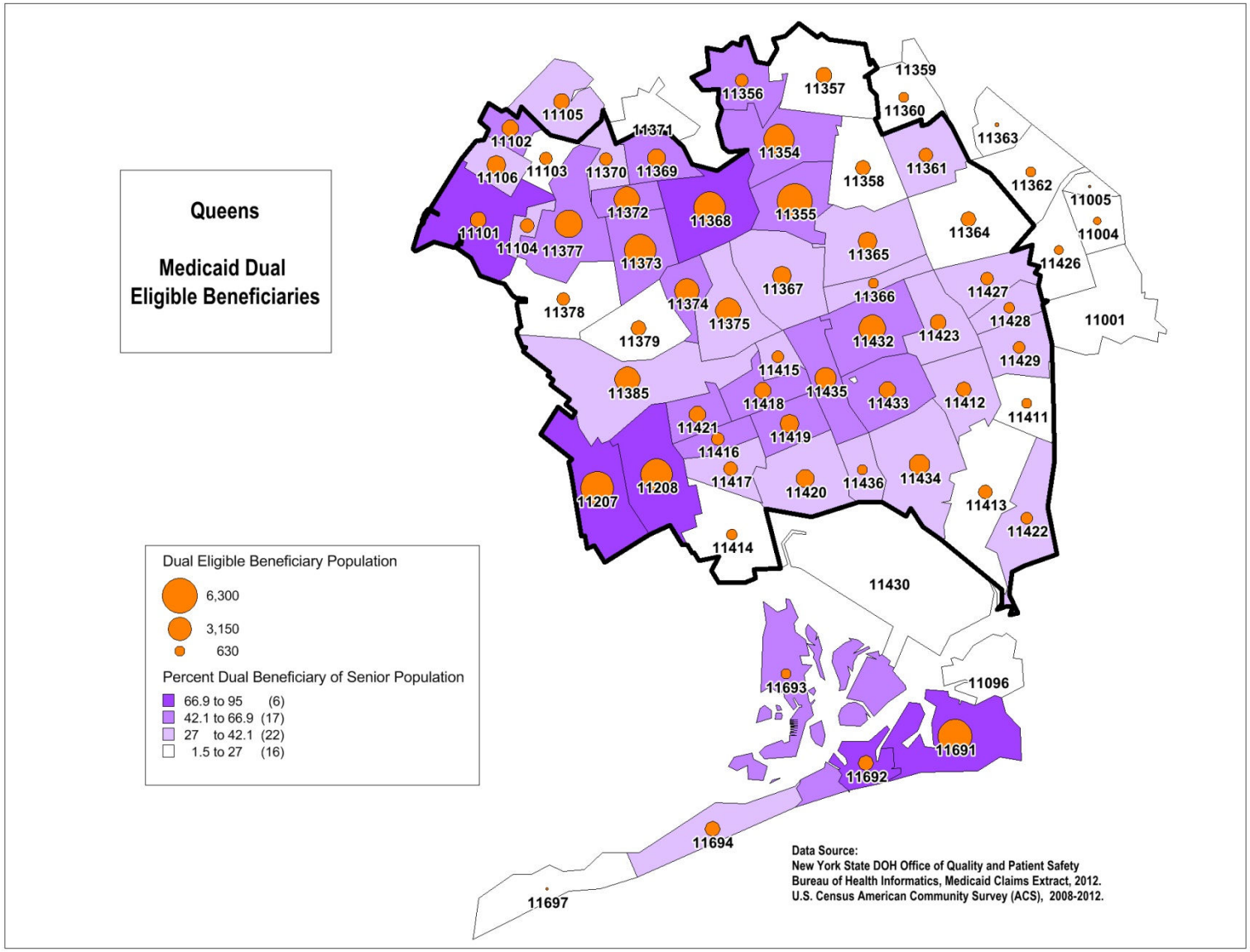


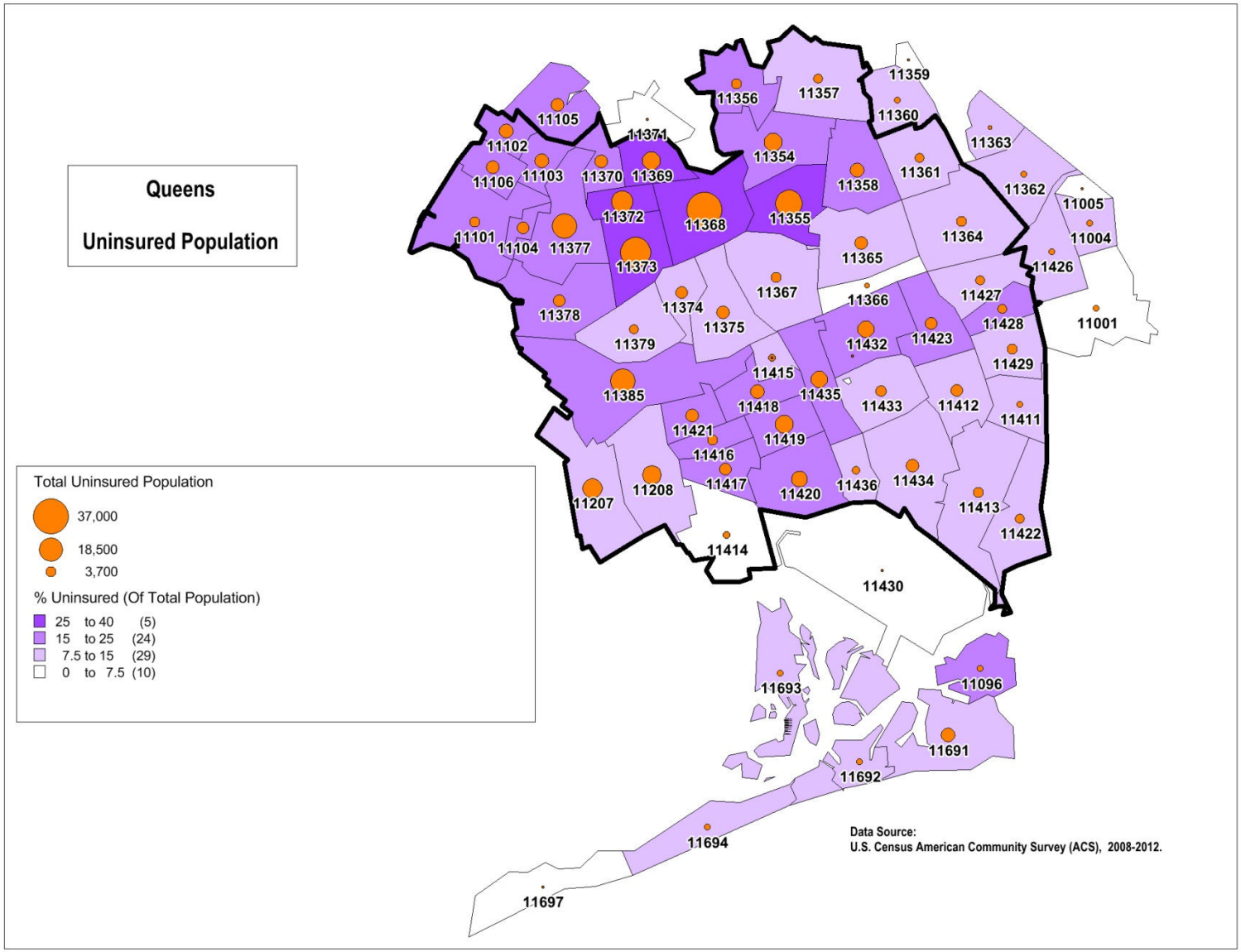
2. Medicaid Beneficiaries by Zip Code



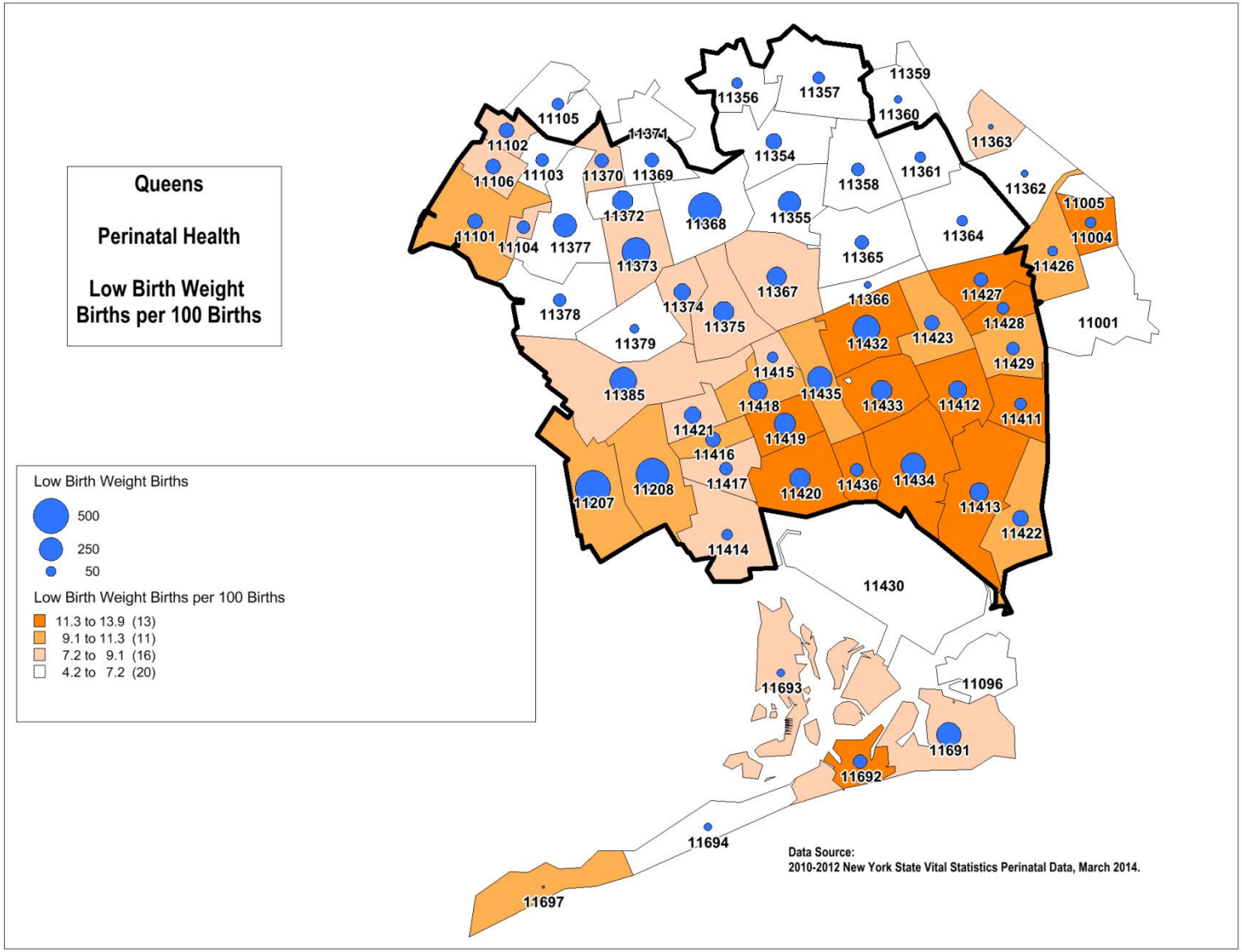
3. Dual-Eligible Beneficiaries by Zip Code



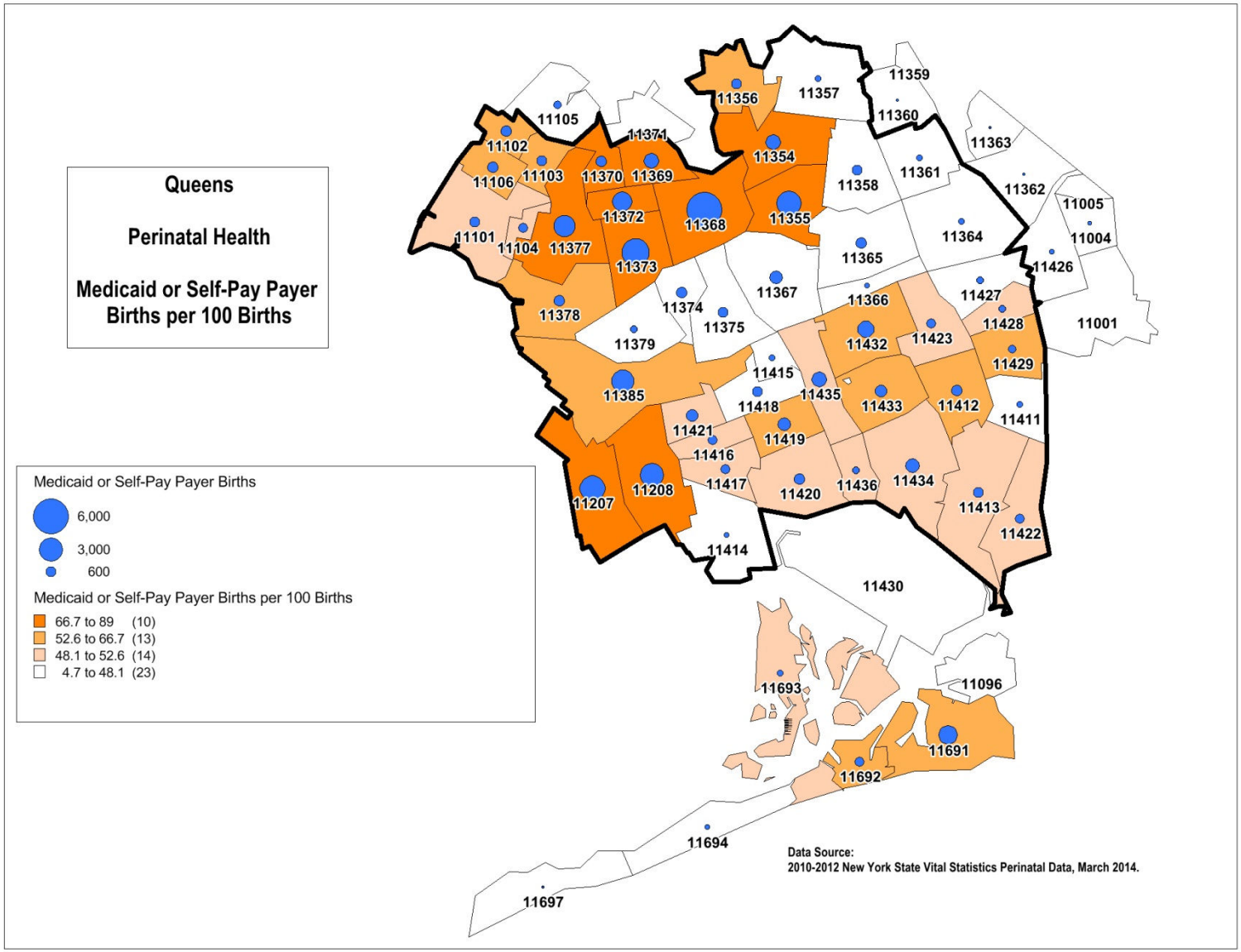
4. Uninsured Population by Zip Code



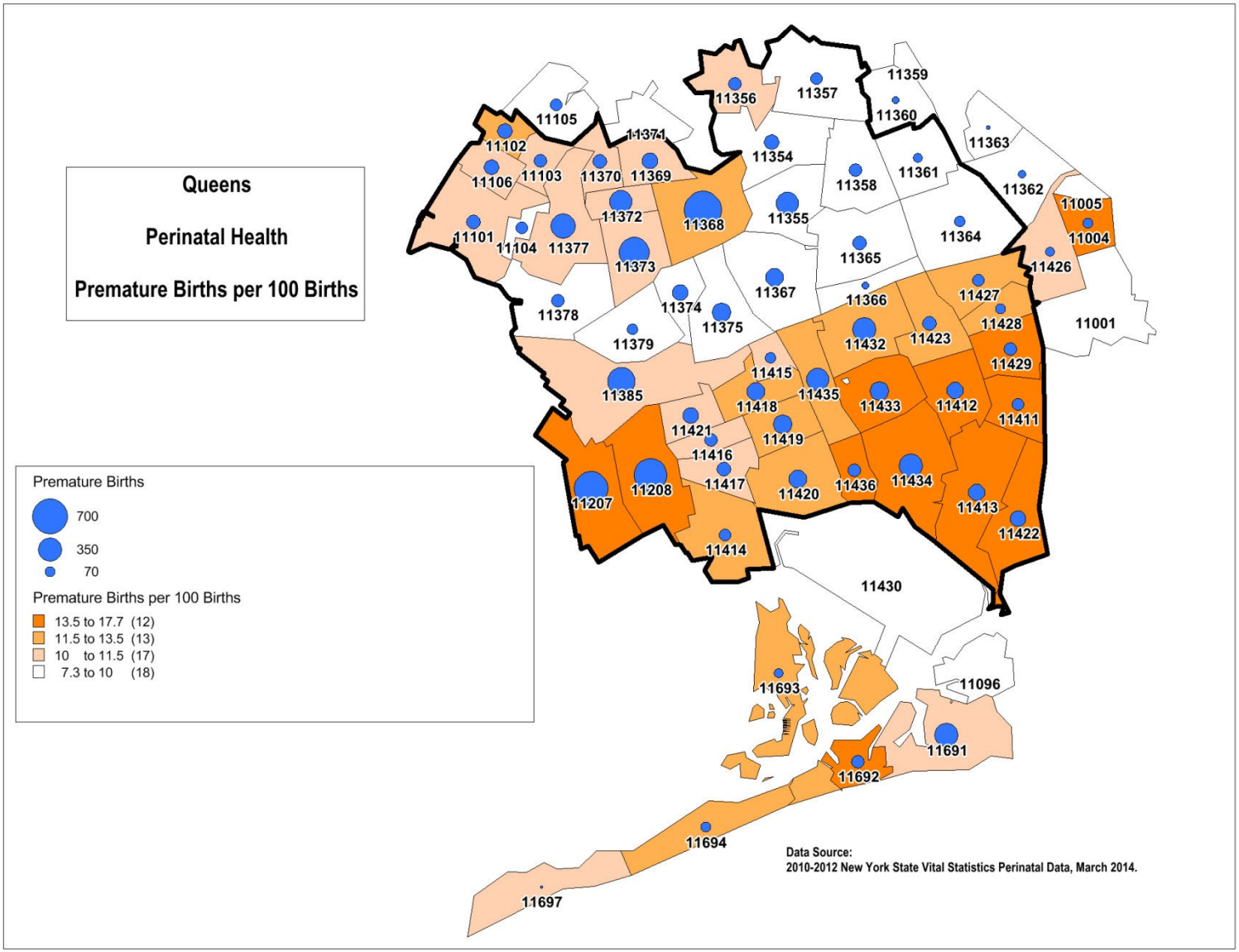
5. Low Birth Weight Births by Percentage of Births by Zip Code



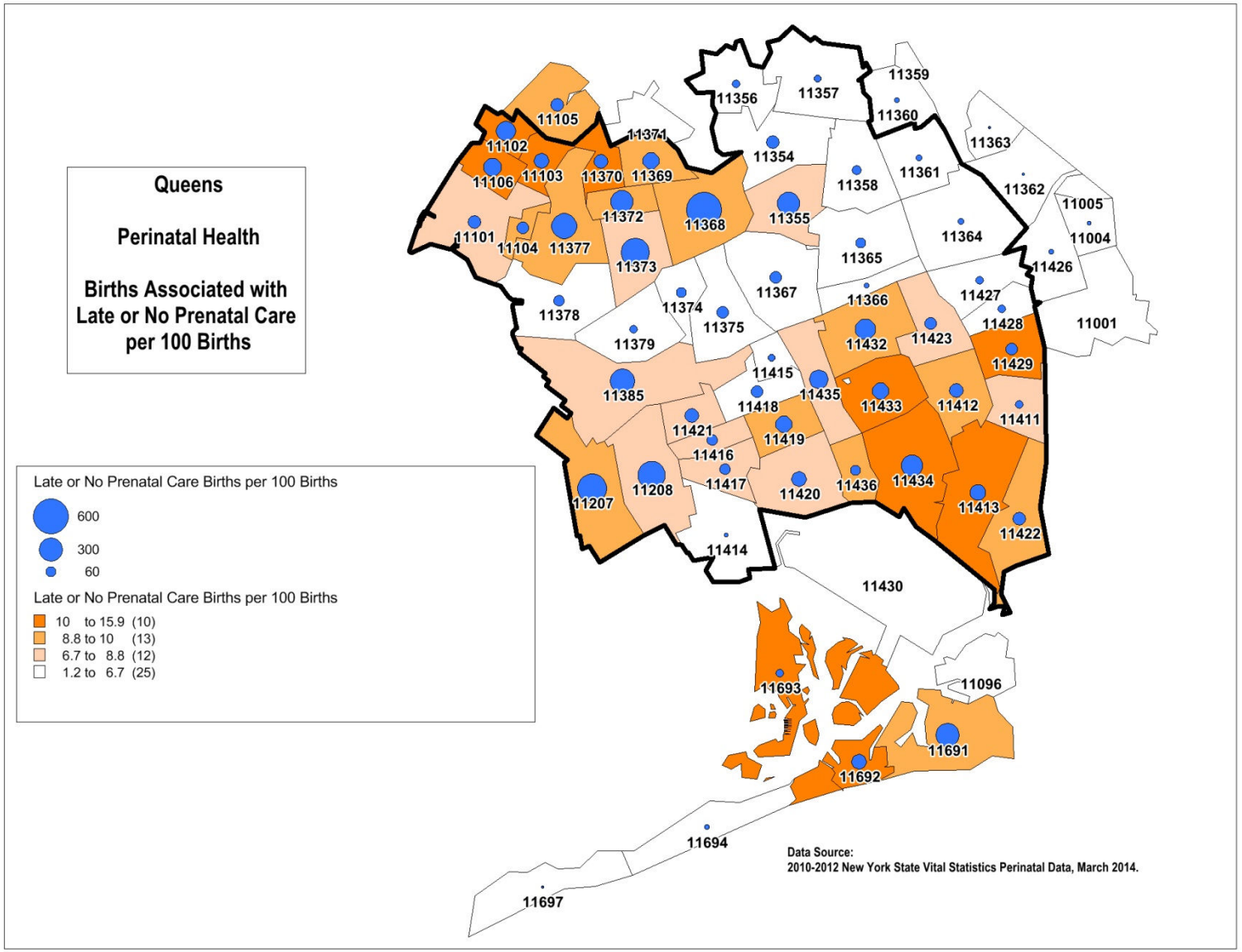
6. Percentage of Births with Medicaid or Self-Pay Payer by Zip Code



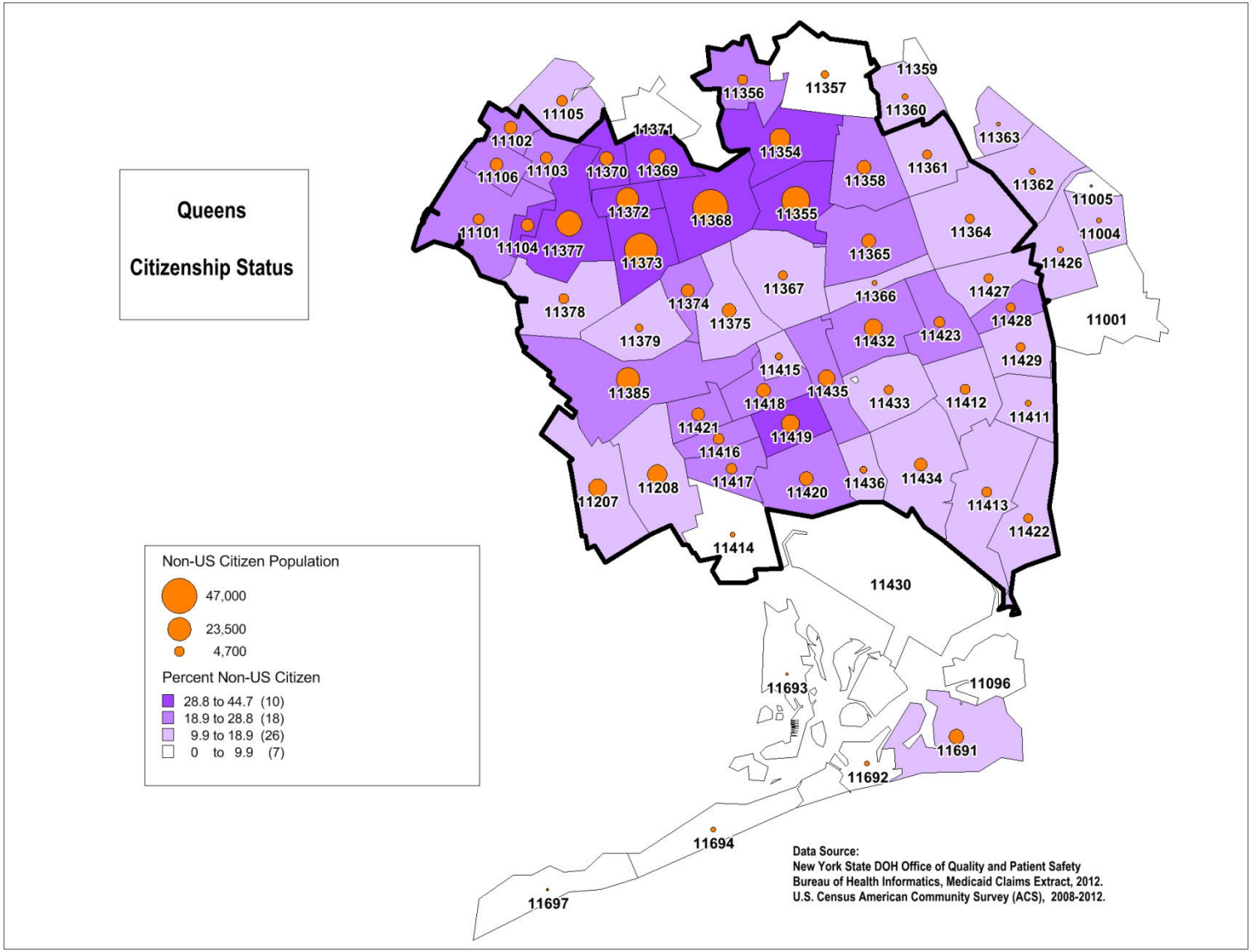
7. Preterm Births by Percentage of Births by Zip Code



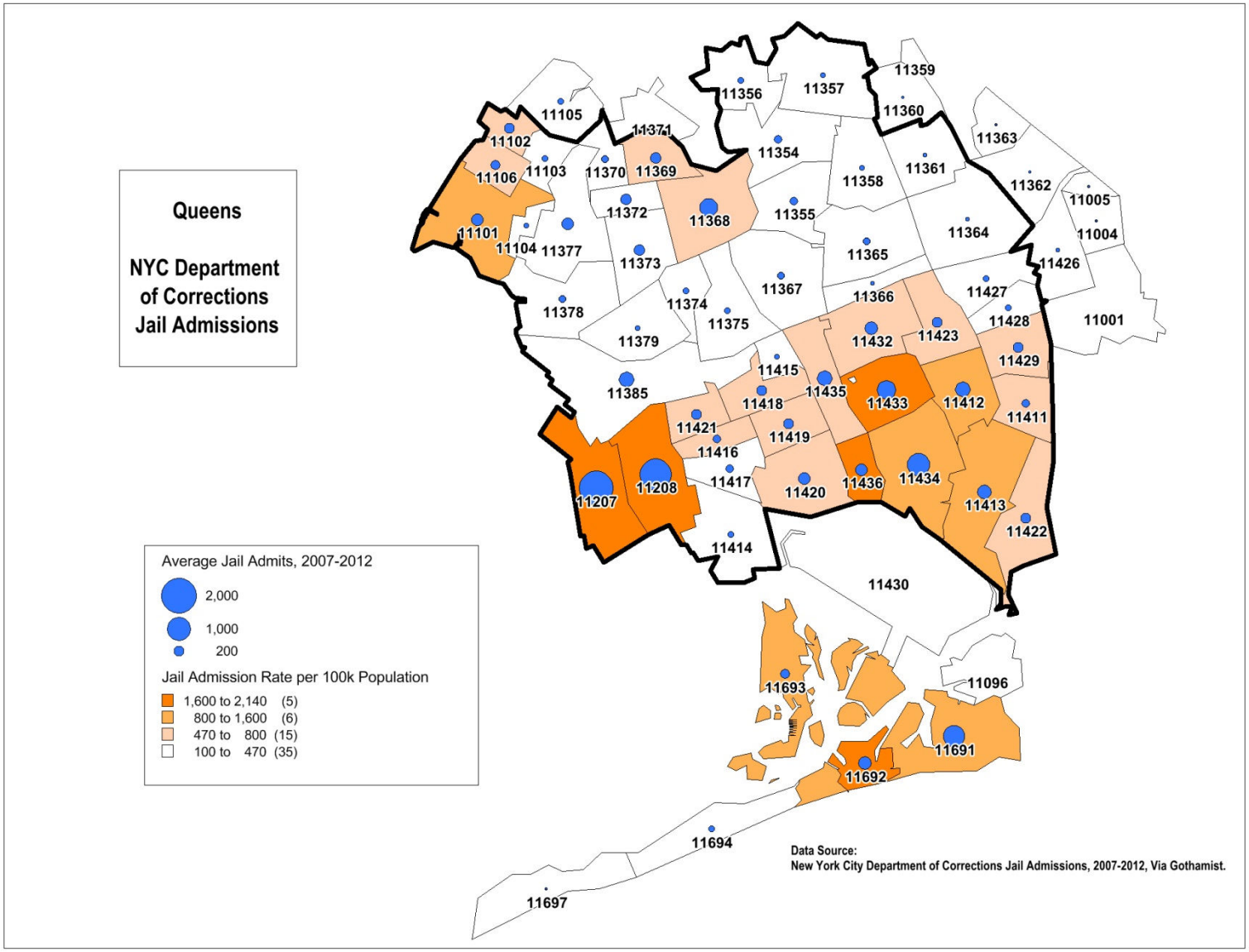
8. Percentage of Births Associated with Late or No Prenatal Care by Zip Code



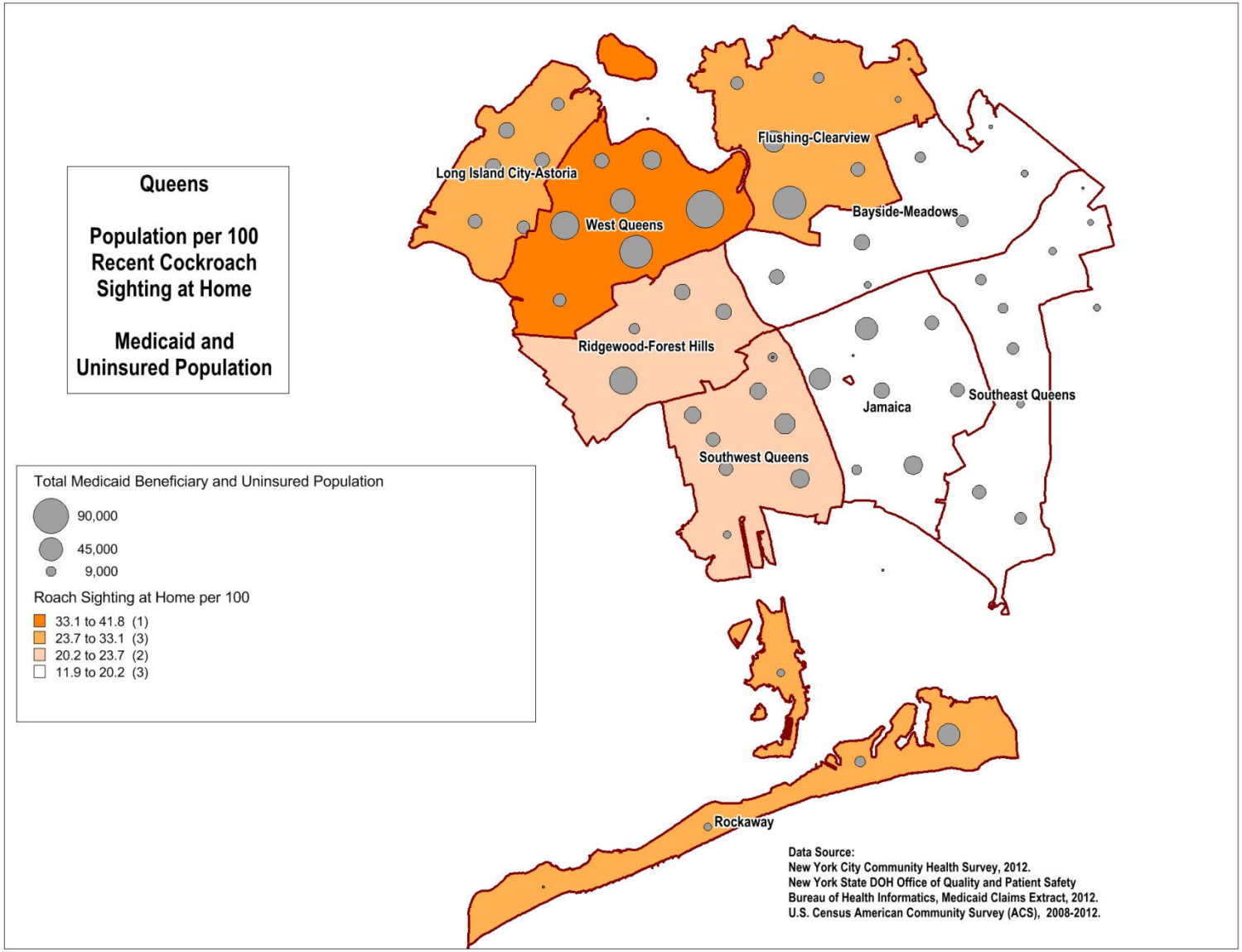
9. Non US Citizen Population by Zip Code



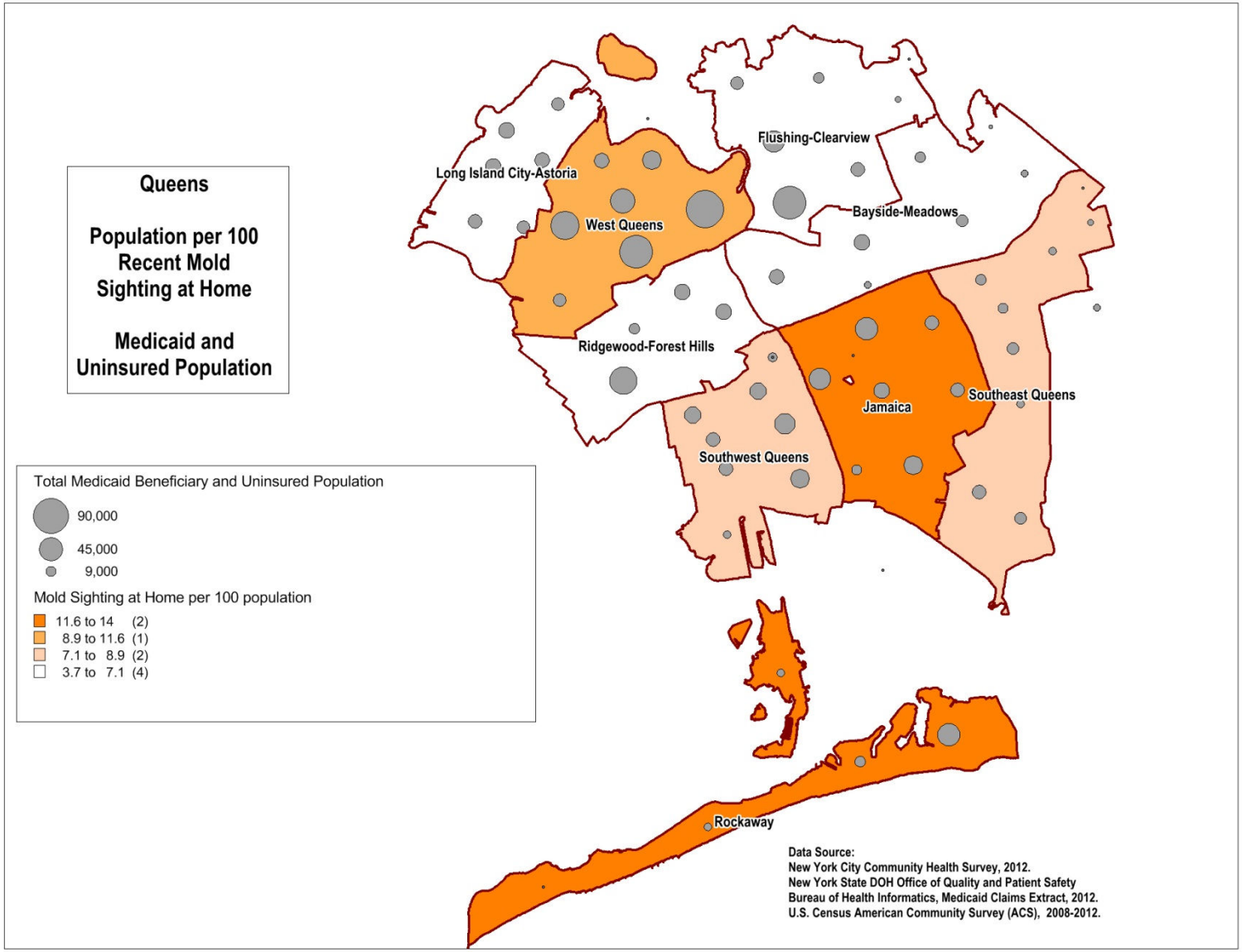
10. NYC Department of Corrections Average Rate per 100,000 of Jail Admissions by Zip Code



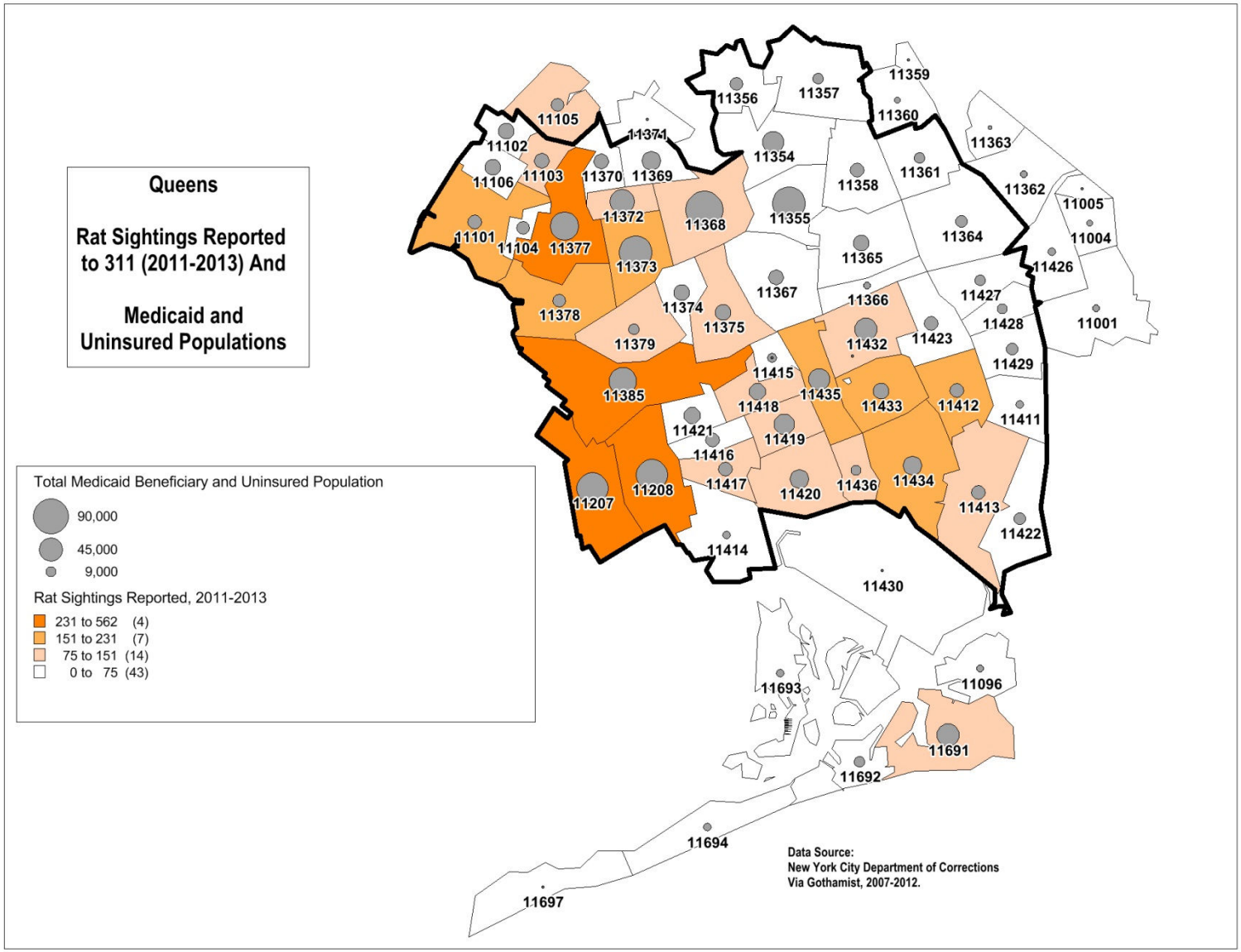
11. Recent Cockroach Sighting at Home (by UHF neighborhood) and Medicaid Beneficiary and Uninsured Population (by Zip Code)



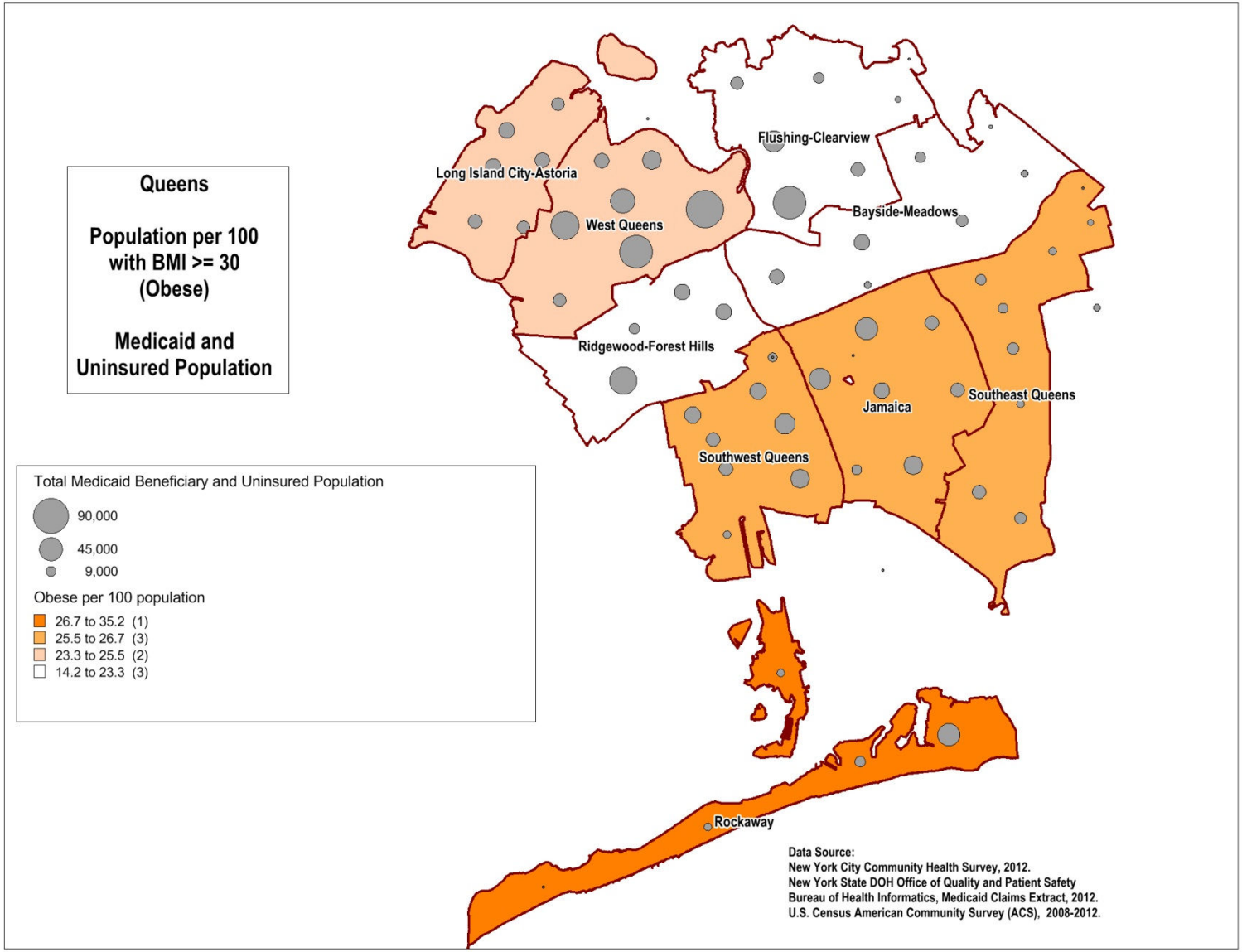
12. Recent Mold Sighting at Home (by UHF neighborhood) and Medicaid Beneficiary and Uninsured Population (by Zip Code)



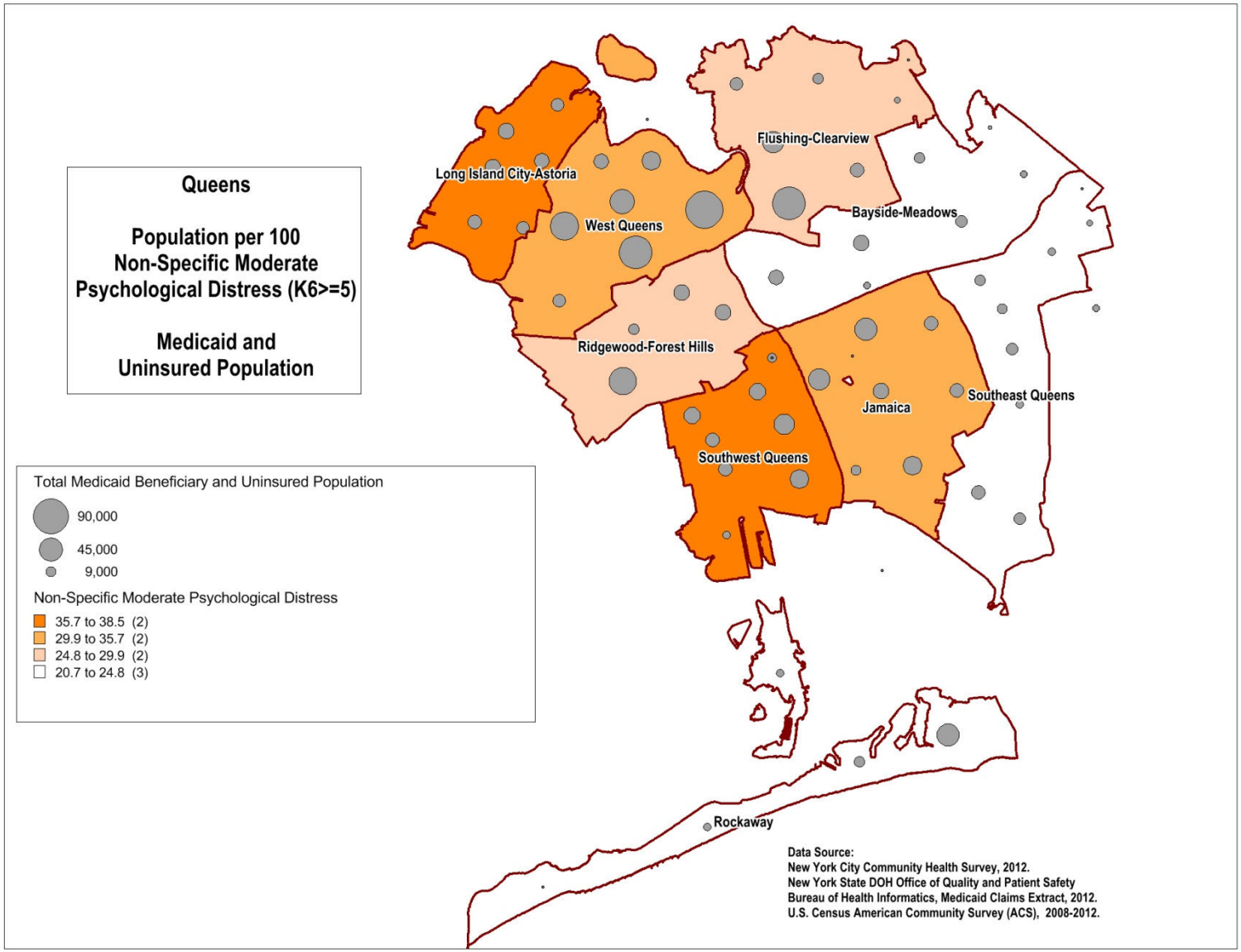
13. Rat Sightings Reported to 311 and Medicaid Beneficiaries and Uninsured Population by Zip Code



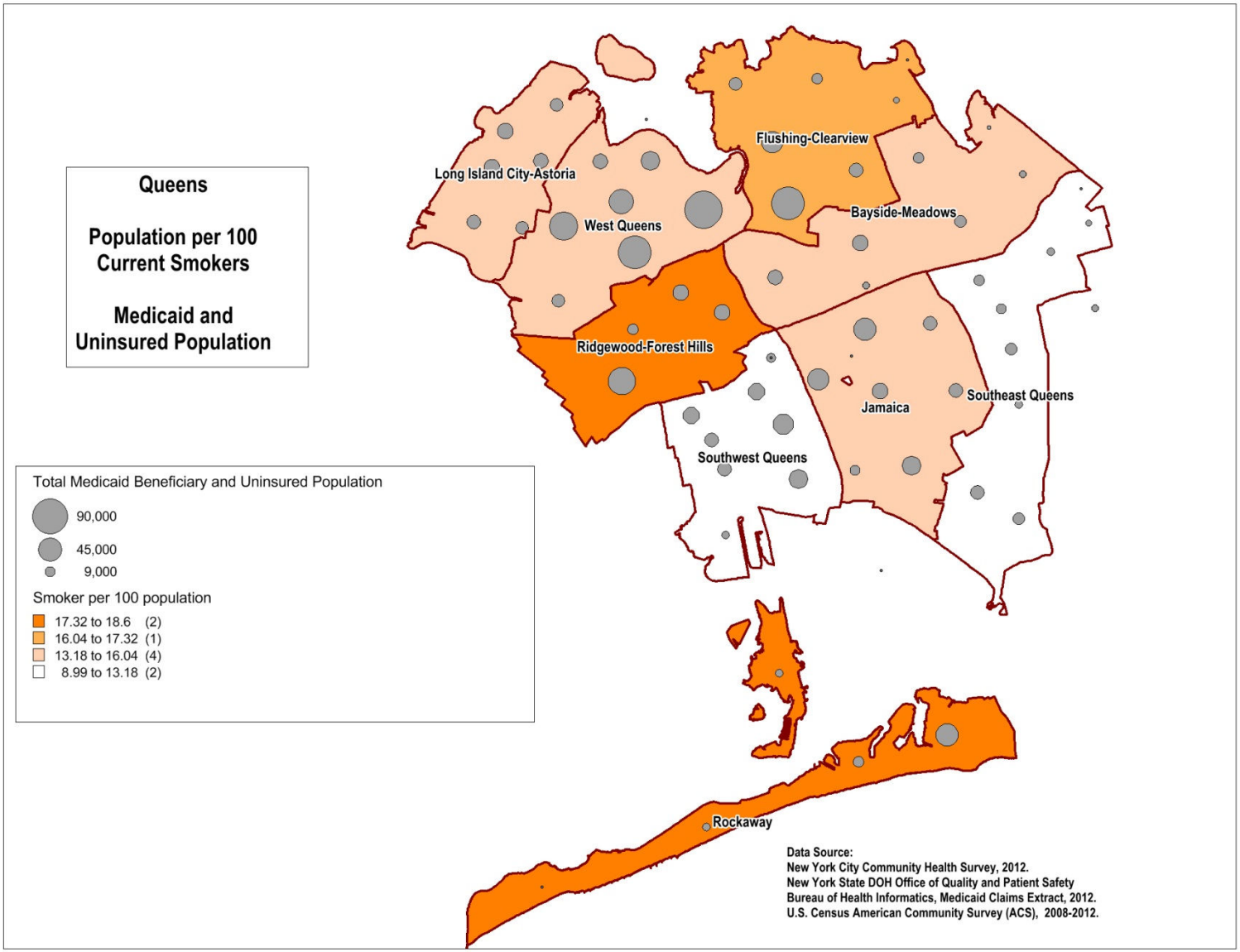
14. Obesity Rate (by UHF Neighborhood) and Medicaid Beneficiaries and Uninsured Population (by Zip Code)



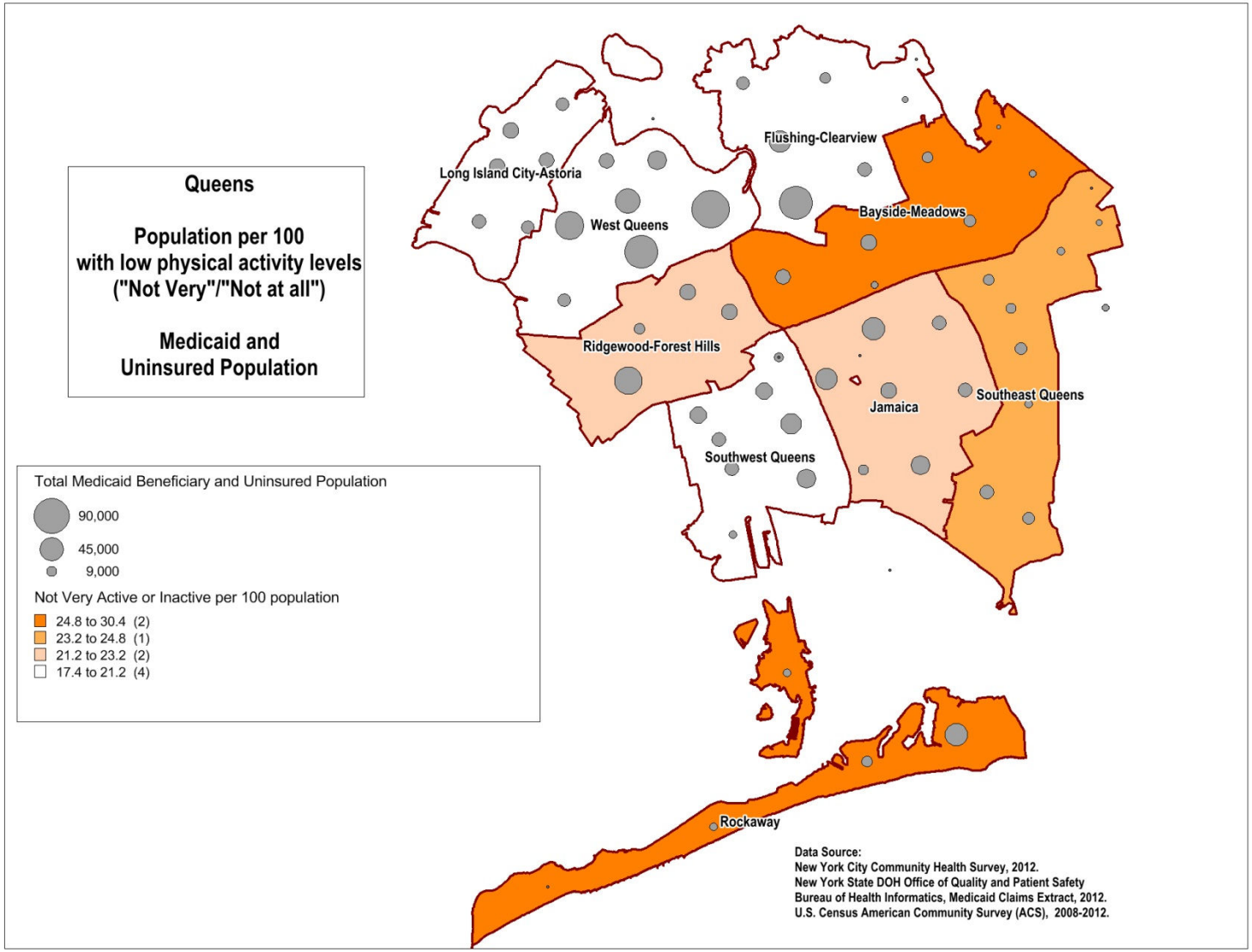
15. Moderate or Higher Level of Psychological Distress Rate (by UHF Neighborhood) and Medicaid Beneficiaries and Uninsured Population (by Zip Code)



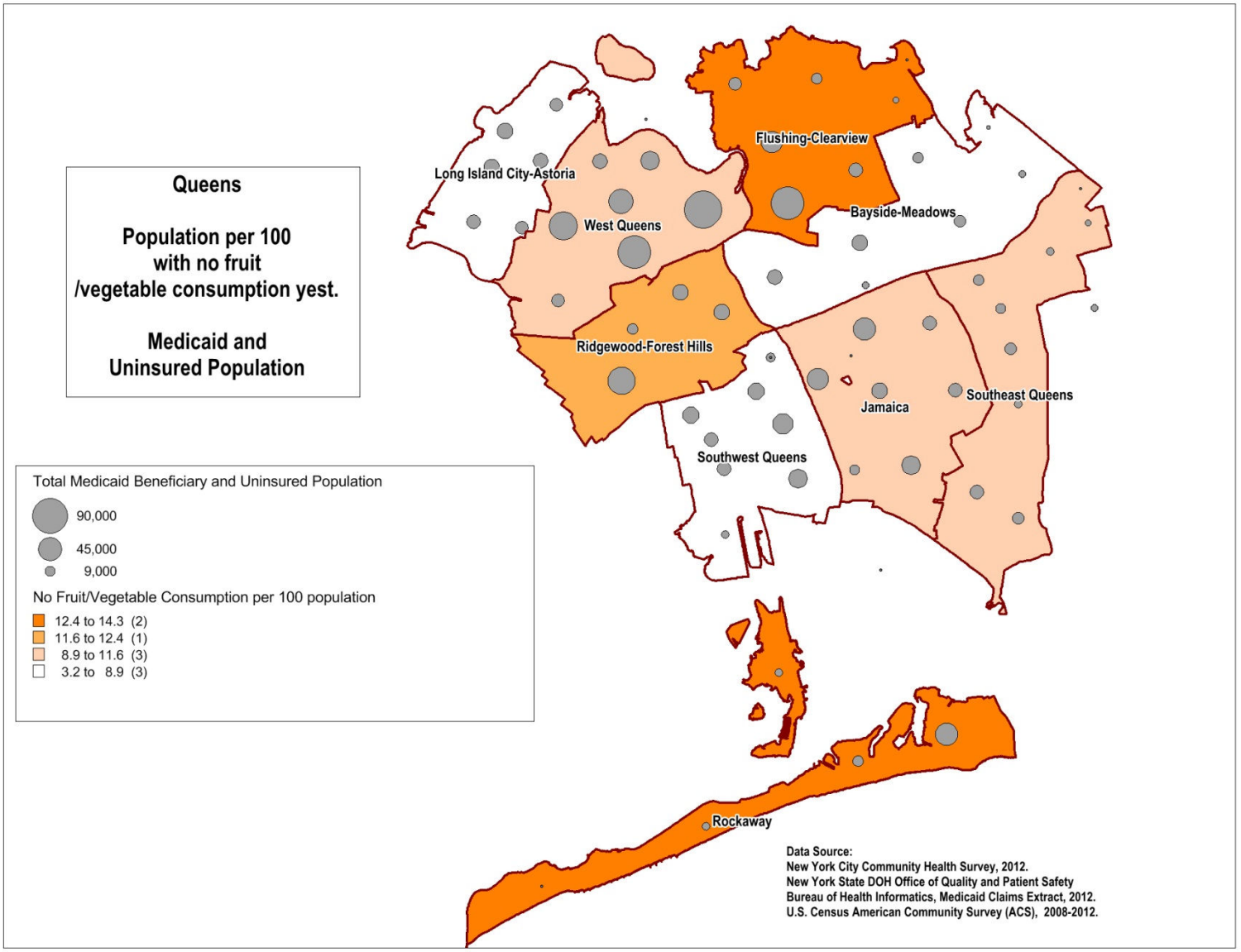
16. Cigarette Smoking Rate (by UHF Neighborhood) and Medicaid Beneficiaries and Uninsured Population (by Zip Code)



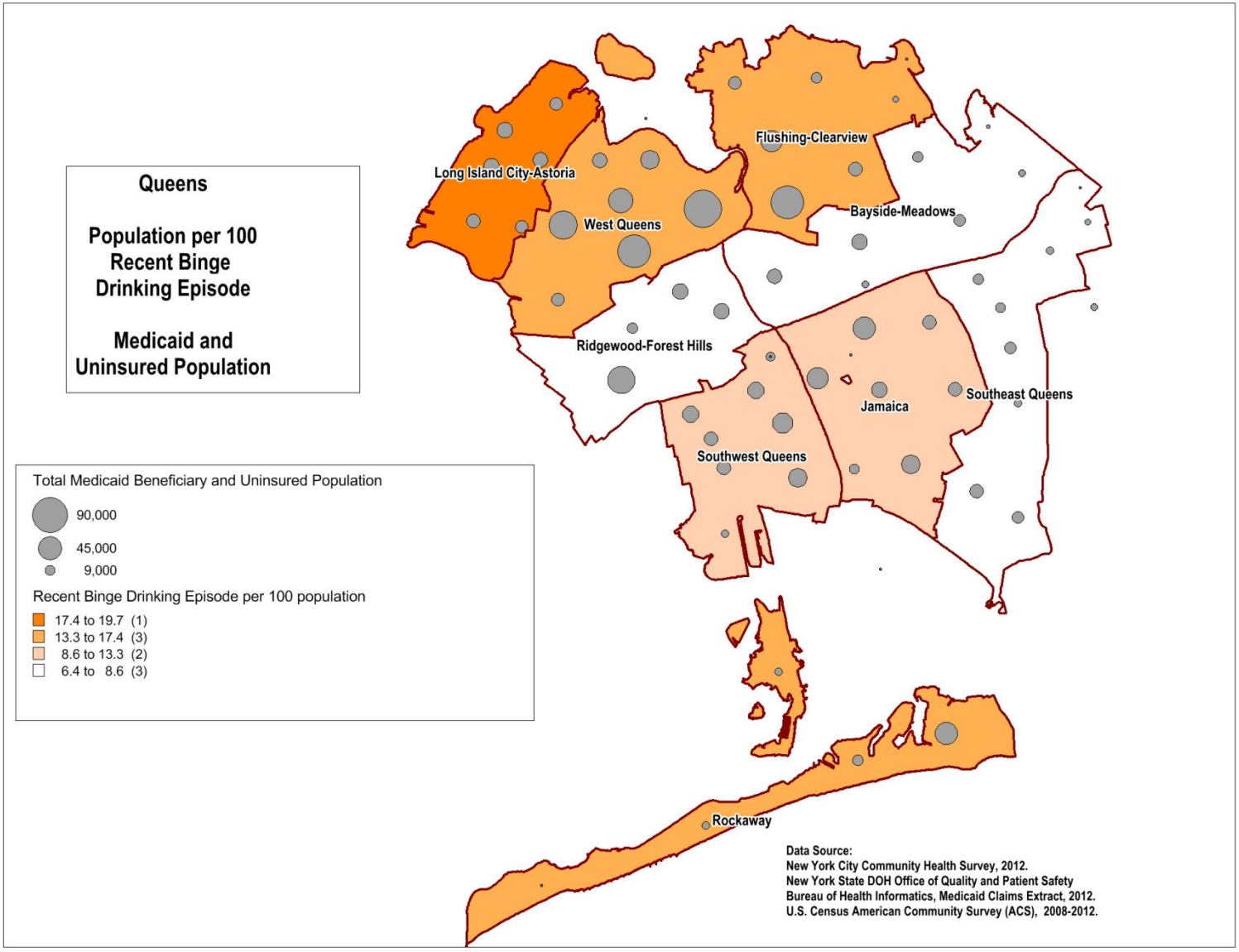
17. Low Levels of Physical Activity (by UHF Neighborhood) and Medicaid Beneficiaries and Uninsured Population (by Zip Code)



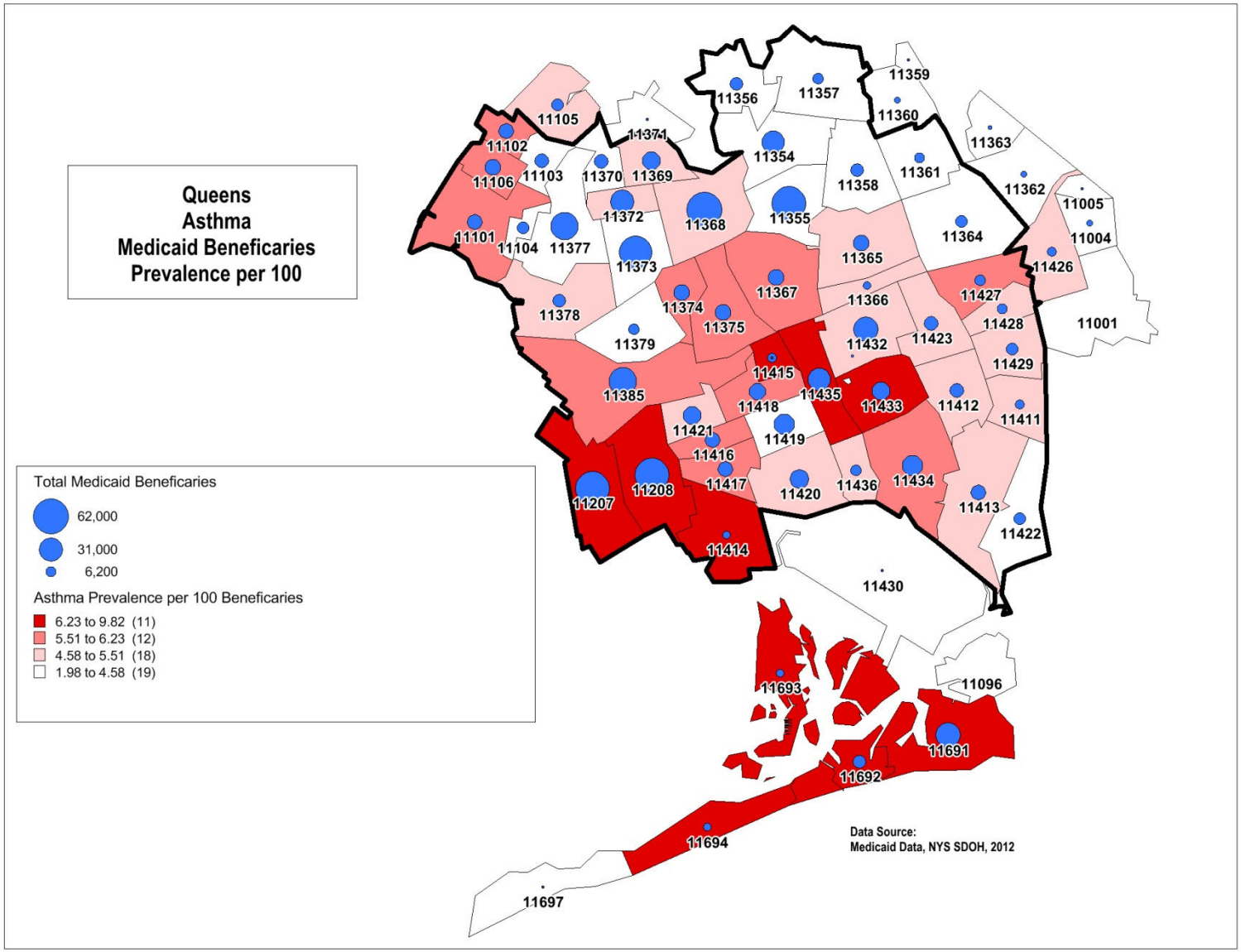
18. No Fruit/Vegetable Consumption Yesterday (by UHF Neighborhood) and Medicaid Beneficiaries and Uninsured Population (by Zip Code)



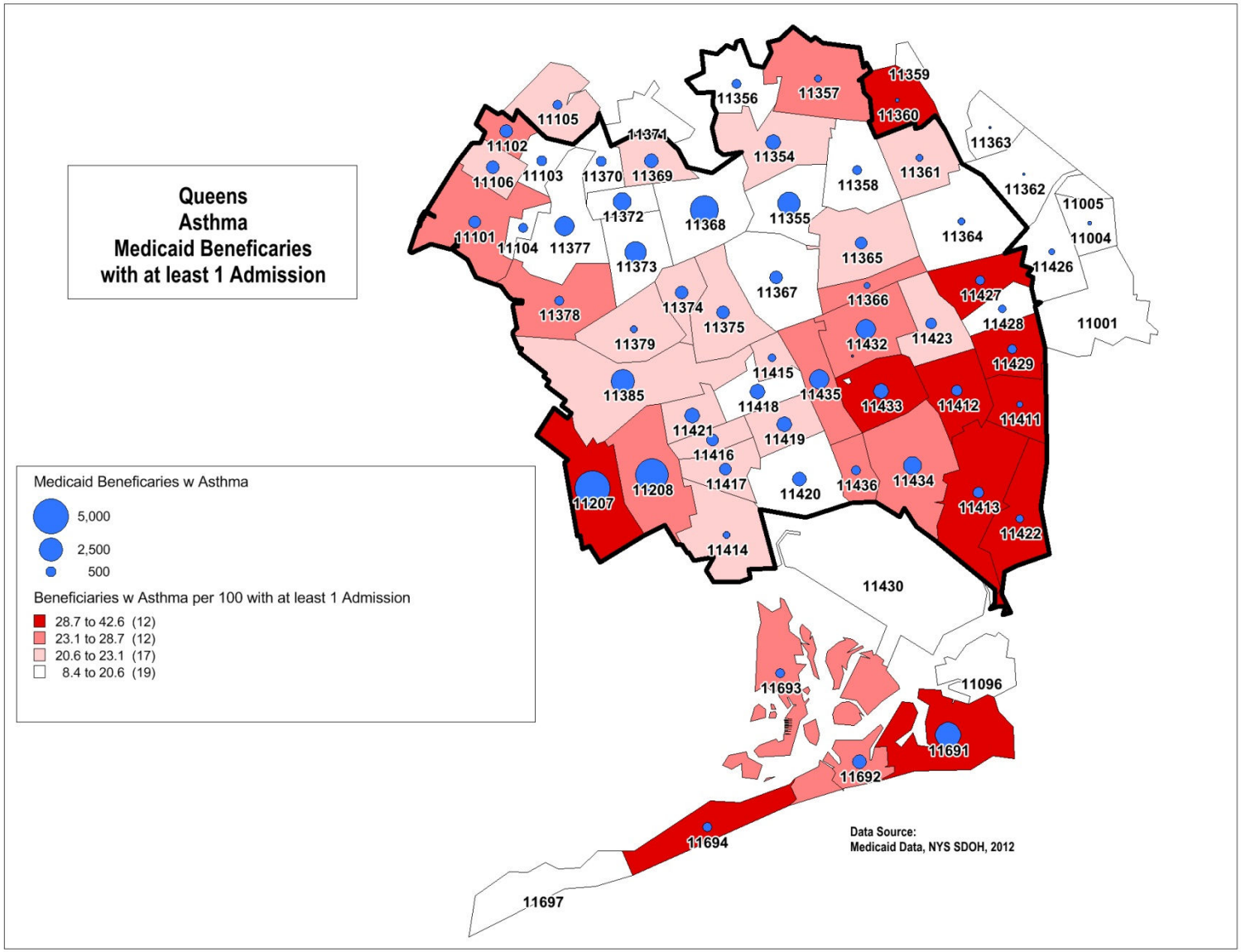
19. Recent Binge Drinking Episode Rate (by UHF Neighborhood) and Medicaid Beneficiaries and Uninsured Population (by Zip Code)



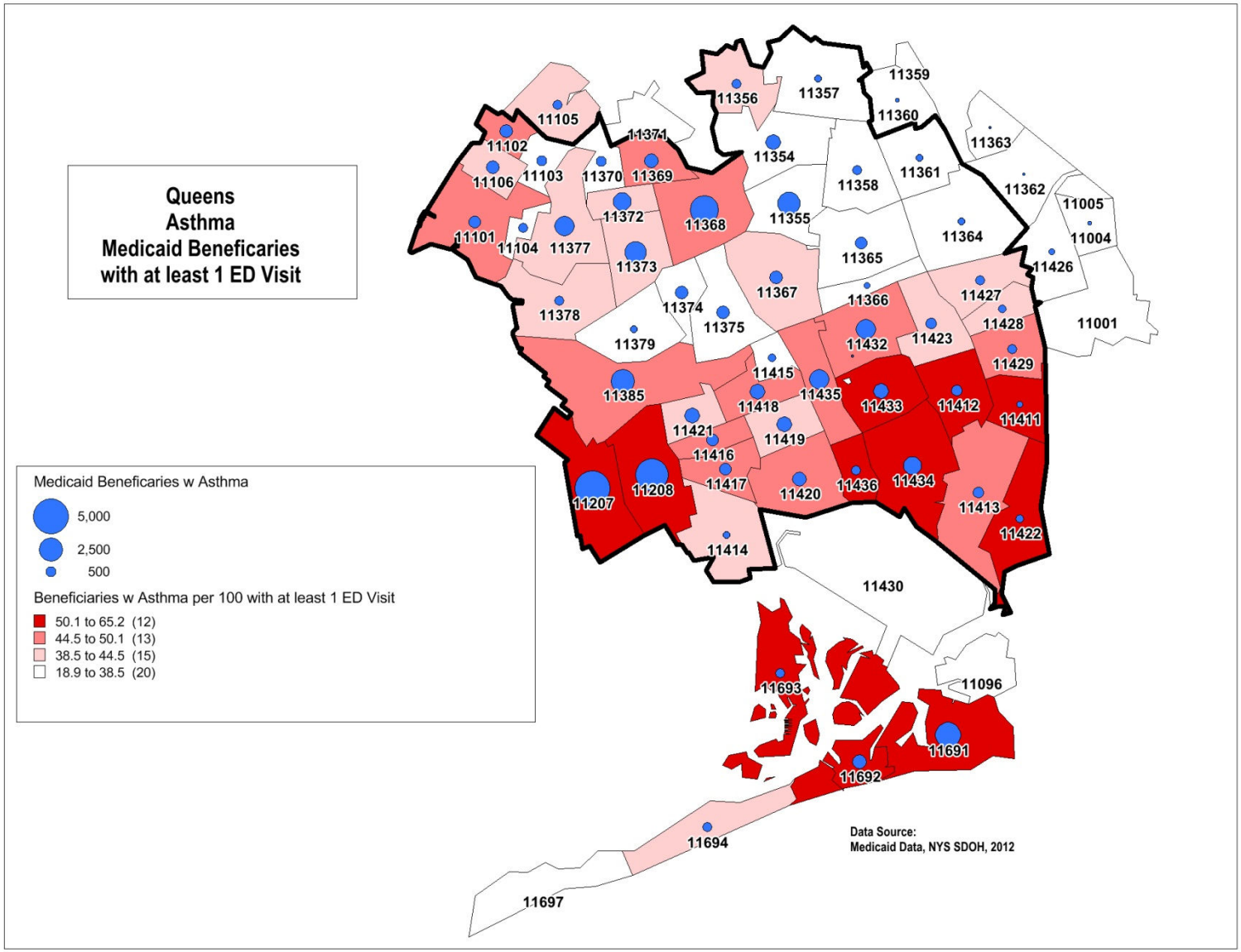
20. Asthma Prevalence Among Medicaid Beneficiaries (by Zip Code)



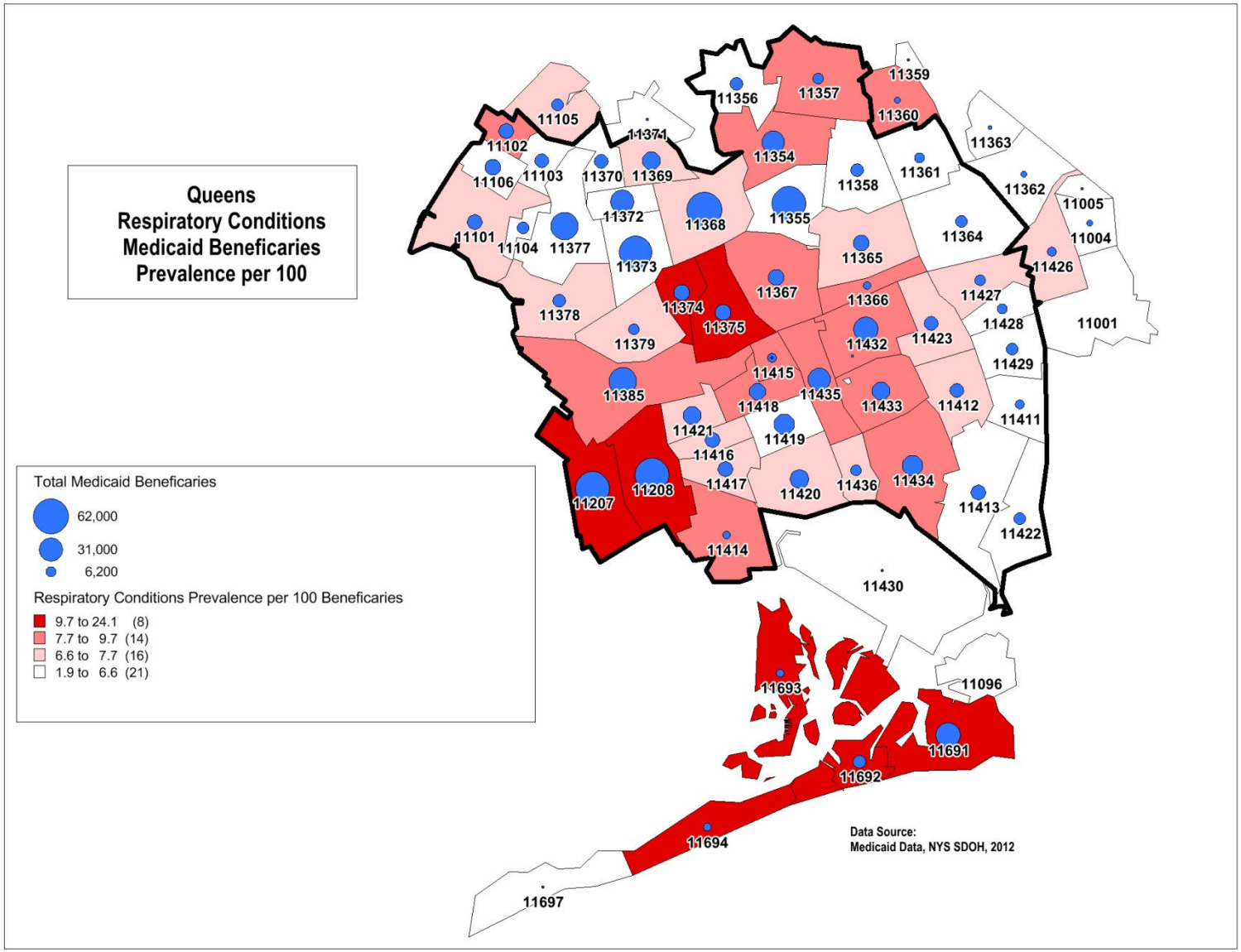
21. Percentage among Medicaid Beneficiaries with Asthma with any inpatient admission (by Zip Code)



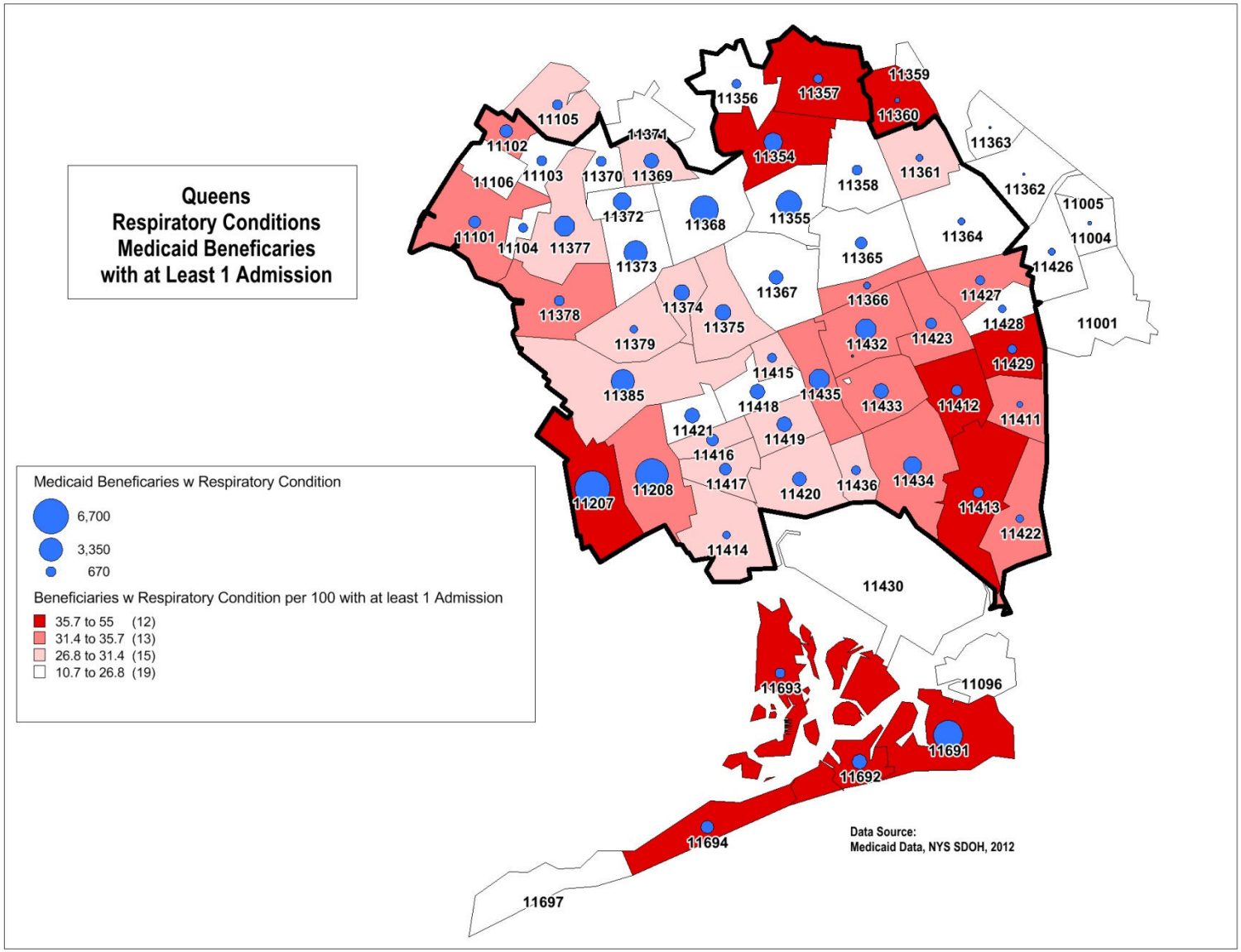
22. Percentage among Medicaid Beneficiaries with Asthma with any emergency department visit (by Zip Code)



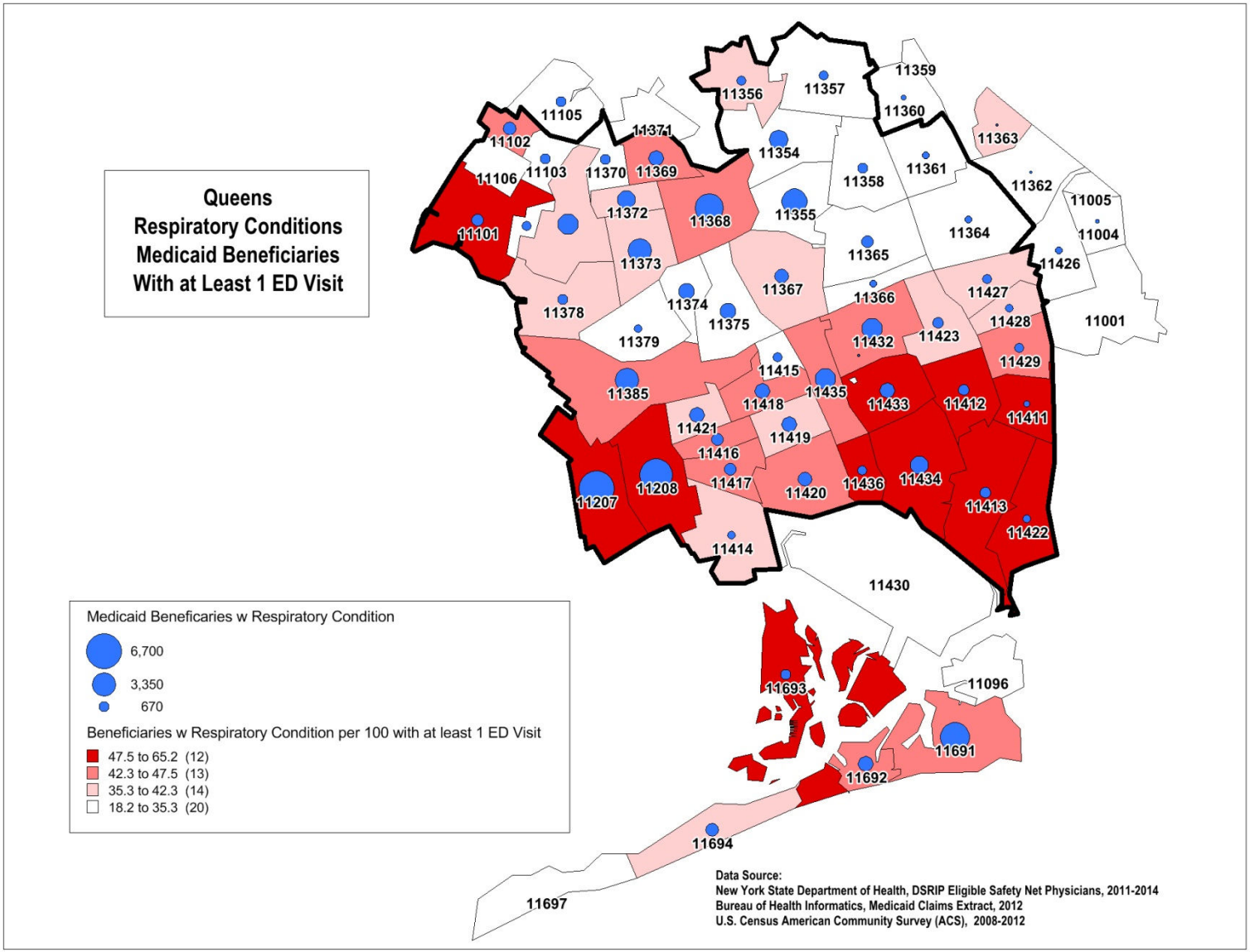
23. Respiratory Clinical Risk Group (CRG) Diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



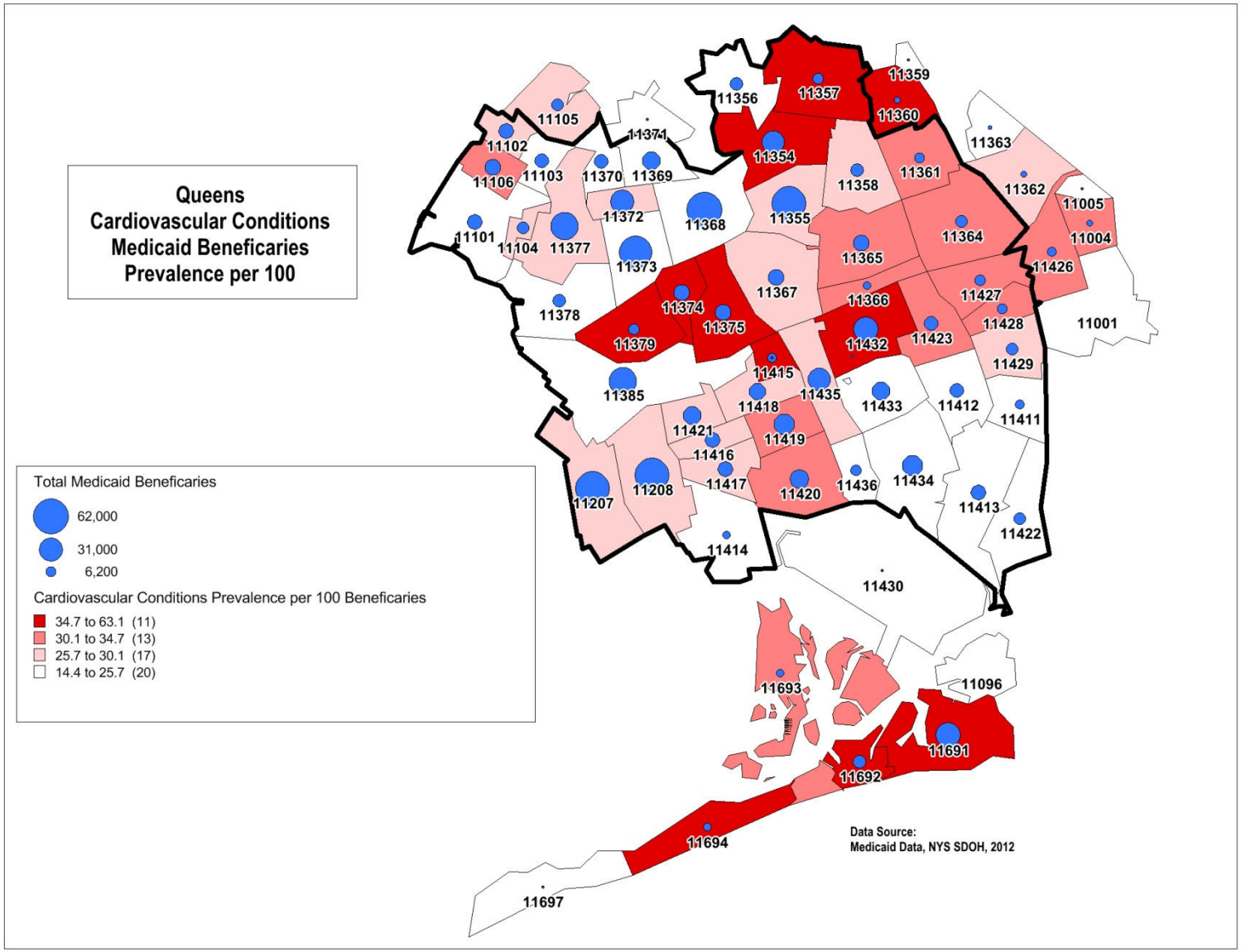
24. Percentage among Medicaid Beneficiaries with Respiratory CRG Diagnosis with any inpatient admission (by Zip Code)



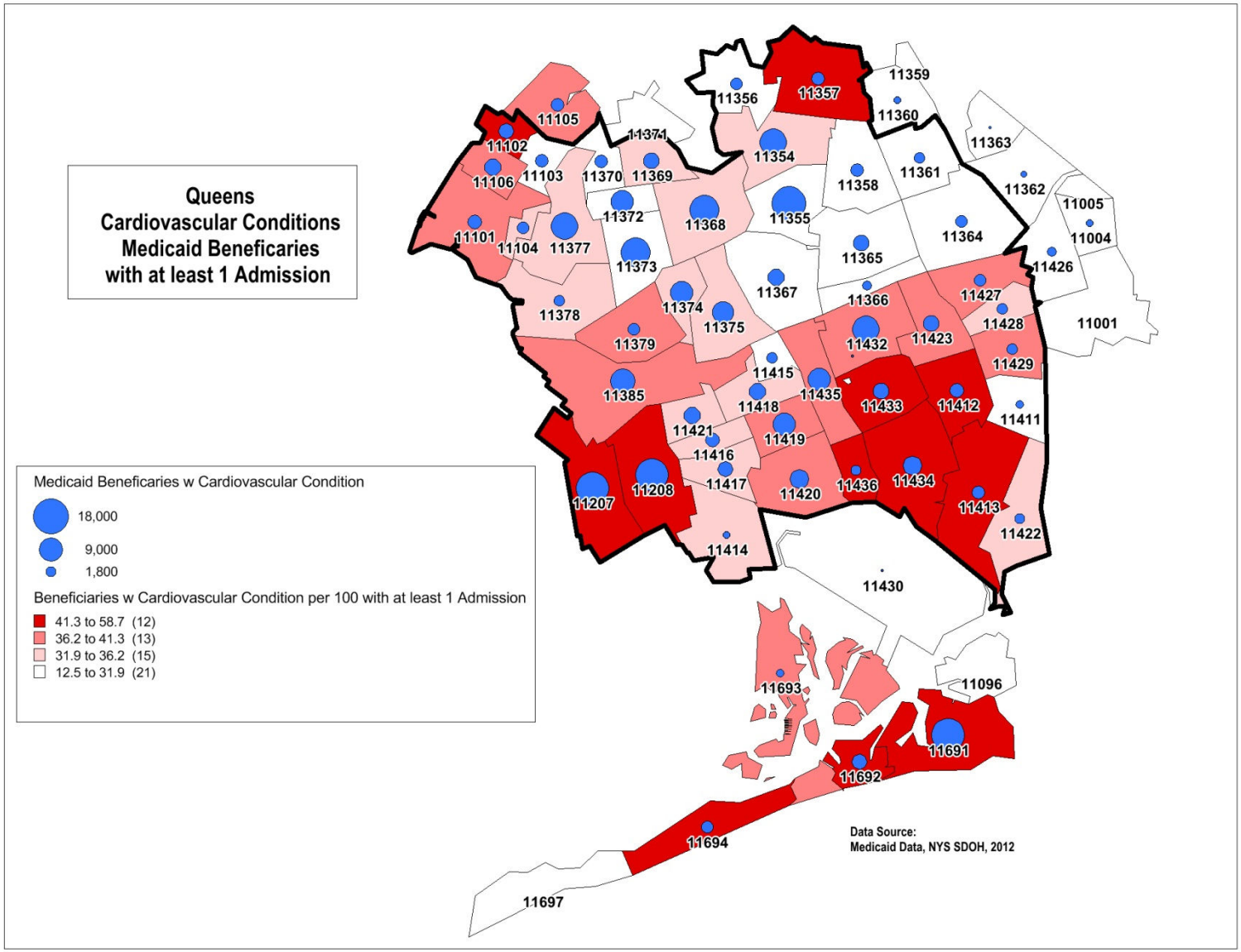
25. Percentage among Medicaid Beneficiaries with Respiratory CRG Diagnosis with any emergency department visit (by Zip Code)



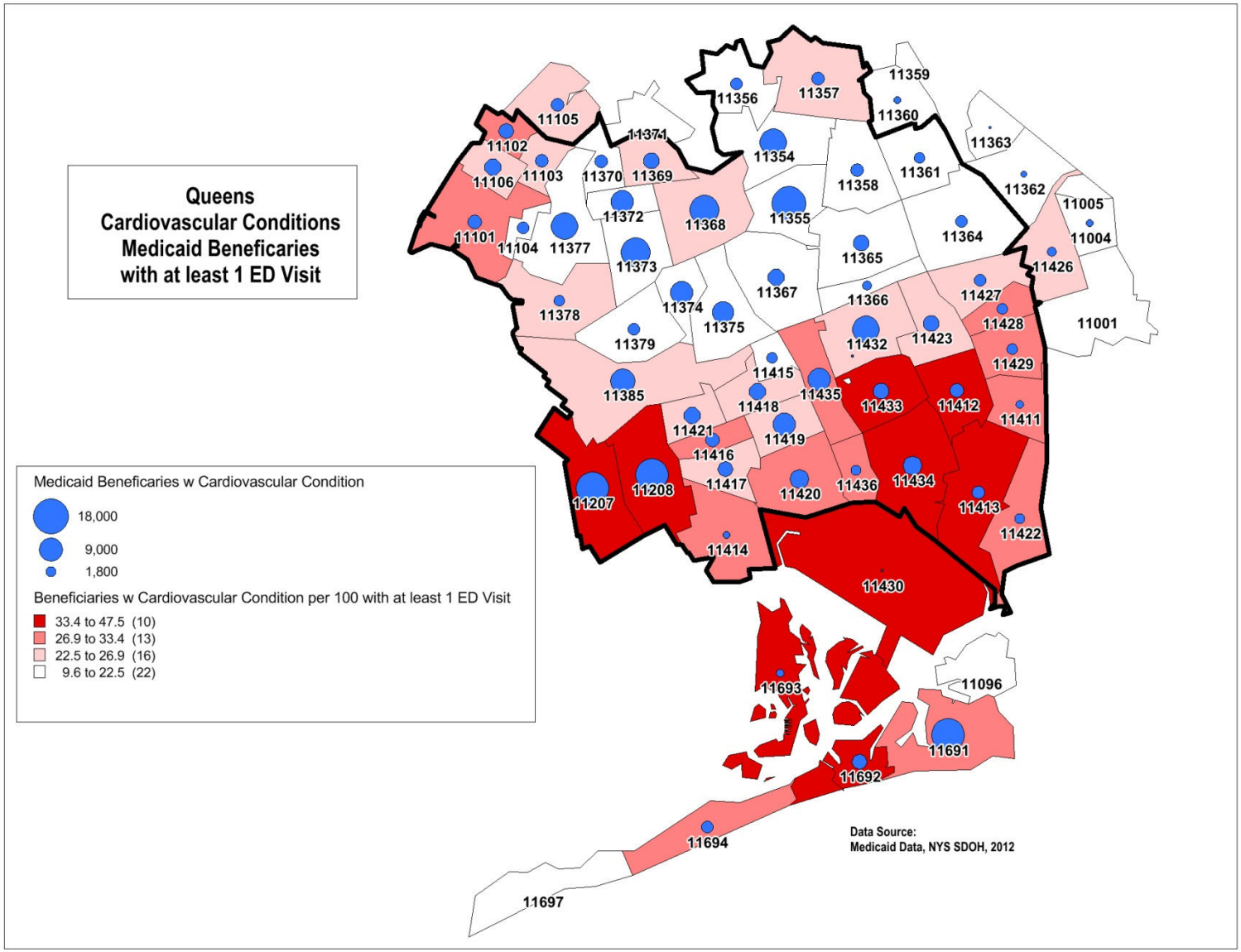
26. Cardiovascular CRG Diagnosis Prevalence Prevalence Among Medicaid Beneficiaries (by Zip Code)



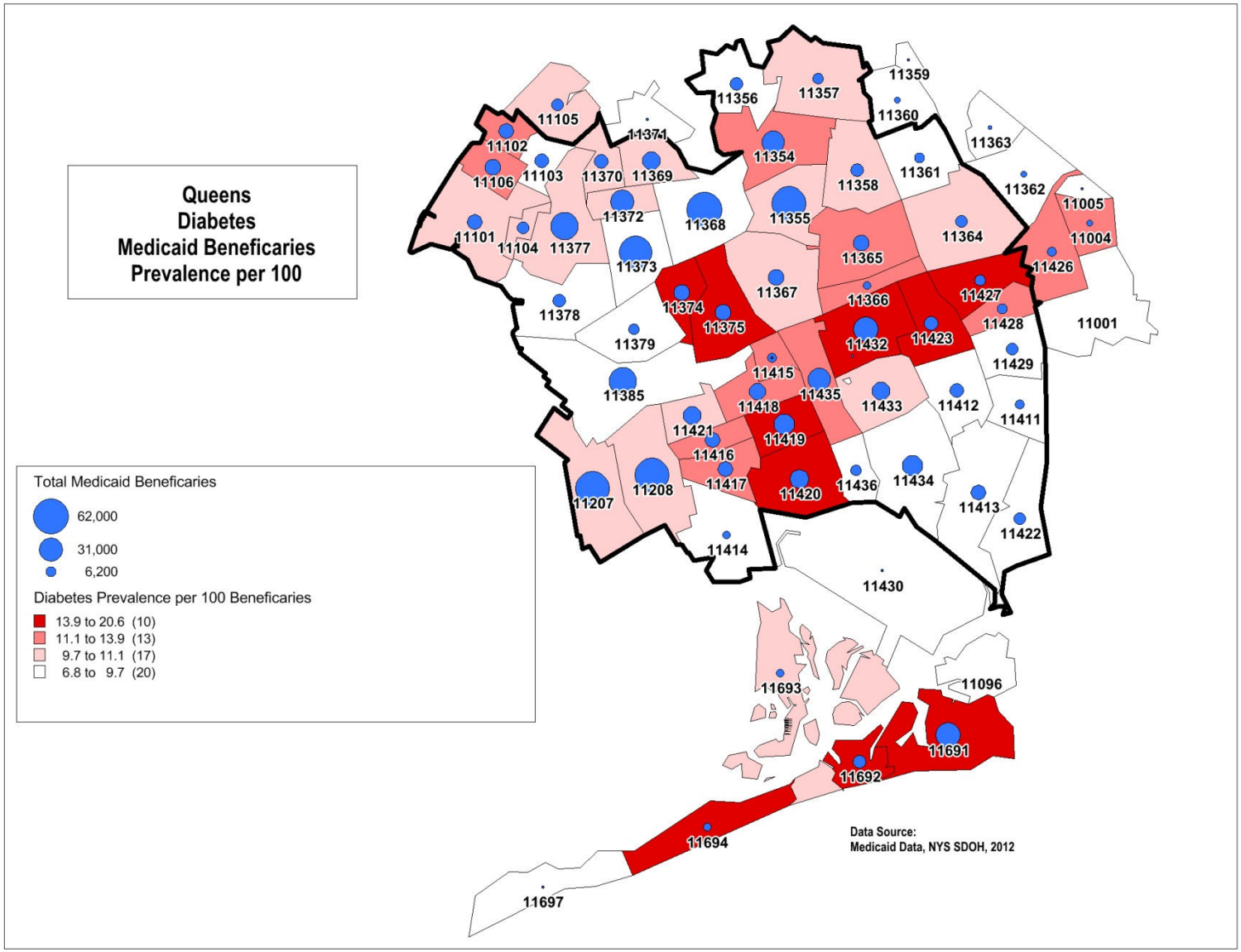
27. Percentage among Medicaid Beneficiaries with Cardiovascular CRG diagnosis with any inpatient admission (by Zip Code)



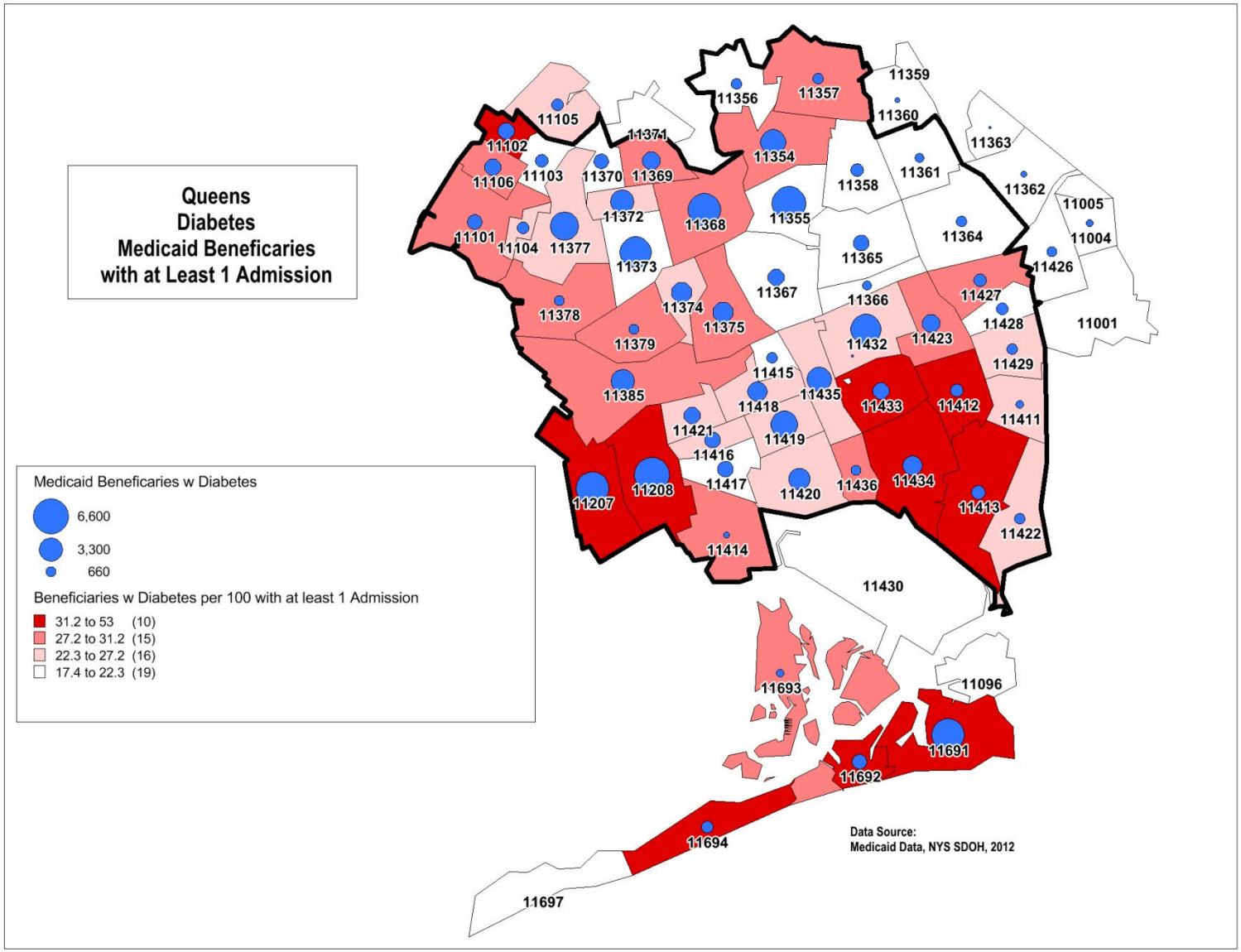
28. Percentage among Medicaid Beneficiaries with Cardiovascular CRG diagnosis with any emergency department visit (by Zip Code)



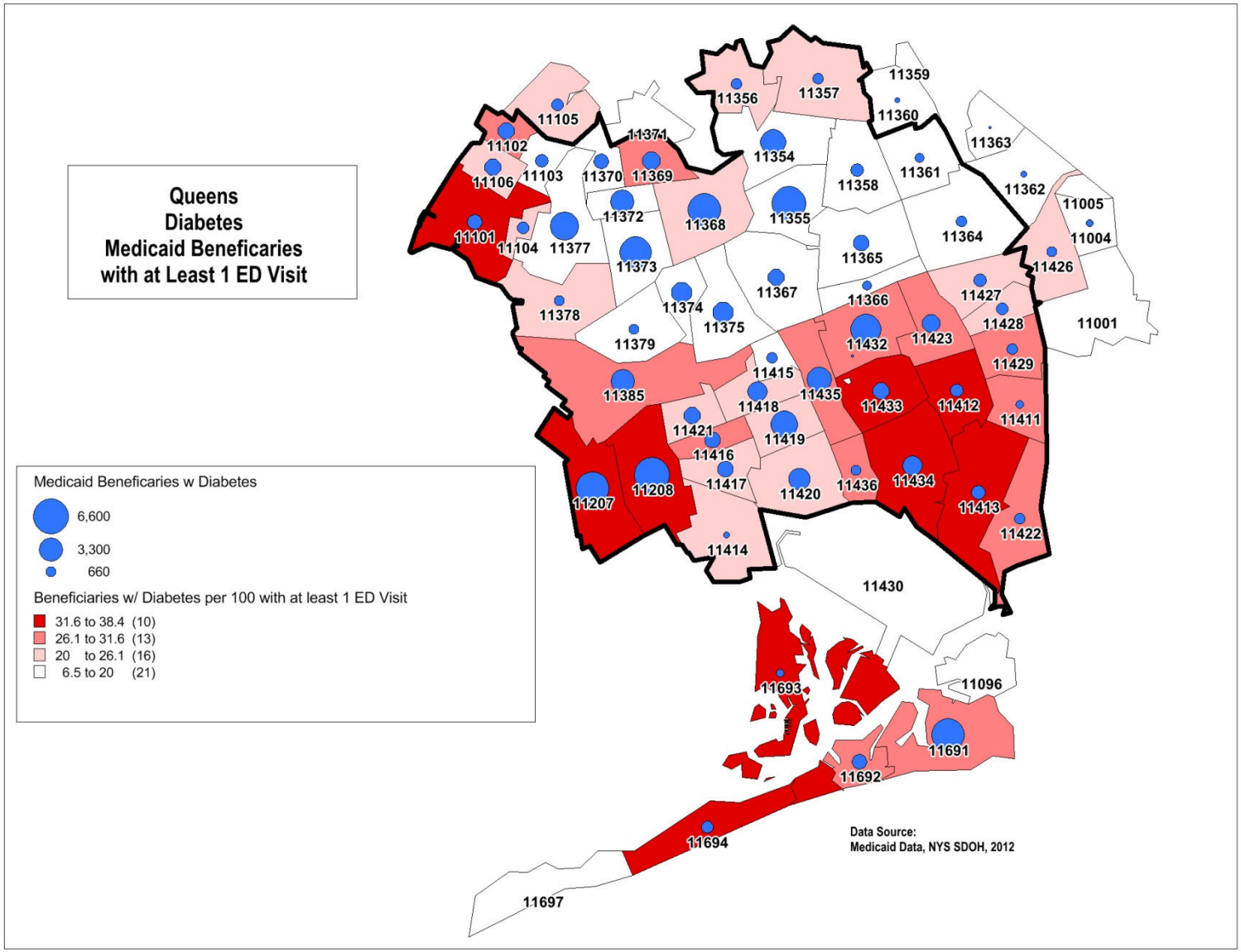
29. Diabetes CRG diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



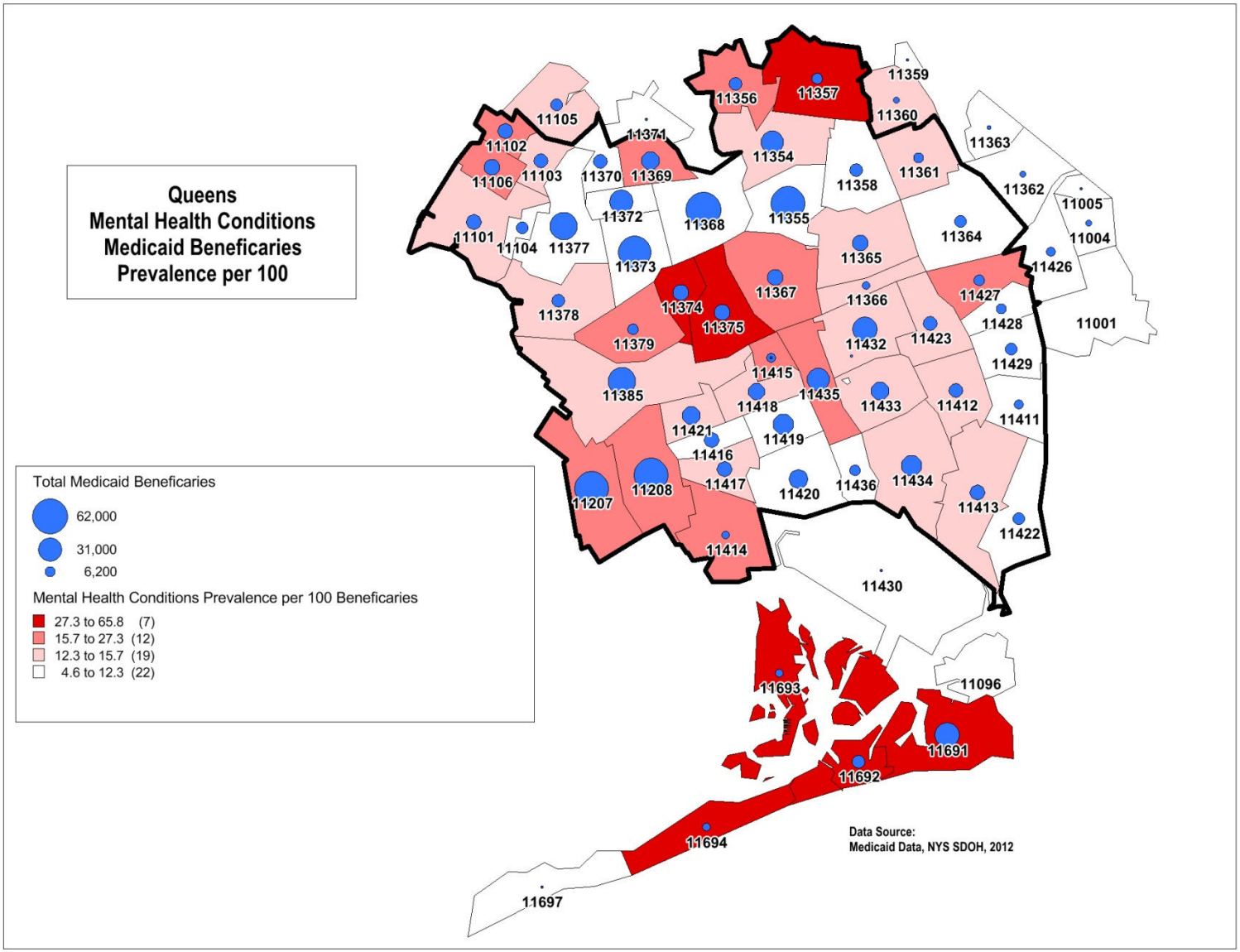
30. Percentage among Medicaid Beneficiaries with Diabetes CRG diagnosis with any inpatient admission (by Zip Code)



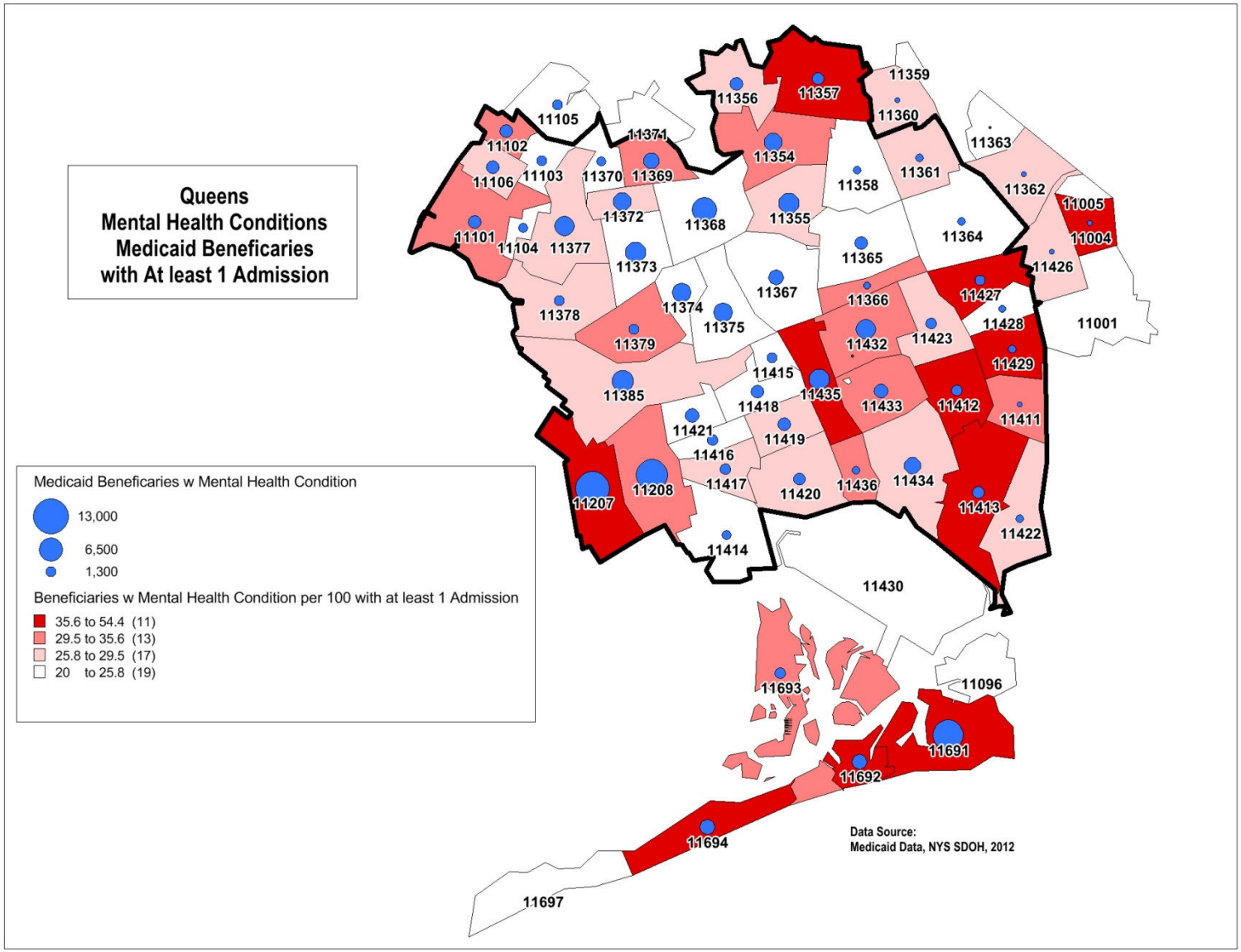
31. Percentage among Medicaid Beneficiaries with Diabetes CRG diagnosis with any emergency department visit (by Zip Code)



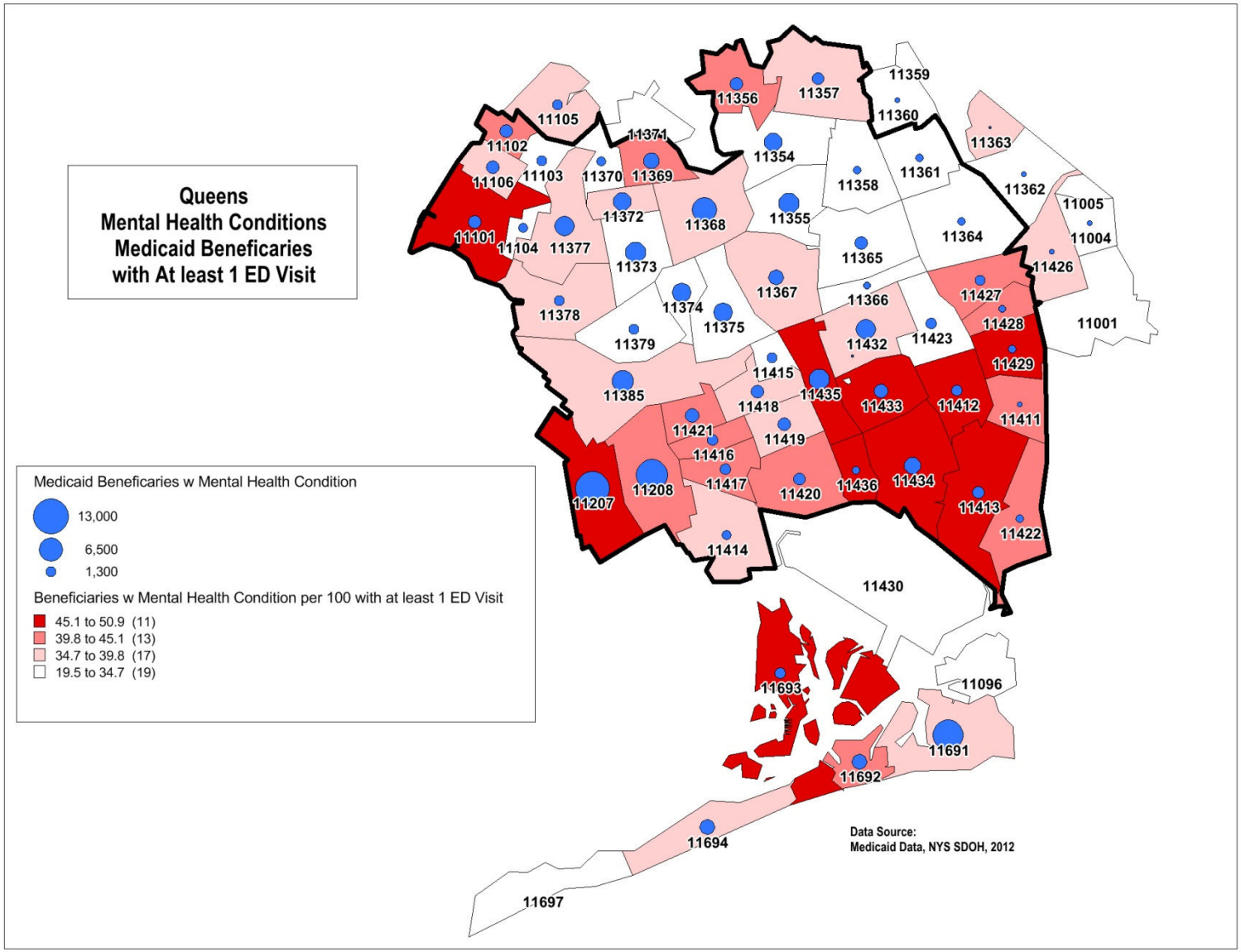
32. Mental Health CRG diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



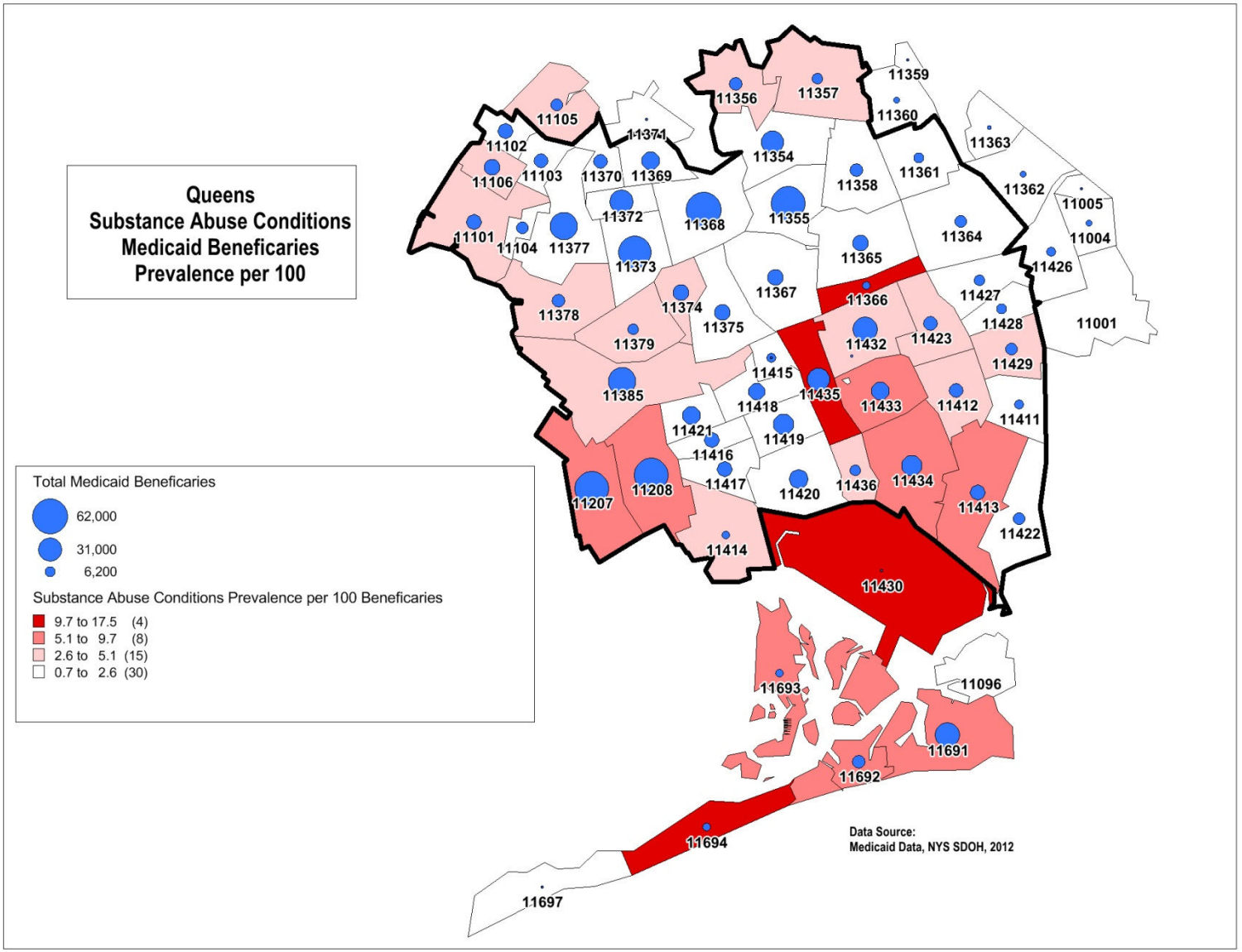
33. Percentage among Medicaid Beneficiaries with Mental Health CRG diagnosis with any inpatient admission (by Zip Code)



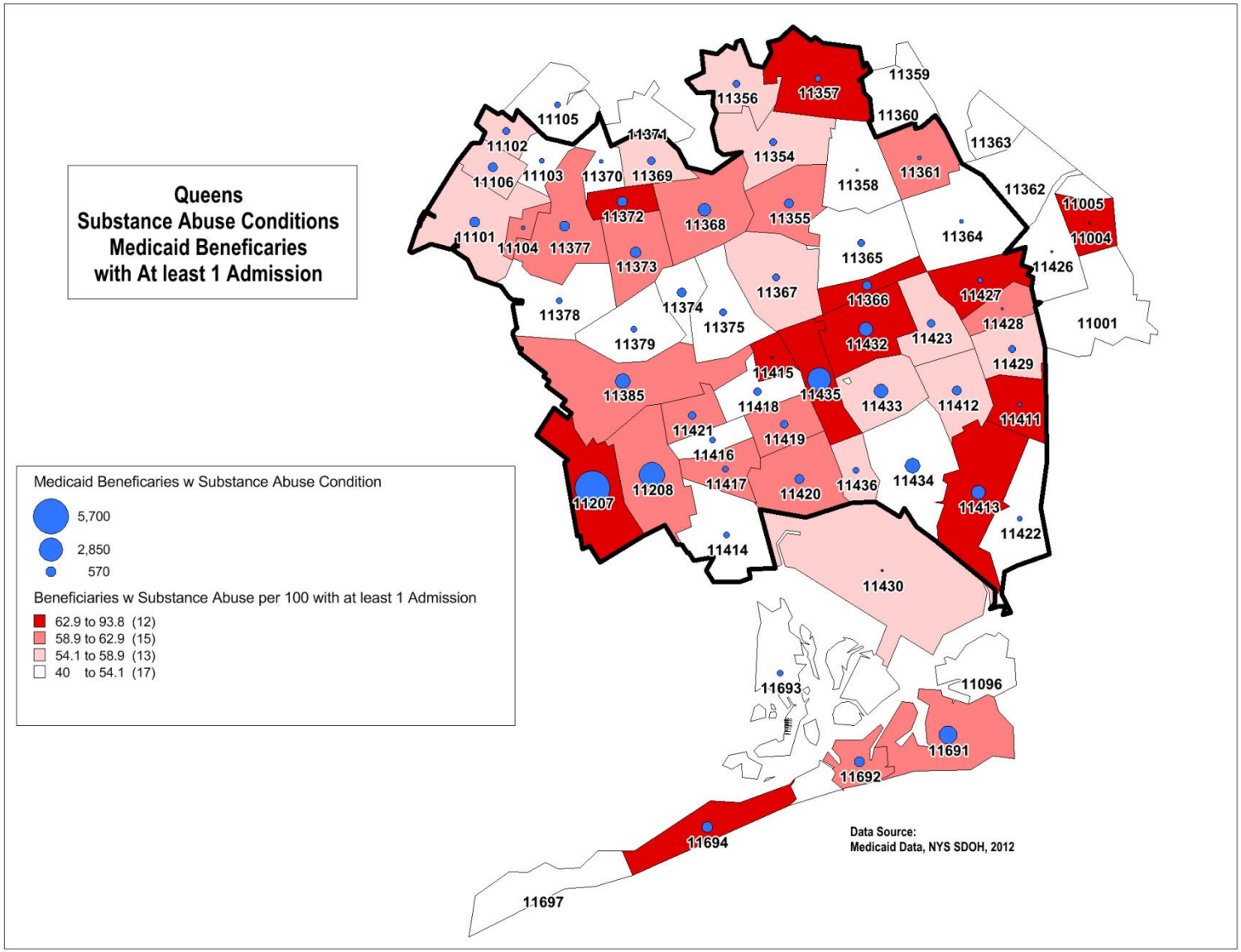
34. Percentage among Medicaid Beneficiaries with Mental Health CRG diagnosis with any emergency department visit (by Zip Code)



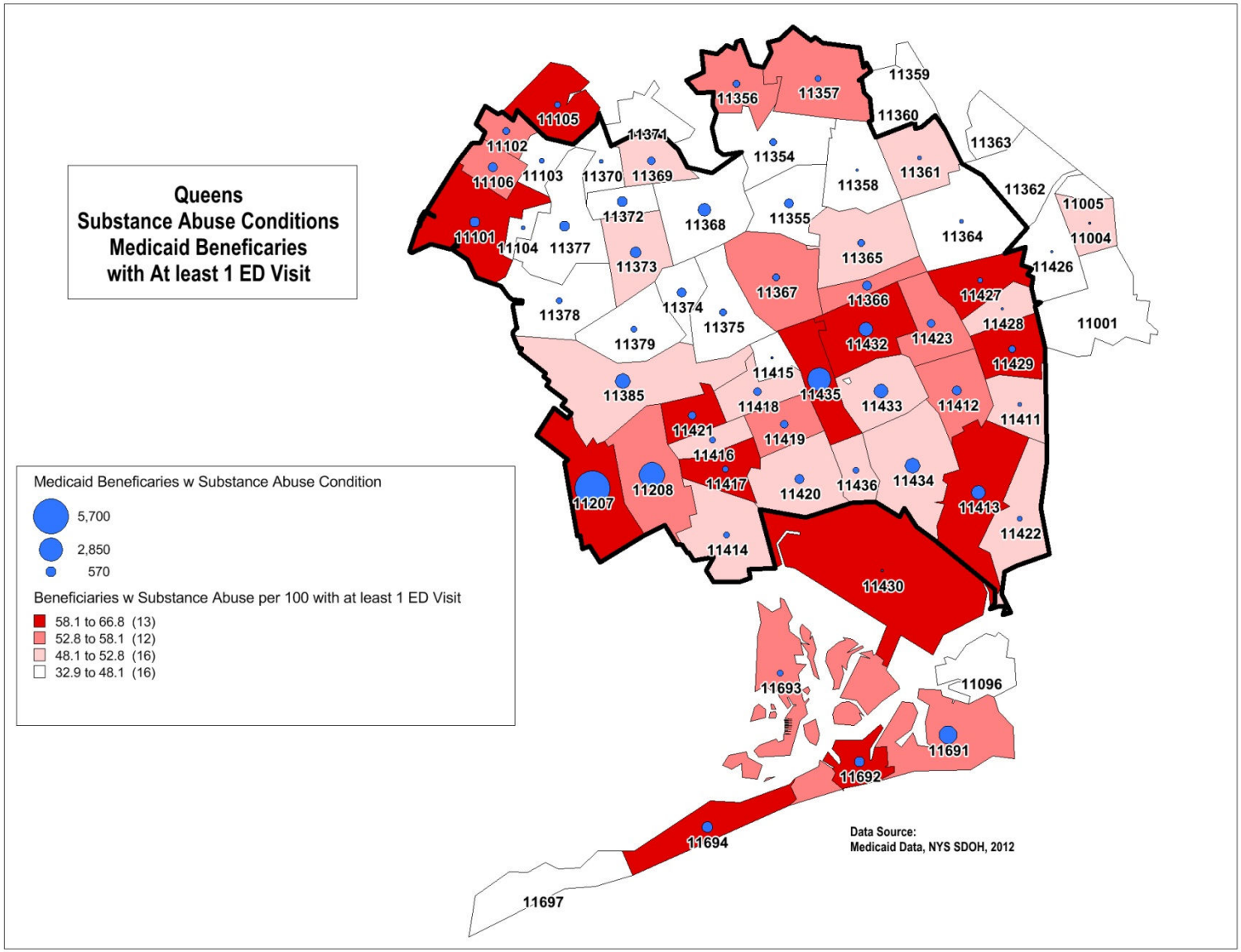
35. Subtance Abuse CRG diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



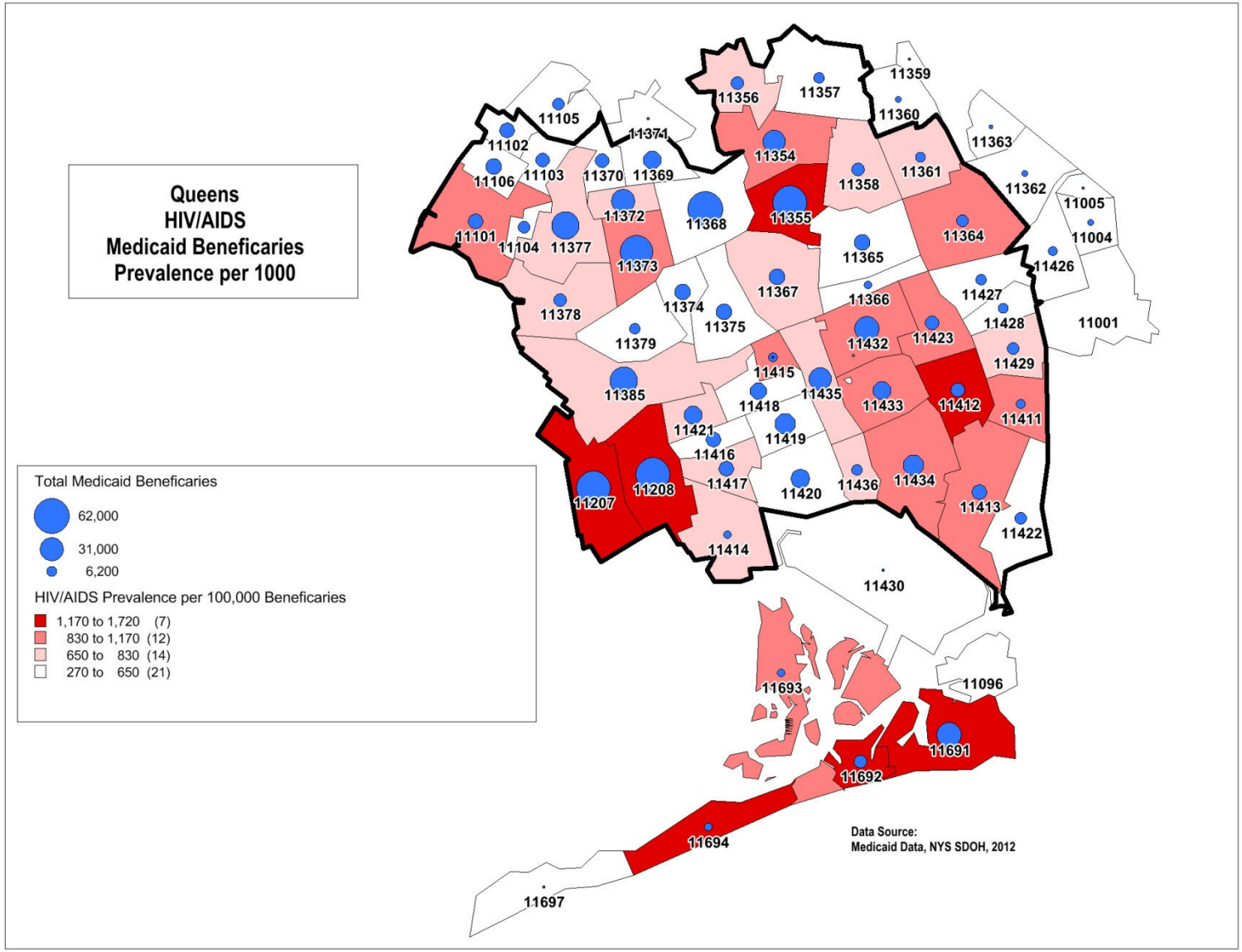
36. Percentage among Medicaid Beneficiaries with Subtance Abuse CRG diagnosis with any inpatient admission (by Zip Code)



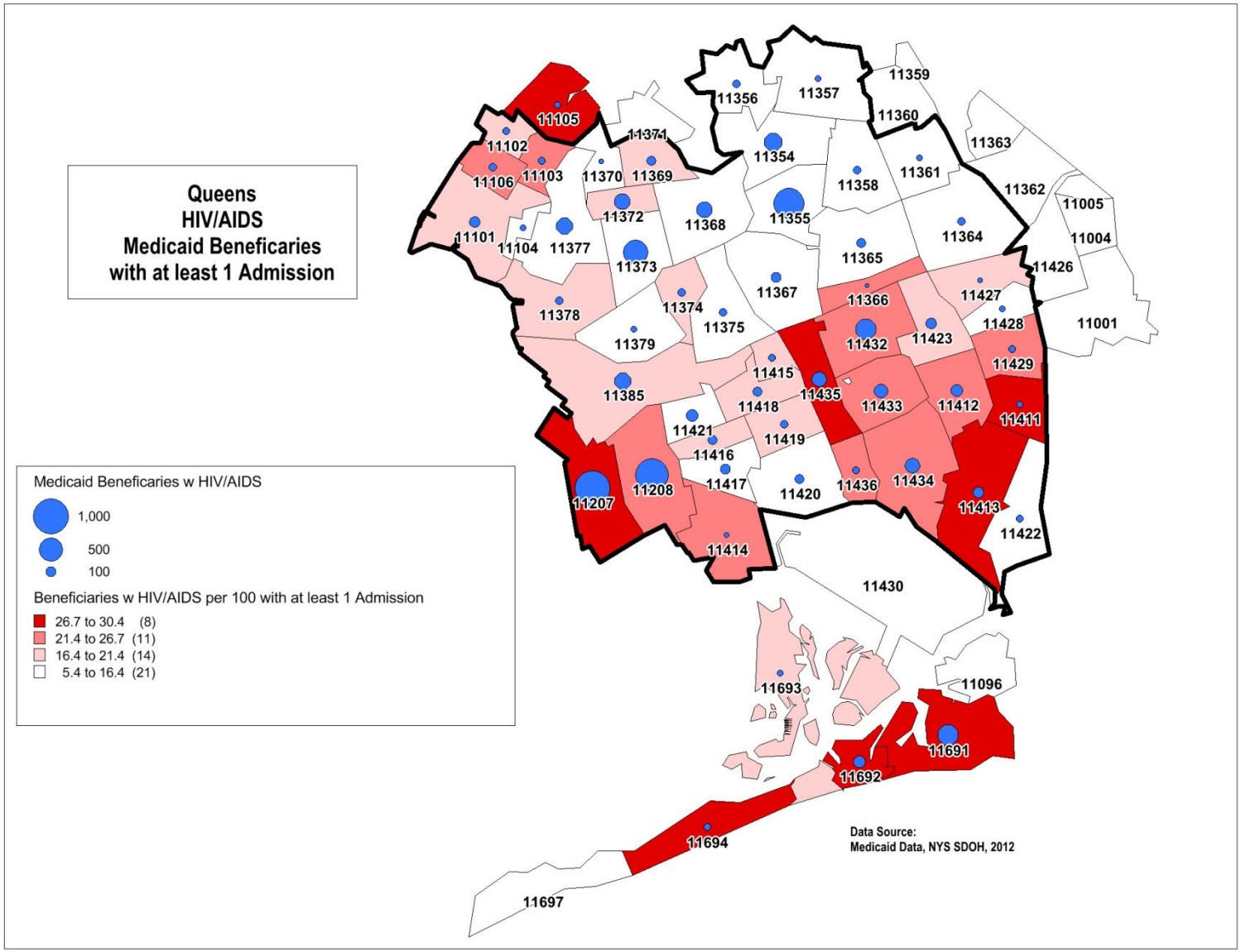
37. Percentage among Medicaid Beneficiaries with Subtance Abuse CRG diagnosis with any emergency department visit (by Zip Code)



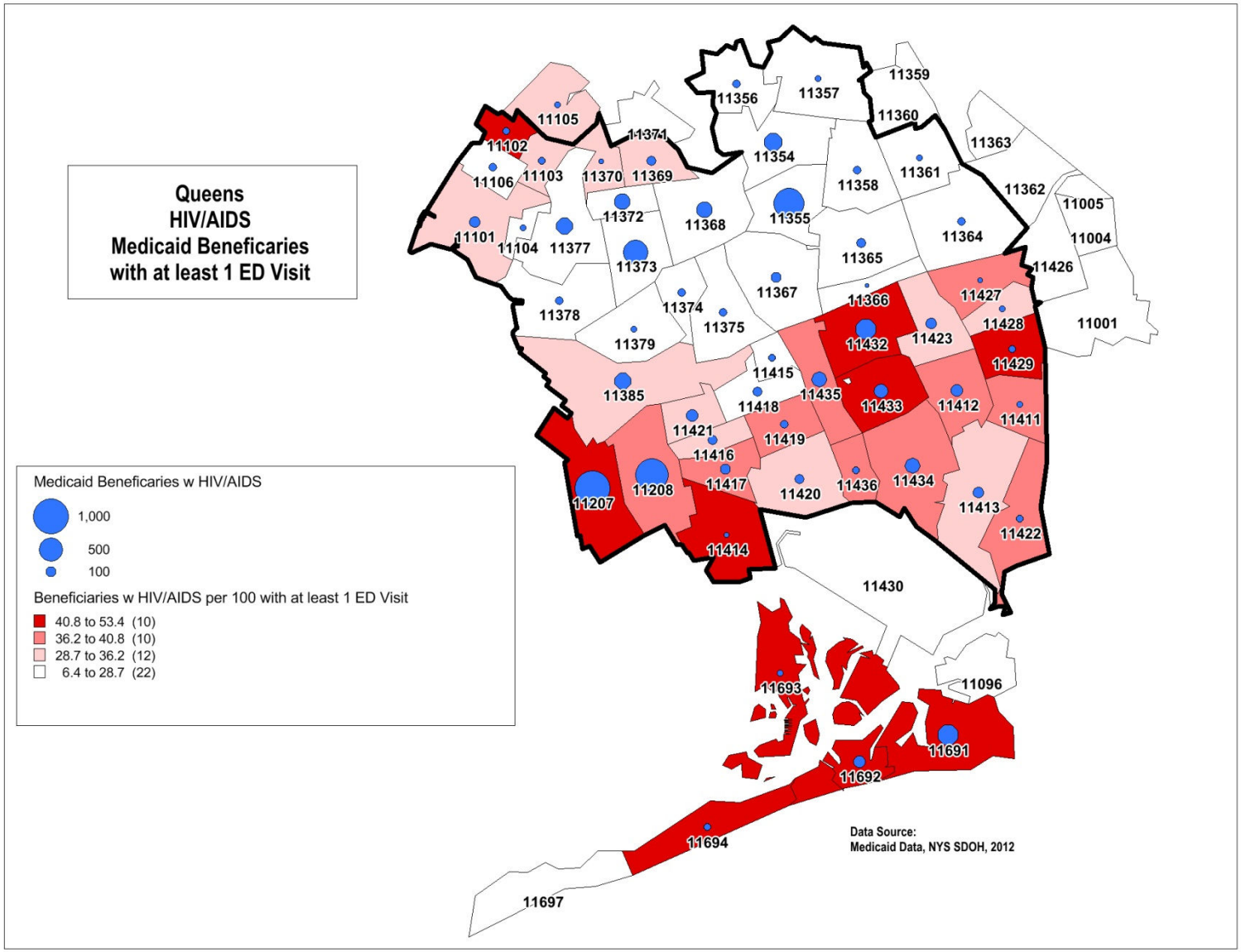
38. HIV Diagnosis Prevalence Among Medicaid Beneficiaries (by Zip Code)



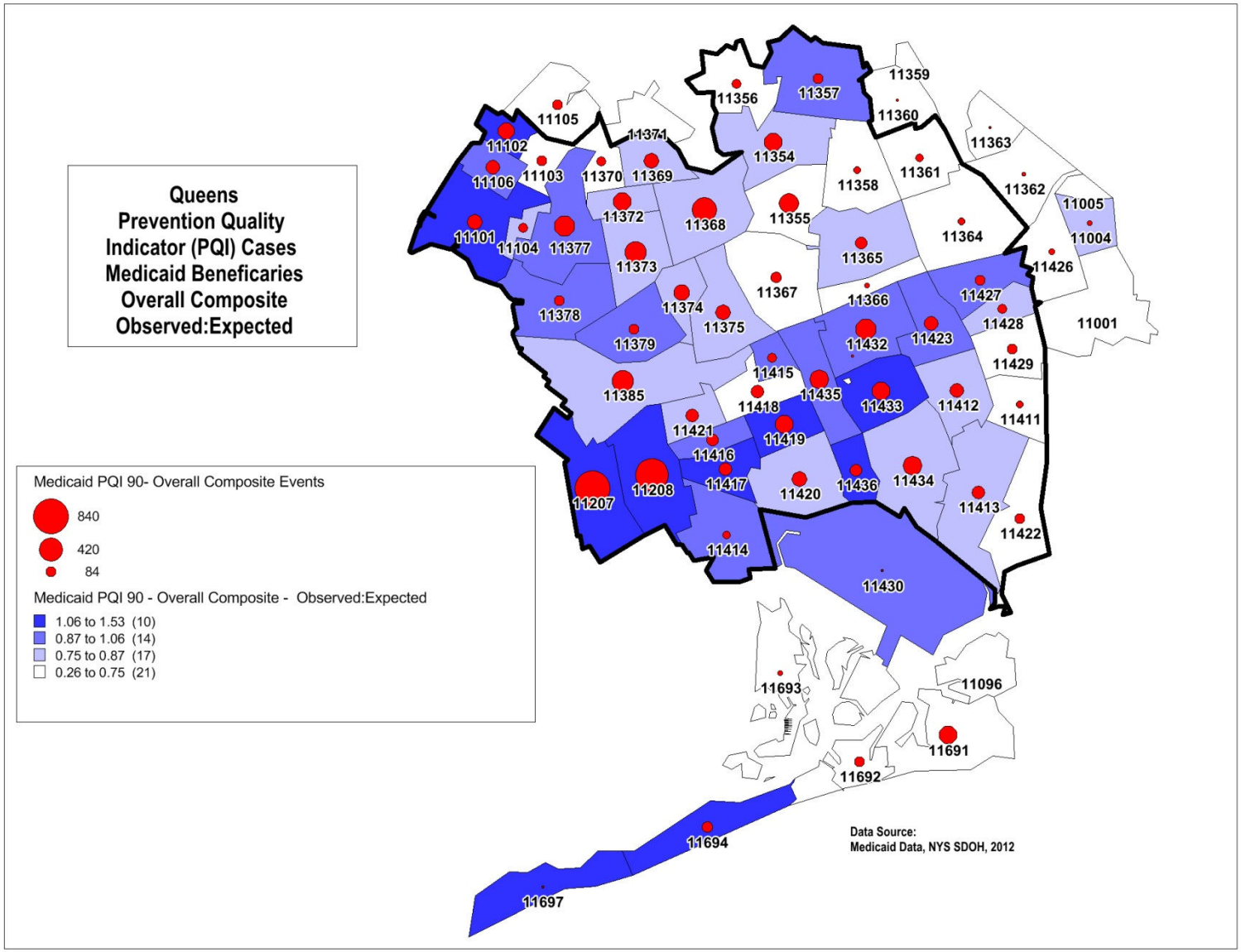
39. Percentage among Medicaid Beneficiaries with HIV Diagnosis with any inpatient admission (by Zip Code)



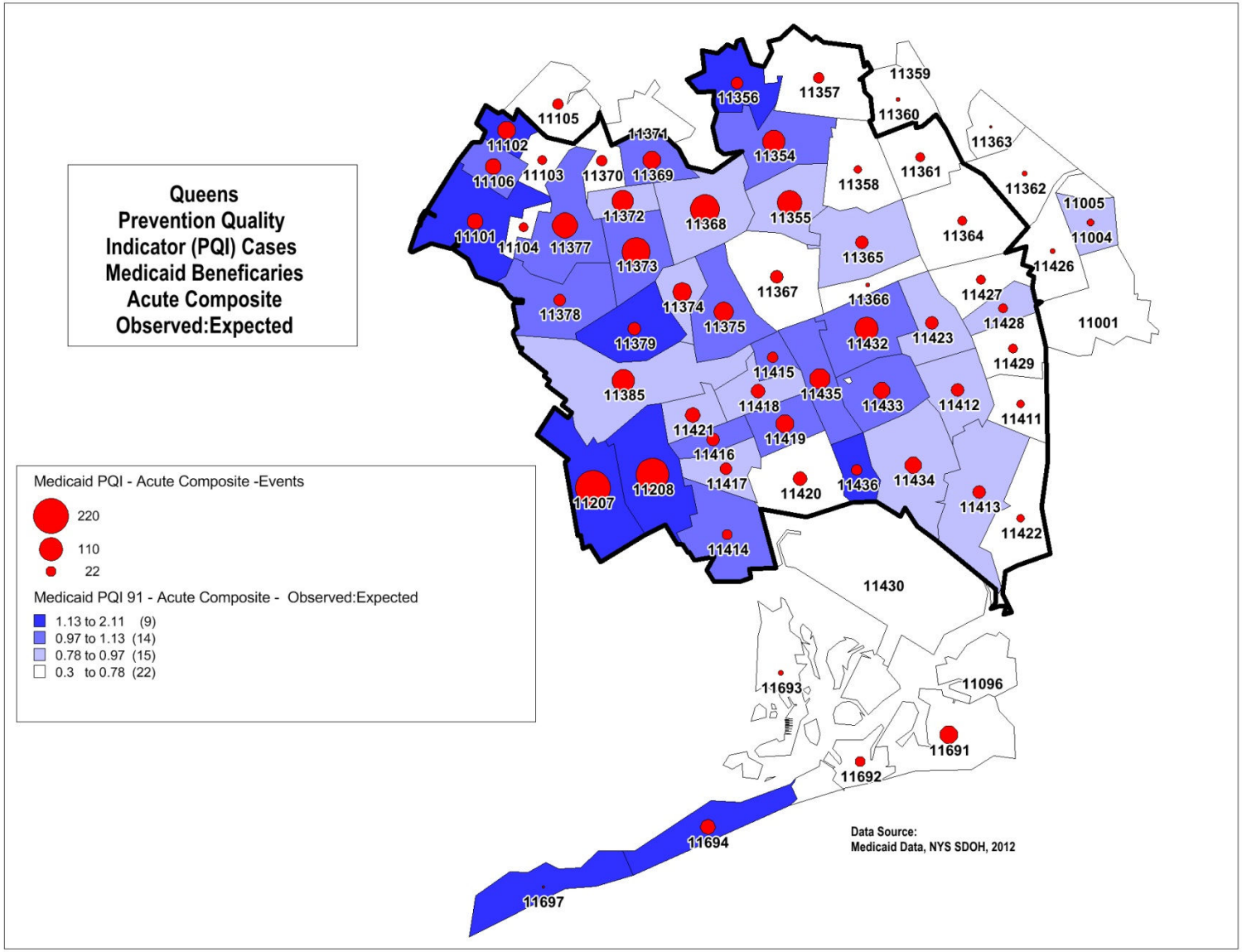
40. Percentage among Medicaid Beneficiaries with HIV Diagnosis with any emergency department visit (by Zip Code)



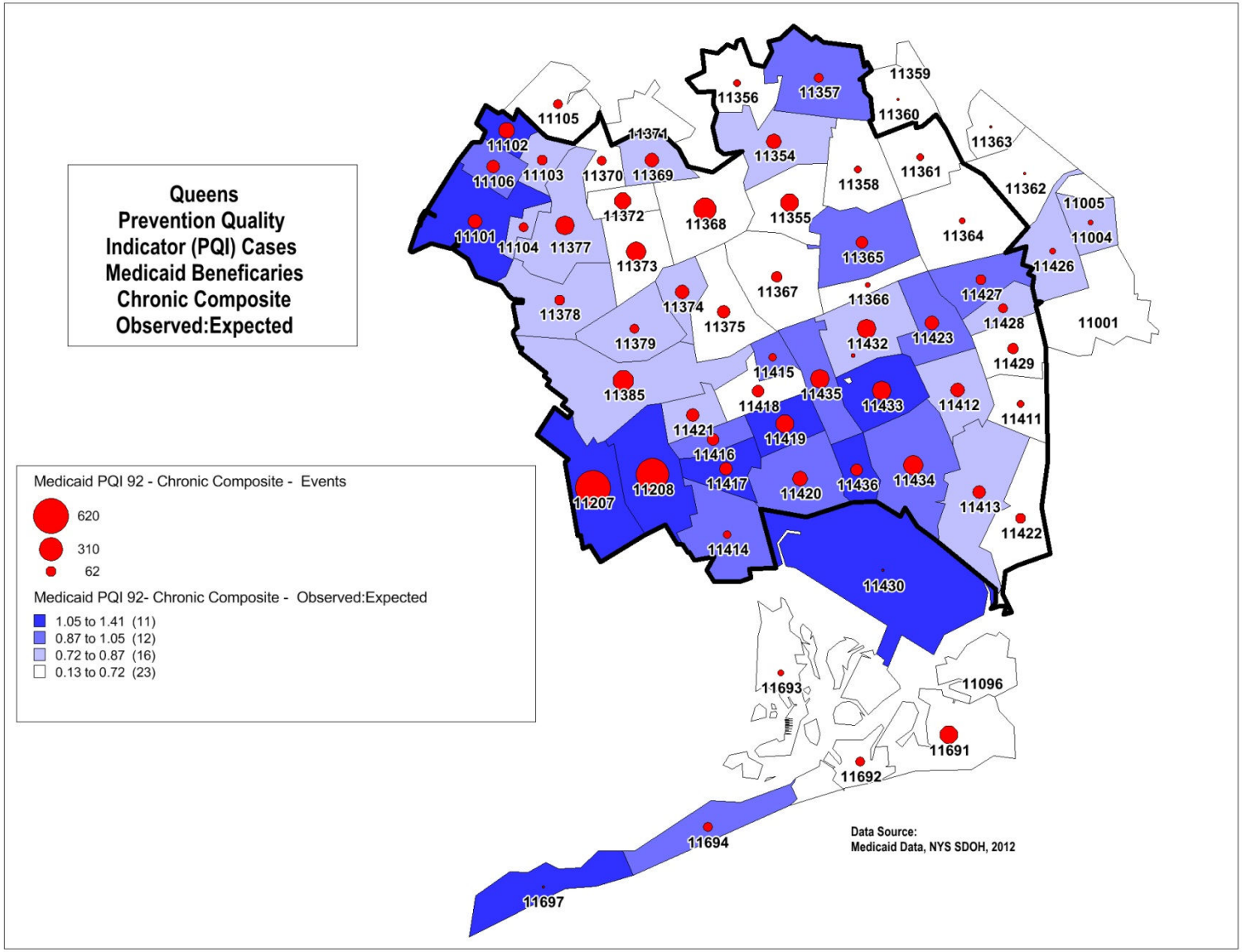
41. PQI Overall Composite Cases (PQI 90) by Zip Code



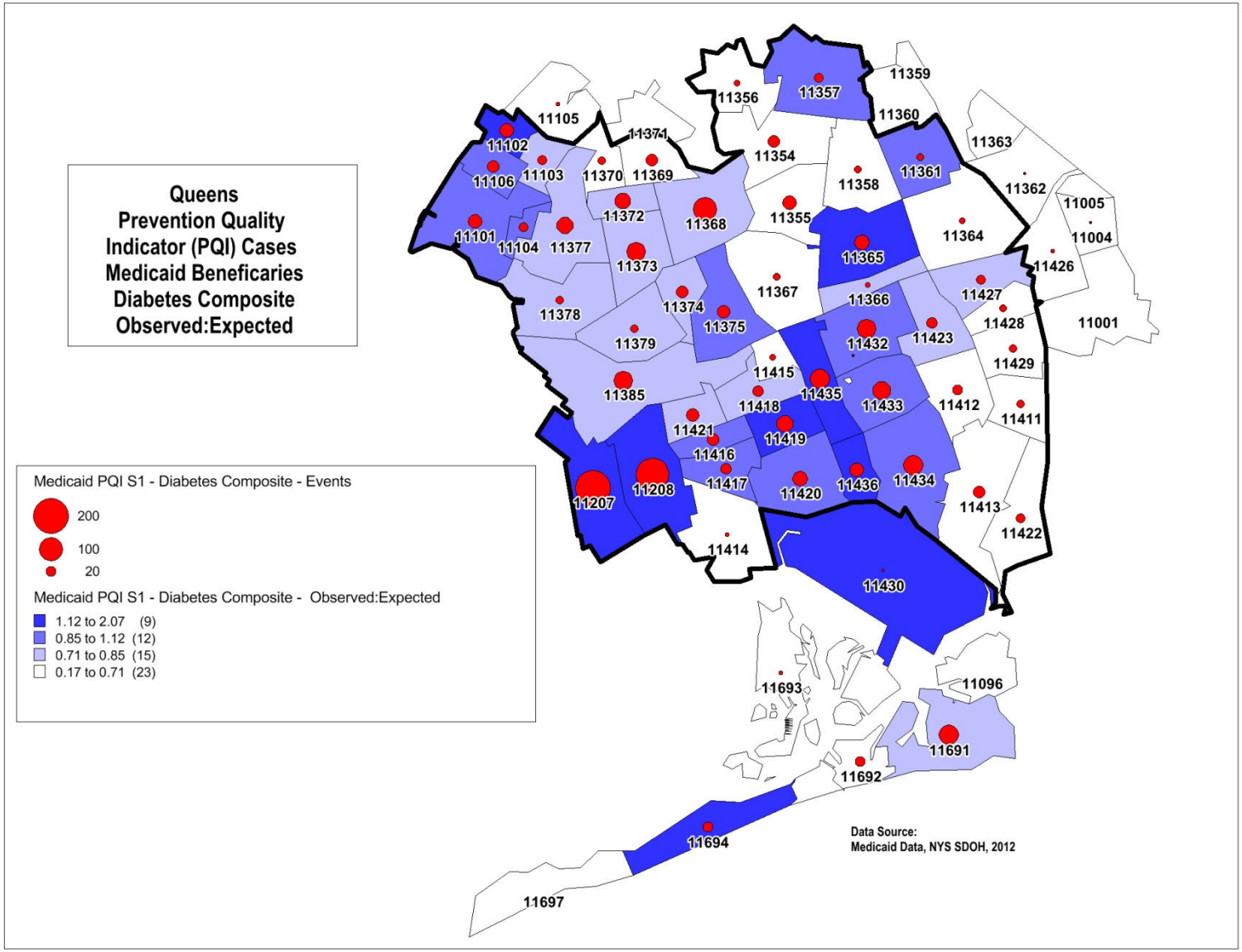
42. PQI Acute Composite Cases (PQI 91) by Zip Code



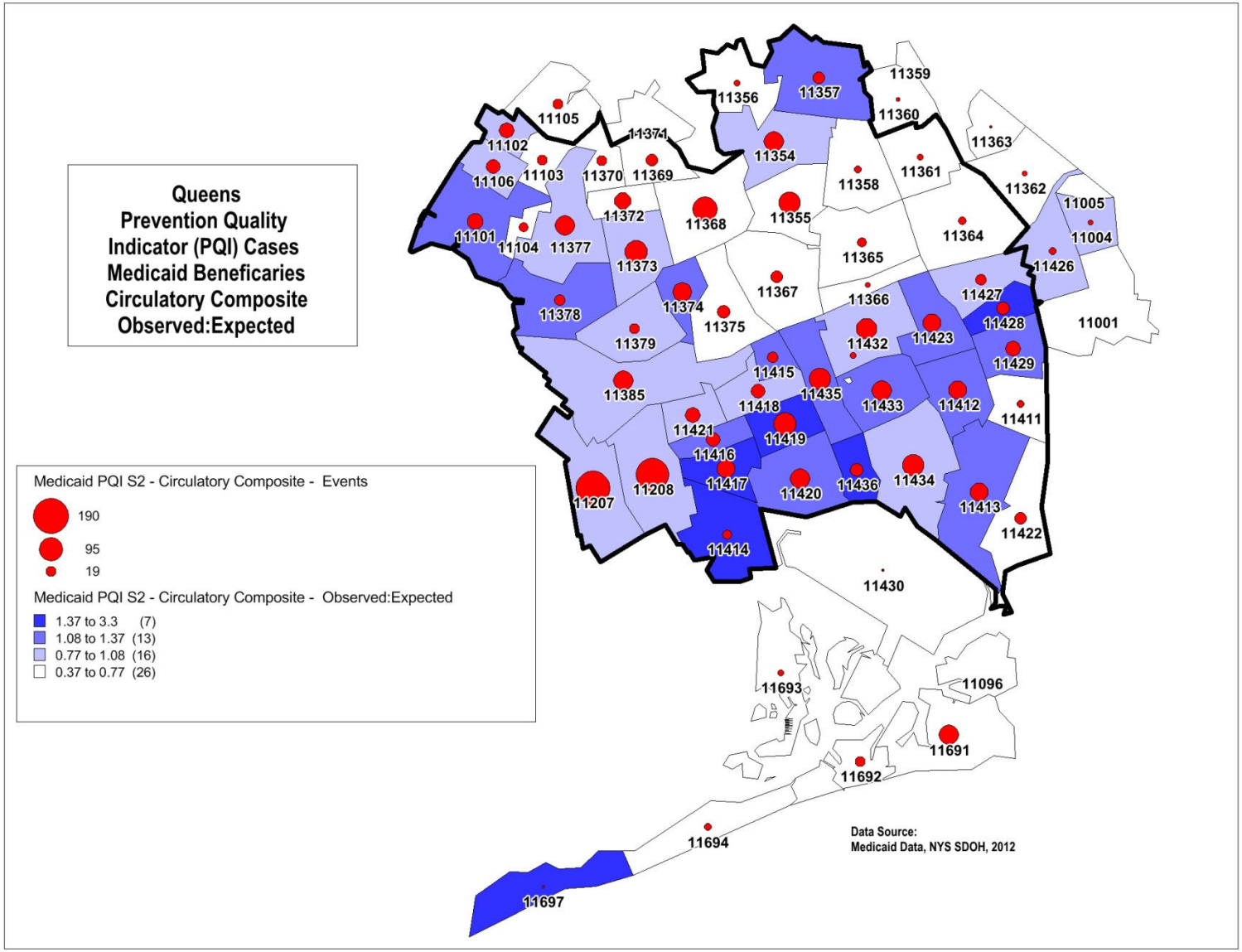
43. PQI Chronic Composite Cases (PQI 92) by Zip Code



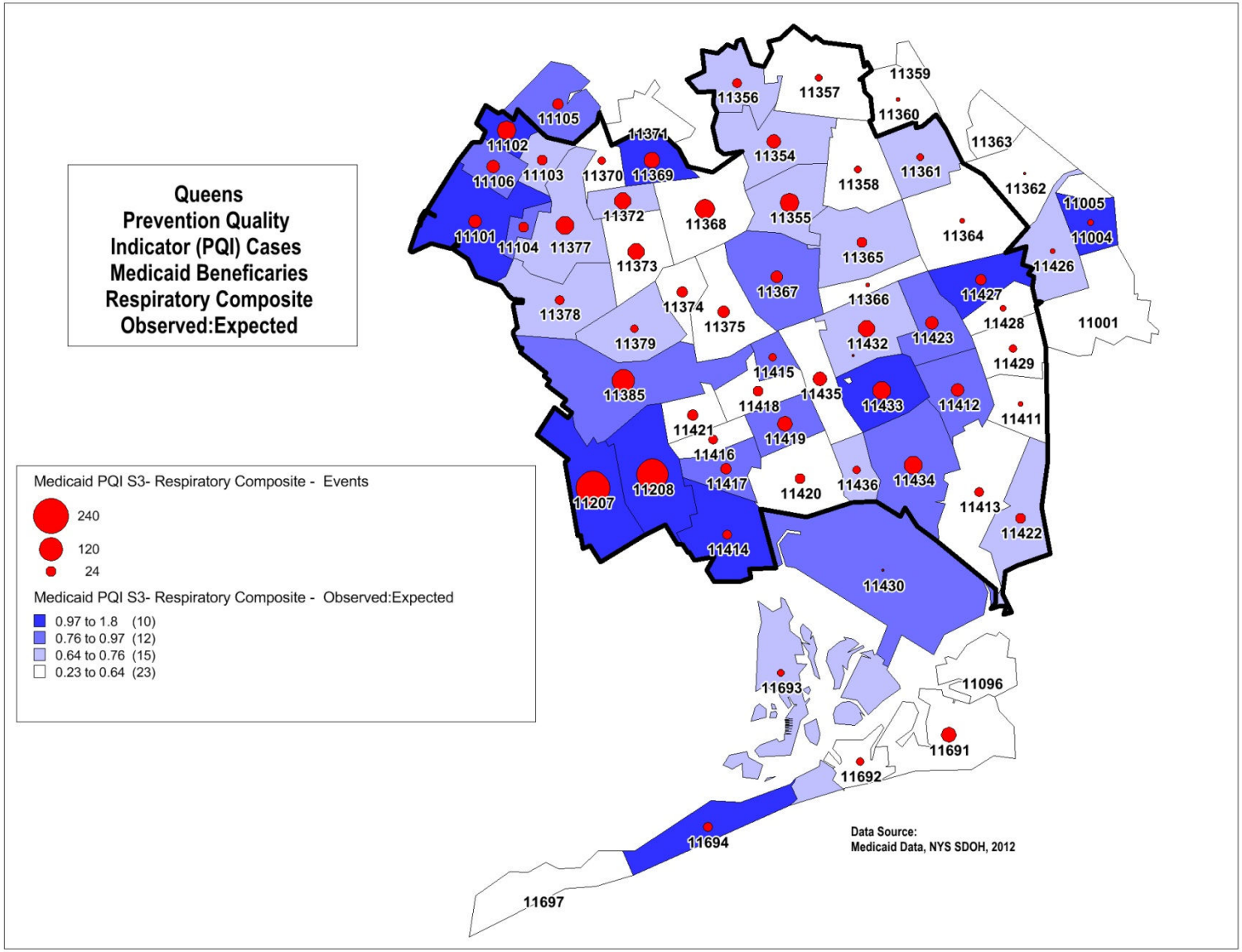
44. PQI All Diabetes Composite Cases (PQI S01) by Zip Code



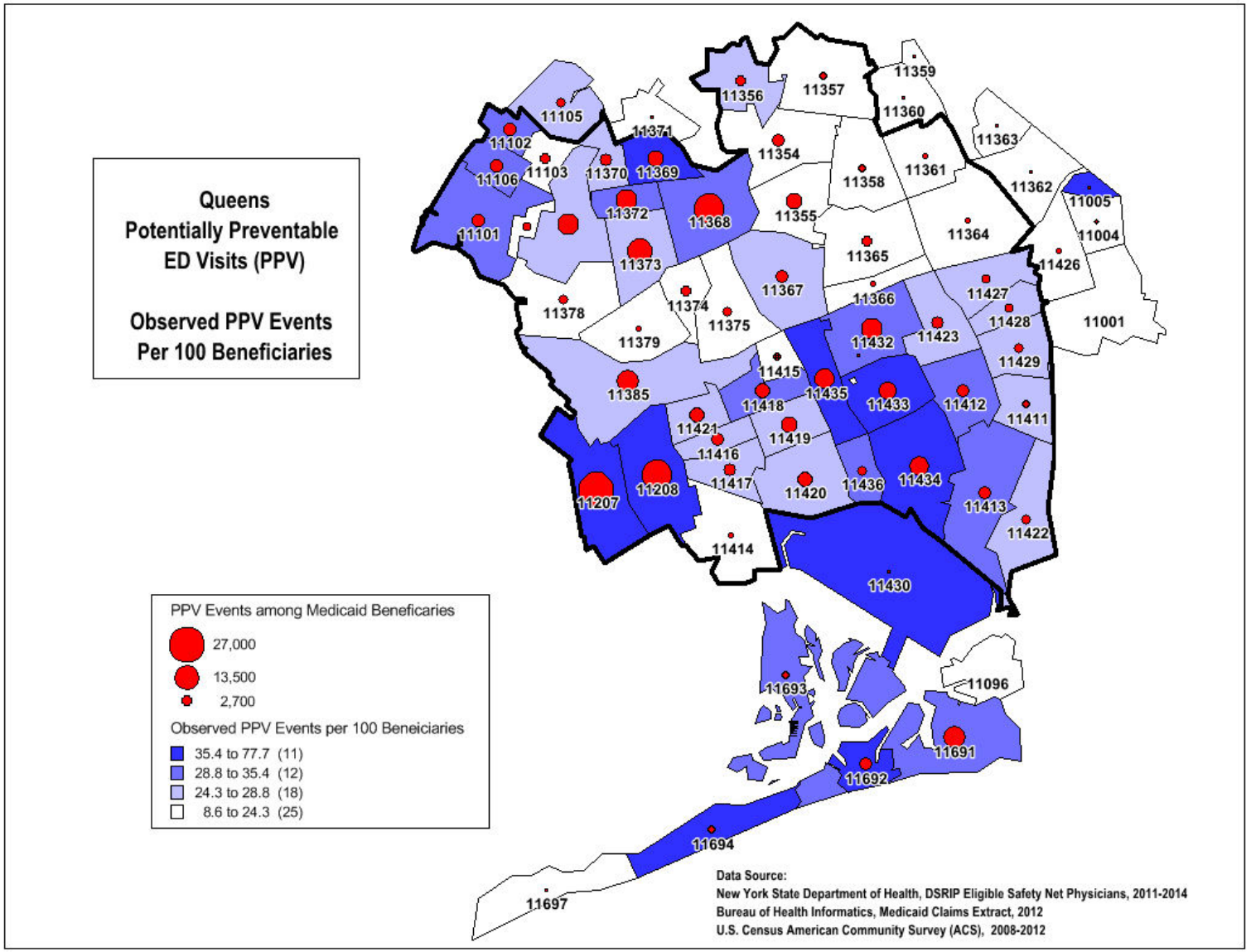
45. PQI All Circulatory Composite Cases (PQI S02) by Zip Code



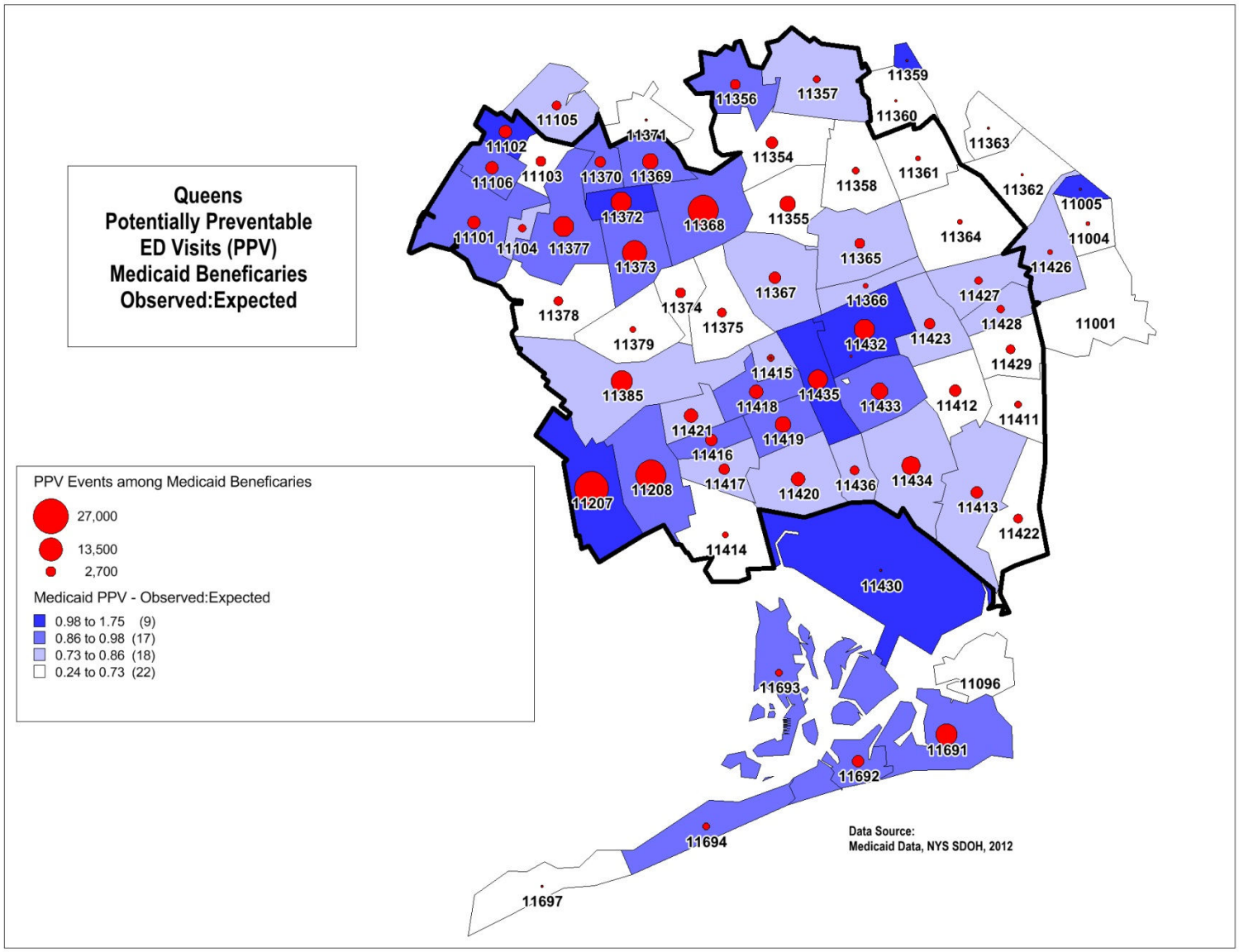
46. PQI All Respiratory Composite Cases (PQI S03) by Zip Code



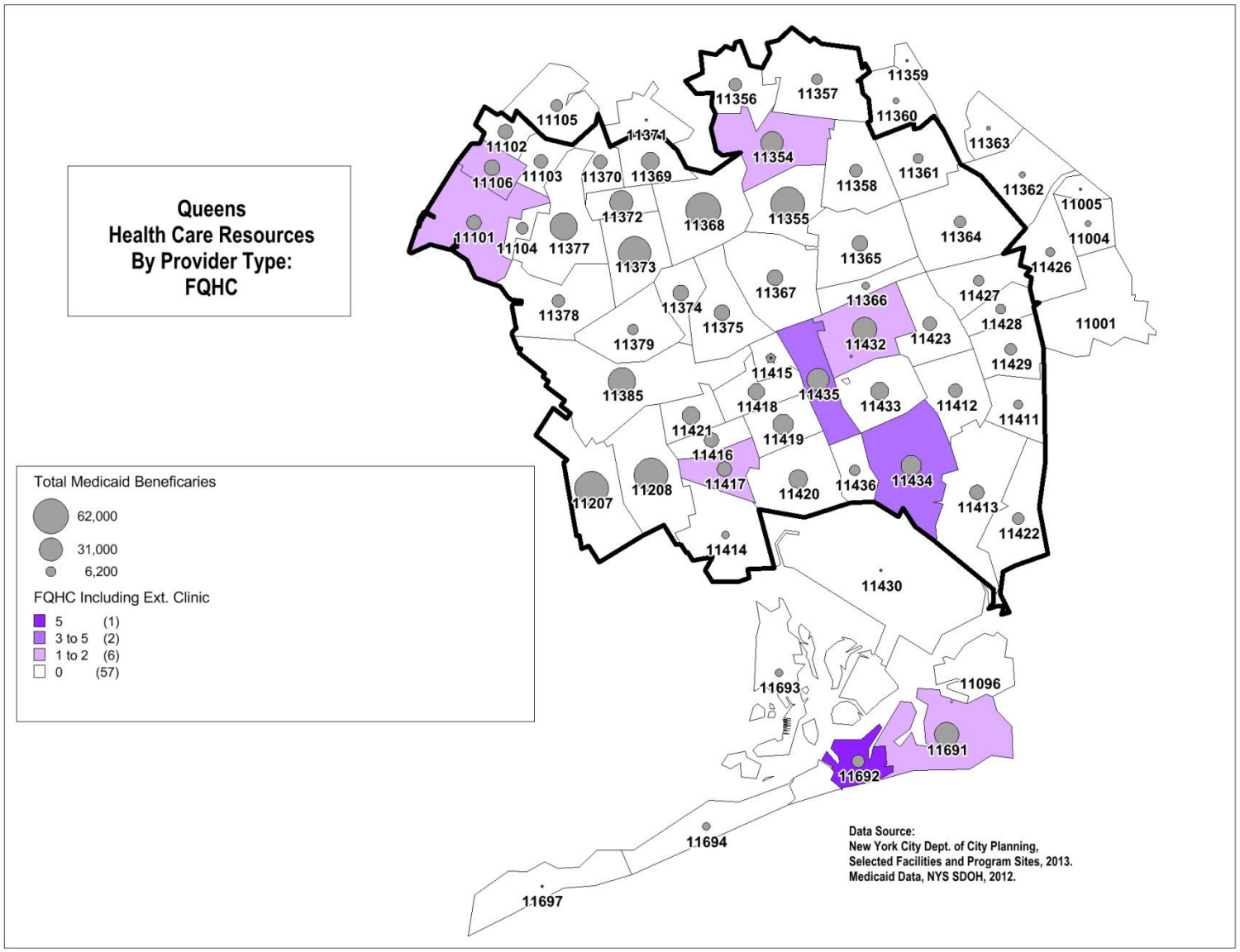
47. Potentially Preventable ER Visits (PPV) Events by Zip Code



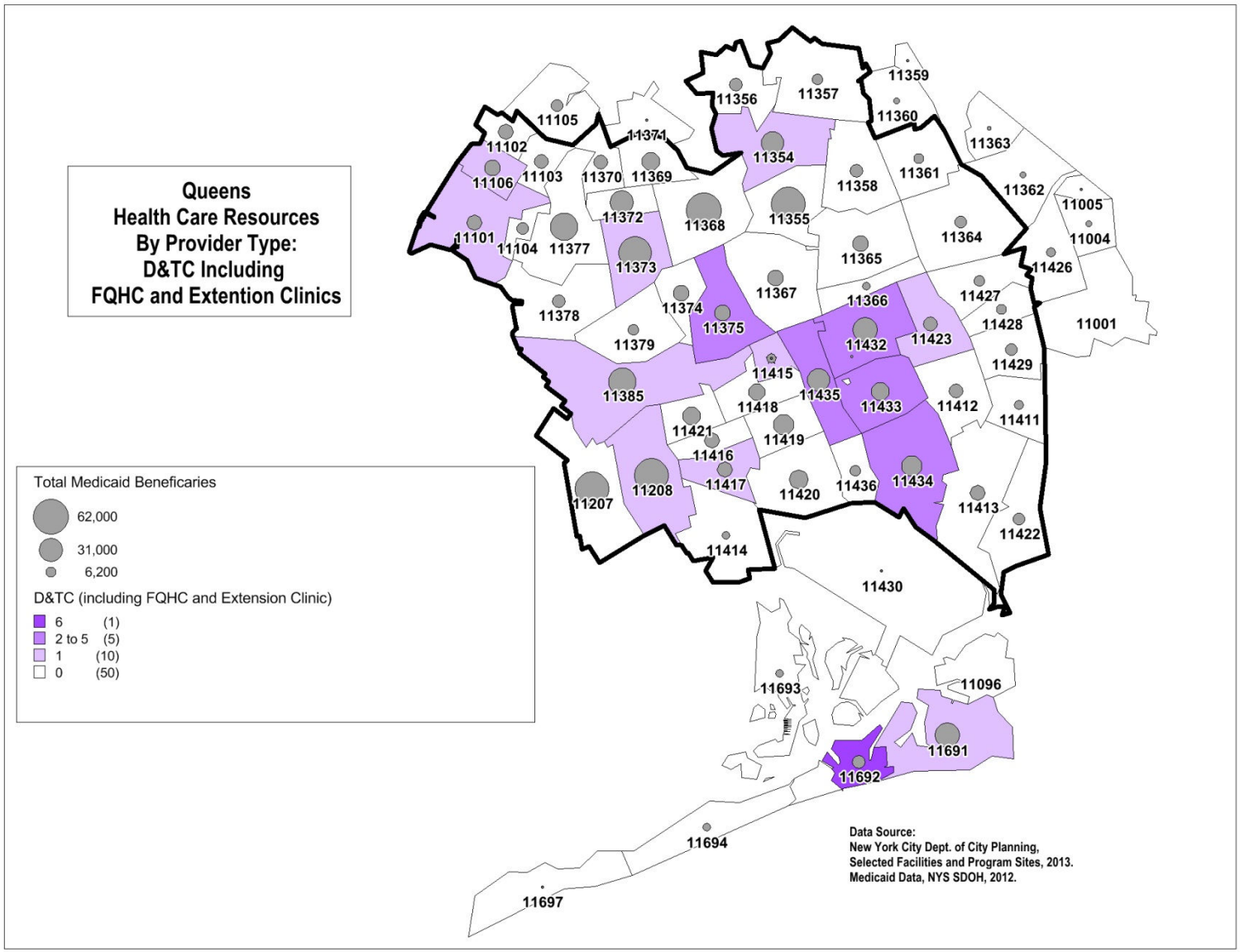
48. Potentially Preventable ER Visits (PPV) Observed to Expected Rate Ratio by Zip Code



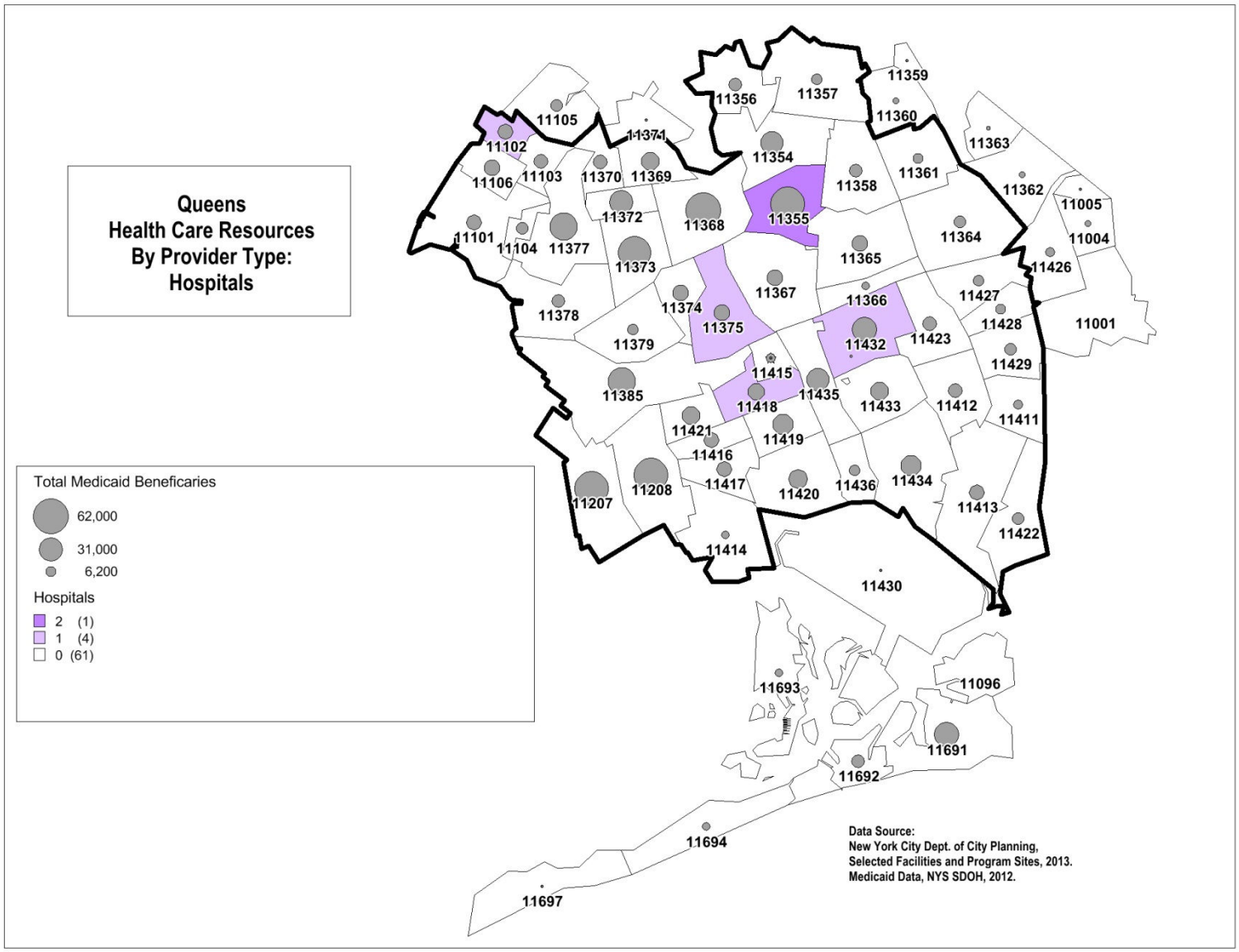
49. FQHC sites, including their extension clinics, and Medicaid Beneficiaries by Zip Code



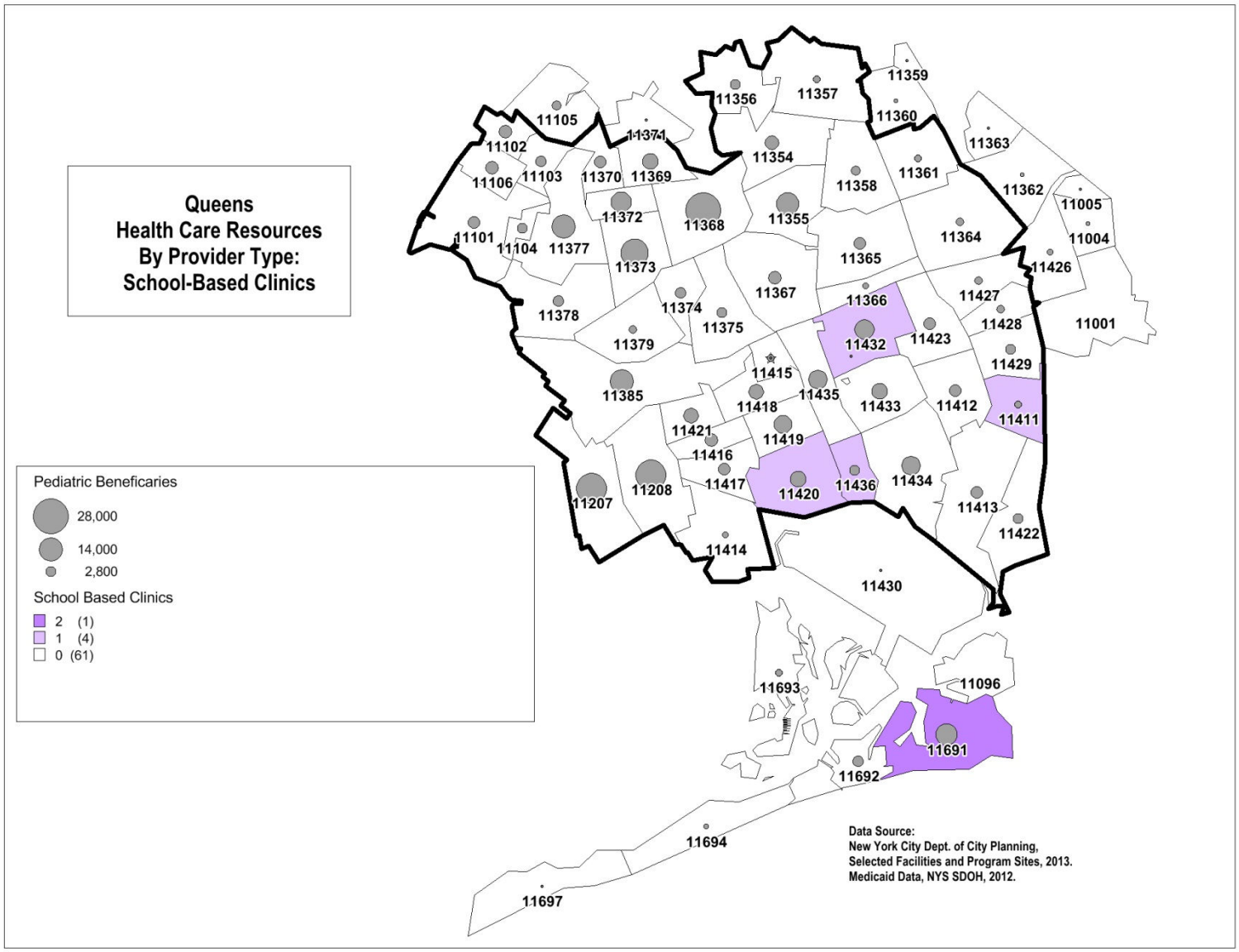
50. Diagnostic and Treatment Centers, including their extension clinics, and Medicaid Beneficiaries by Zip Code



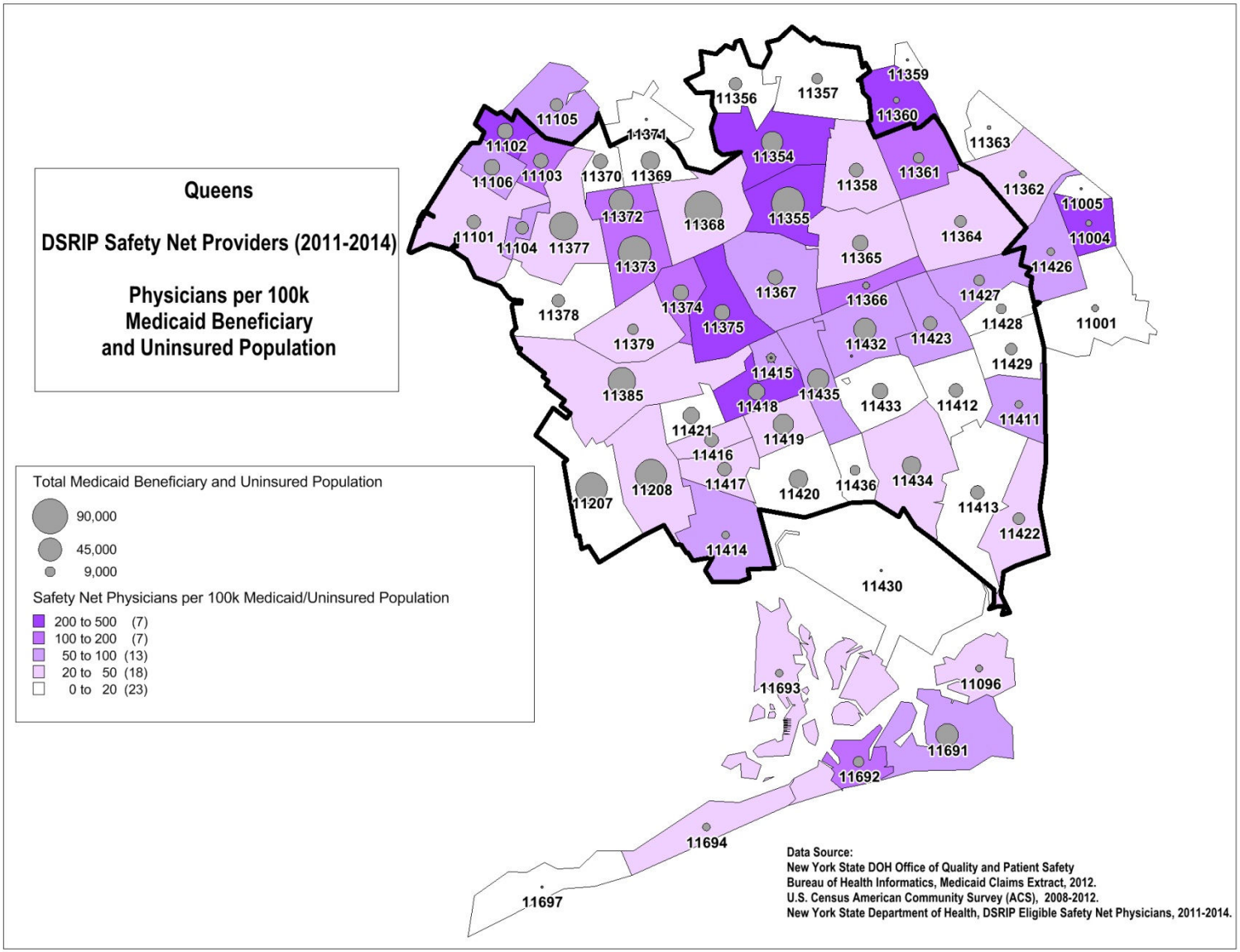
51. Hospital Sites and Medicaid Beneficiaries by Zip Code



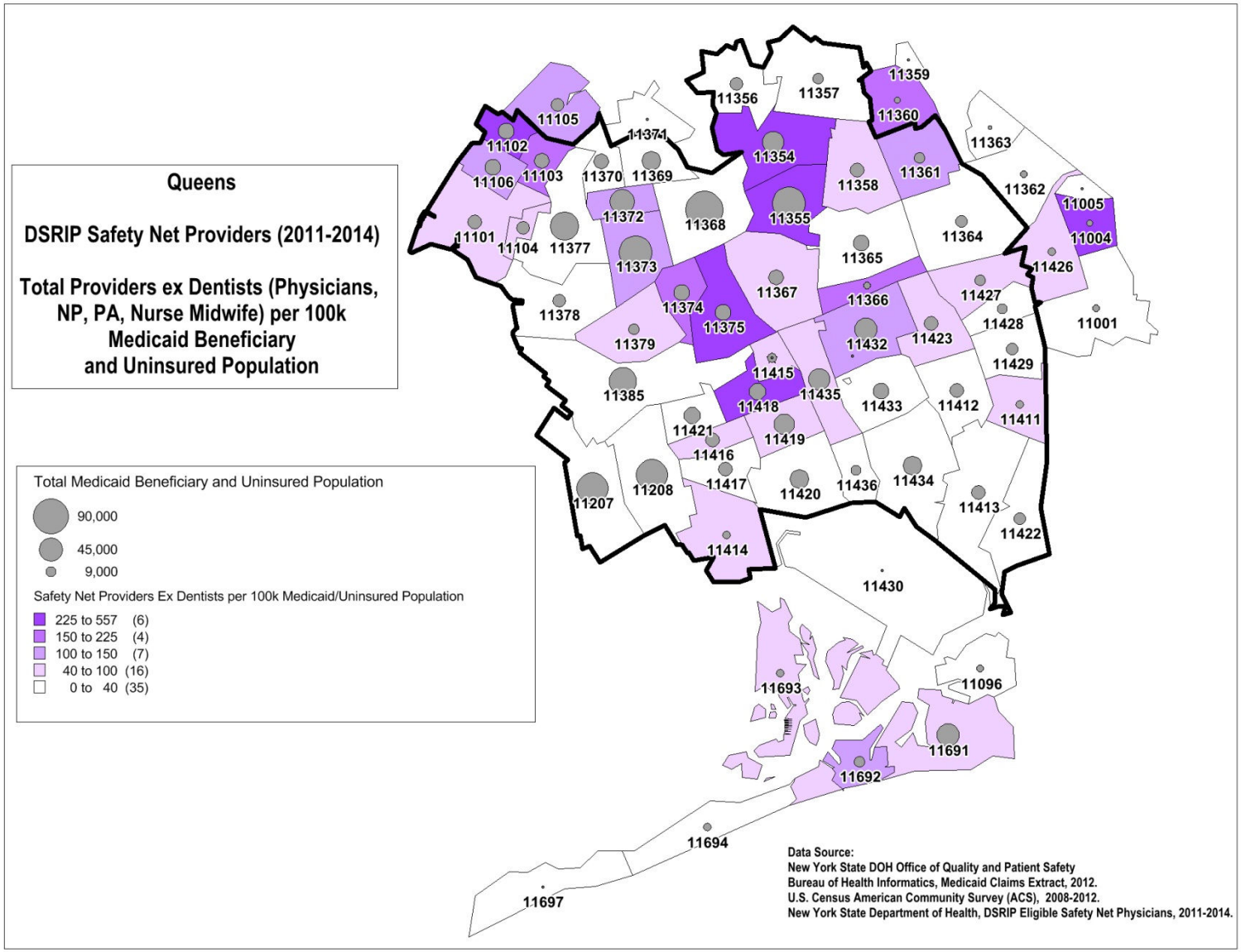
52. School-Based Health Centers and Medicaid Beneficiaries (Ages 0-17) by Zip Code



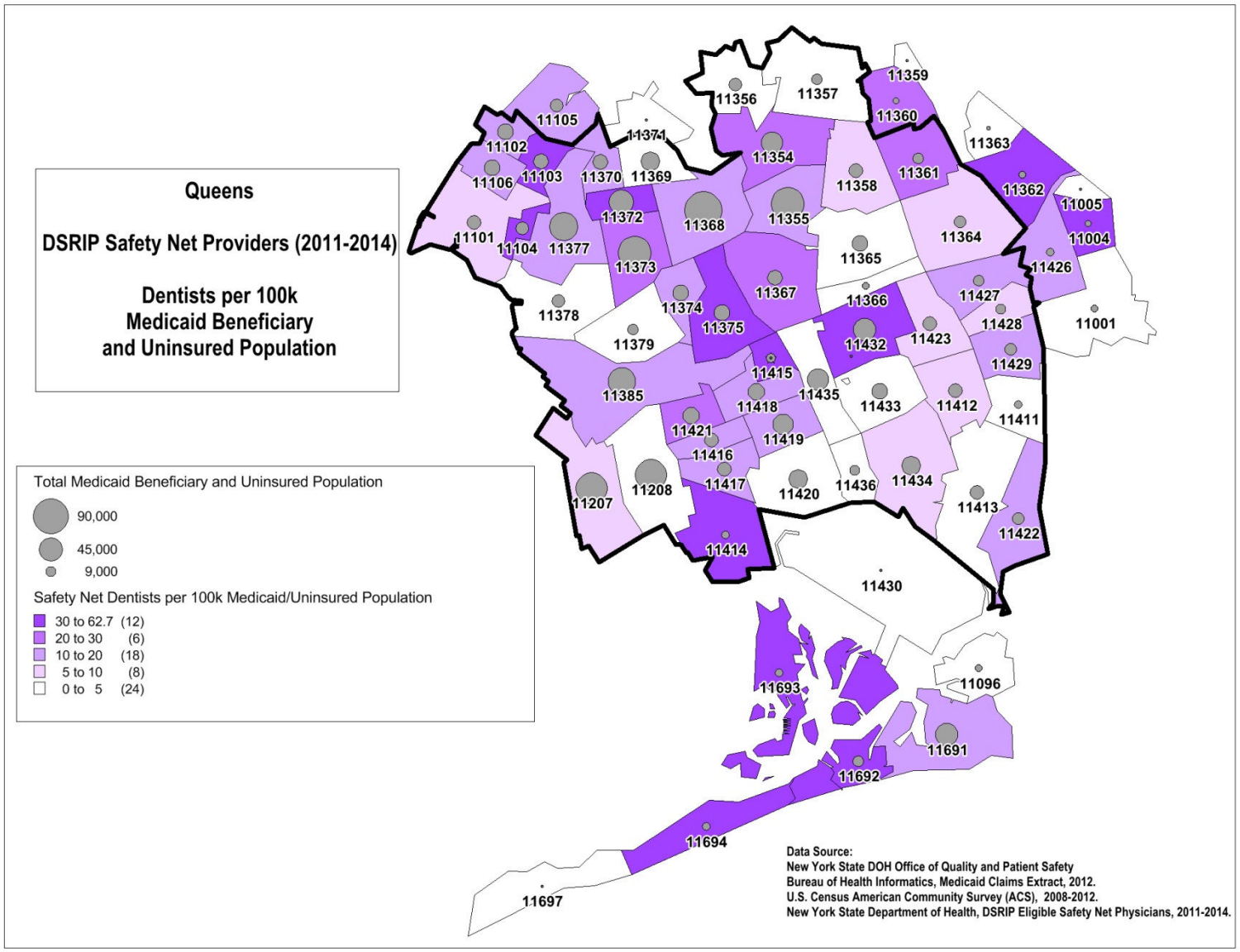
53. Safety Net Physicians per 100,000 Medicaid Beneficiary and Uninsured Population by Zip Code



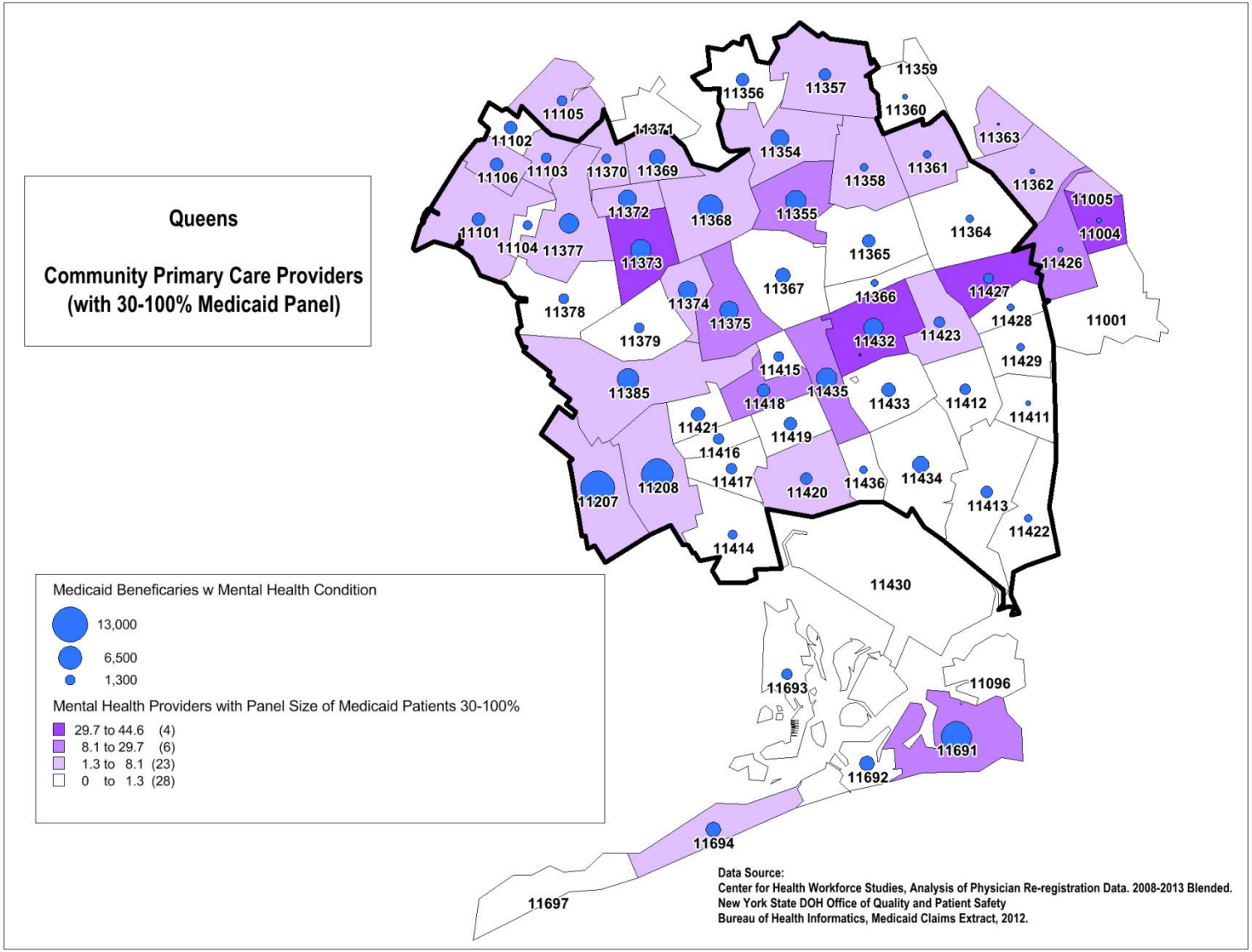
54. Safety Net Providers (Physician, Nurse Practitioner, Physician Assistant and Nurse Midwife) per 100,000 Medicaid Beneficiary and Uninsured Population by Zip Code



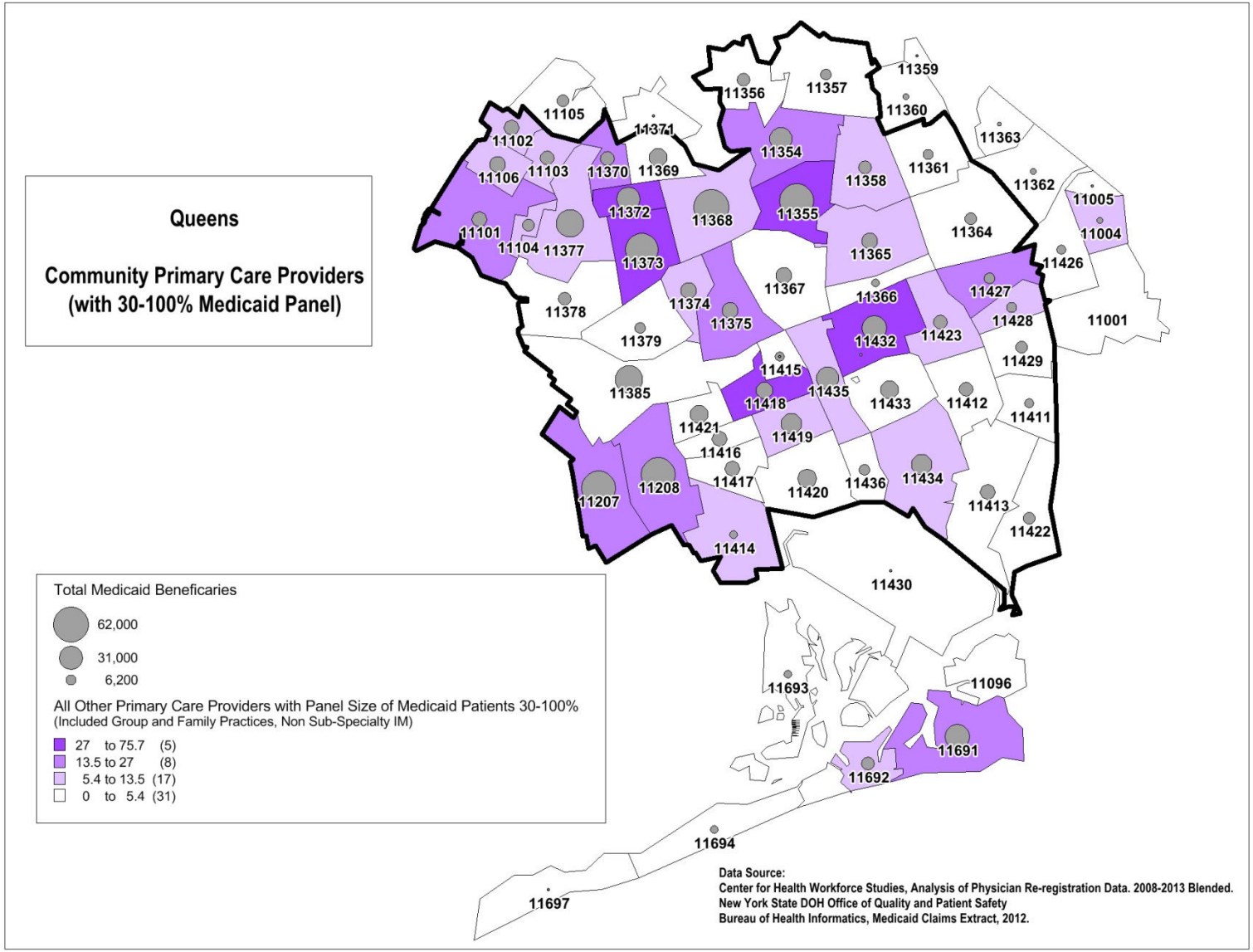
55. Safety Net Dentists per 100,000 and Medicaid Beneficiary and Uninsured Population by Zip Code



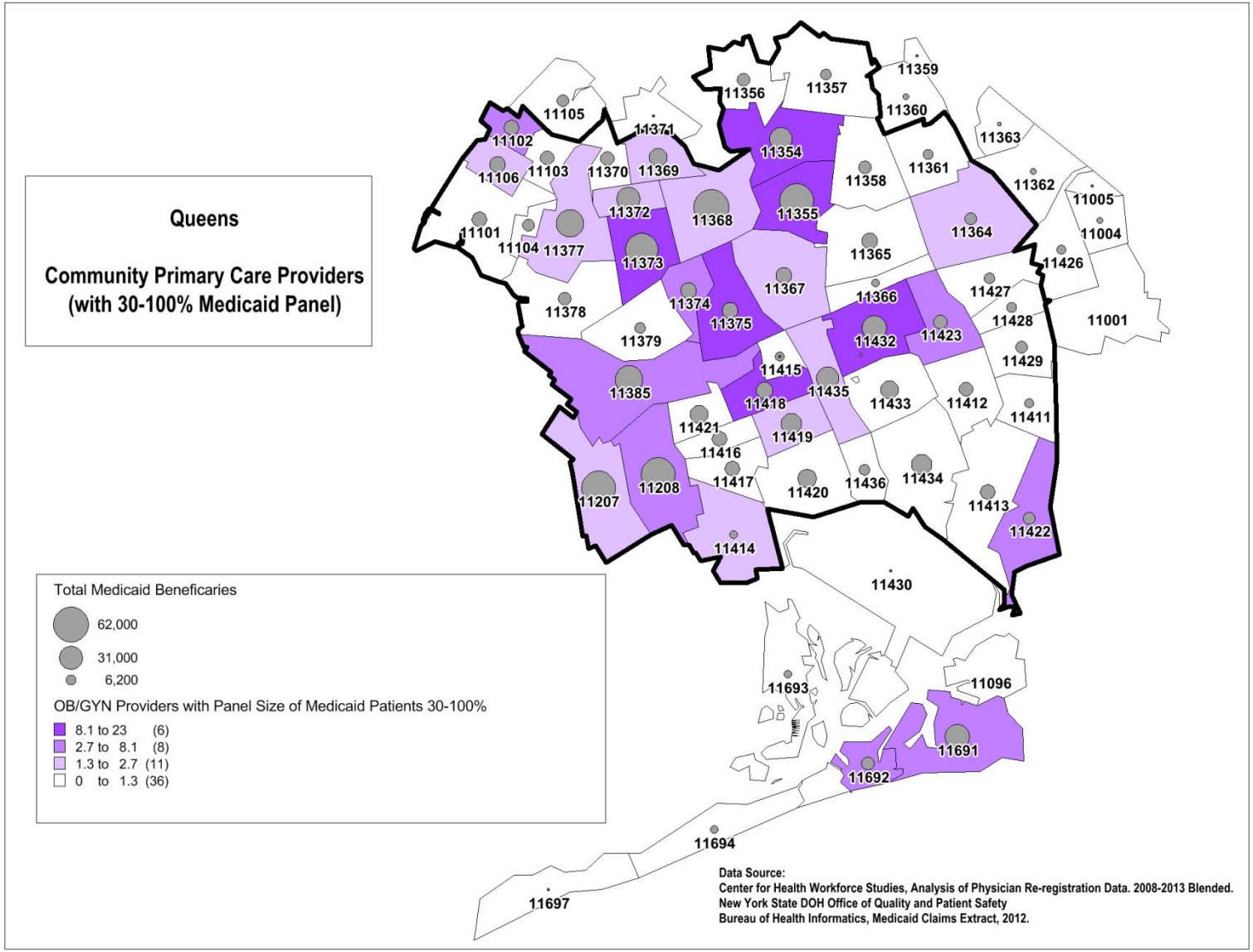
56. Mental Health Physicians reporting 30-100% of panel being Medicaid payer patients and Medicaid population with a Mental Health CRG diagnosis by Zip Code



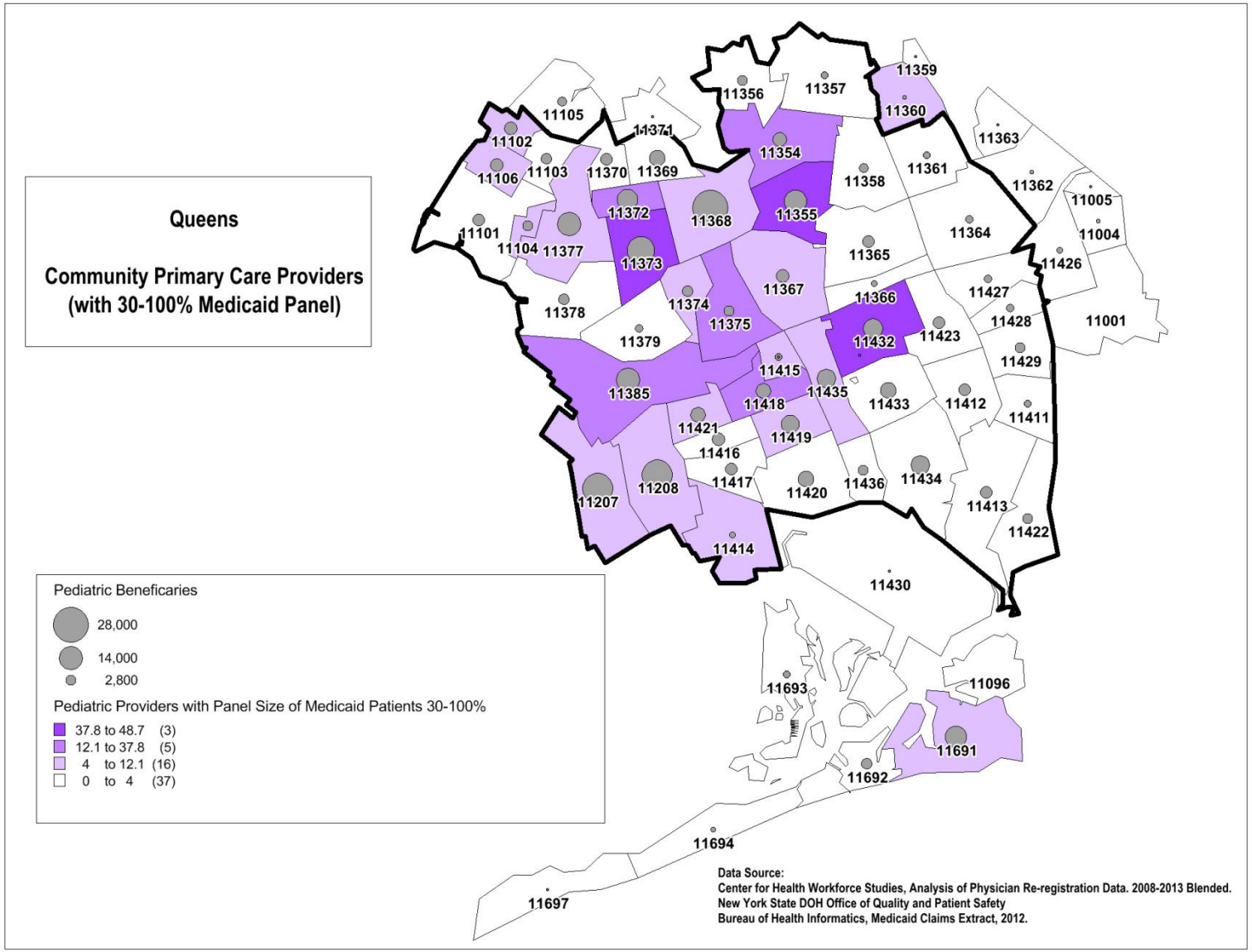
57. Other Primary Care Physicians (Family Practice, Group Practice, Non-Specialty Internal Medicine) reporting 30-100% of panel being Medicaid payer patients and Medicaid Beneficiaries by Zip Code



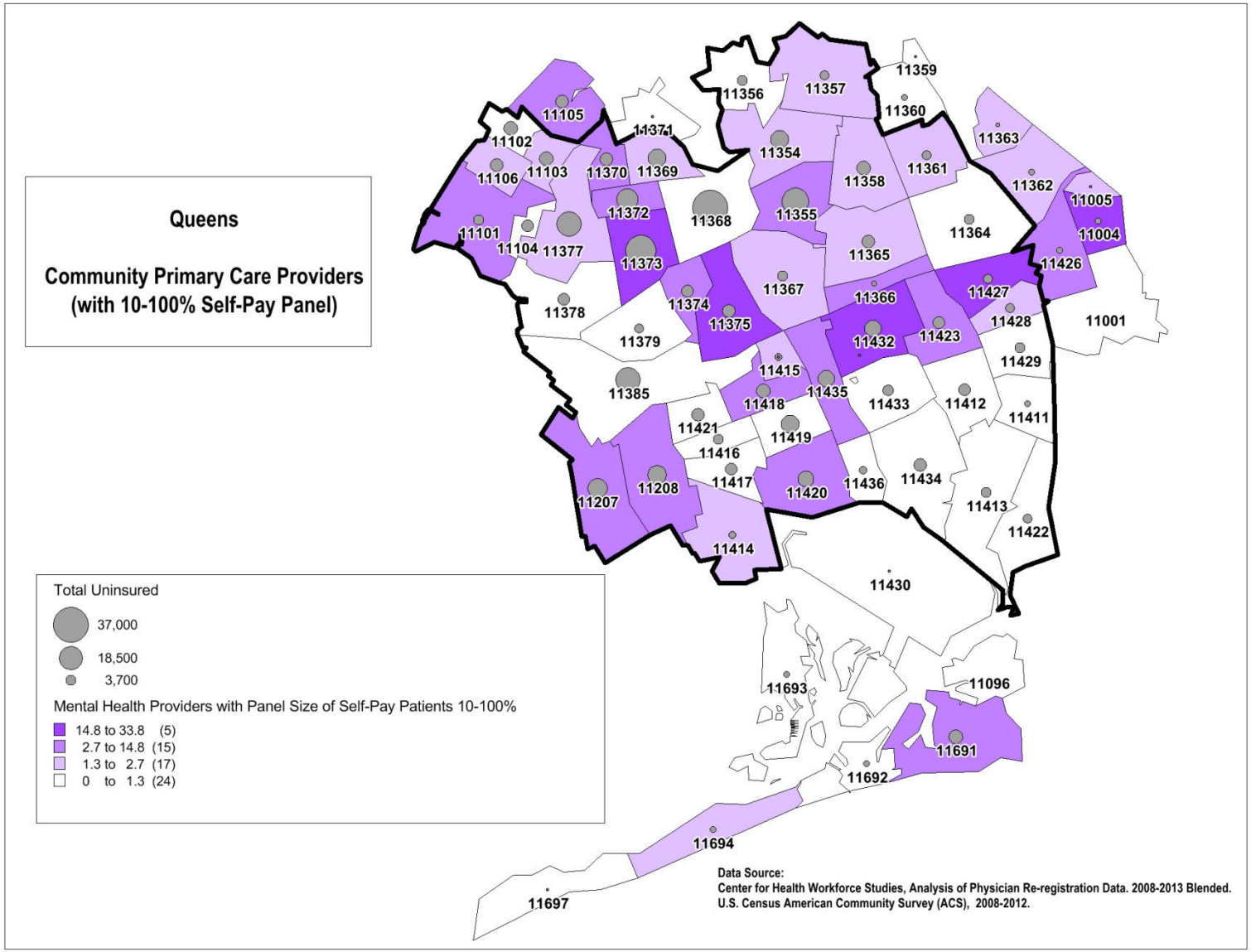
58. OB/GYN Physicians reporting 30-100% of panel being Medicaid payer patients and Medicaid Beneficiaries by Zip Code



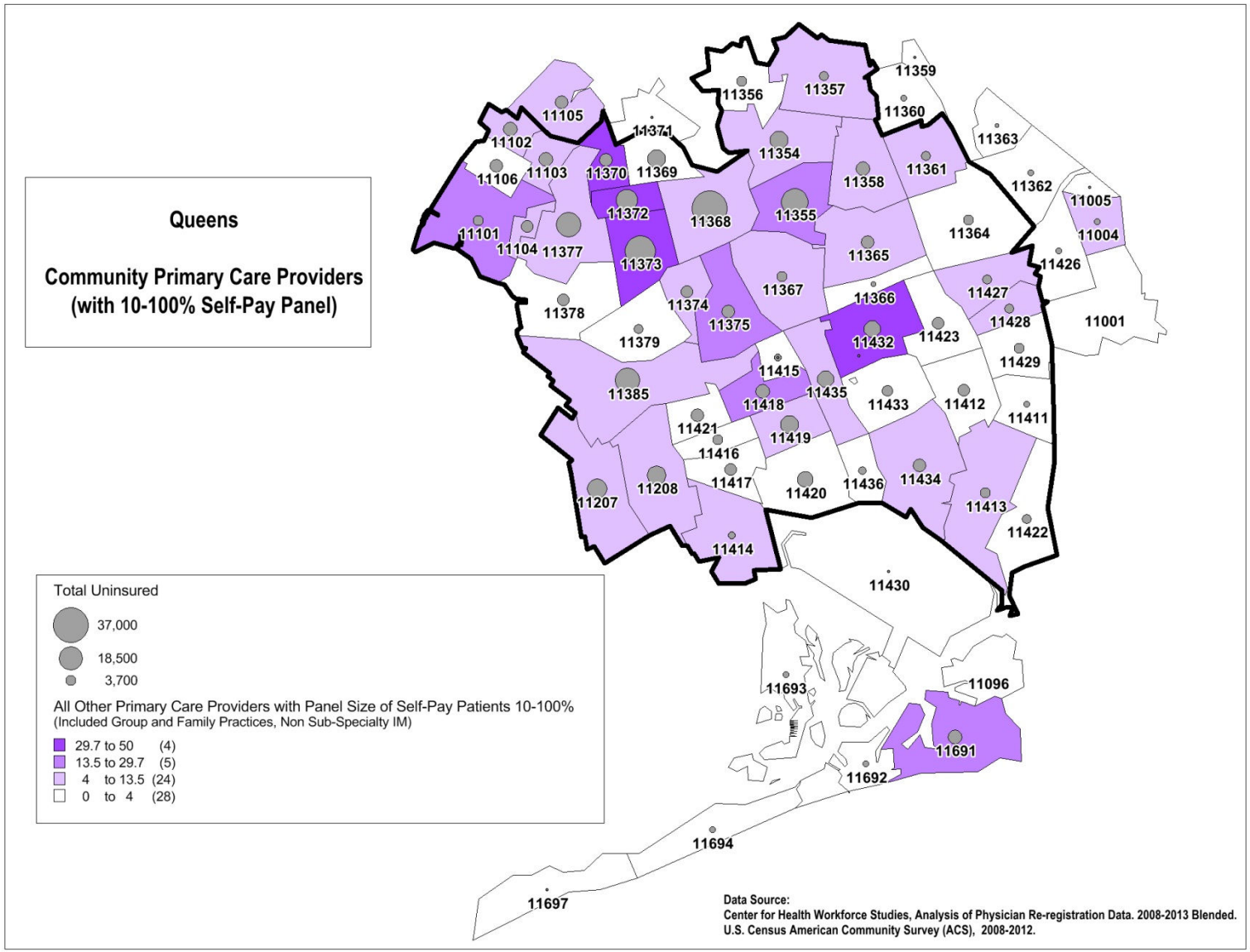
59. Pediatric Physicians reporting 30-100% of panel being Medicaid payer patients and Pediatric Medicaid Beneficiaries by Zip Code



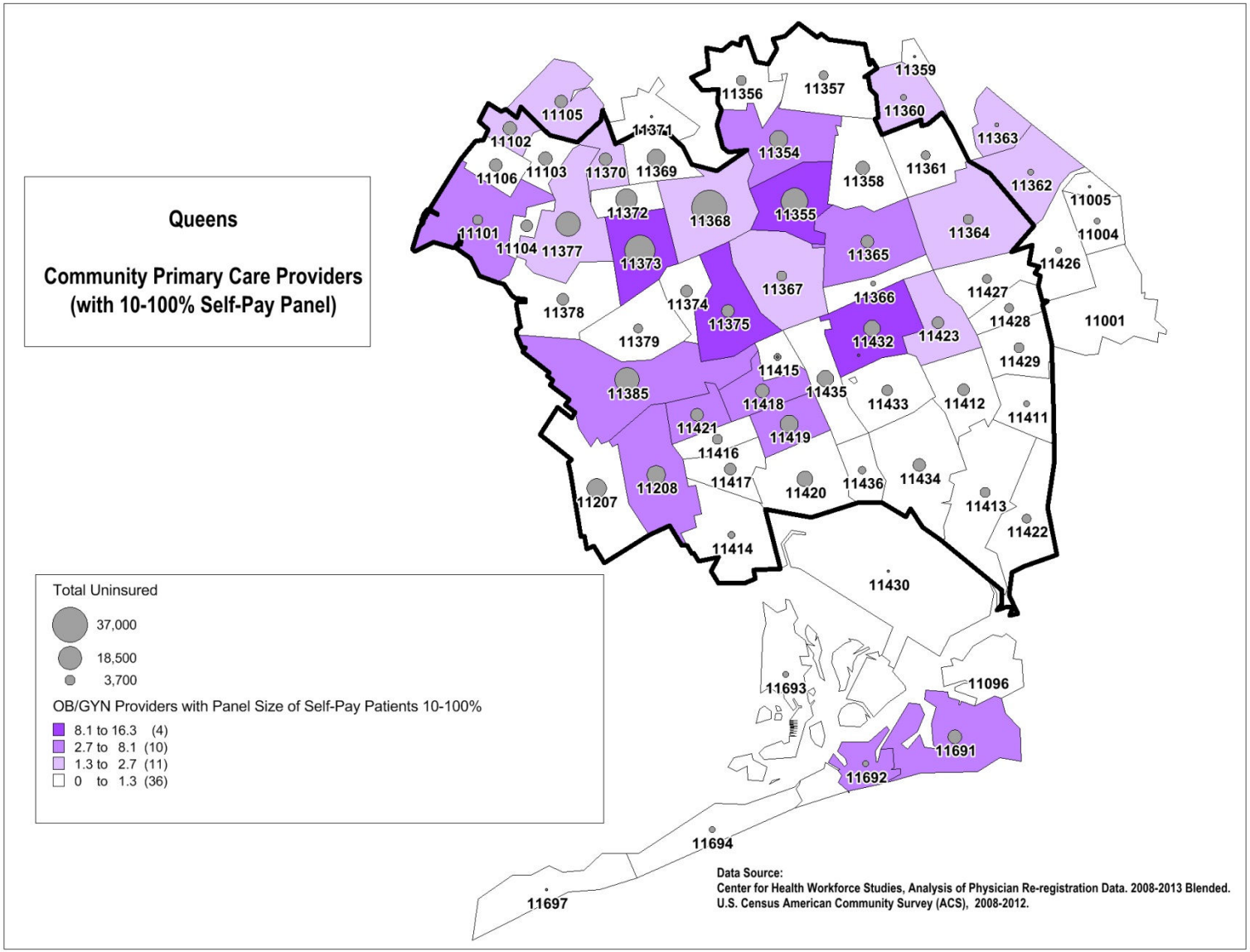
60. Mental Health Physicians reporting 10-100% of panel being Self-Pay payer patients and Uninsured population by Zip Code



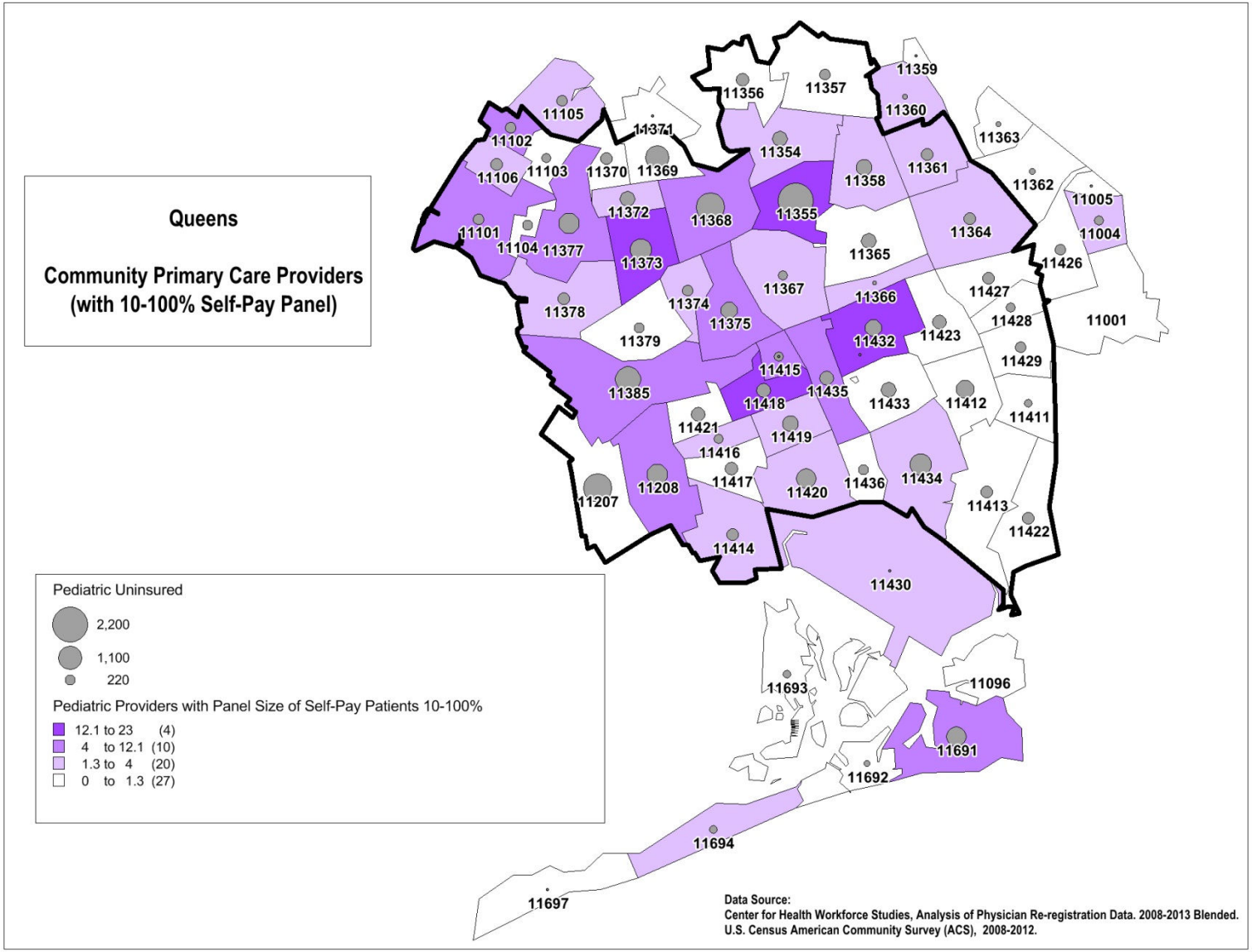
61. Other Primary Care Physicians (Family Practice, Non-Specialty Internal Medicine) reporting 10-100% of panel being Self-Pay payer patients and Uninsured Population by Zip Code



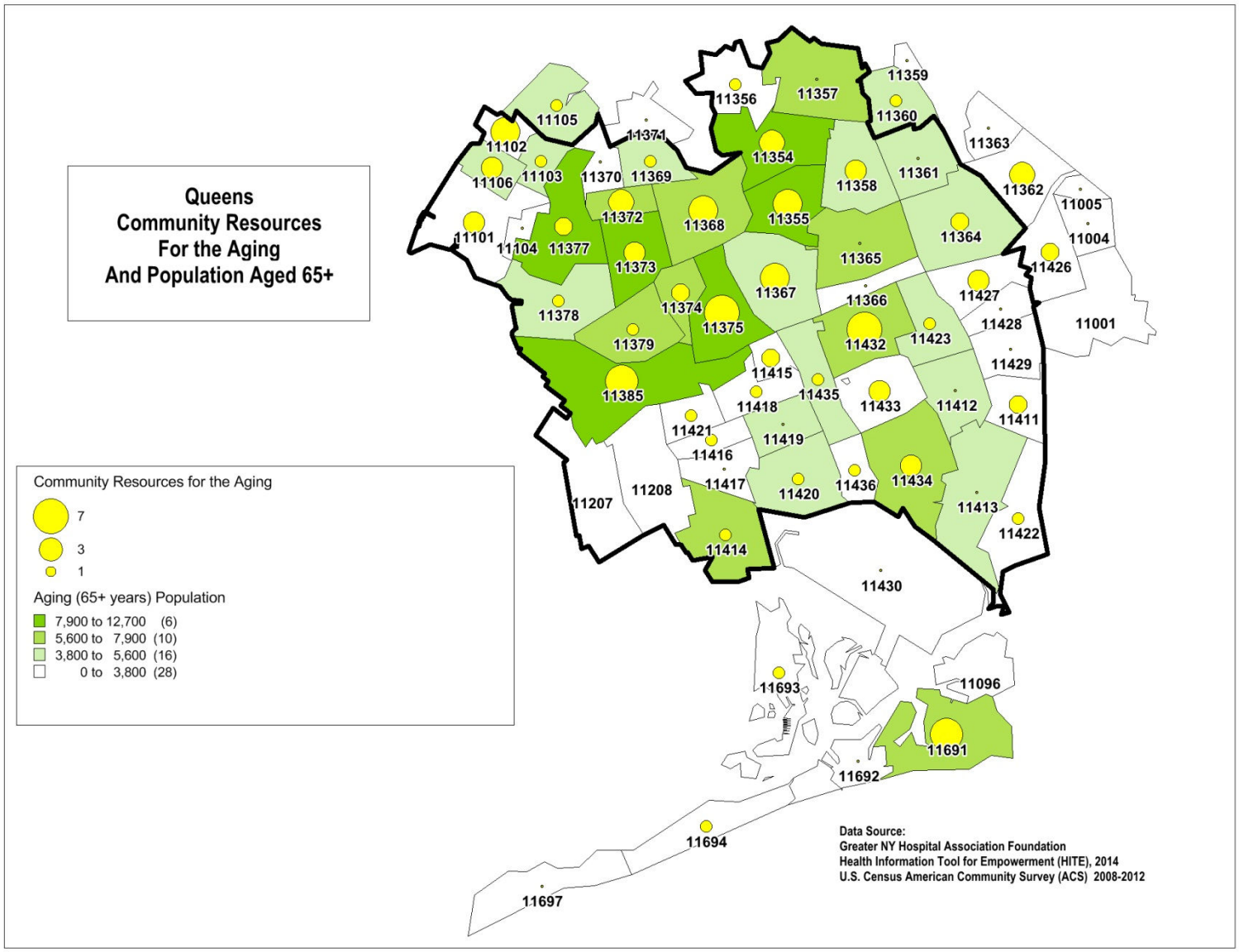
62. OB/GYN Physicians reporting 10-100% of panel being Self-Pay payer patients and Uninsured Population by Zip Code



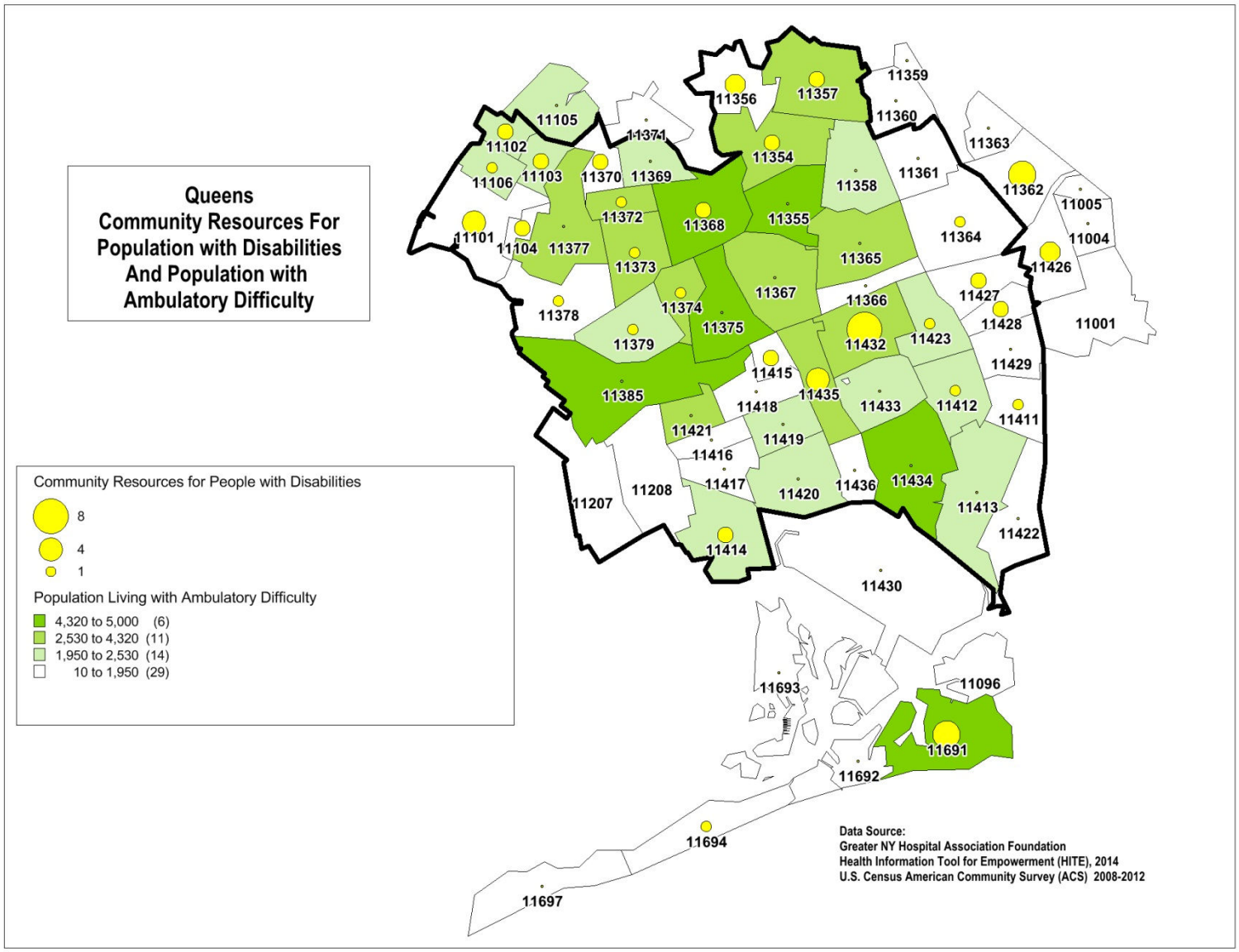
63. Pediatric Physicians reporting 10-100% of panel being Self-Pay payer patients and Pediatric Uninsured Population by Zip Code



64. Aging Resources and 65+ Population by Zip Code



65. Disability Resources and Population with Ambulatory Difficulty by Zip Code



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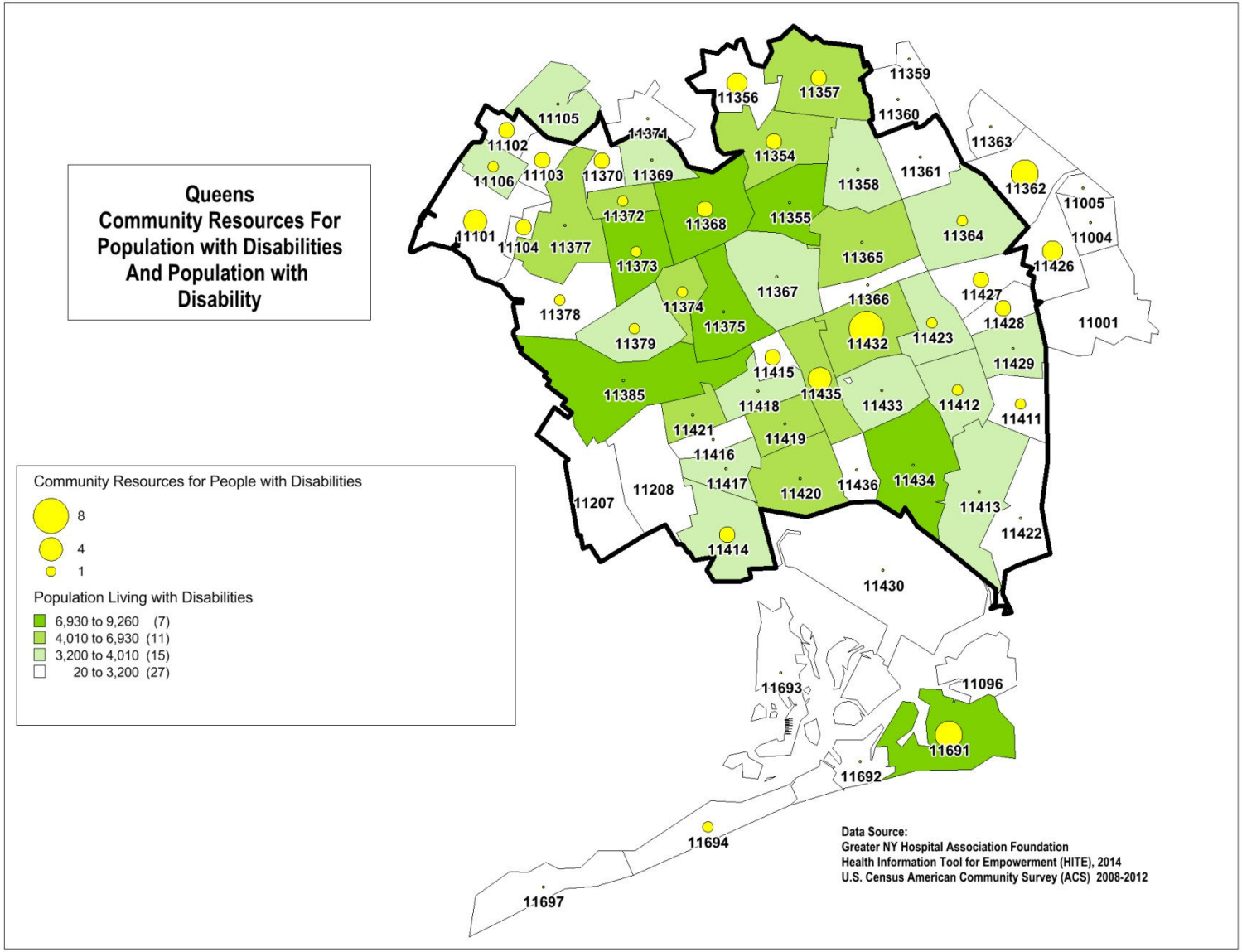
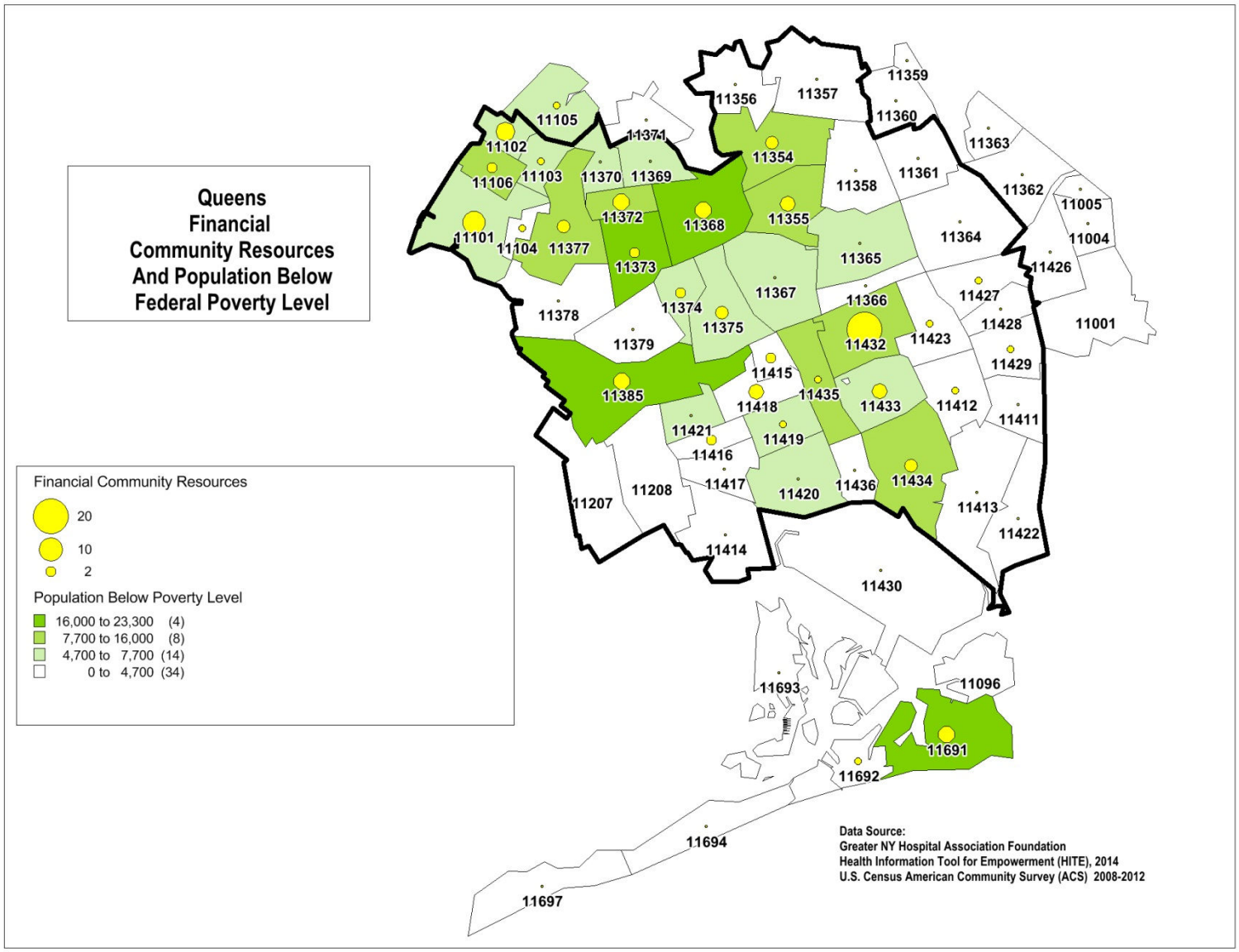
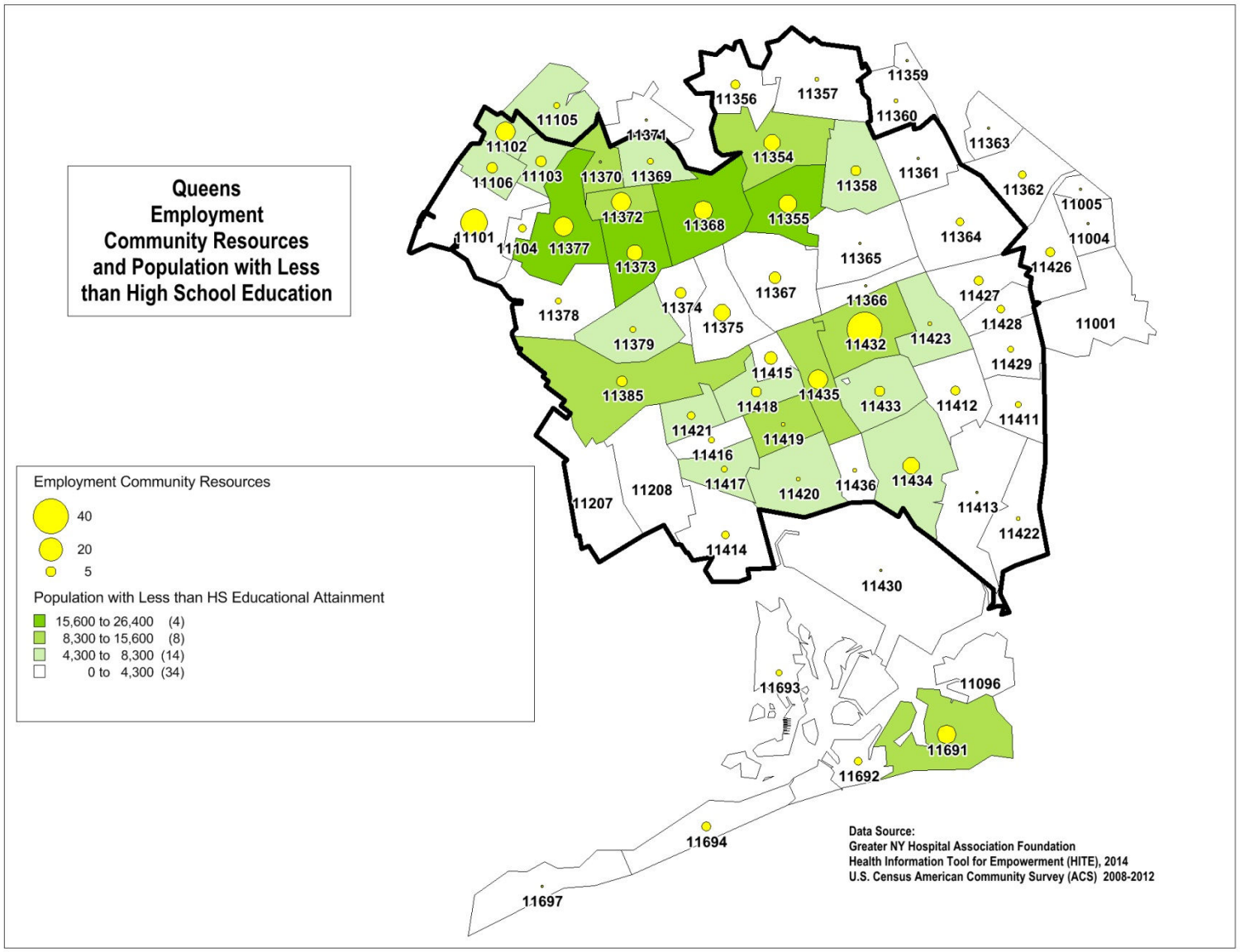


67. Financial Resources and % Population living below 100% Federal Poverty Level by Zip Code



68. Employment Resources and Population with Less than High School Education by Zip Code



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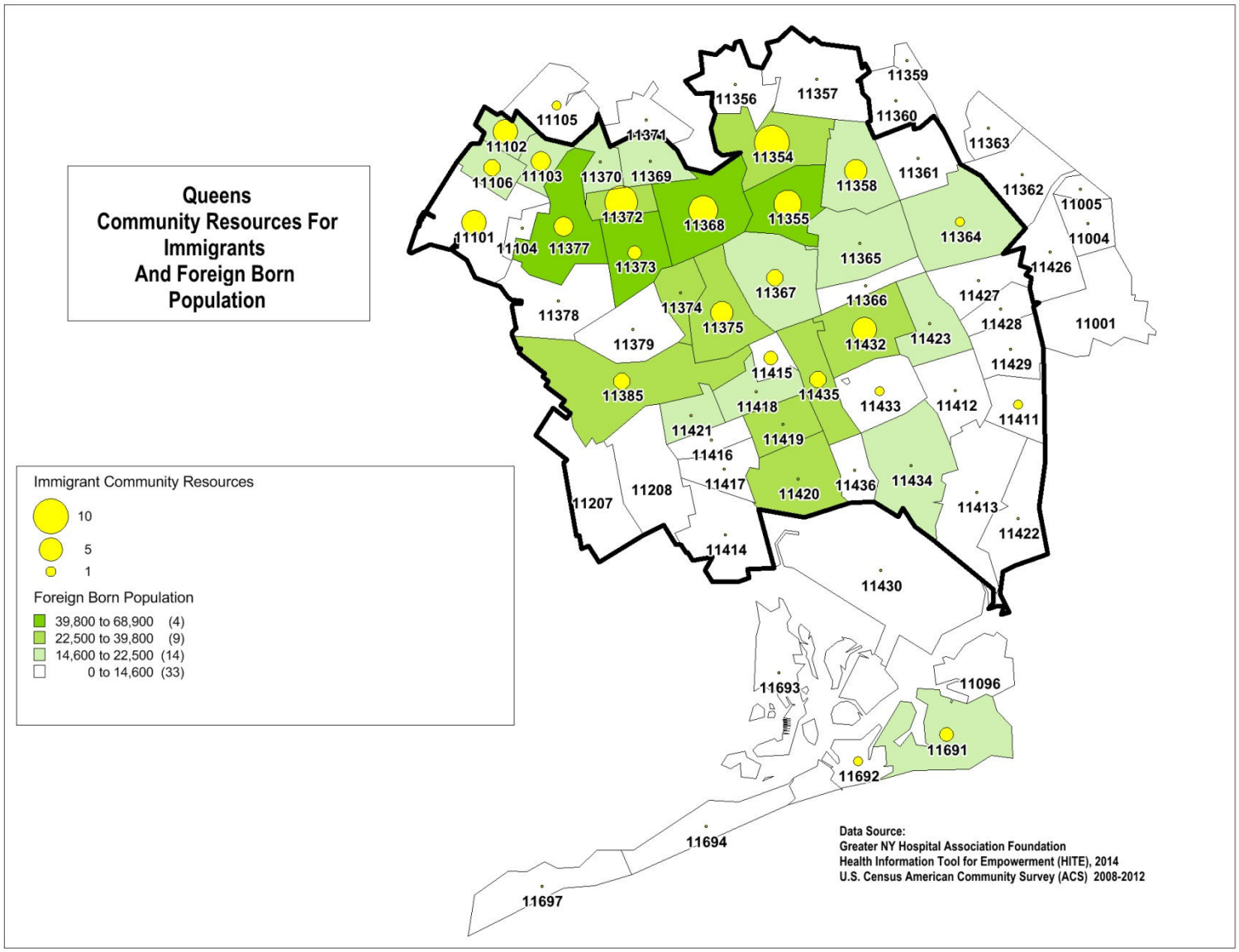

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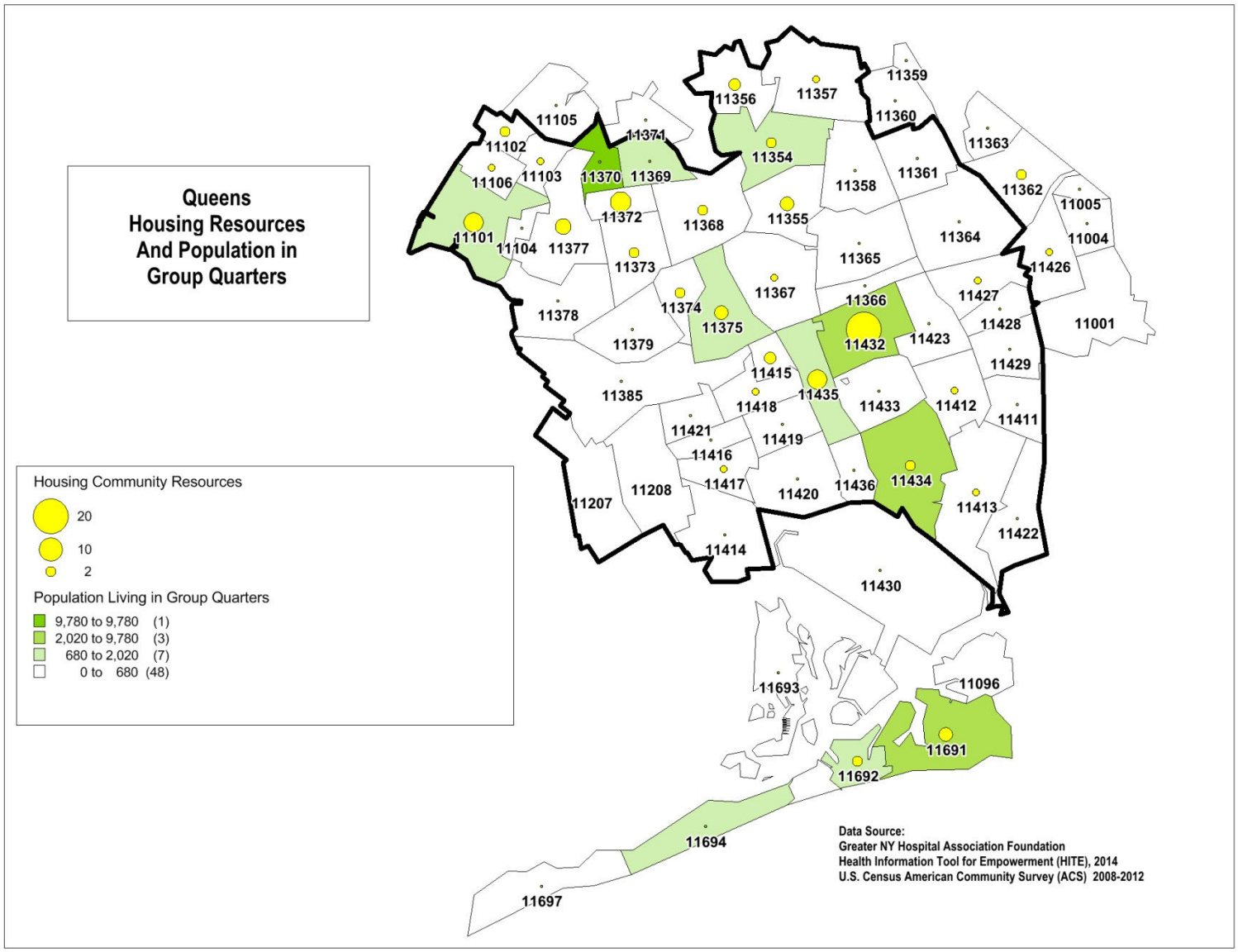
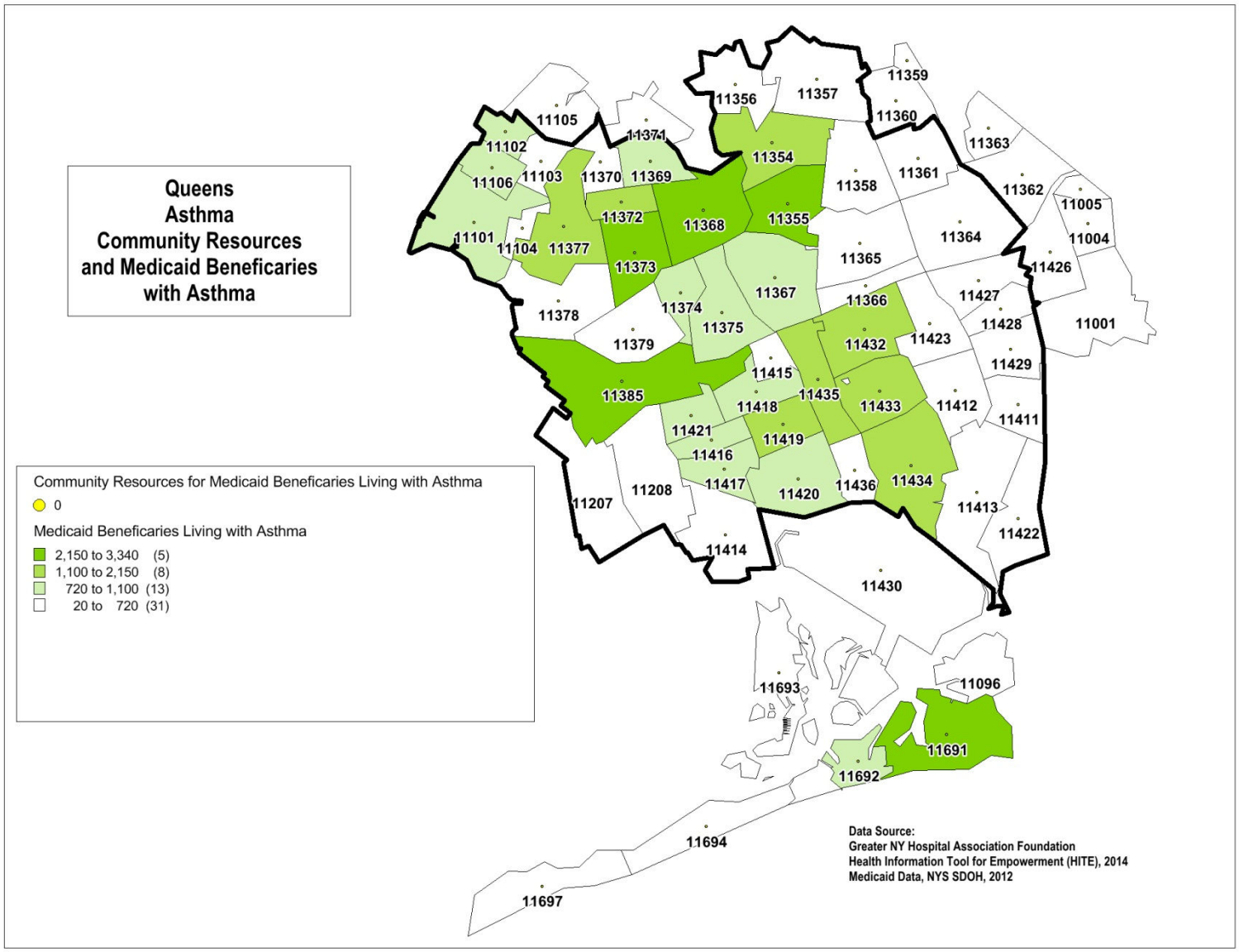
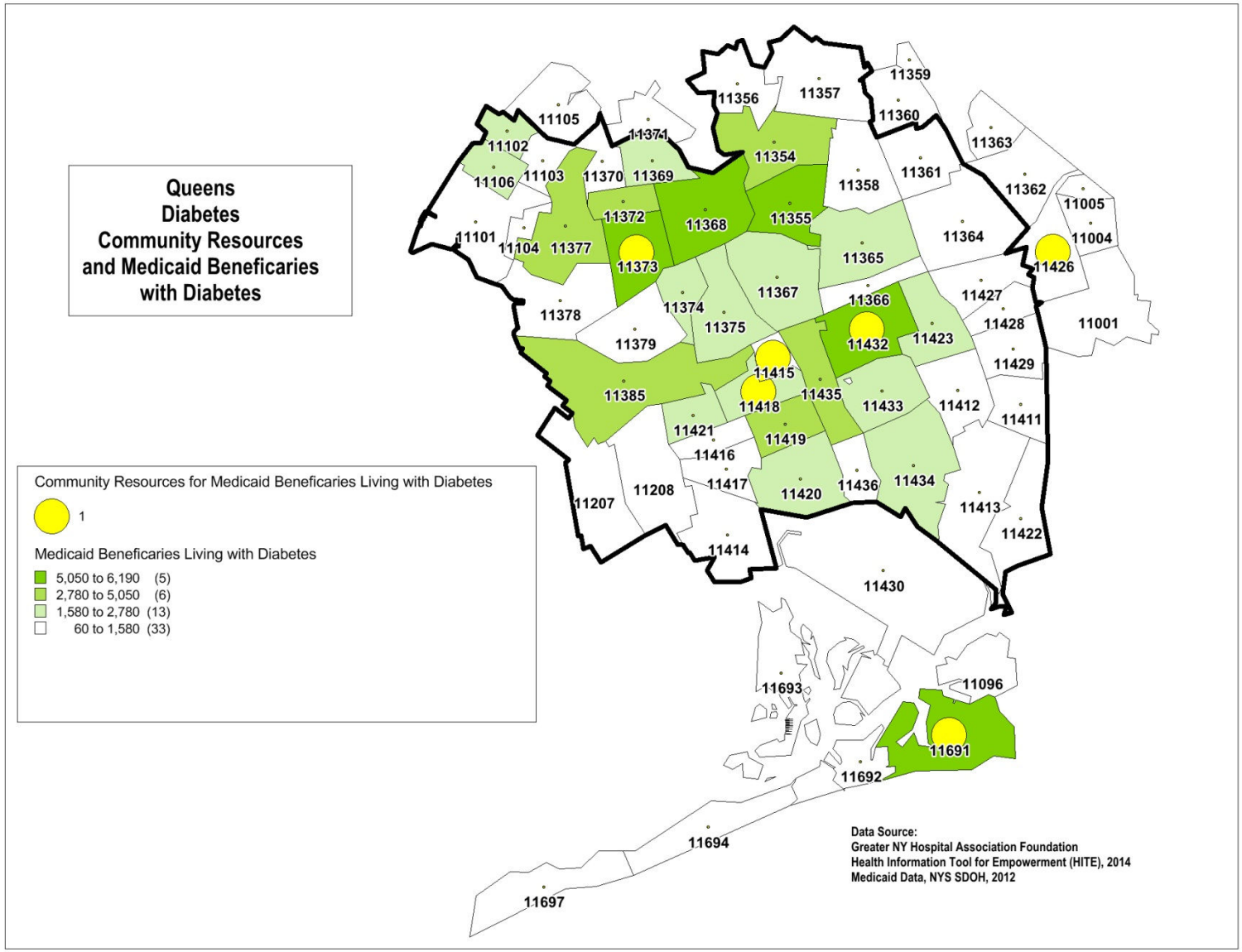


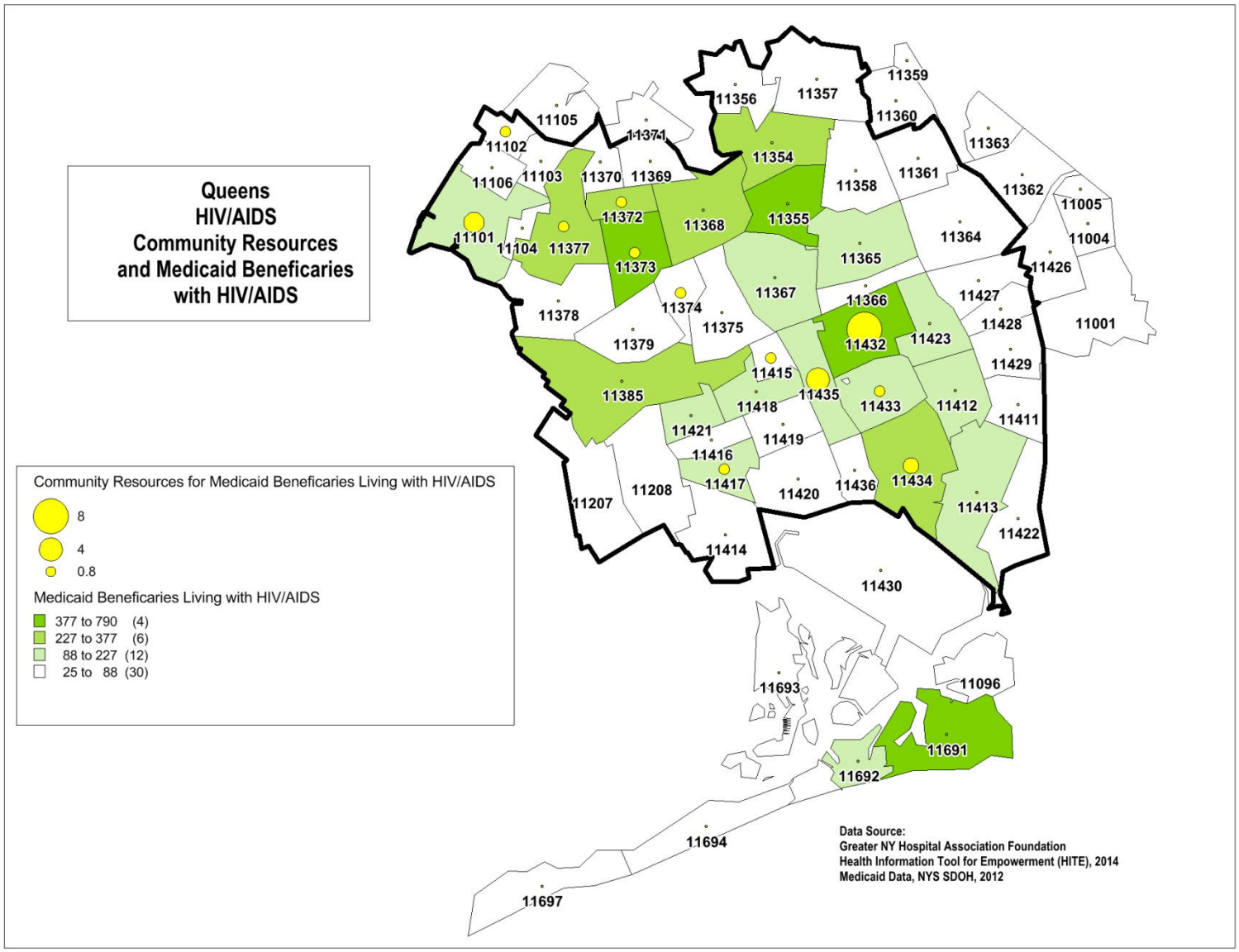
71. Asthma Resources and Medicaid Beneficiaries with an Asthma CRG diagnosis by Zip Code



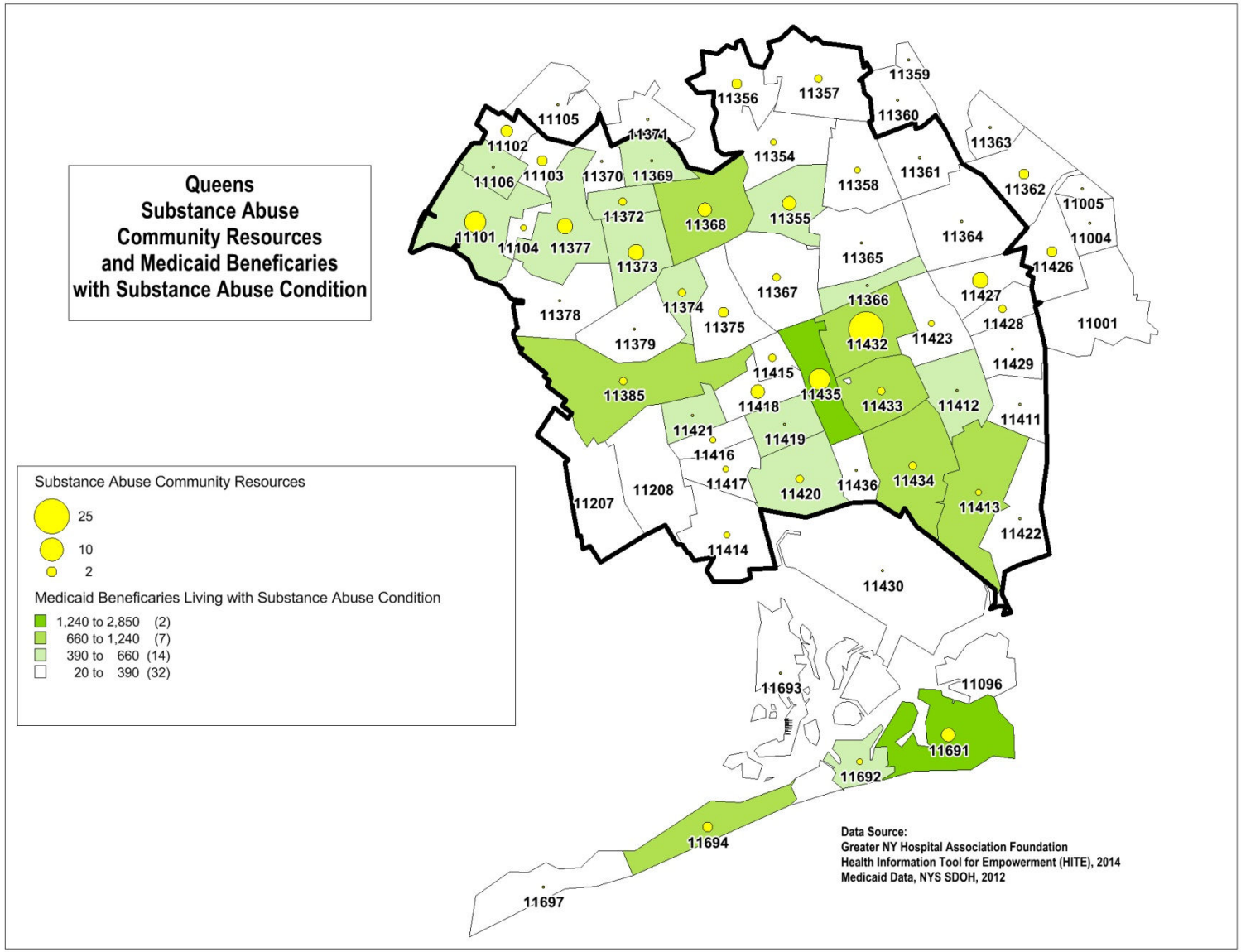
72. Diabetes Resources and Medicaid Beneficiaries with Diabetes CRG diagnosis by Zip Code



73. HIV/AIDS Resources and Medicaid Beneficiaries with HIV/AIDS CRG diagnosis by Zip Code



74. Substance Use Resources and Medicaid Beneficiaries with Substance Use CRG diagnosis by Zip Code



BROOKLYN COMMUNITY NEEDS ASSESSMENT
APPENDIX A - MAPS

December 16, 2014

NEW YORK CITY HEALTH AND HOSPITALS CORPORATION The New York Academy of Medicine

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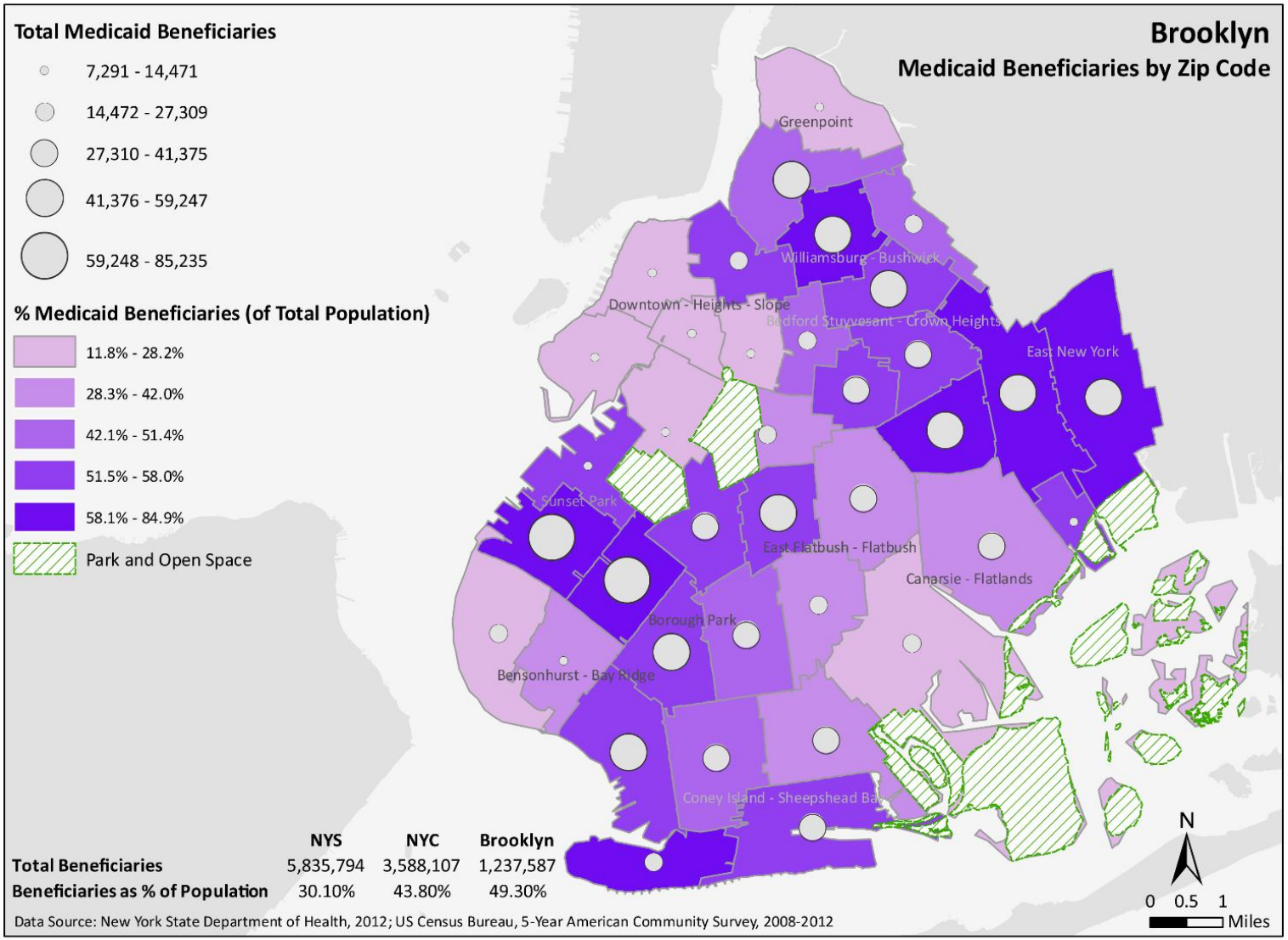
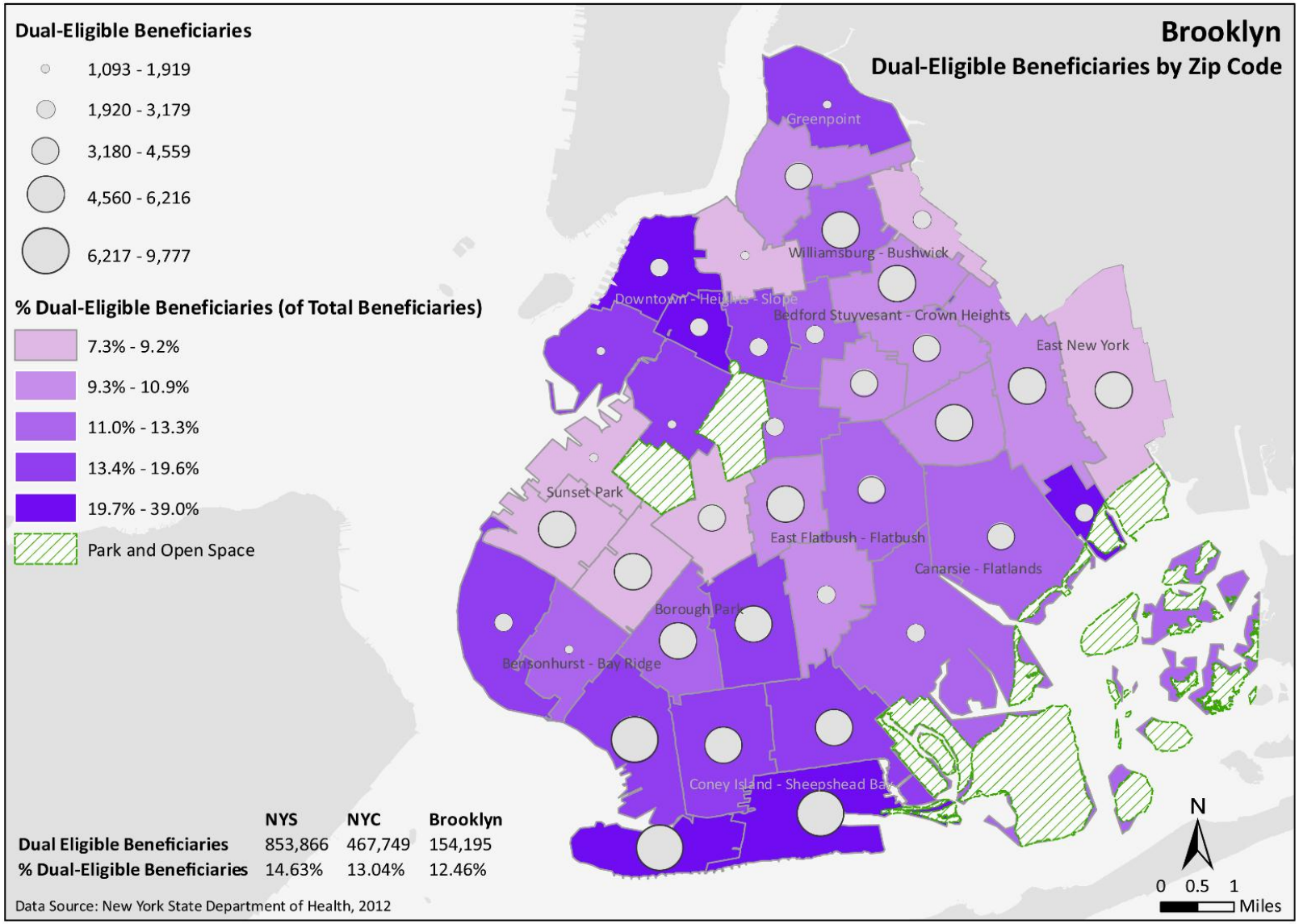


2. Dual-Eligible Beneficiaries by Zip Code



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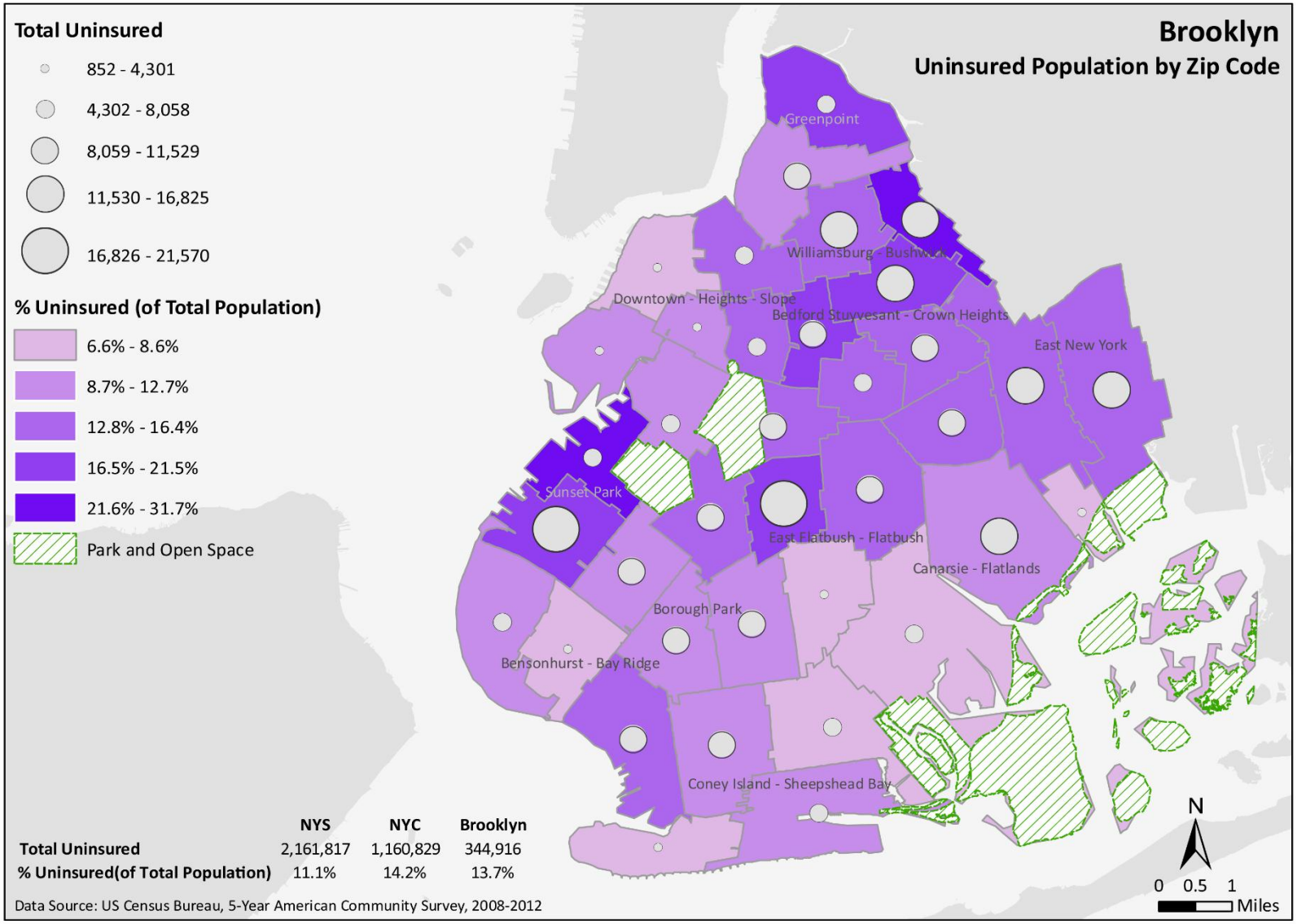
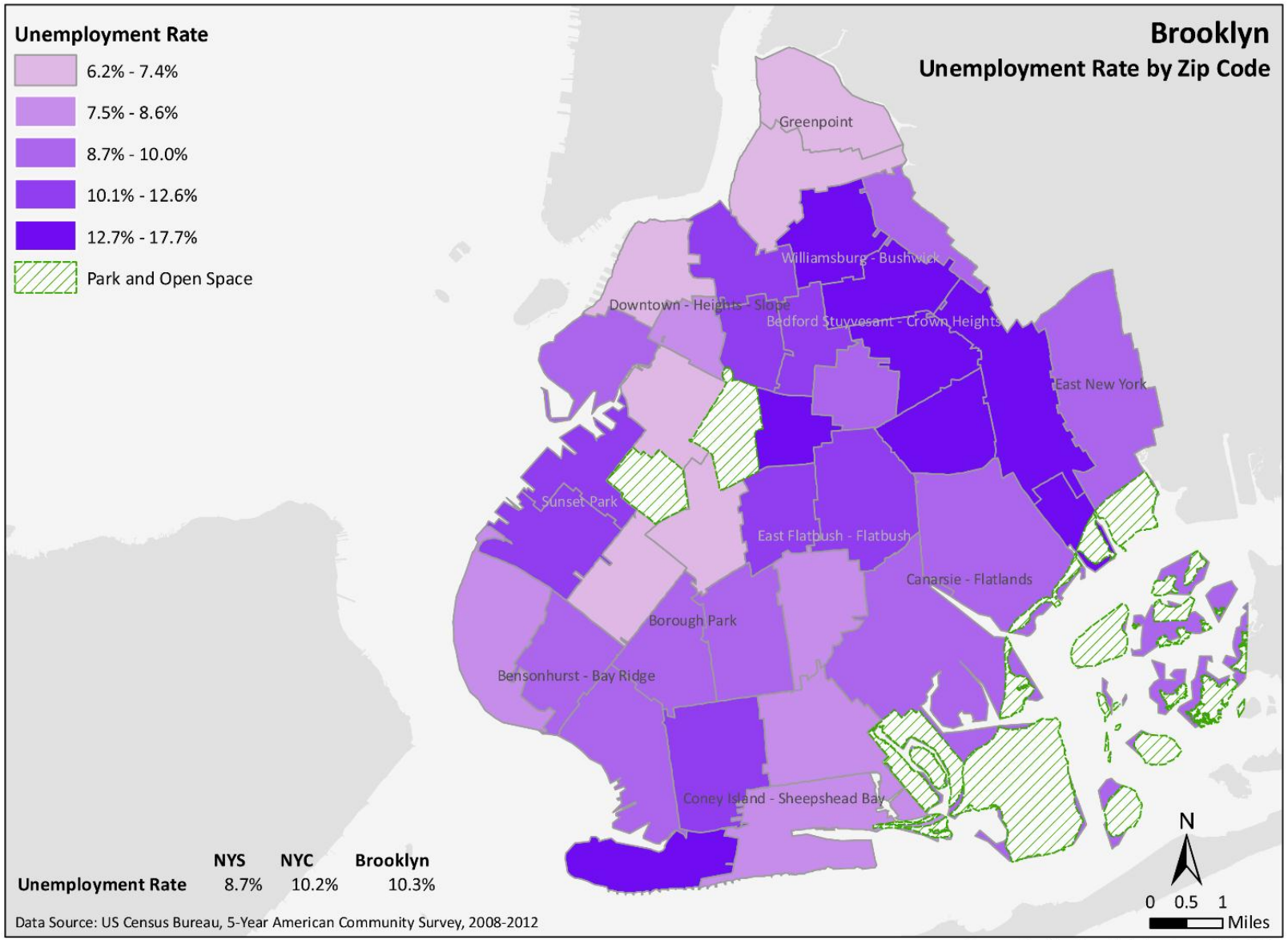
3. Uninsured Population by Zip Code



	NYS	NYC	Brooklyn
Total Uninsured	2,161,817	1,160,829	344,916
% Uninsured(of Total Population)	11.1%	14.2%	13.7%

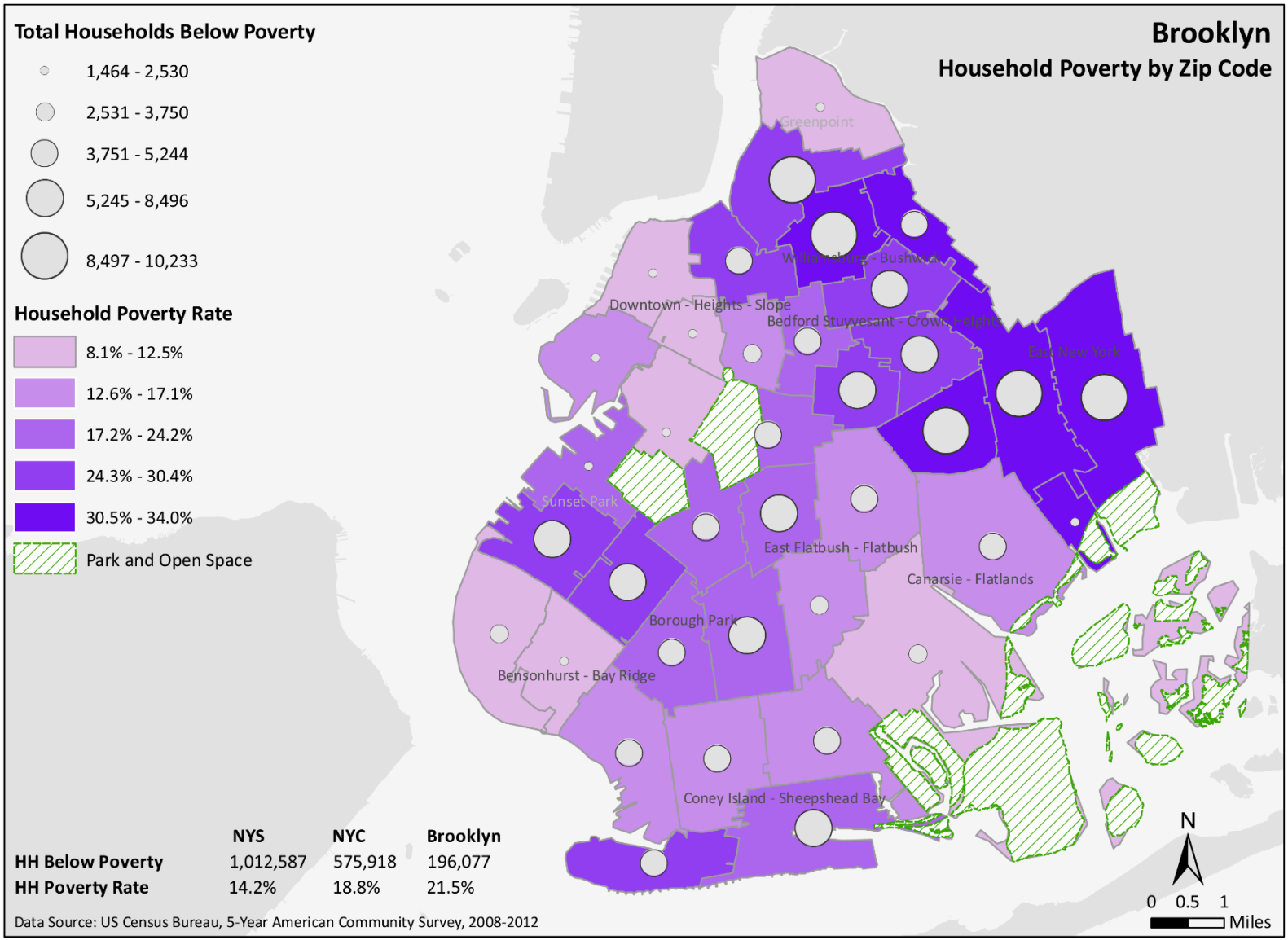
Prepared by The New York Academy of Medicine

4. Unemployment Rate by Zip Code

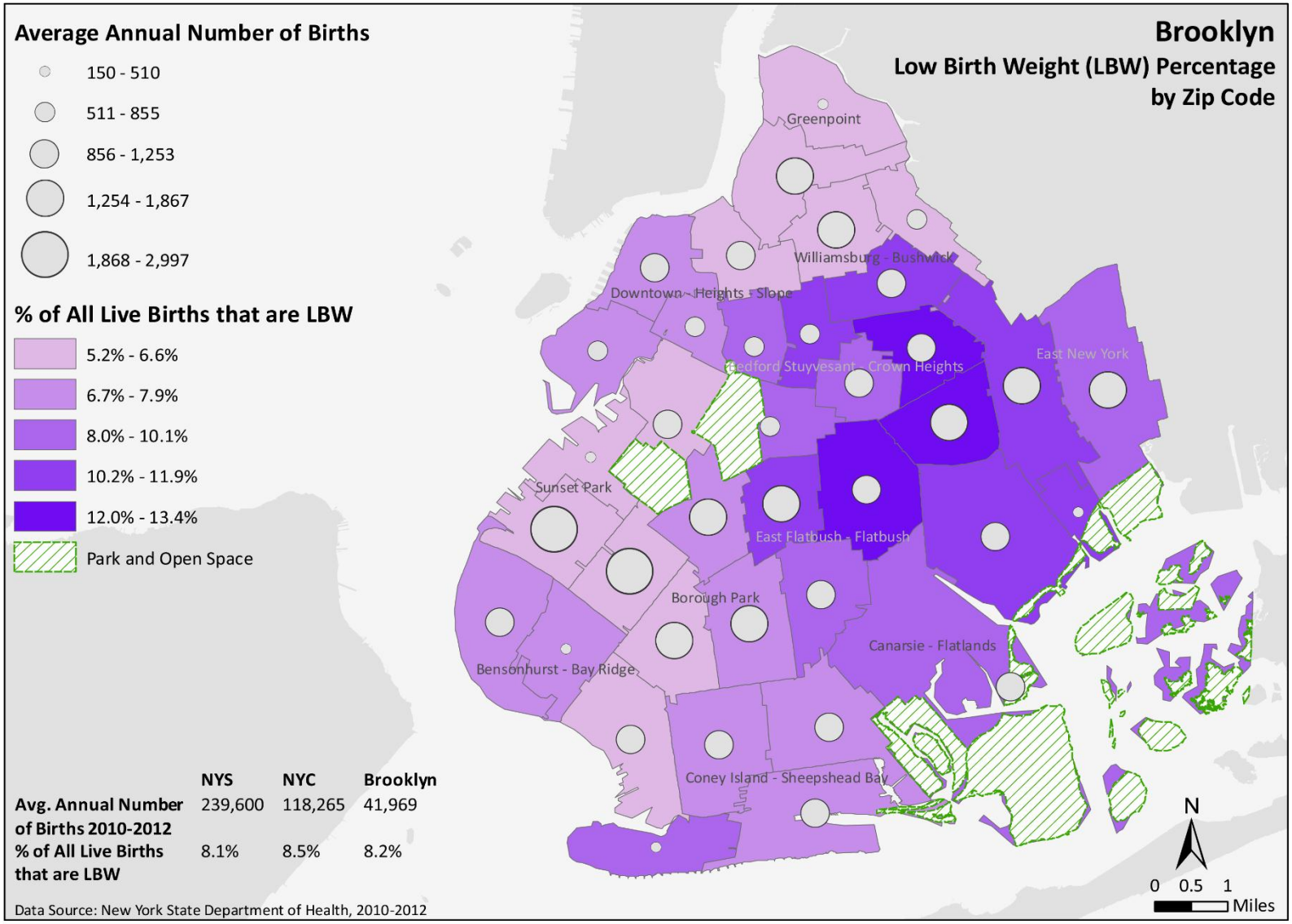


Prepared by The New York Academy of Medicine

5. Household Poverty by Zip Code



6. Low Birth Weight Percentage by Zip Code

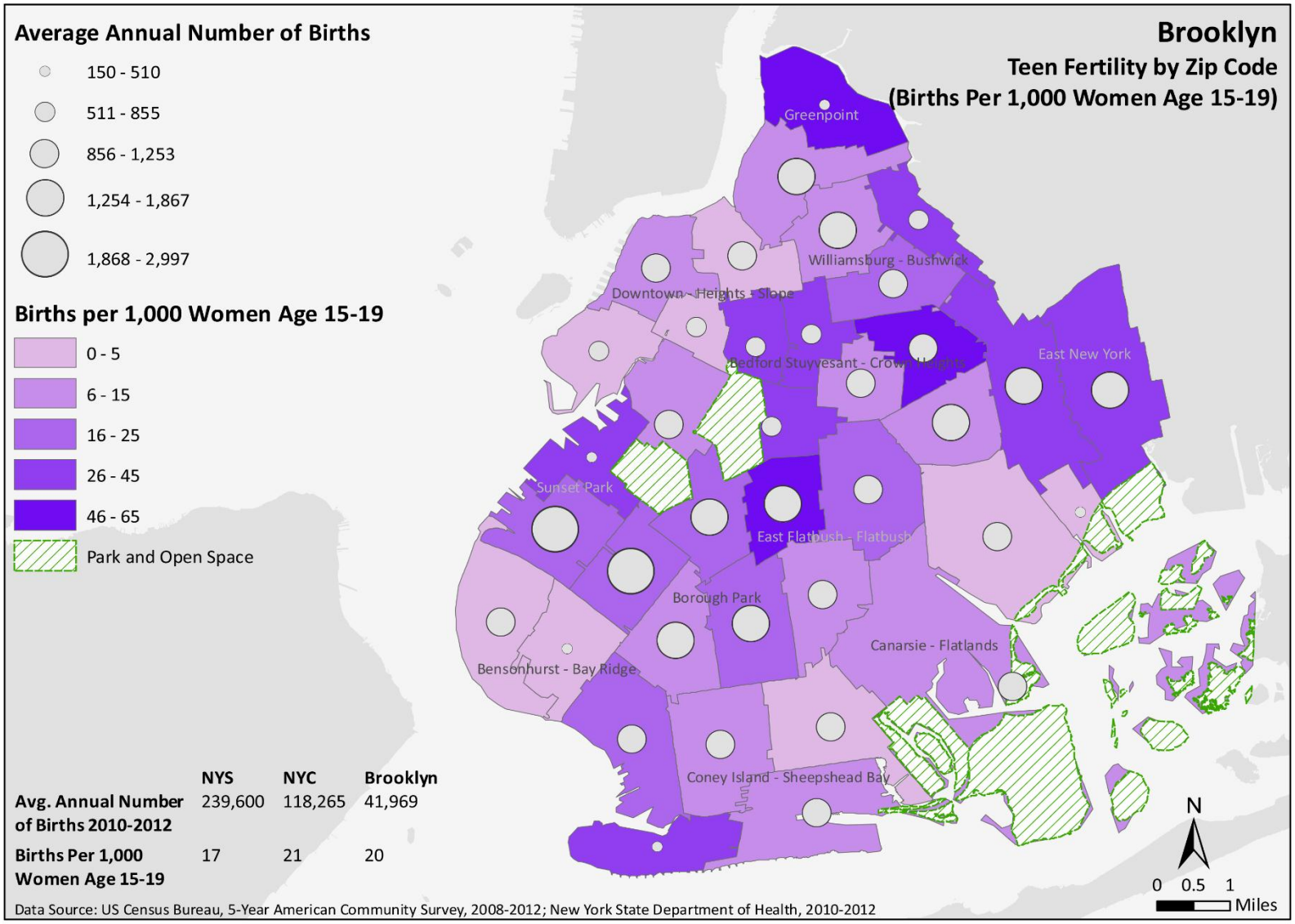


	NYS	NYC	Brooklyn
Avg. Annual Number of Births 2010-2012	239,600	118,265	41,969
% of All Live Births that are LBW	8.1%	8.5%	8.2%

Data Source: New York State Department of Health, 2010-2012

Prepared by The New York Academy of Medicine

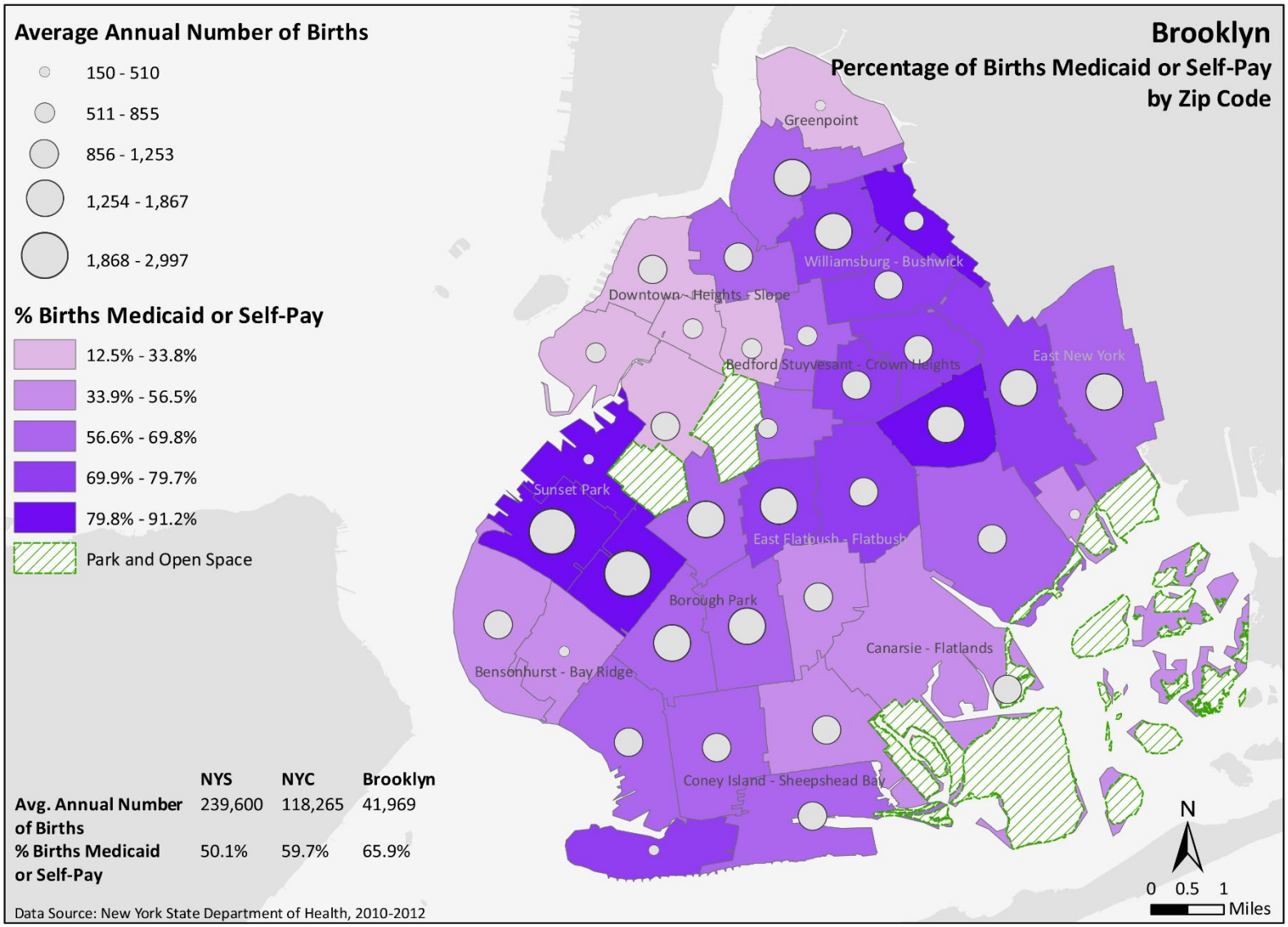
7. Teen Fertility by Zip Code



	NYS	NYC	Brooklyn
Avg. Annual Number of Births 2010-2012	239,600	118,265	41,969
Births Per 1,000 Women Age 15-19	17	21	20

Prepared by The New York Academy of Medicine

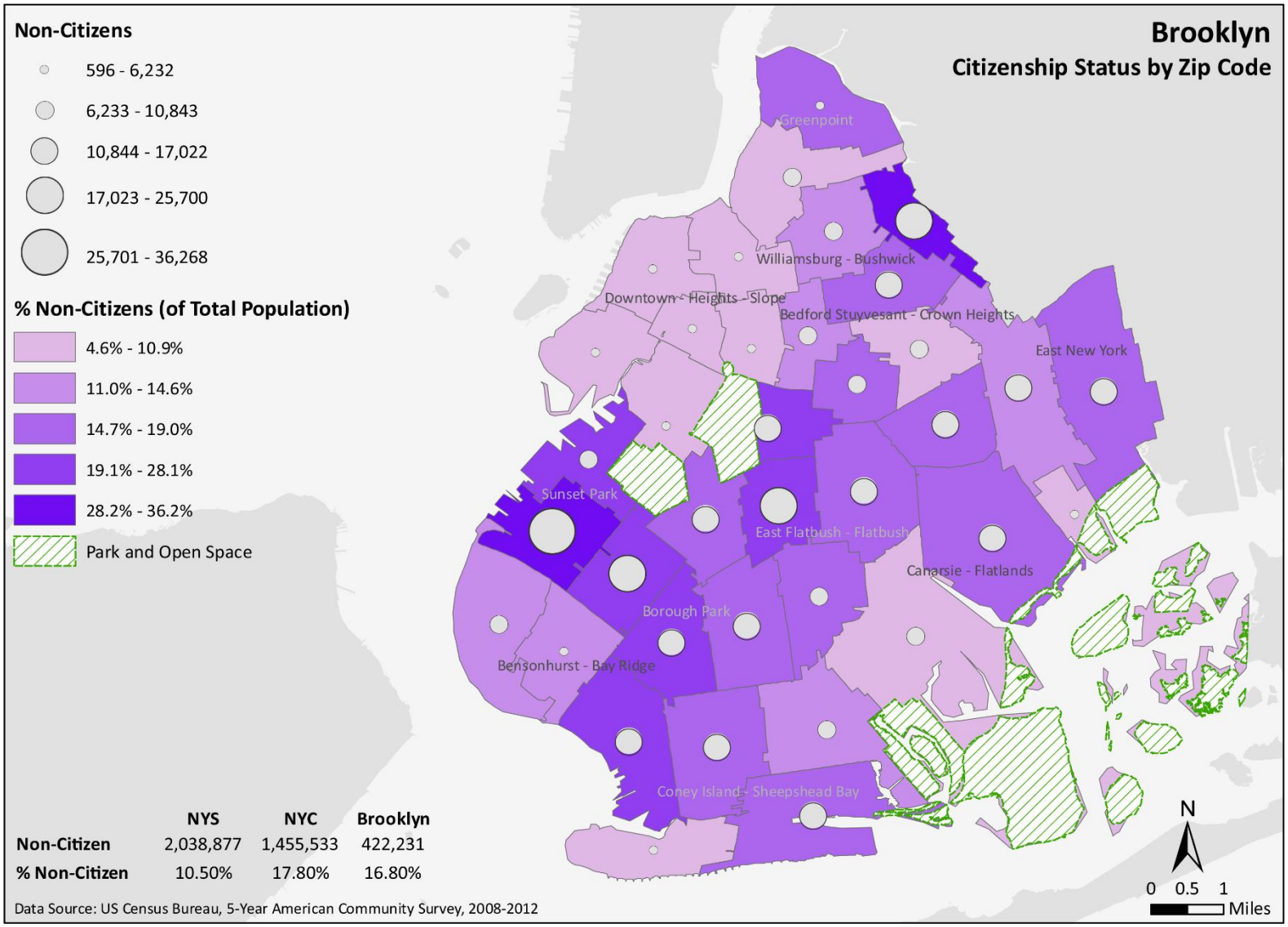
8. Percentage of Births Medicaid or Self-Pay by Zip Code



	NYS	NYC	Brooklyn
Avg. Annual Number of Births	239,600	118,265	41,969
% Births Medicaid or Self-Pay	50.1%	59.7%	65.9%

Prepared by The New York Academy of Medicine

9. Citizenship Status by Zip Code

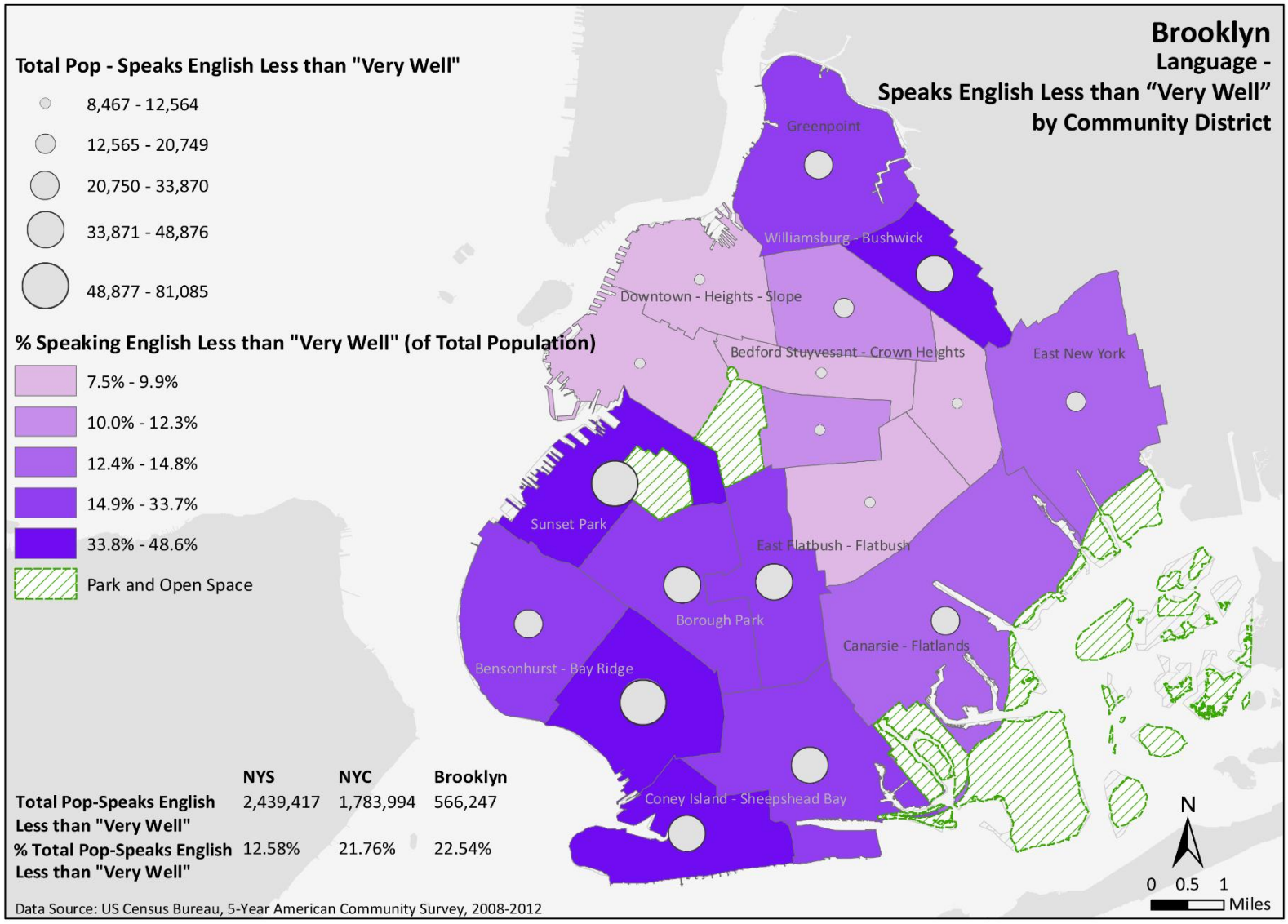


	NYS	NYC	Brooklyn
Non-Citizen	2,038,877	1,455,533	422,231
% Non-Citizen	10.50%	17.80%	16.80%

Data Source: US Census Bureau, 5-Year American Community Survey, 2008-2012

Prepared by The New York Academy of Medicine

10. Language—Speaks English Less than "Very Well" by Community District

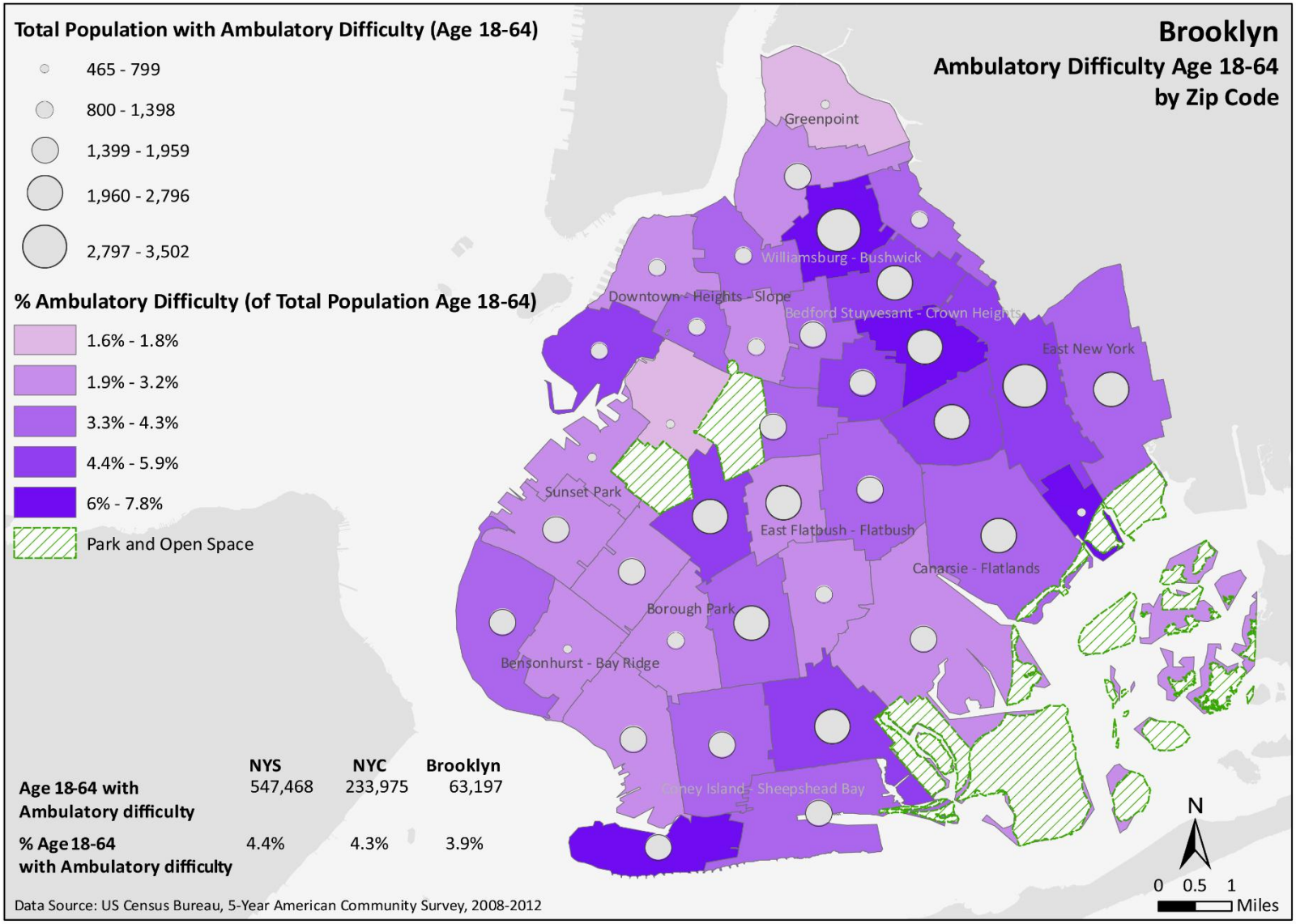


	NYS	NYC	Brooklyn
Total Pop-Speaks English Less than "Very Well"	2,439,417	1,783,994	566,247
% Total Pop-Speaks English Less than "Very Well"	12.58%	21.76%	22.54%

Data Source: US Census Bureau, 5-Year American Community Survey, 2008-2012

Prepared by The New York Academy of Medicine

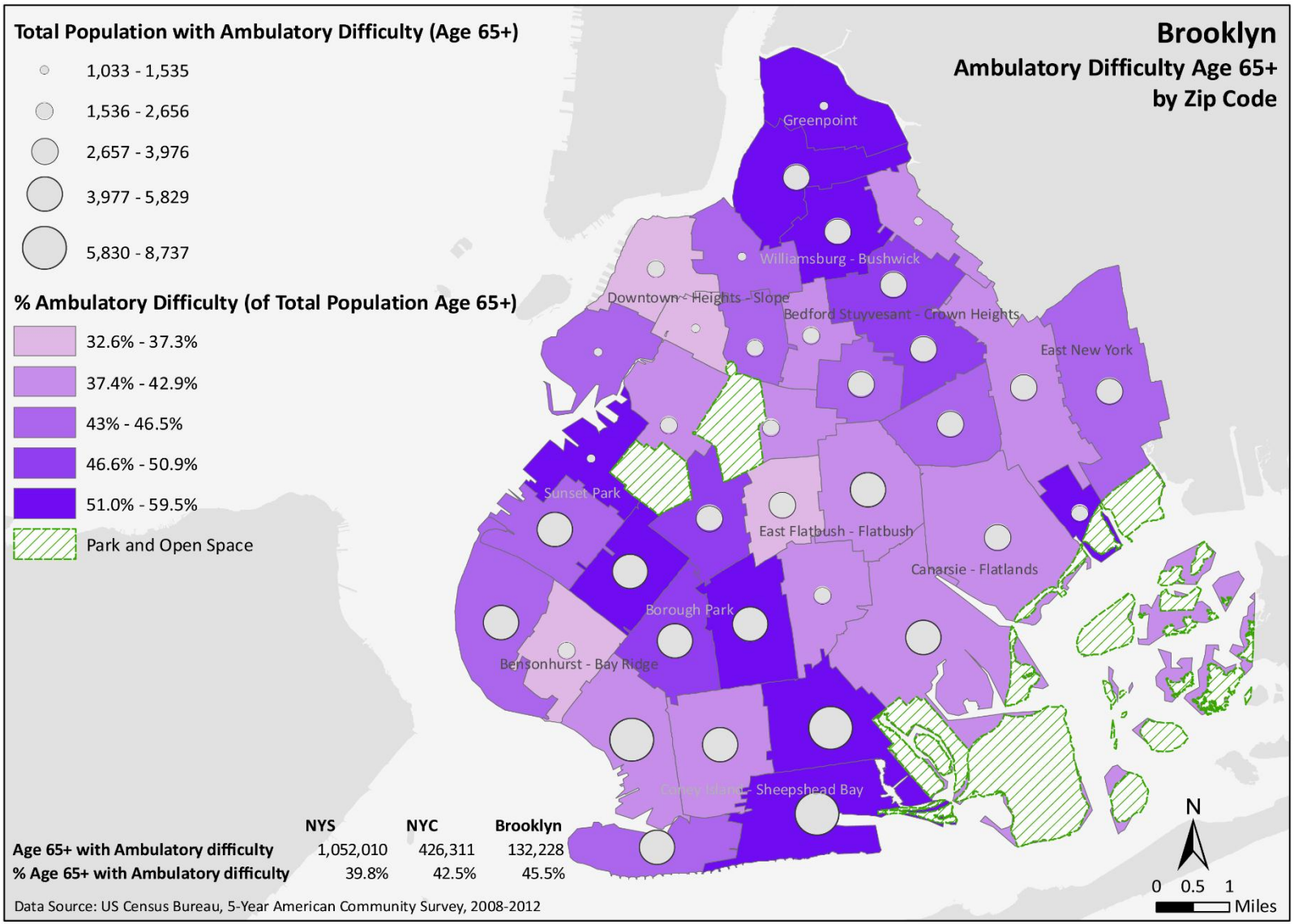
11. Ambulatory Difficulty Ages 18-64 by Zip Code



	NYS	NYC	Brooklyn
Age 18-64 with Ambulatory difficulty	547,468	233,975	63,197
% Age 18-64 with Ambulatory difficulty	4.4%	4.3%	3.9%

Prepared by The New York Academy of Medicine

12. Ambulatory Difficulty Ages 65+ by Zip Code



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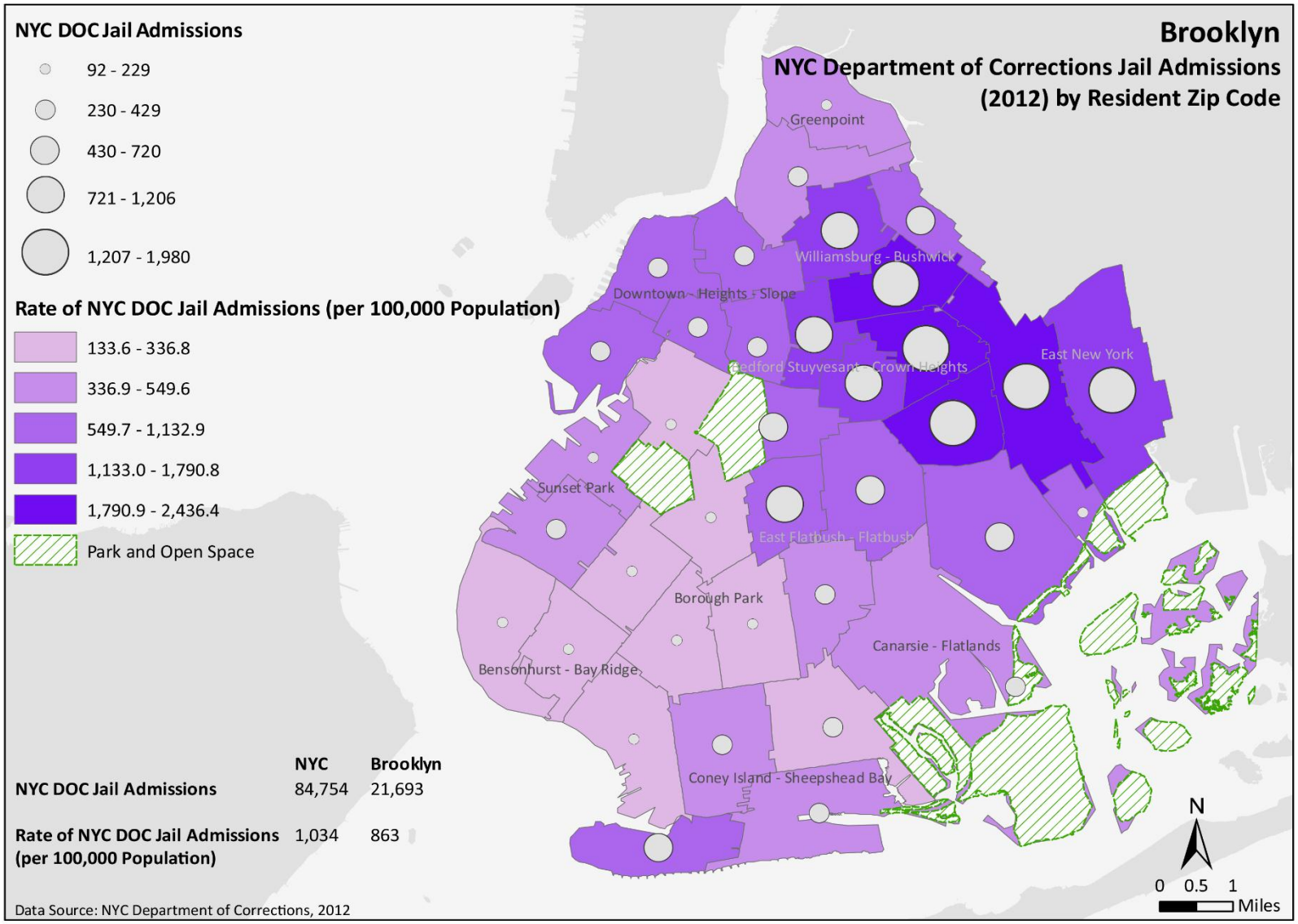
13. NYC Department of Corrections Jail Admissions by Resident Zip Code



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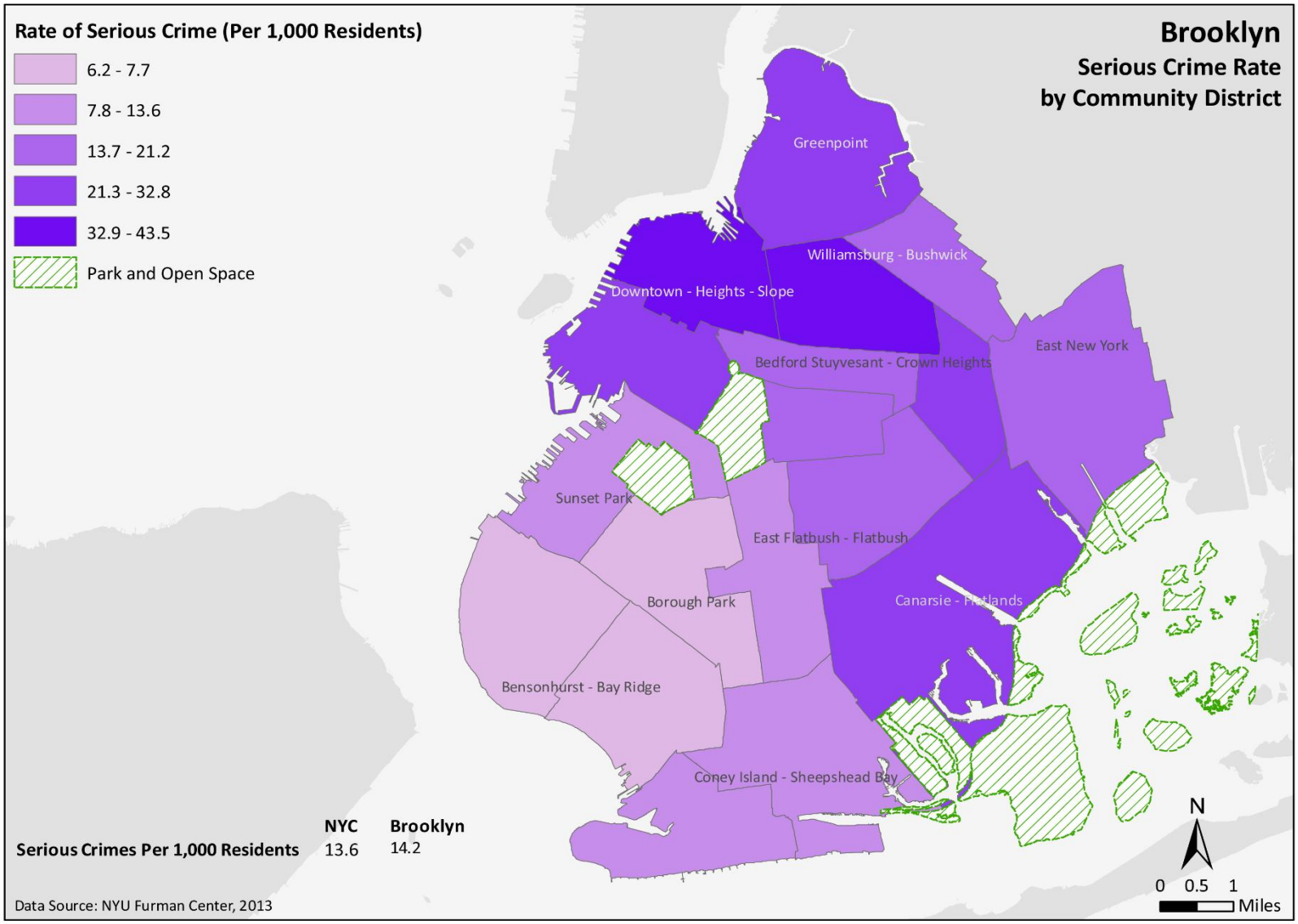
14. Serious Crime Rate by Community District



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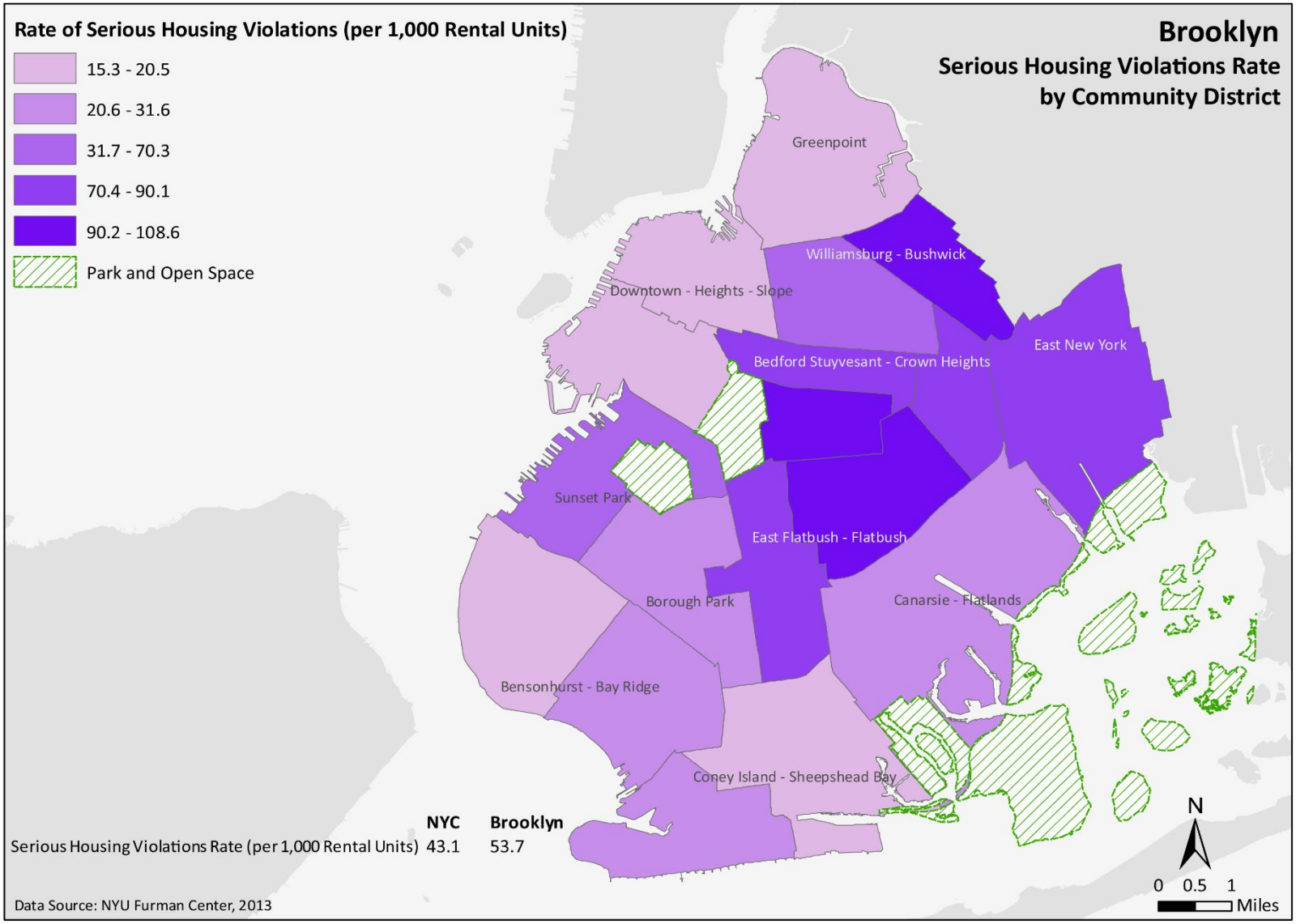
15. Serious Housing Violation by Community District



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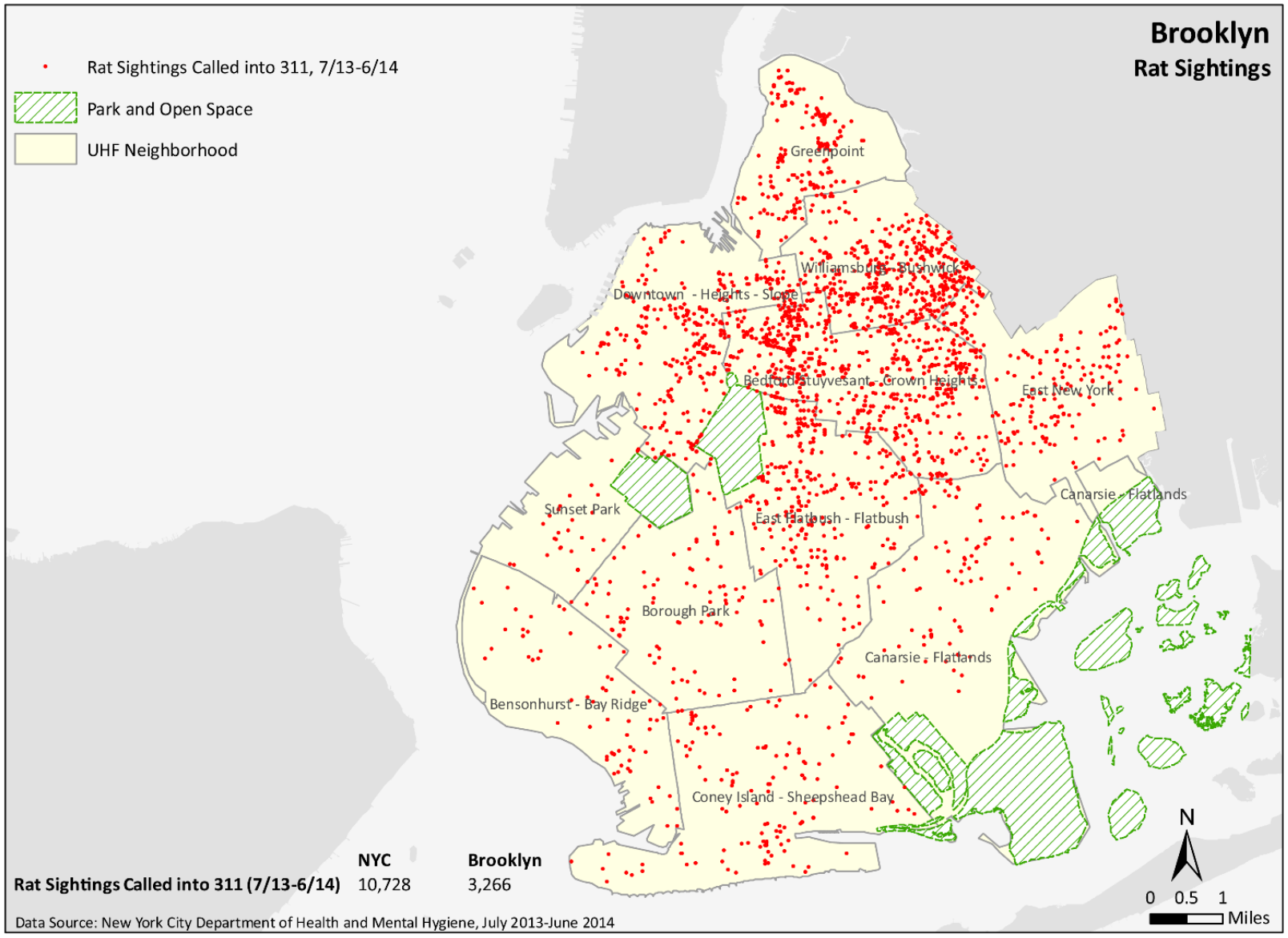
16. Rat Sightings



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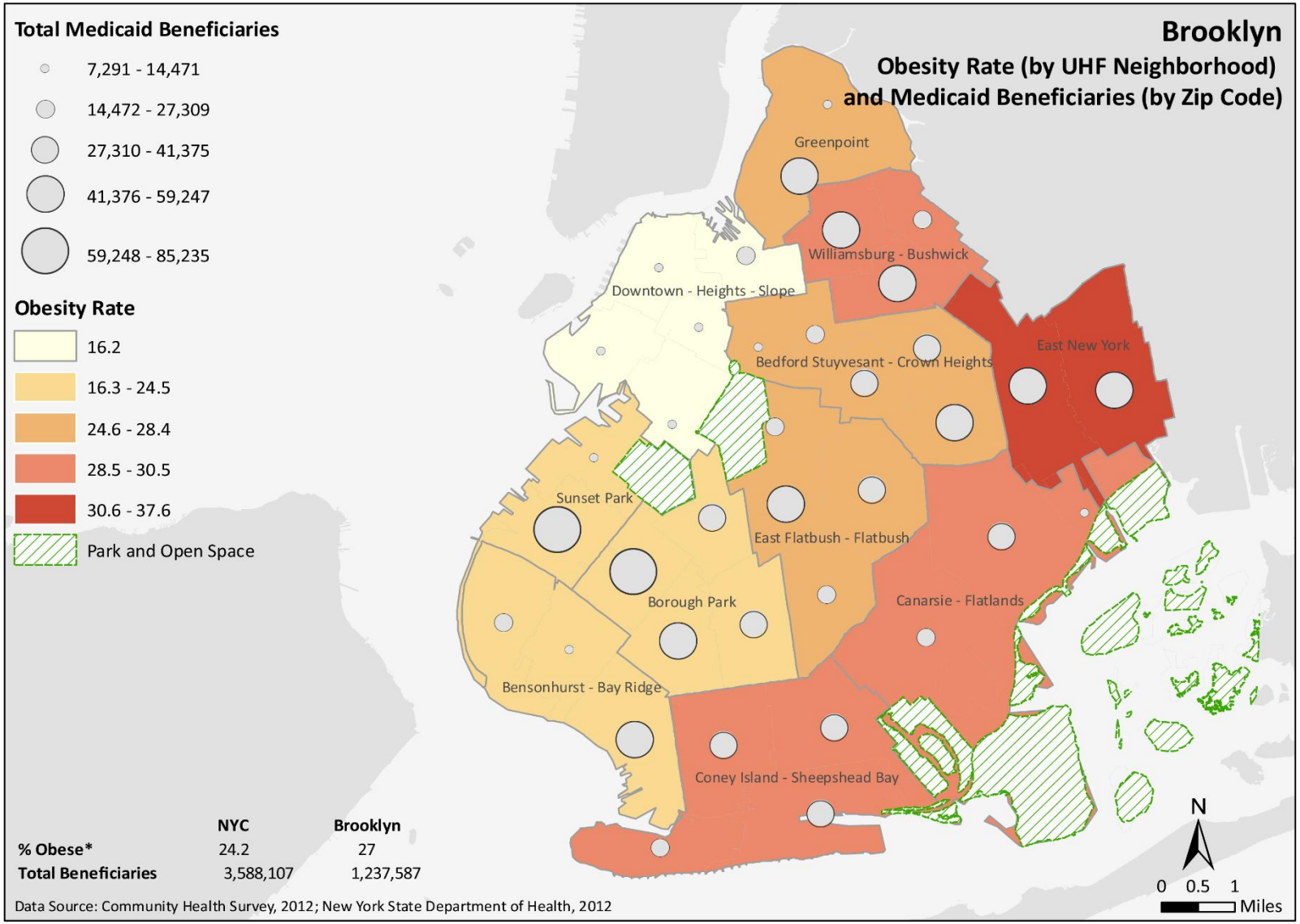
17. Obesity Rate (by UHF Neighborhood) and Medicaid Beneficiaries (by Zip Code)



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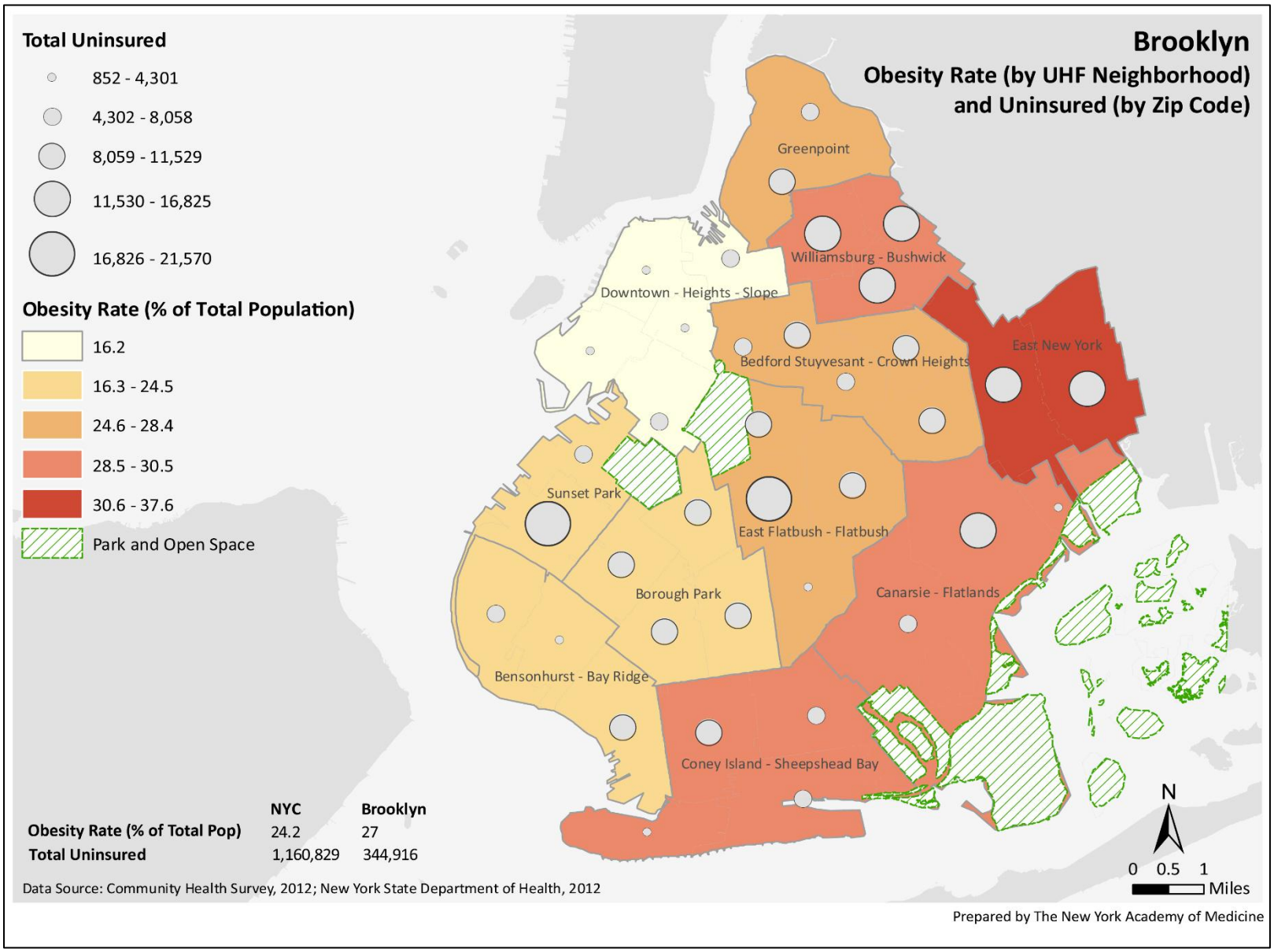
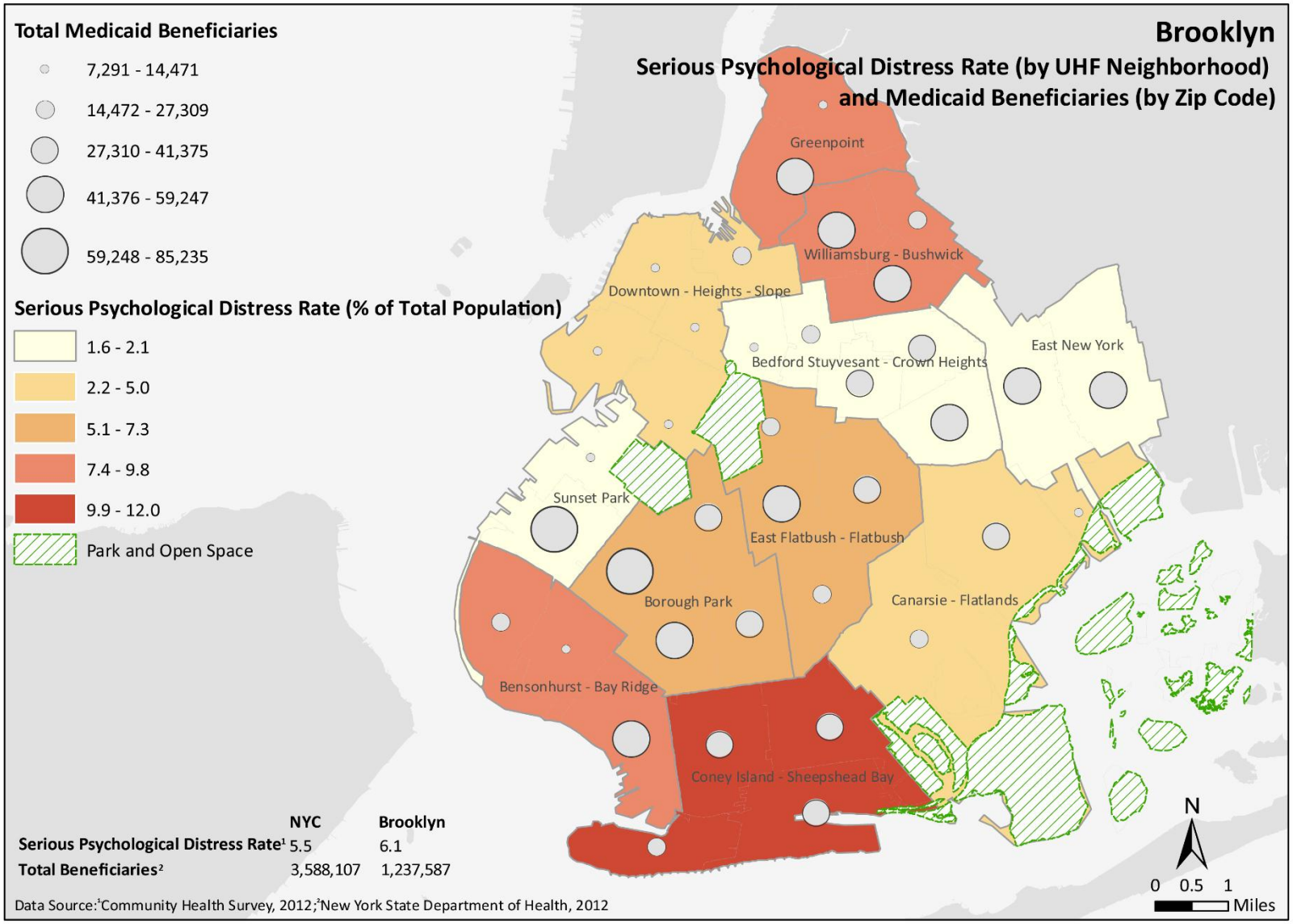
18. Obesity Rate (by UHF Neighborhood) and Uninsured (by Zip Code)



19. Serious Psychological Distress Rate (by UHF Neighborhood) and Medicaid Beneficiaries (by Zip Code)



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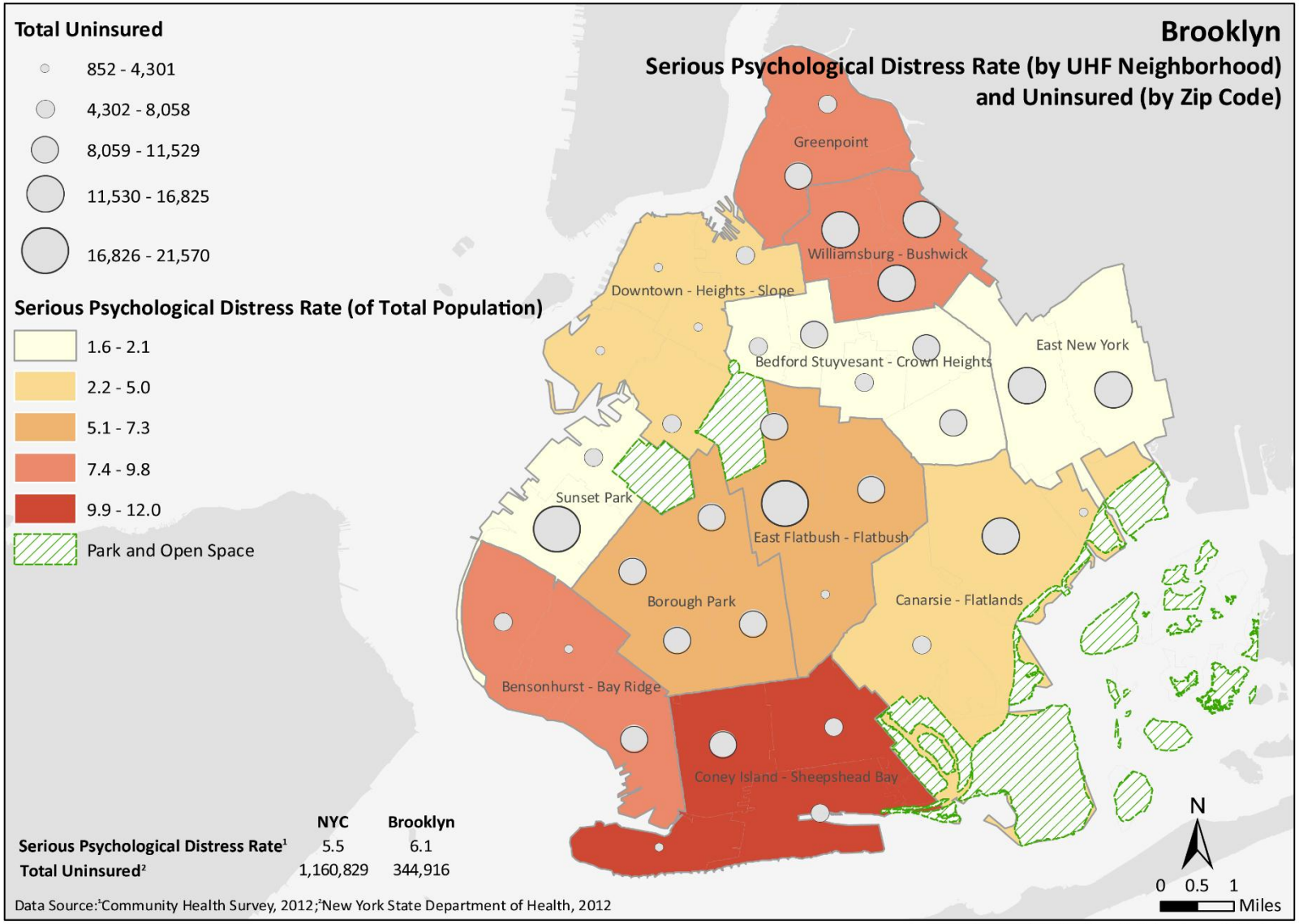
20. Serious Psychological Distress Rate (by UHF Neighborhood) and Uninsured (by Zip Code)



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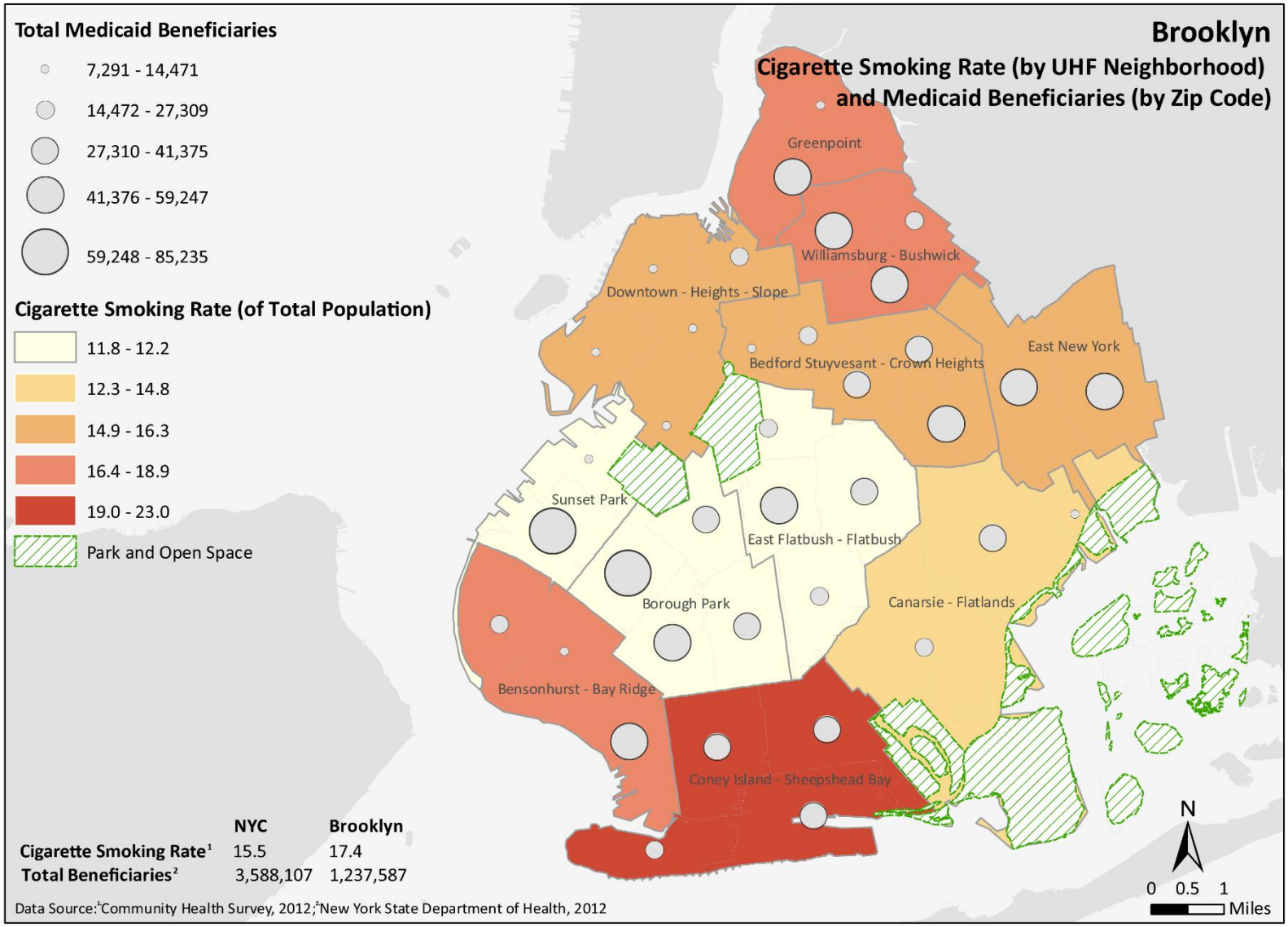
21. Cigarette Smoking Rate (by UHF Neighborhood) and Medicaid Beneficiaries (by Zip Code)



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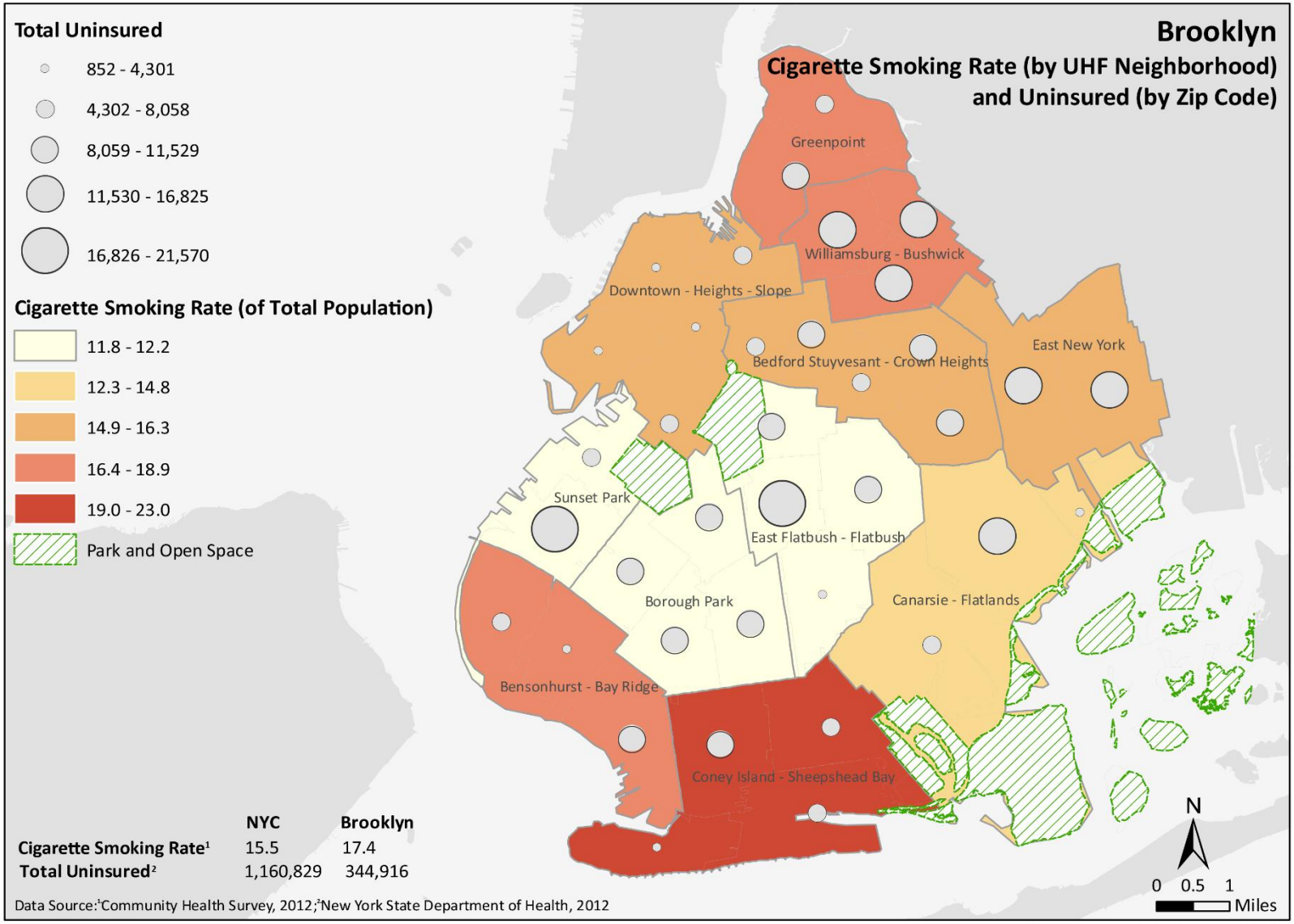
22. Cigarette Smoking Rate (by UHF Neighborhood) and Uninsured (by Zip Code)



	NYC	Brooklyn
Cigarette Smoking Rate[1]	15.5	17.4
Total Uninsured[2]	1,160,829	344,916

Data Source:[1]Community Health Survey, 2012;[2]New York State Department of Health, 2012

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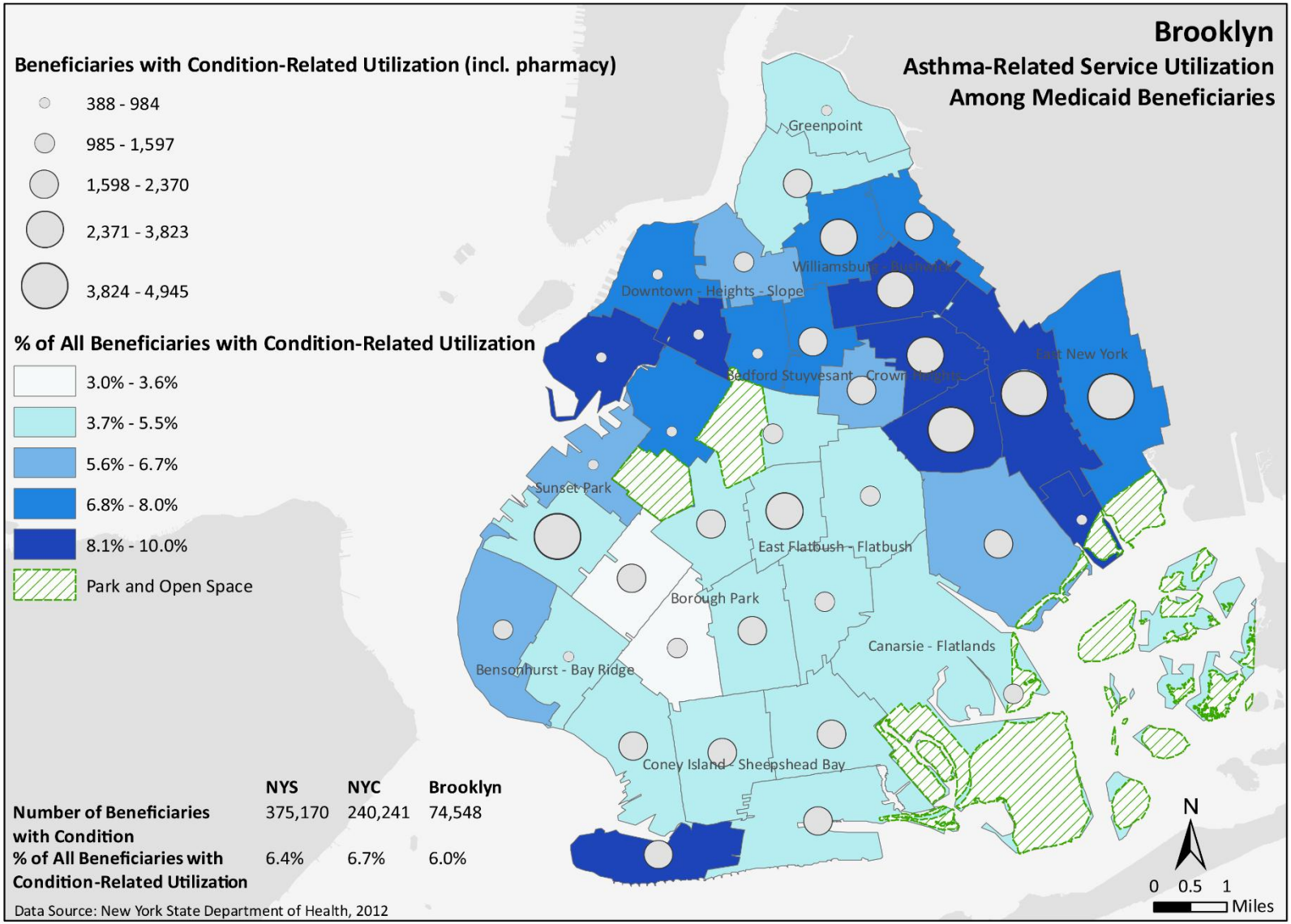
23. Asthma-Related Service Utilization Among Medicaid Beneficiaries

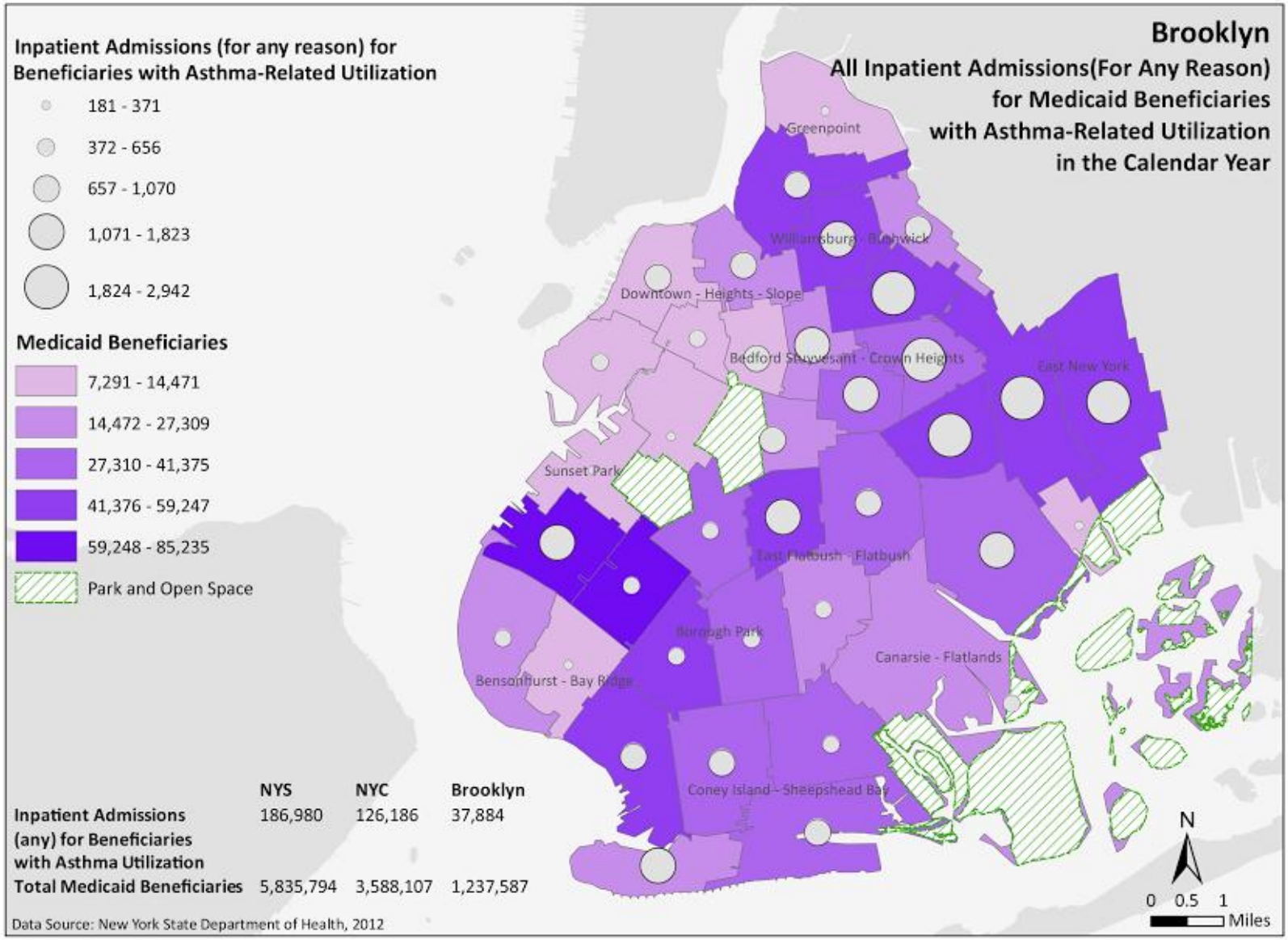


	NYS	NYC	Brooklyn
Number of Beneficiaries with Condition	375,170	240,241	74,548
% of All Beneficiaries with Condition-Related Utilization	6.4%	6.7%	6.0%

Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

24. All Inpatient Admissions (For Any Reason) for Medicaid Beneficiaries with Asthma-Related Utilization



	NYS	NYC	Brooklyn
Inpatient Admissions (any) for Beneficiaries with Asthma Utilization	186,980	126,186	37,884
Total Medicaid Beneficiaries	5,835,794	3,588,107	1,237,587

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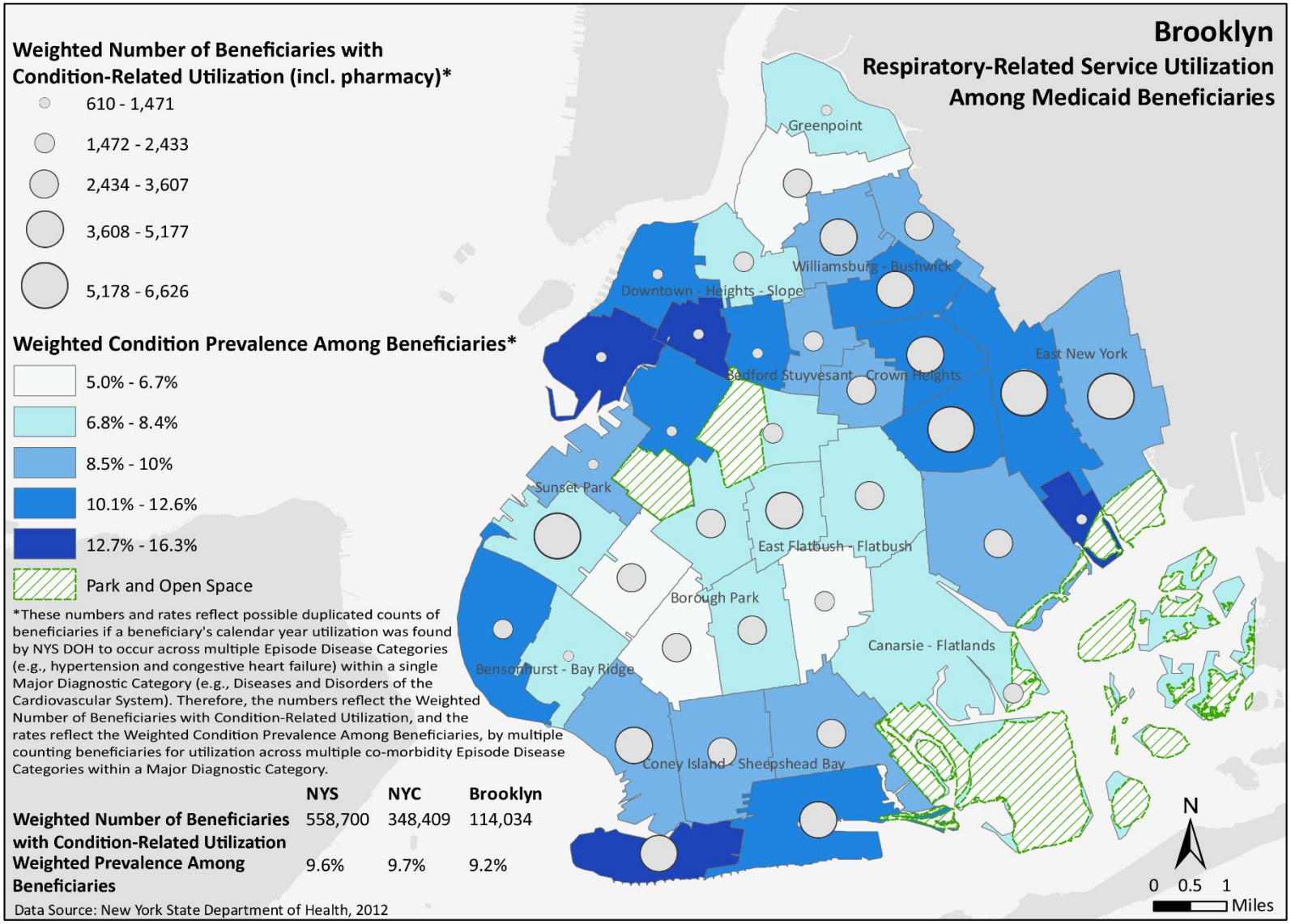
25. Respiratory-Related Service Utilization Among Medicaid Beneficiaries

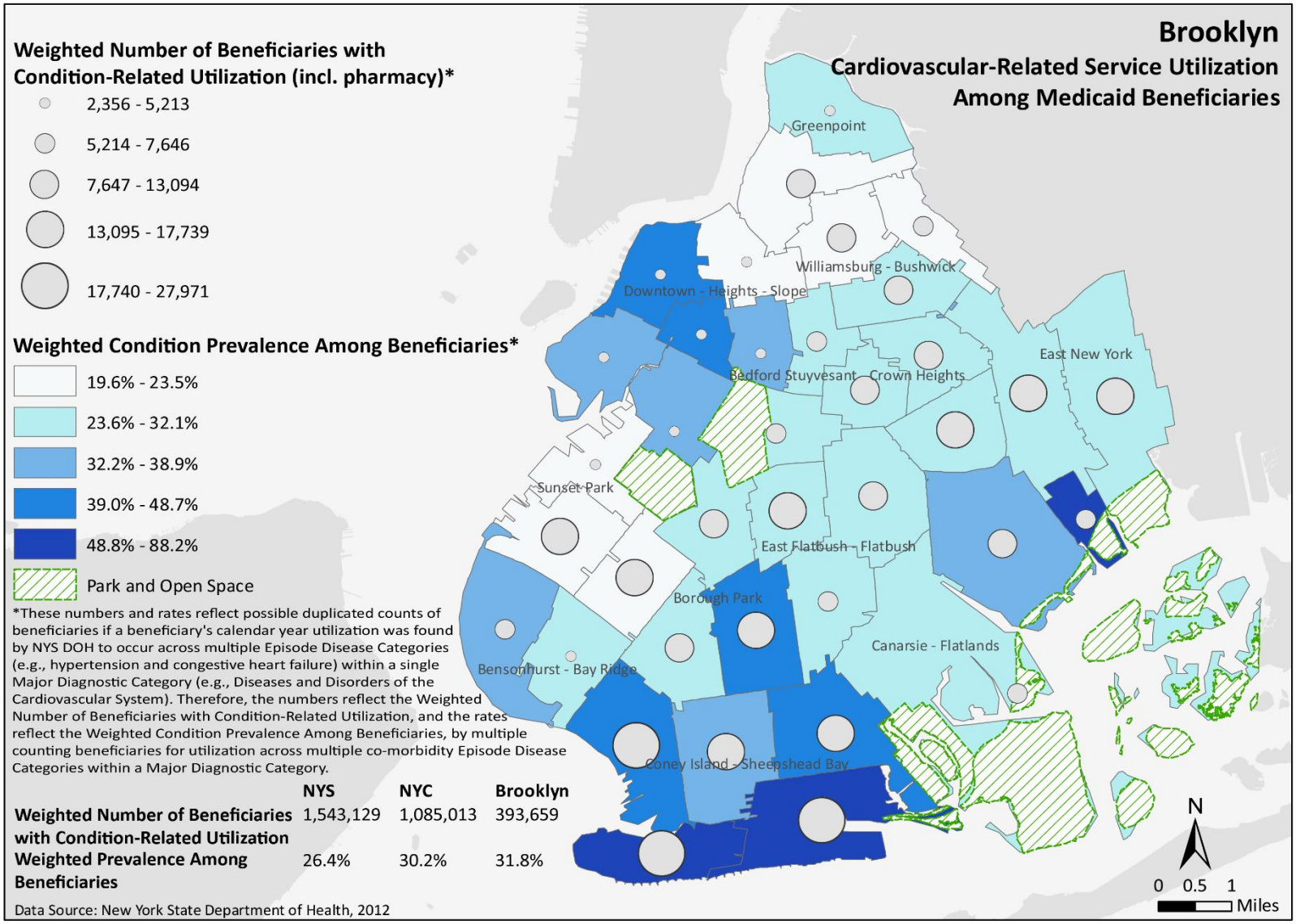


	NYS	NYC	Brooklyn
Weighted Number of Beneficiaries with Condition-Related Utilization	558,700	348,409	114,034
Weighted Prevalence Among Beneficiaries	9.6%	9.7%	9.2%

Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

26. Cardiovascular-Related Service Utilization Among Medicaid Beneficiaries



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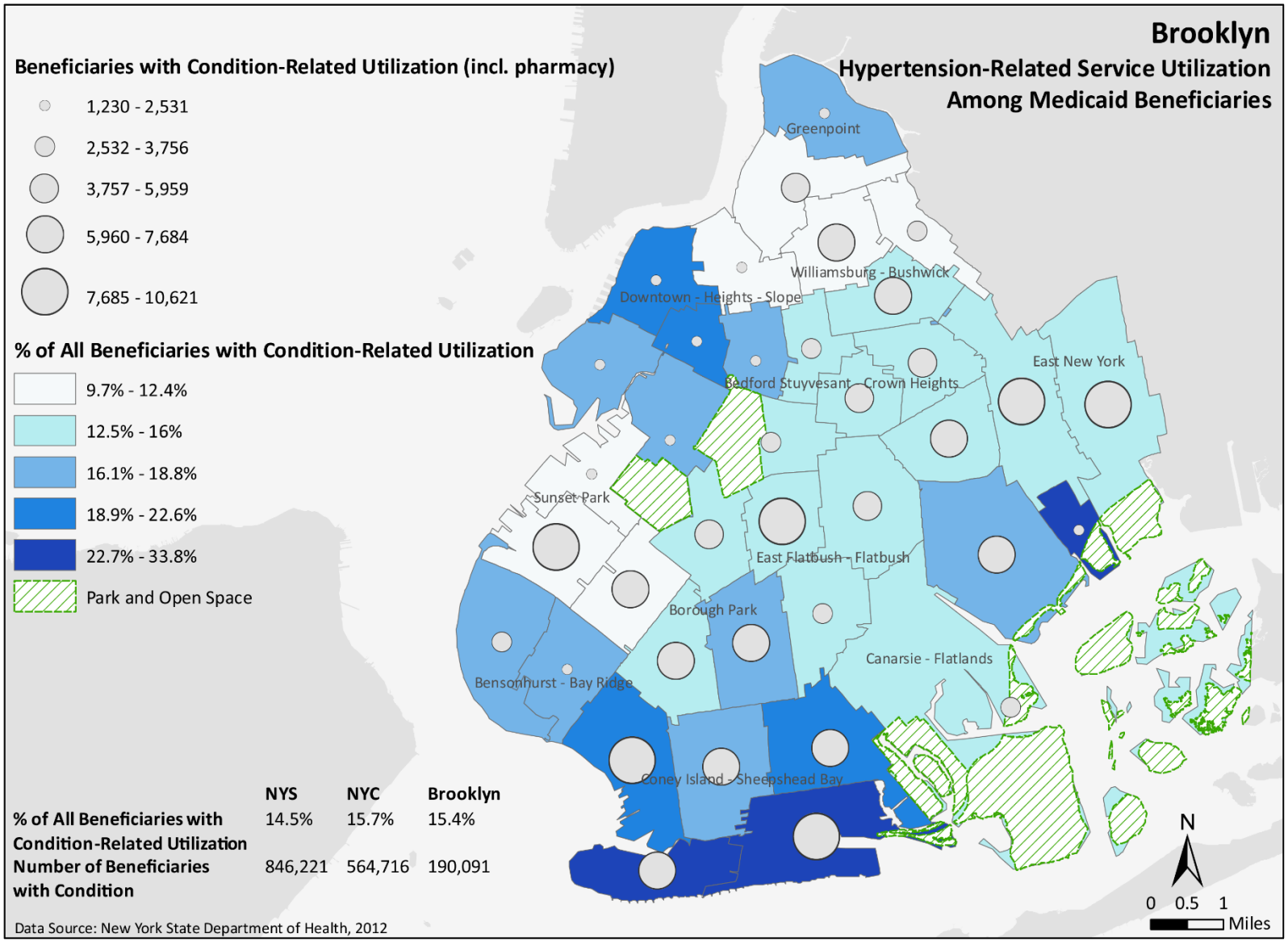
27. Hypertension-Related Service Utilization Among Medicaid Beneficiaries

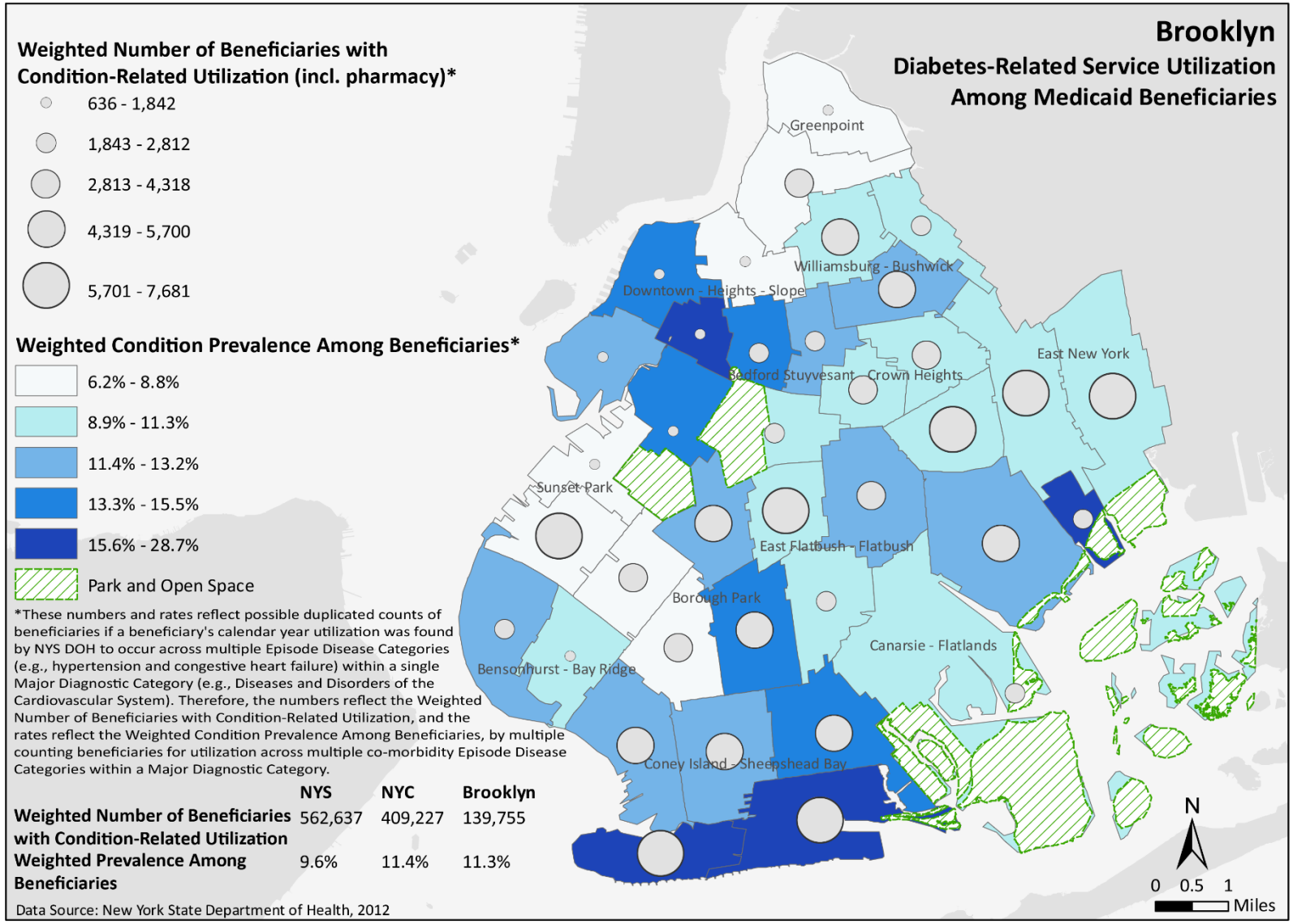


	NYS	NYC	Brooklyn
% of All Beneficiaries with Condition-Related Utilization	14.5%	15.7%	15.4%
Number of Beneficiaries with Condition	846,221	564,716	190,091

Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

28. Diabetes-Related Service Utilization Among Medicaid Beneficiaries

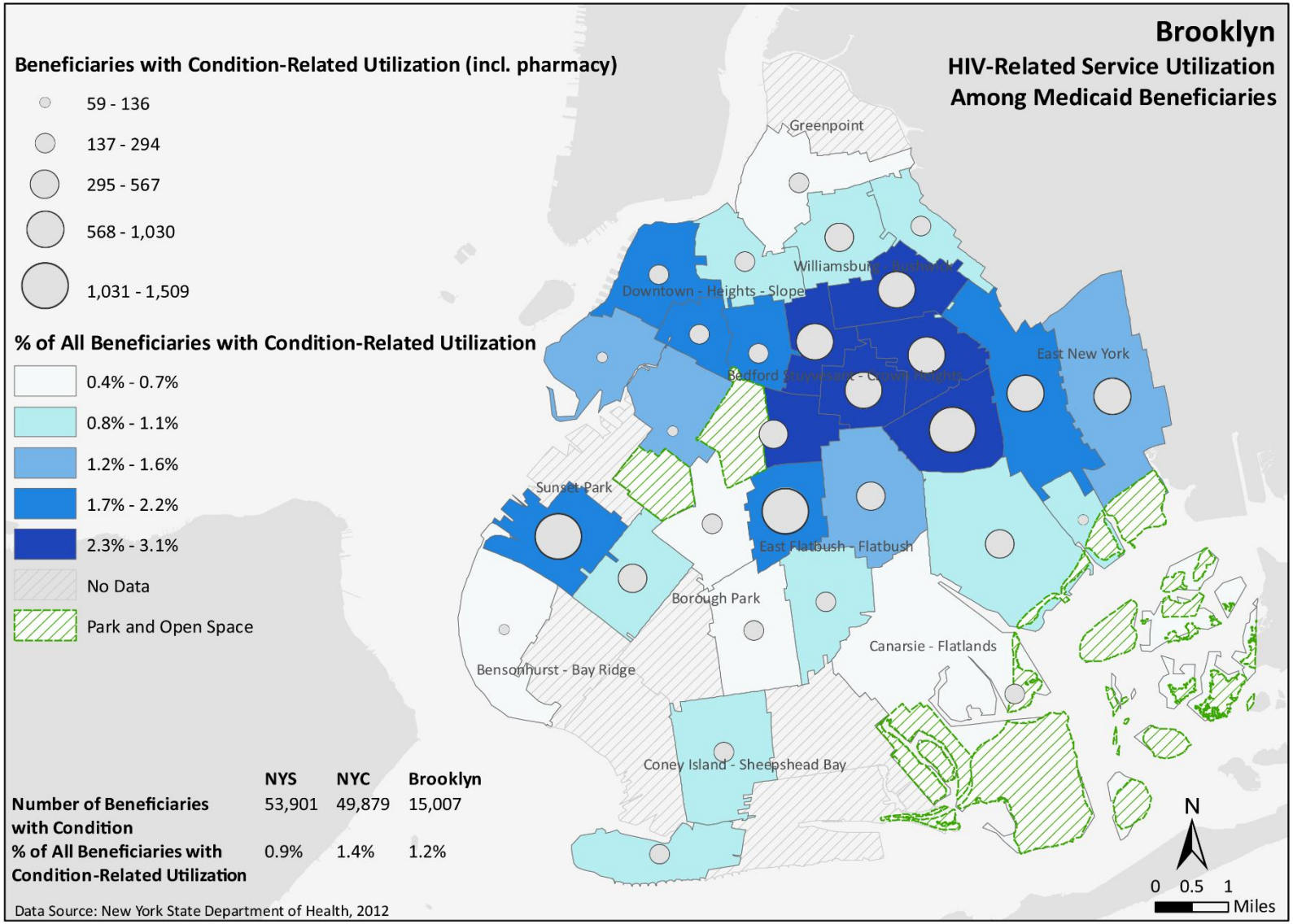


	NYS	NYC	Brooklyn
Weighted Number of Beneficiaries with Condition-Related Utilization	562,637	409,227	139,755
Weighted Prevalence Among Beneficiaries	9.6%	11.4%	11.3%

Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

29. HIV-Related Service Utilization Among Medicaid Beneficiaries

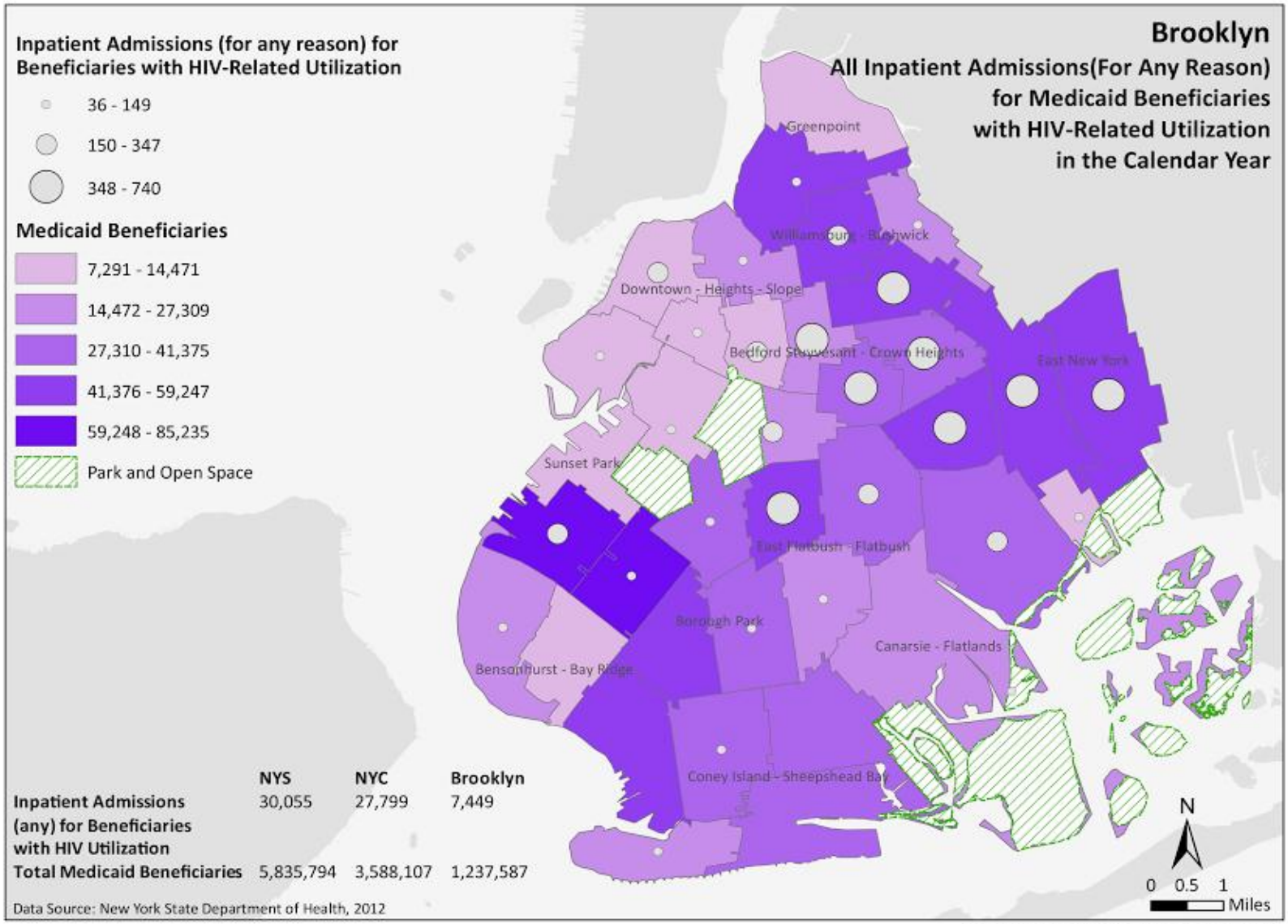


	NYS	NYC	Brooklyn
Number of Beneficiaries with Condition	53,901	49,879	15,007
% of All Beneficiaries with Condition-Related Utilization	0.9%	1.4%	1.2%

Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

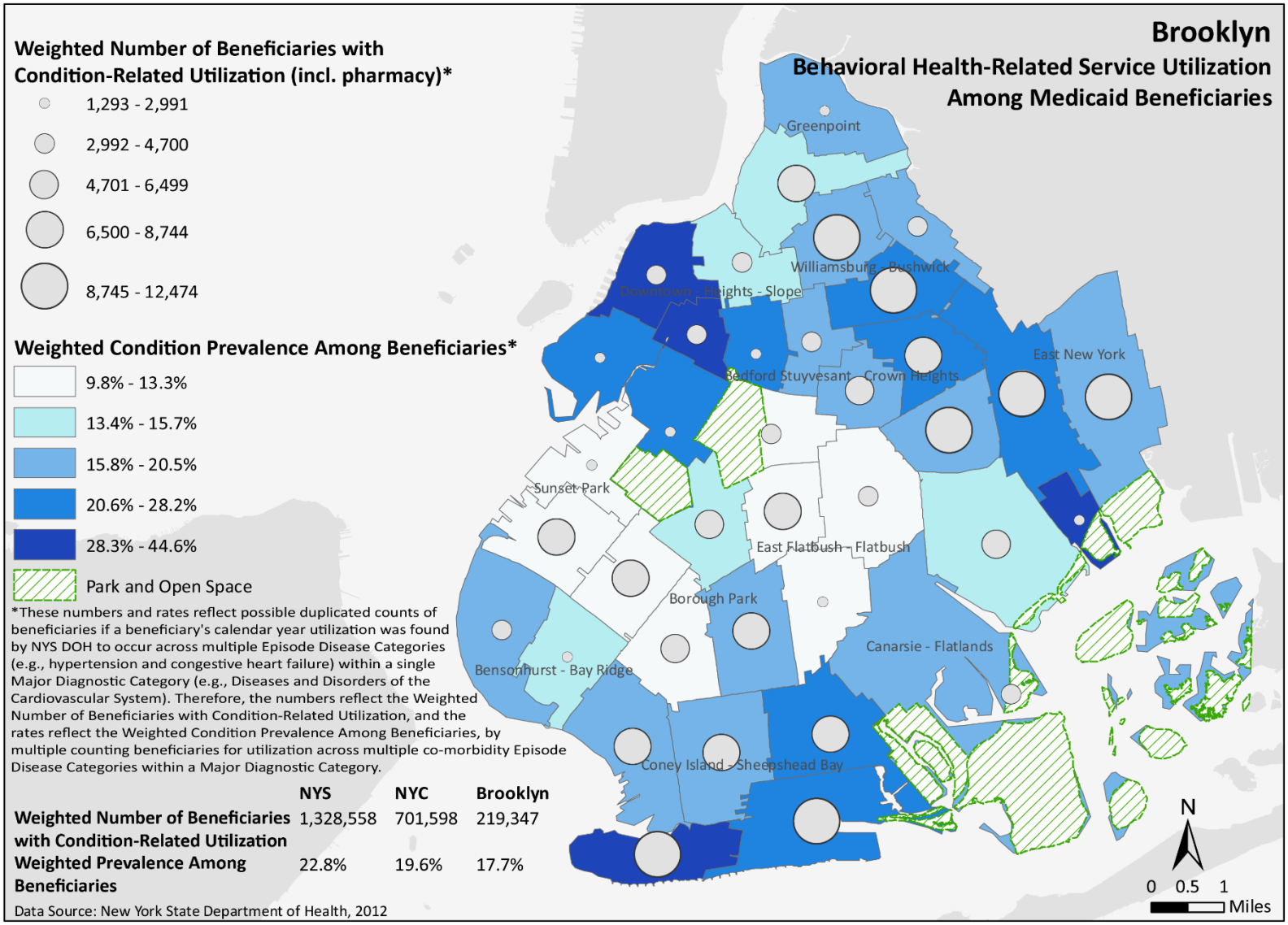
30. All Inpatient Admissions (For Any Reason) for Medicaid Beneficiaries with HIV-Related Utilization



	NYS	NYC	Brooklyn
Inpatient Admissions (any) for Beneficiaries with HIV Utilization	30,055	27,799	7,449
Total Medicaid Beneficiaries	5,835,794	3,588,107	1,237,587

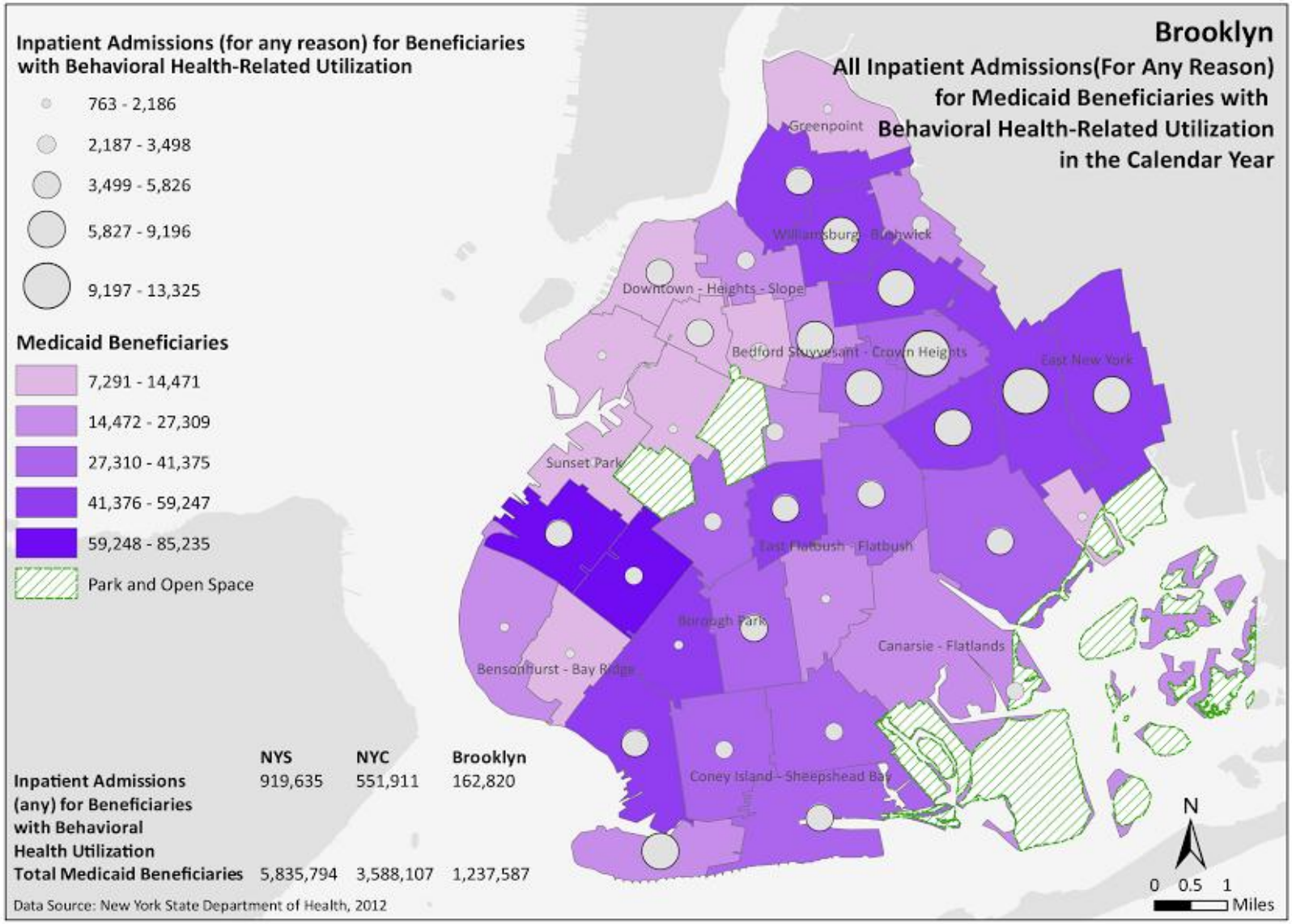
Prepared by The New York Academy of Medicine

31. Behavioral Health-Related Service Utilization Among Medicaid Beneficiaries



Prepared by The New York Academy of Medicine

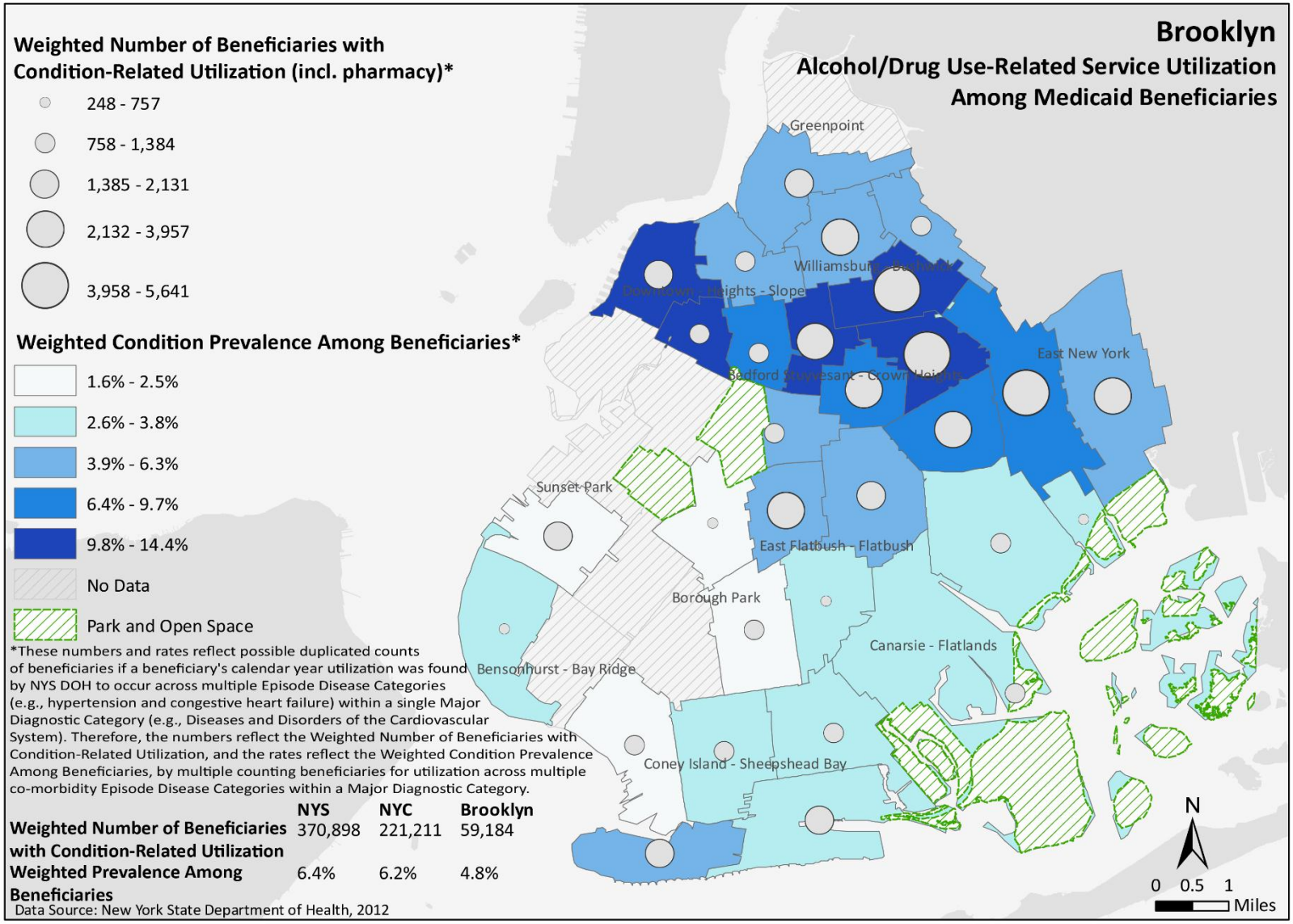
32. All Inpatient Admissions (For Any Reason) for Medicaid Beneficiaries with Behavioral Health-Related Utilization



	NYS	NYC	Brooklyn
Inpatient Admissions (any) for Beneficiaries with Behavioral Health Utilization	919,635	551,911	162,820
Total Medicaid Beneficiaries	5,835,794	3,588,107	1,237,587

Prepared by The New York Academy of Medicine

33. Alcohol/Drug Use-Related Service Utilization Among Medicaid Beneficiaries

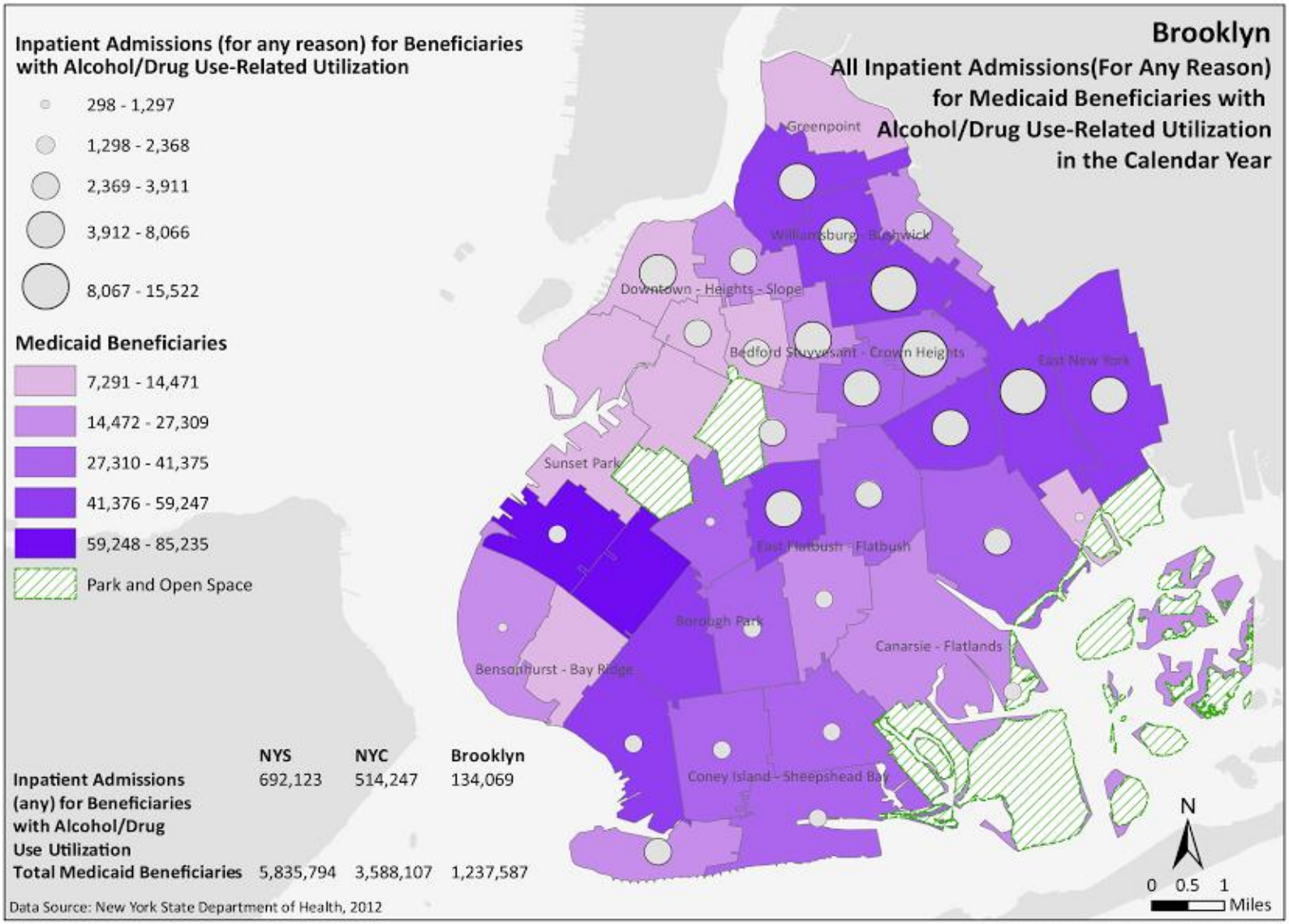


	NYS	NYC	Brooklyn
Weighted Number of Beneficiaries with Condition-Related Utilization	370,898	221,211	59,184
Weighted Prevalence Among Beneficiaries	6.4%	6.2%	4.8%

Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

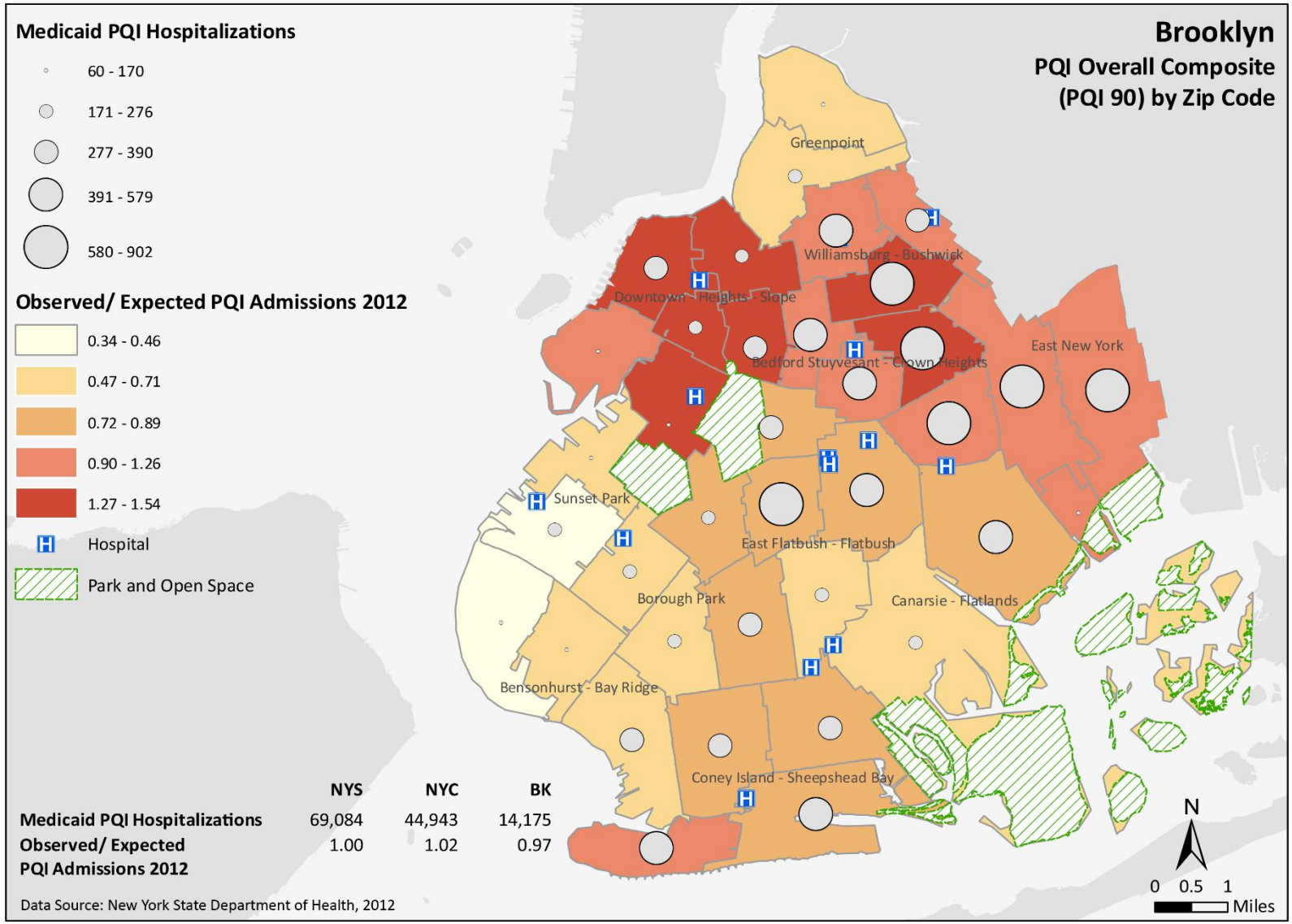
34. All Inpatient Admissions (For Any Reason) for Medicaid Beneficiaries with Alcohol/Drug Use-Related Utilization



	NYS	NYC	Brooklyn
Inpatient Admissions (any) for Beneficiaries with Alcohol/Drug Use Utilization	692,123	514,247	134,069
Total Medicaid Beneficiaries	5,835,794	3,588,107	1,237,587

Prepared by The New York Academy of Medicine

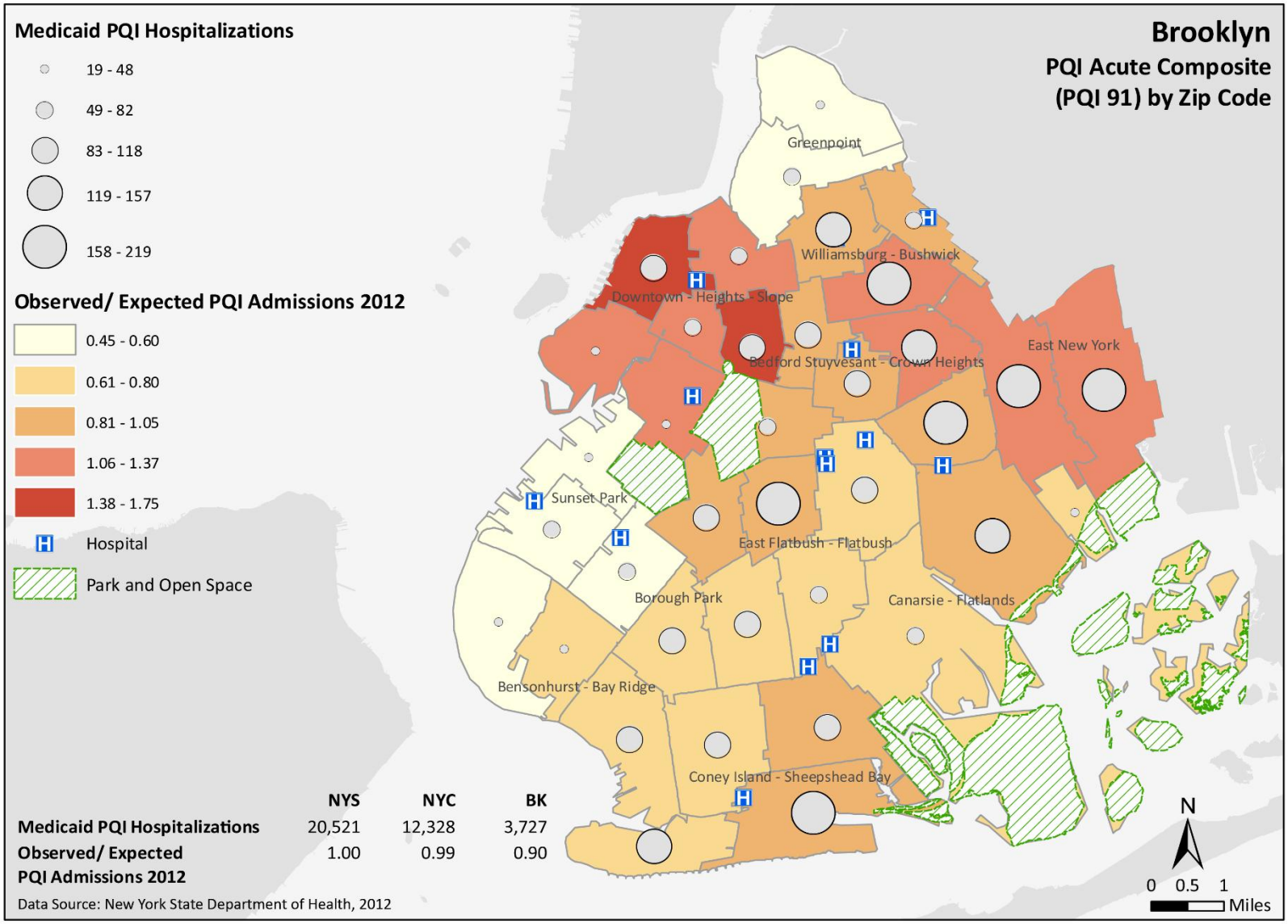
35. PQI Overall Composite (PQI 90) by Zip Code



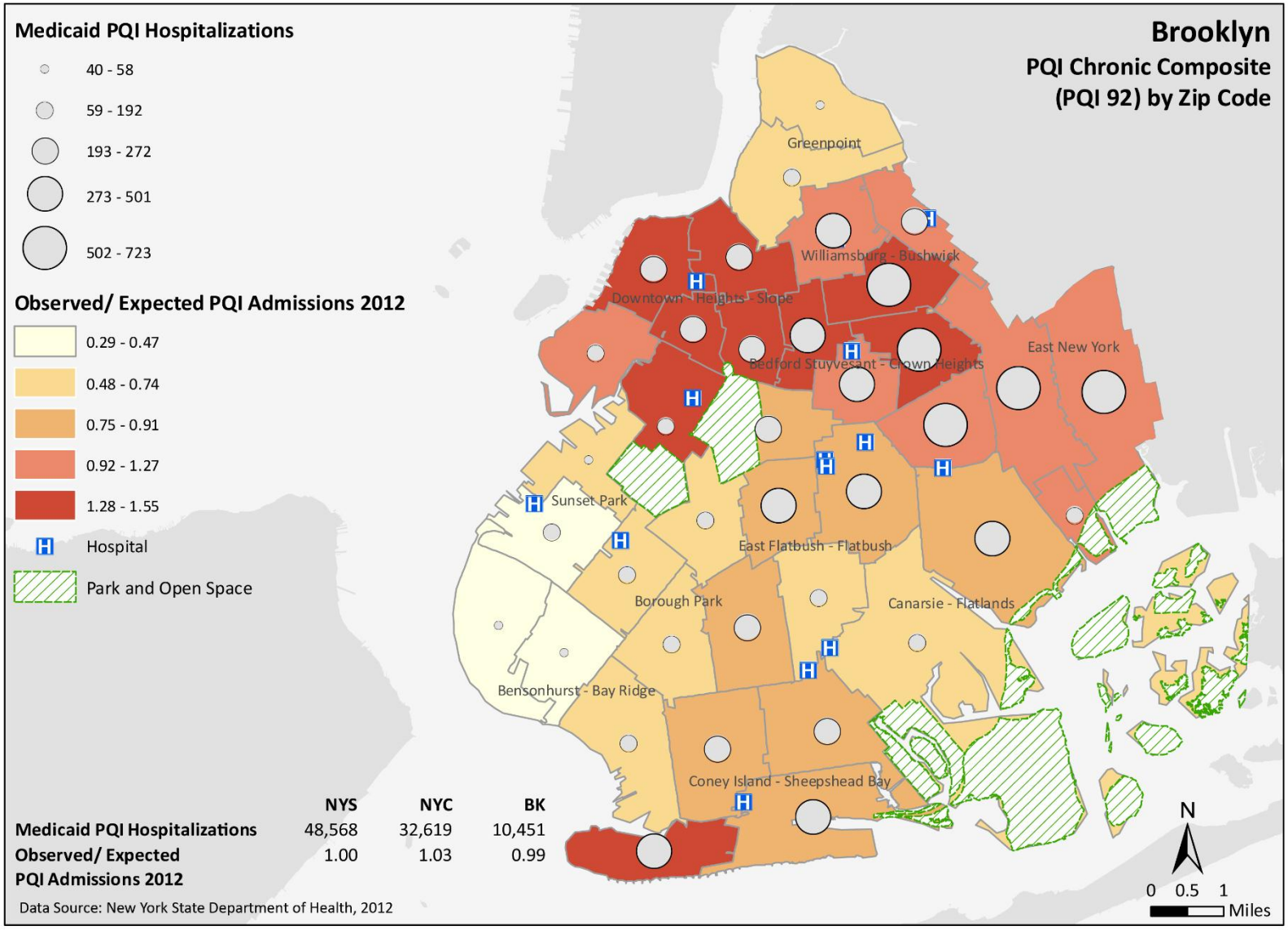
	NYS	NYC	BK
Medicaid PQI Hospitalizations	69,084	44,943	14,175
Observed/ Expected PQI Admissions 2012	1.00	1.02	0.97

Prepared by The New York Academy of Medicine

36. PQI Acute Composite (PQI 91) by Zip Code



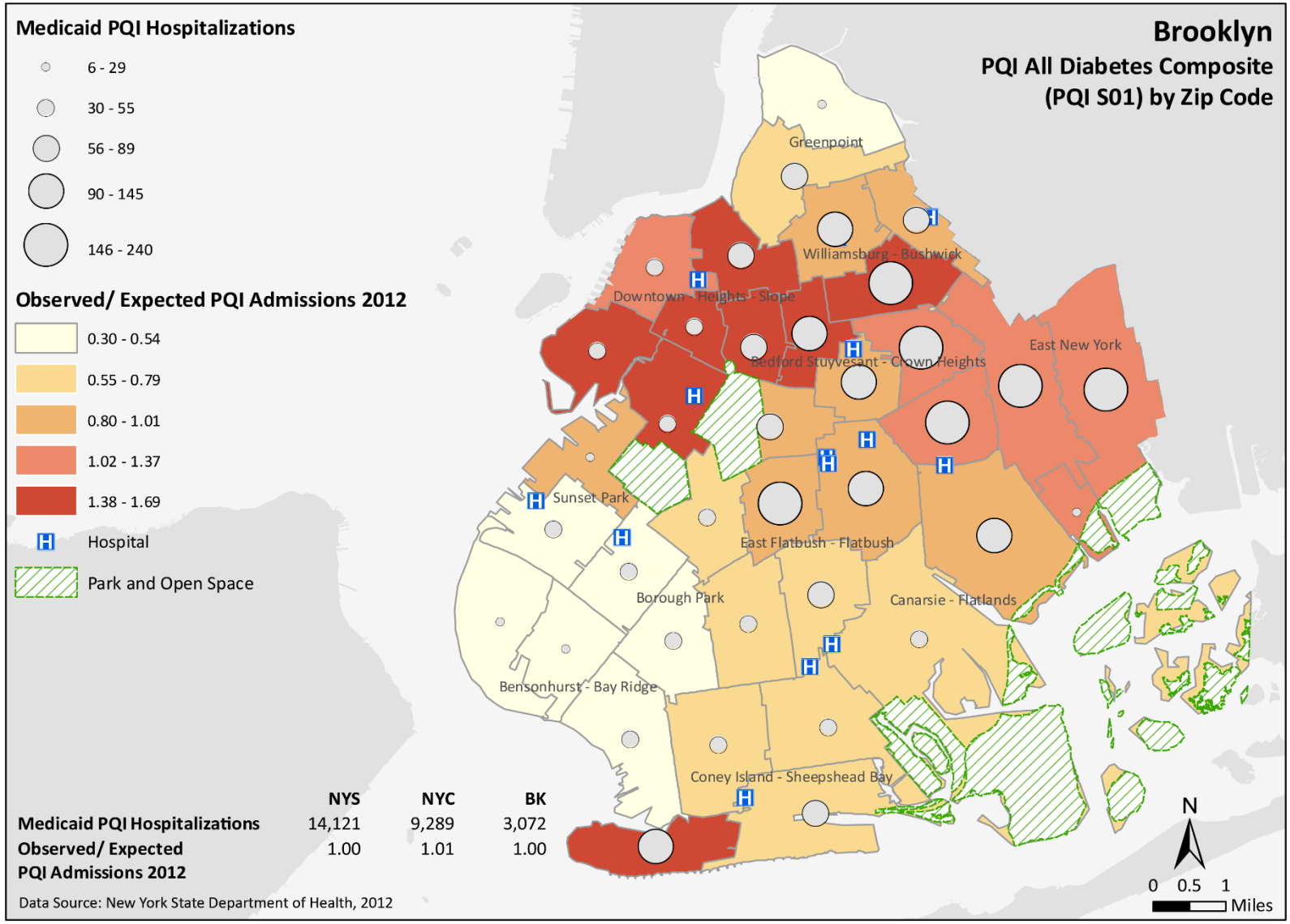
37. PQI Chronic Composite (PQI 92) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	48,568	32,619	10,451
Observed/ Expected PQI Admissions 2012	1.00	1.03	0.99

Prepared by The New York Academy of Medicine

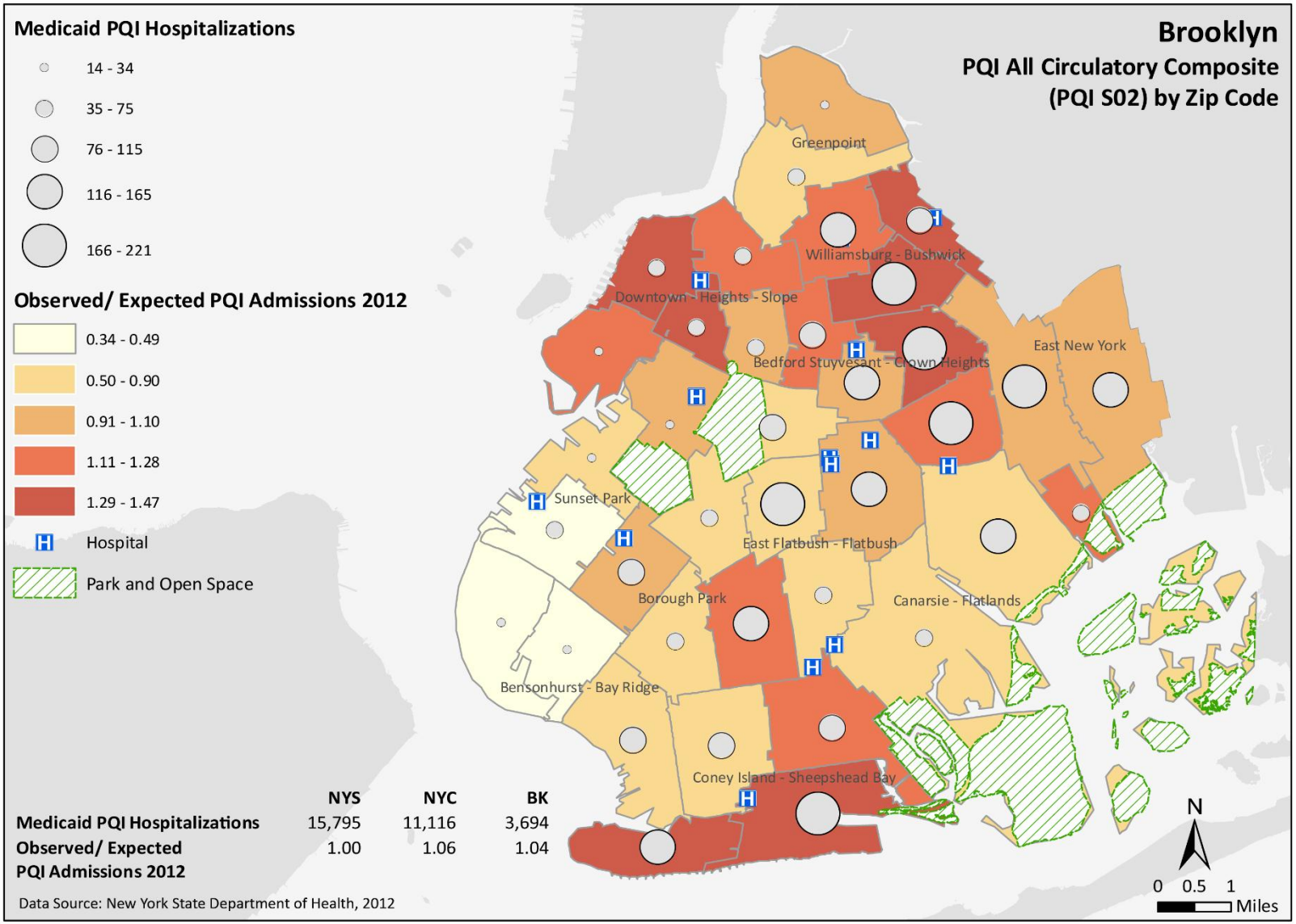
38. PQI All Diabetes Composite (PQI S01) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	14,121	9,289	3,072
Observed/ Expected PQI Admissions 2012	1.00	1.01	1.00

Prepared by The New York Academy of Medicine

39. PQI All Circulatory Composite (PQI S02) by Zip Code

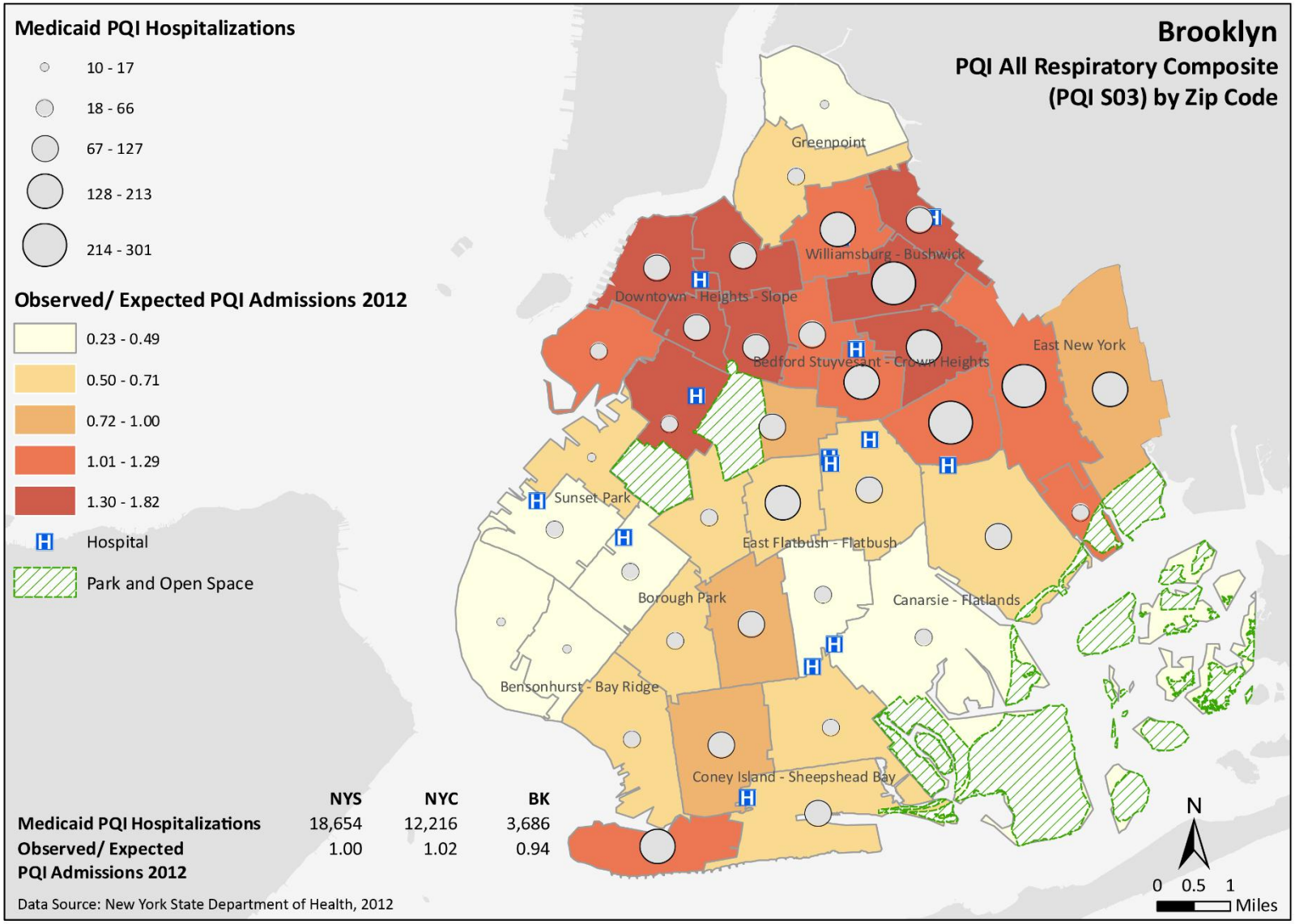


	NYS	NYC	BK
Medicaid PQI Hospitalizations	15,795	11,116	3,694
Observed/ Expected PQI Admissions 2012	1.00	1.06	1.04

Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

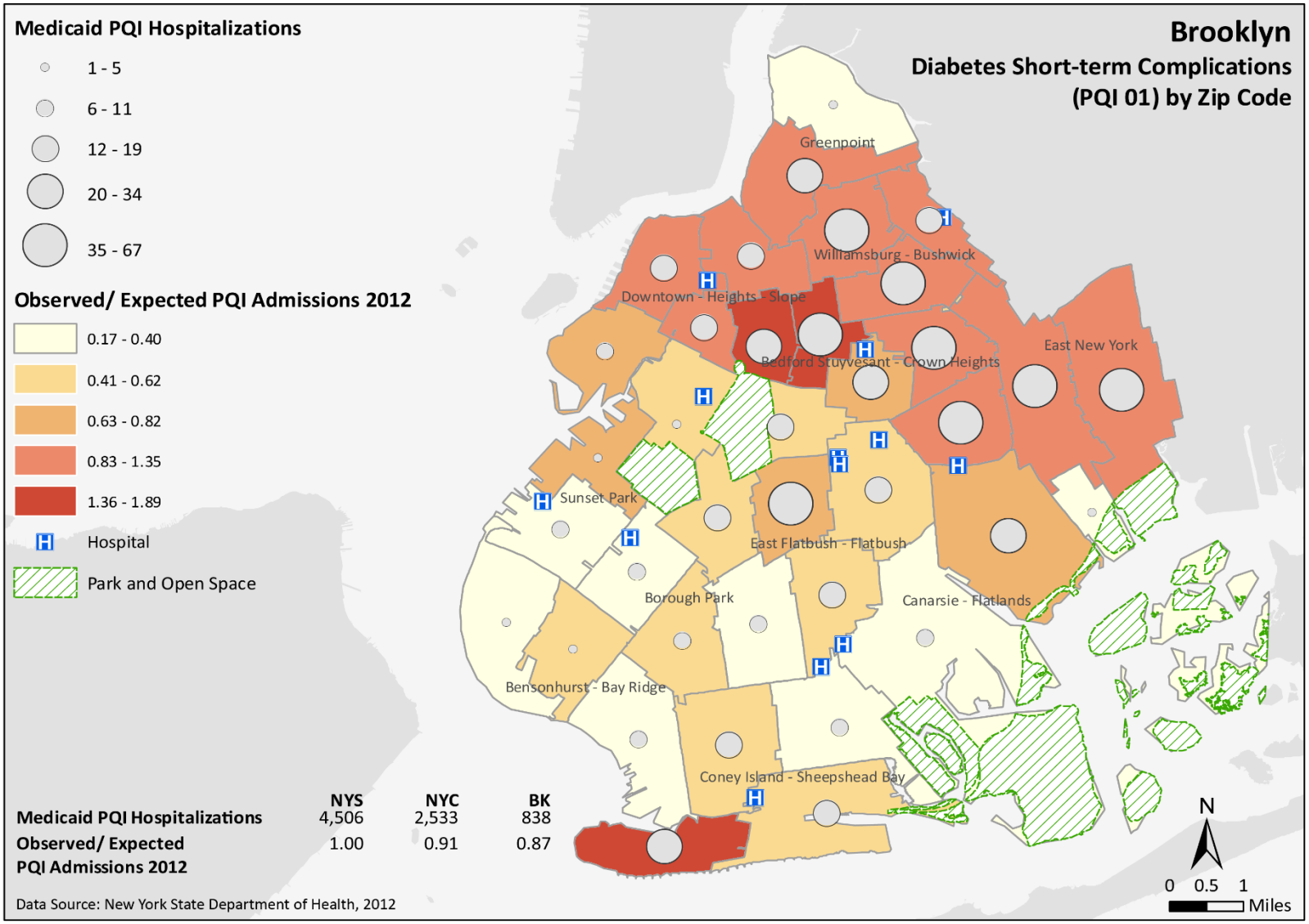
40. PQI All Respiratory Composite (PQI S03) by Zip Code



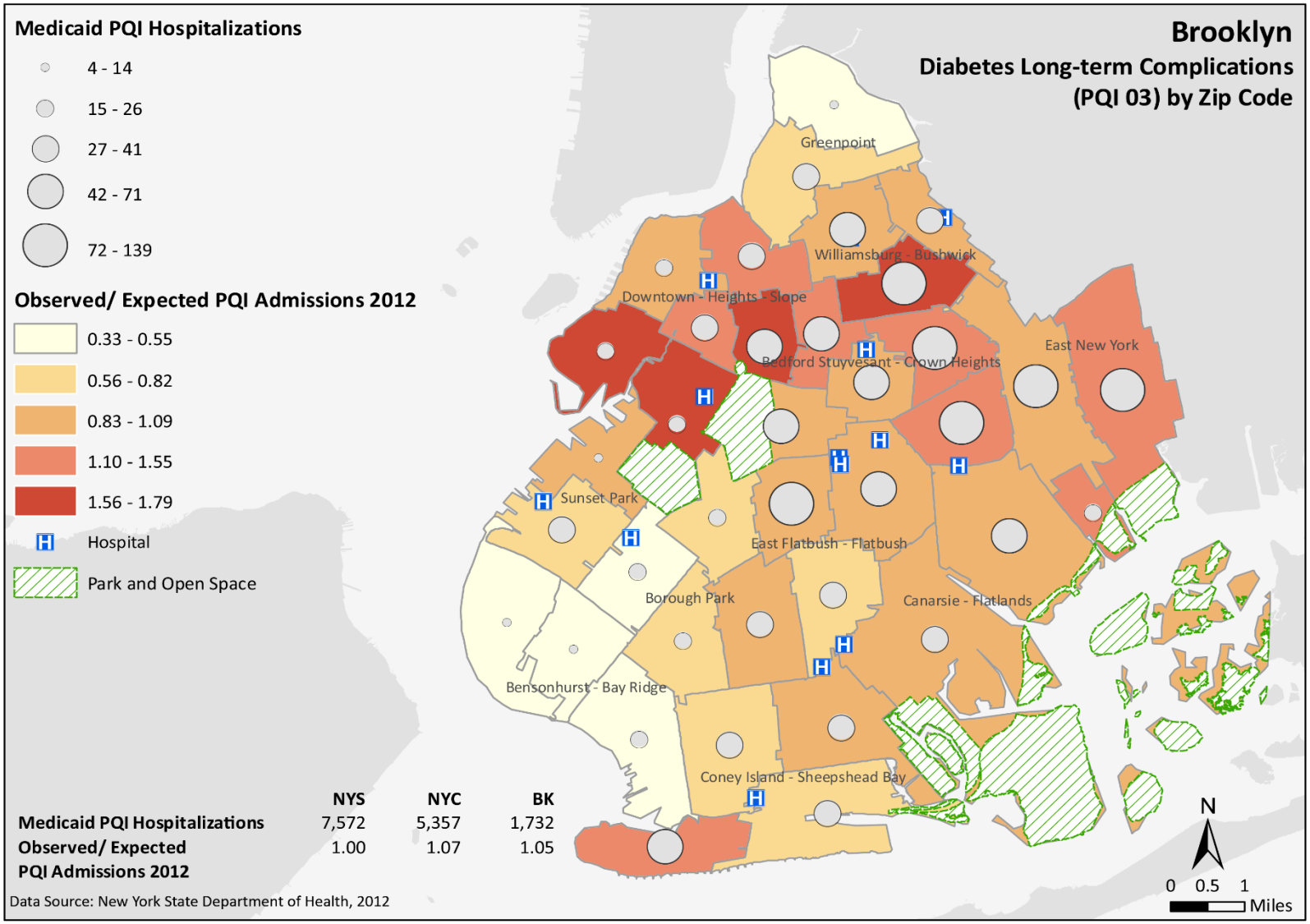
	NYS	NYC	BK
Medicaid PQI Hospitalizations	18,654	12,216	3,686
Observed/ Expected PQI Admissions 2012	1.00	1.02	0.94

Prepared by The New York Academy of Medicine

41. Diabetes Short-term Complications (PQ1 01) by Zip Code



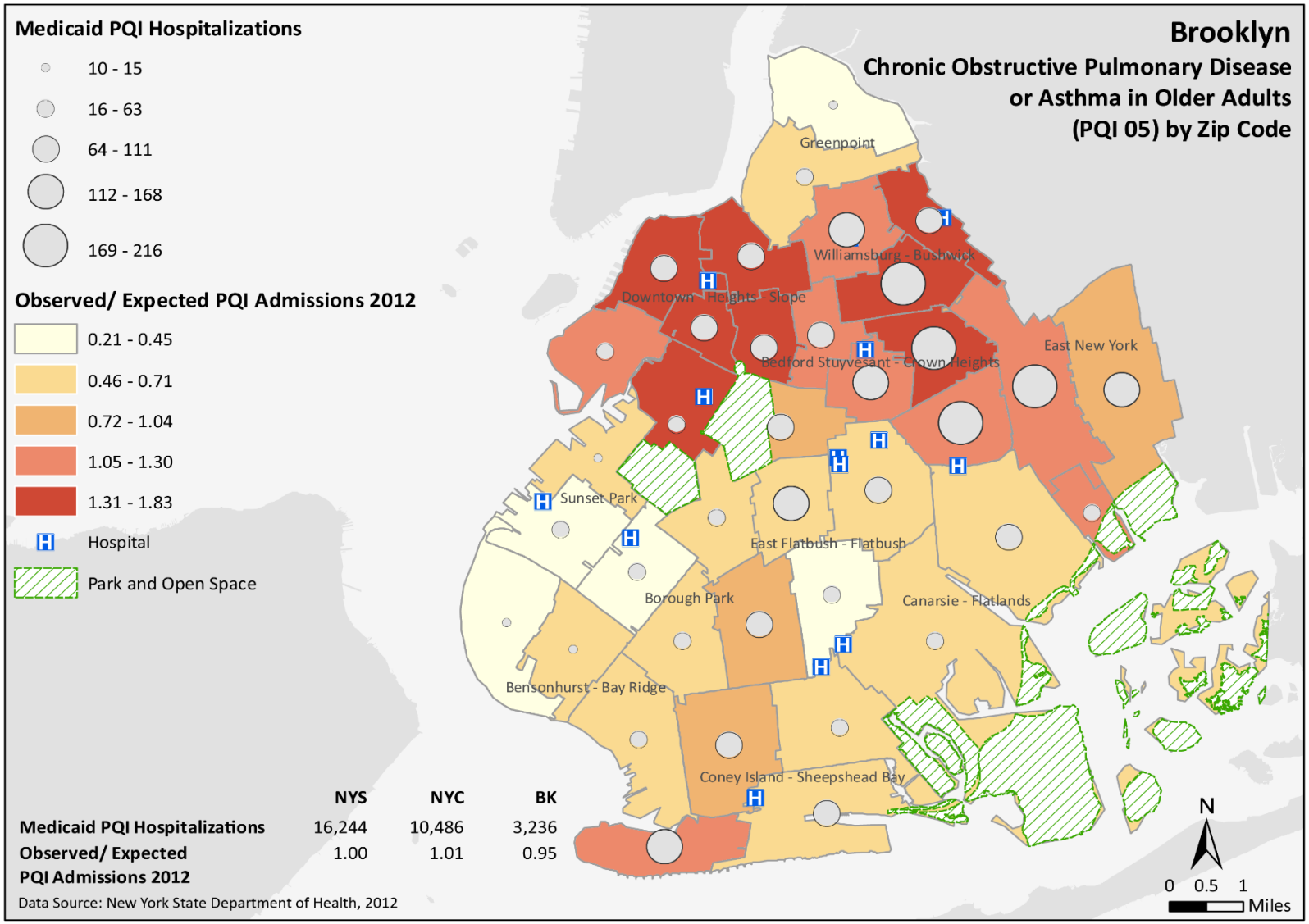
42. Diabetes Long-term Complications (PQI 03) by Zip Code



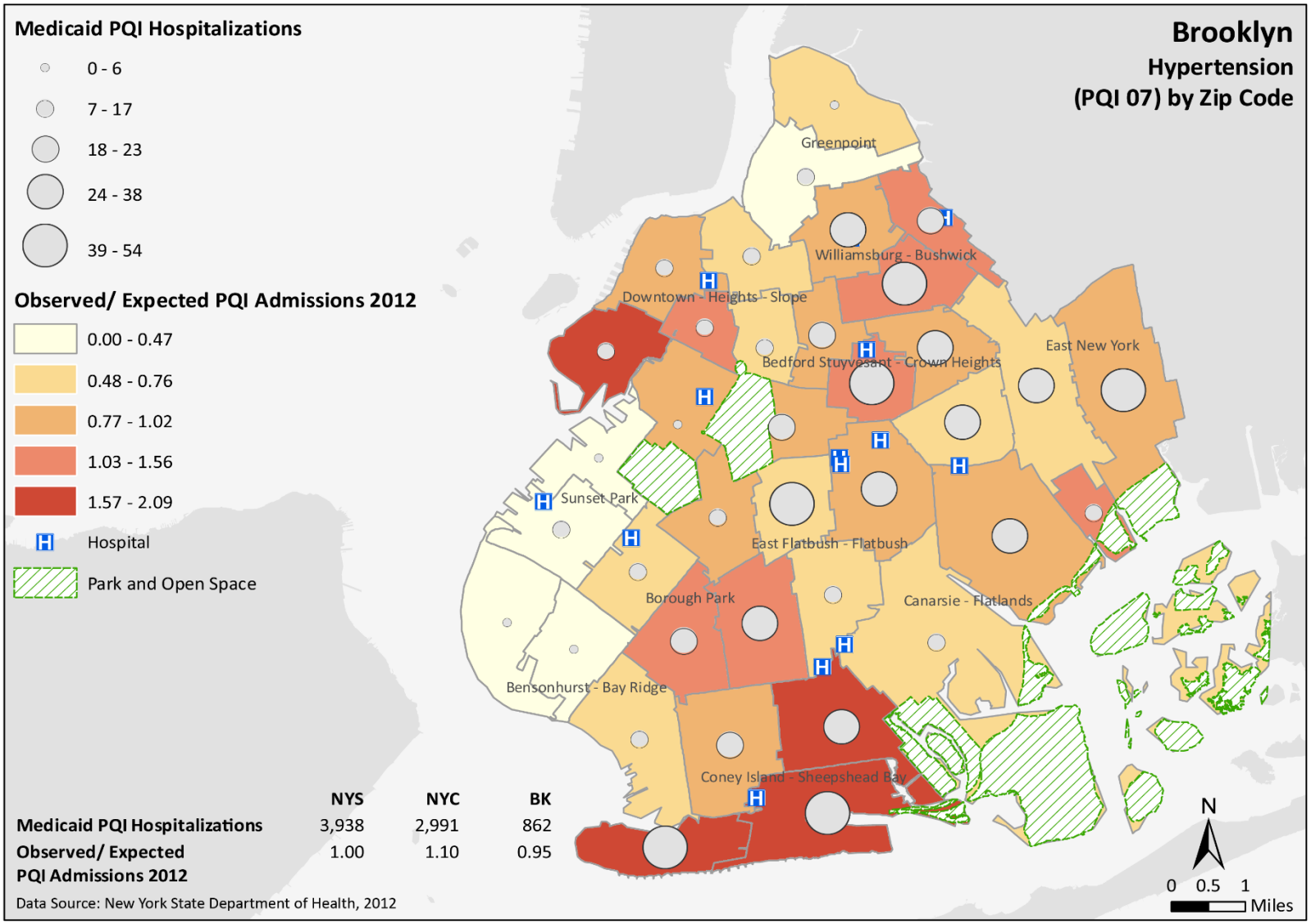
	NYS	NYC	BK
Medicaid PQI Hospitalizations	7,572	5,357	1,732
Observed/ Expected PQI Admissions 2012	1.00	1.07	1.05

Prepared by The New York Academy of Medicine

43. Chronic Obstructive Pulmonary Disease or Asthma in Older Adults (PQI 05) by Zip Code



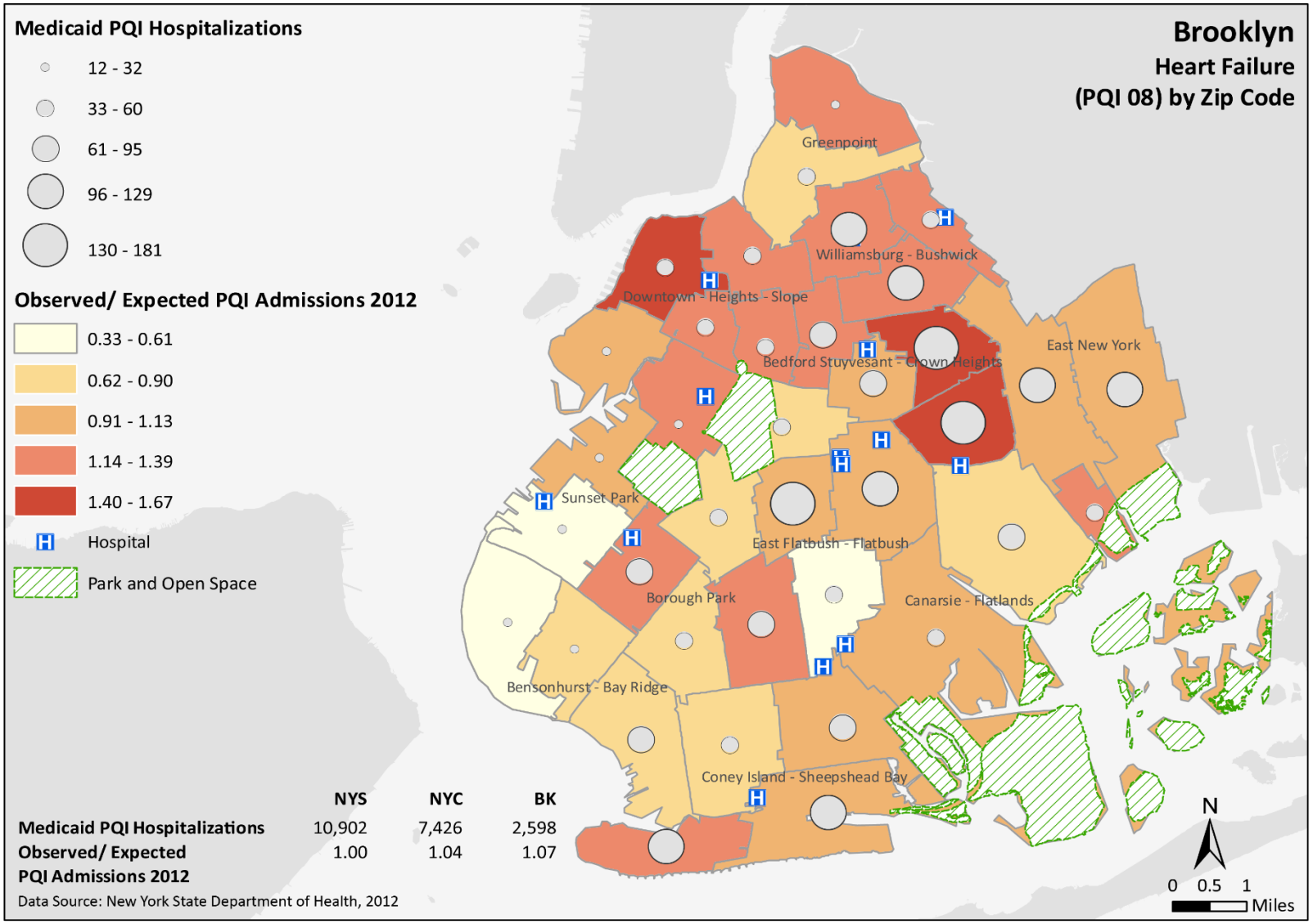
44. Hypertension (PQI 07) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	3,938	2,991	862
Observed/ Expected PQI Admissions 2012	1.00	1.10	0.95

Data Source: New York State Department of Health, 2012

45. Heart Failure (PQI 08) by Zip Code

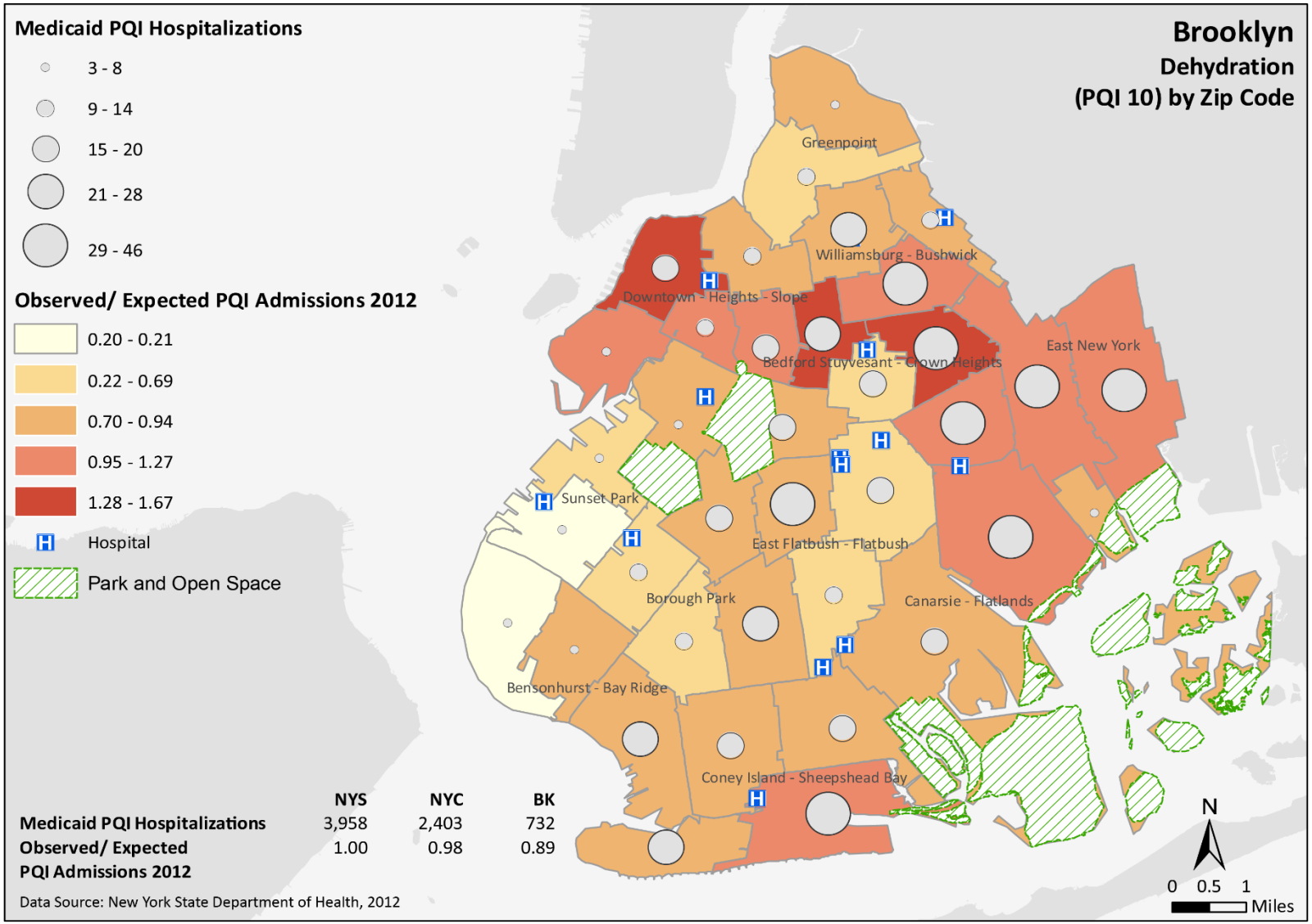


	NYS	NYC	BK
Medicaid PQI Hospitalizations	10,902	7,426	2,598
Observed/ Expected PQI Admissions 2012	1.00	1.04	1.07

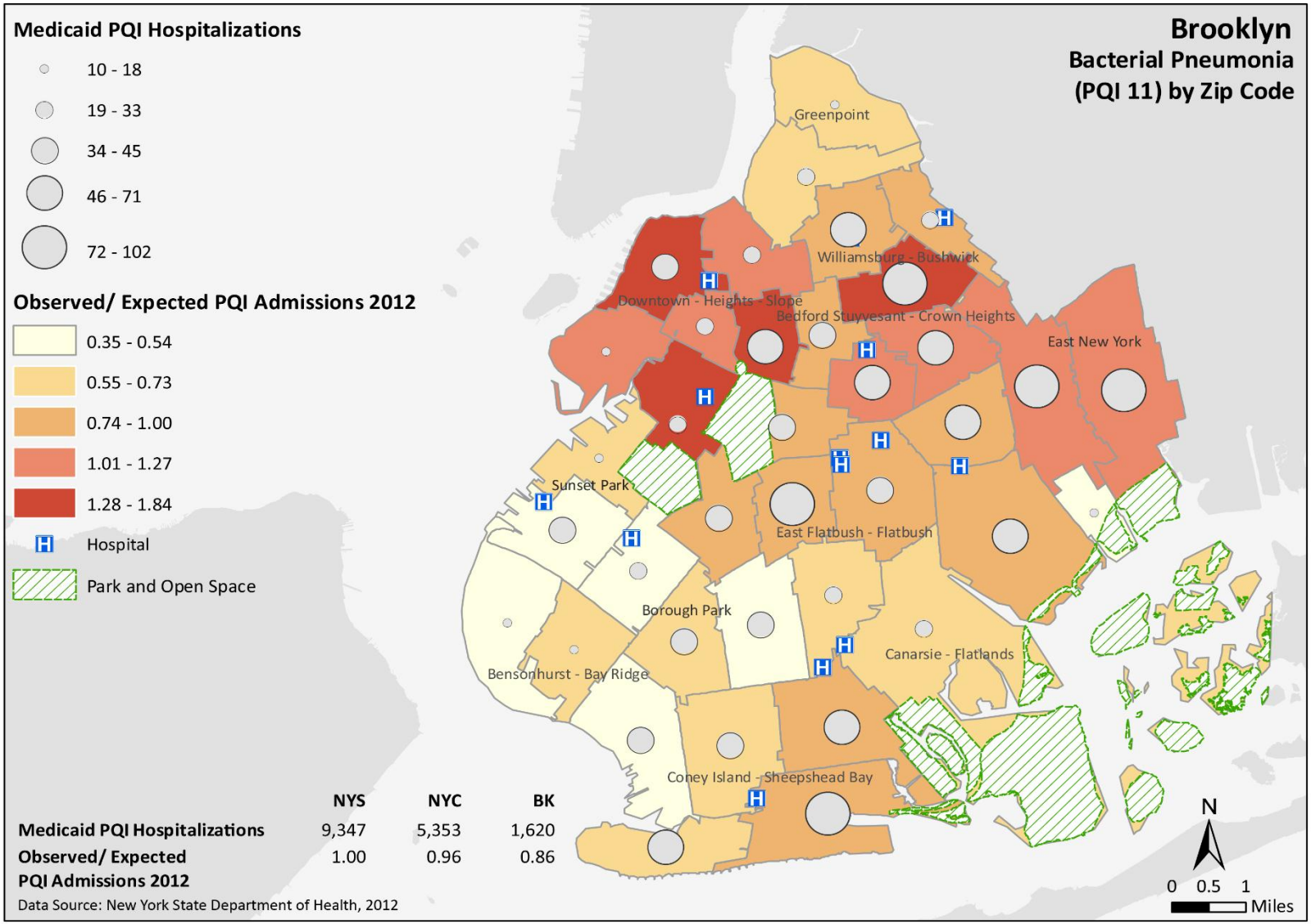
Data Source: New York State Department of Health, 2012

Prepared by The New York Academy of Medicine

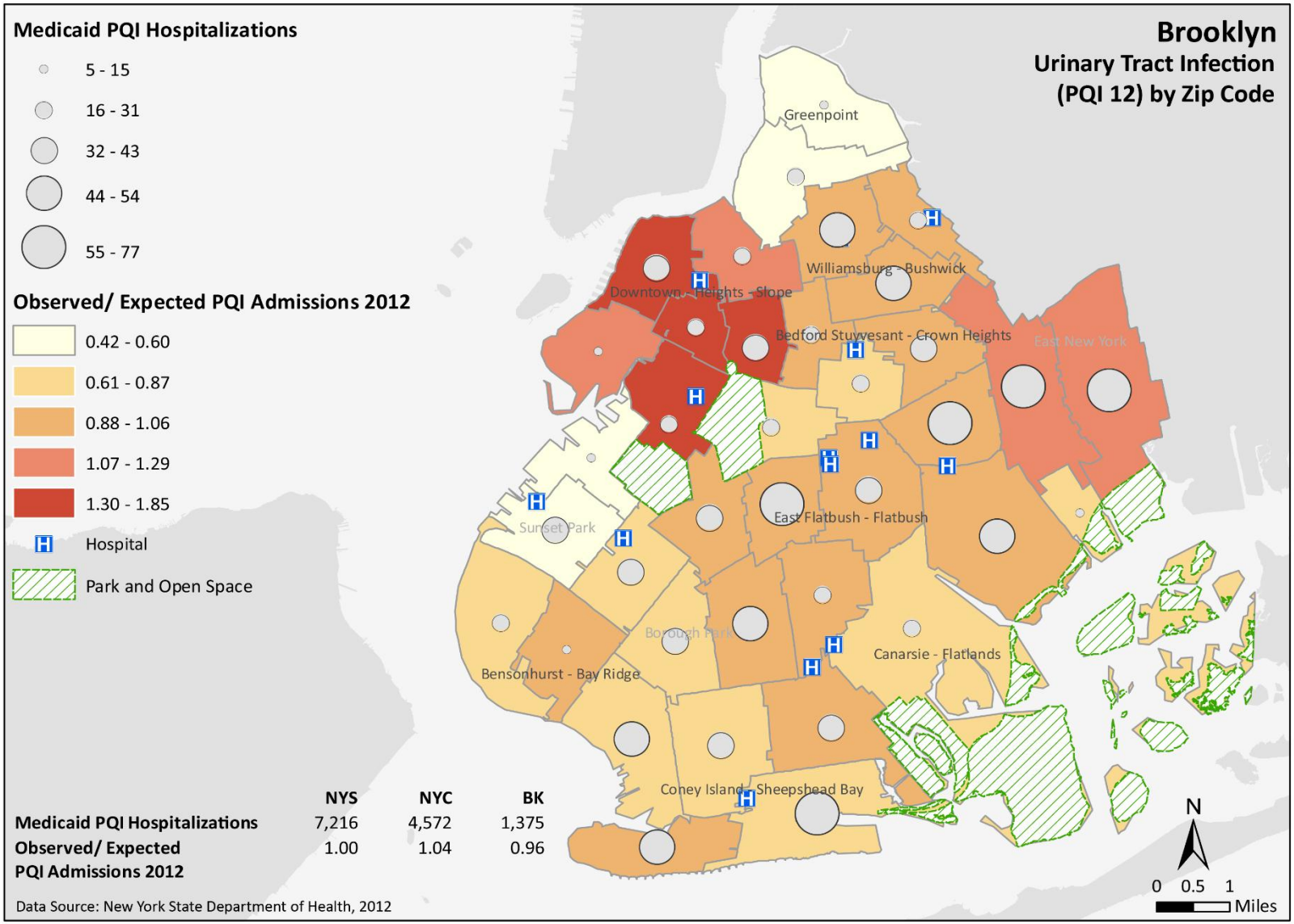
46. Dehydration (PQI 10) by Zip Code



47. Bacterial Pneumonia (PQI 11) by Zip Code



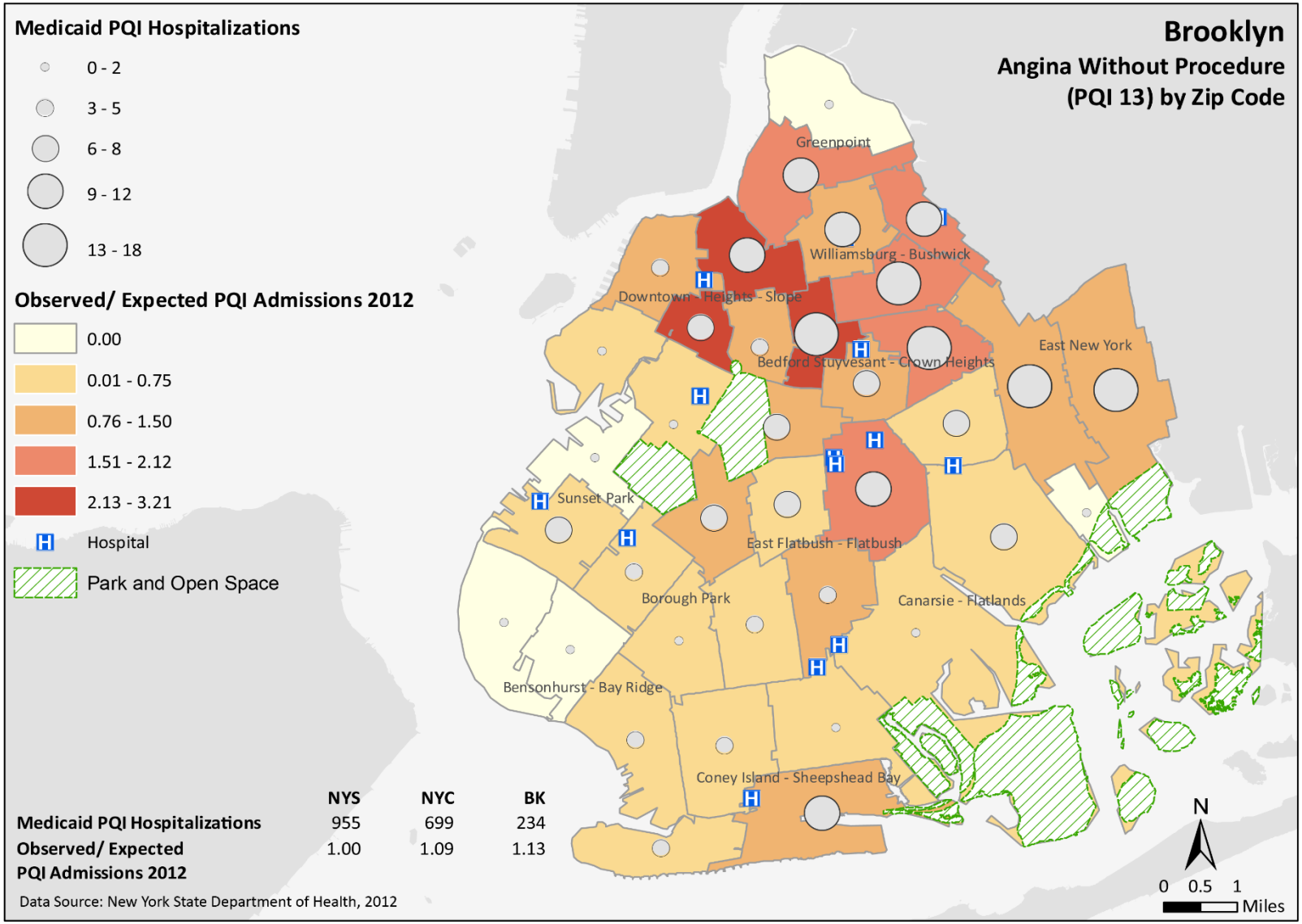
48. Urinary Tract Infection (PQI 12) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	7,216	4,572	1,375
Observed/ Expected PQI Admissions 2012	1.00	1.04	0.96

Prepared by The New York Academy of Medicine

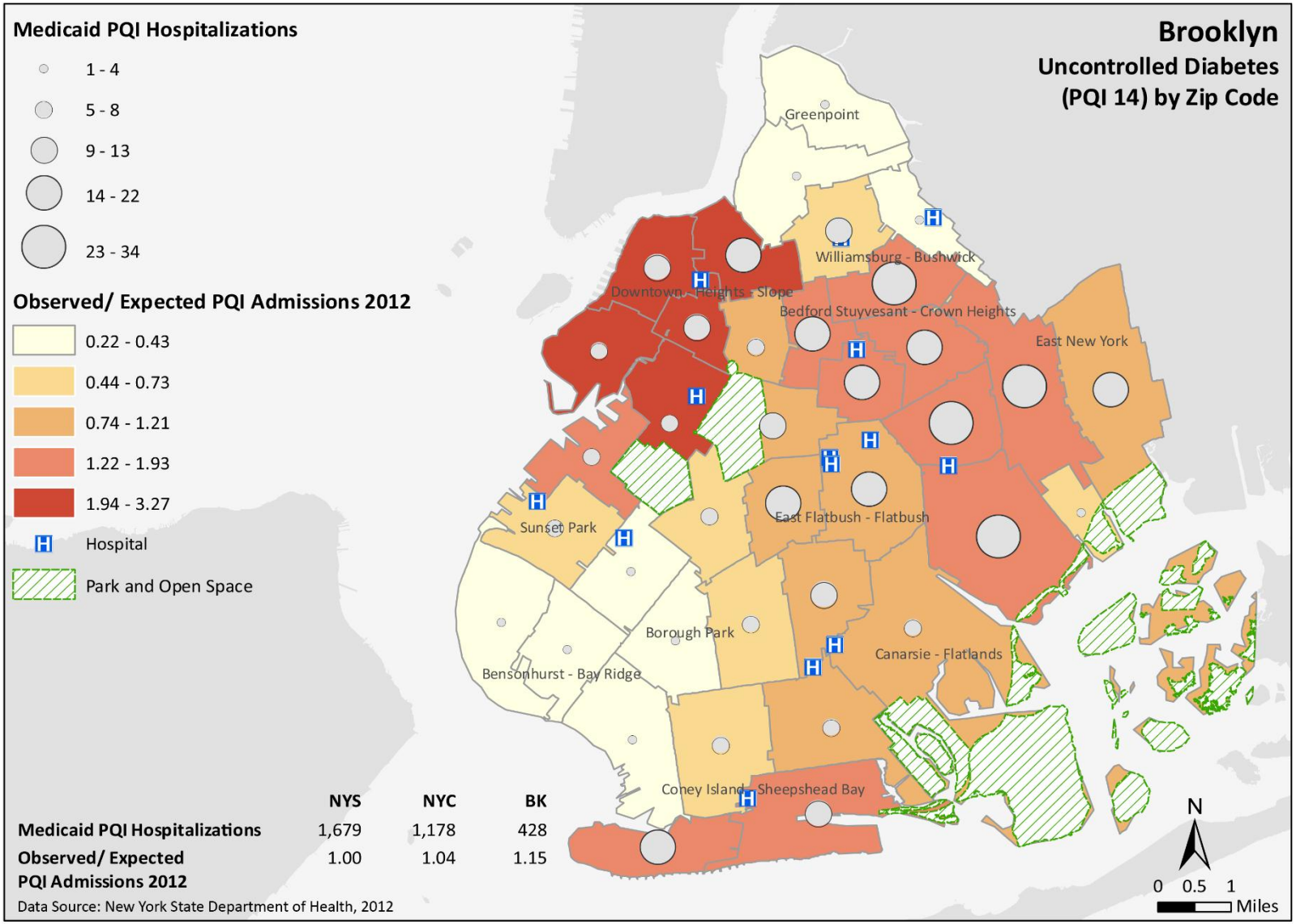
49. Angina Without Procedure (PQI 13) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	955	699	234
Observed/ Expected PQI Admissions 2012	1.00	1.09	1.13

Prepared by The New York Academy of Medicine

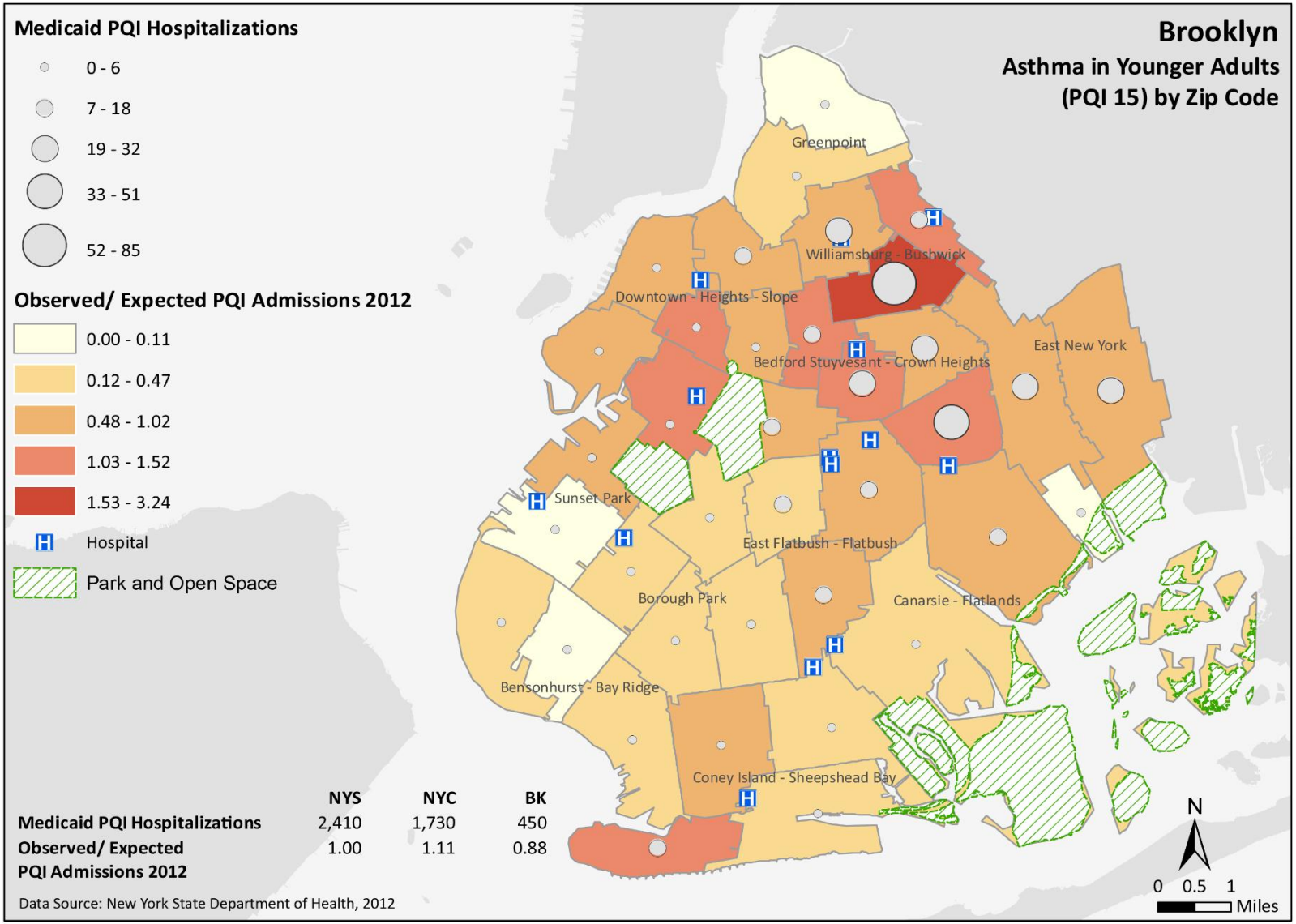
50. Uncontrolled Diabetes (PQI 14) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	1,679	1,178	428
Observed/ Expected PQI Admissions 2012	1.00	1.04	1.15

Prepared by The New York Academy of Medicine

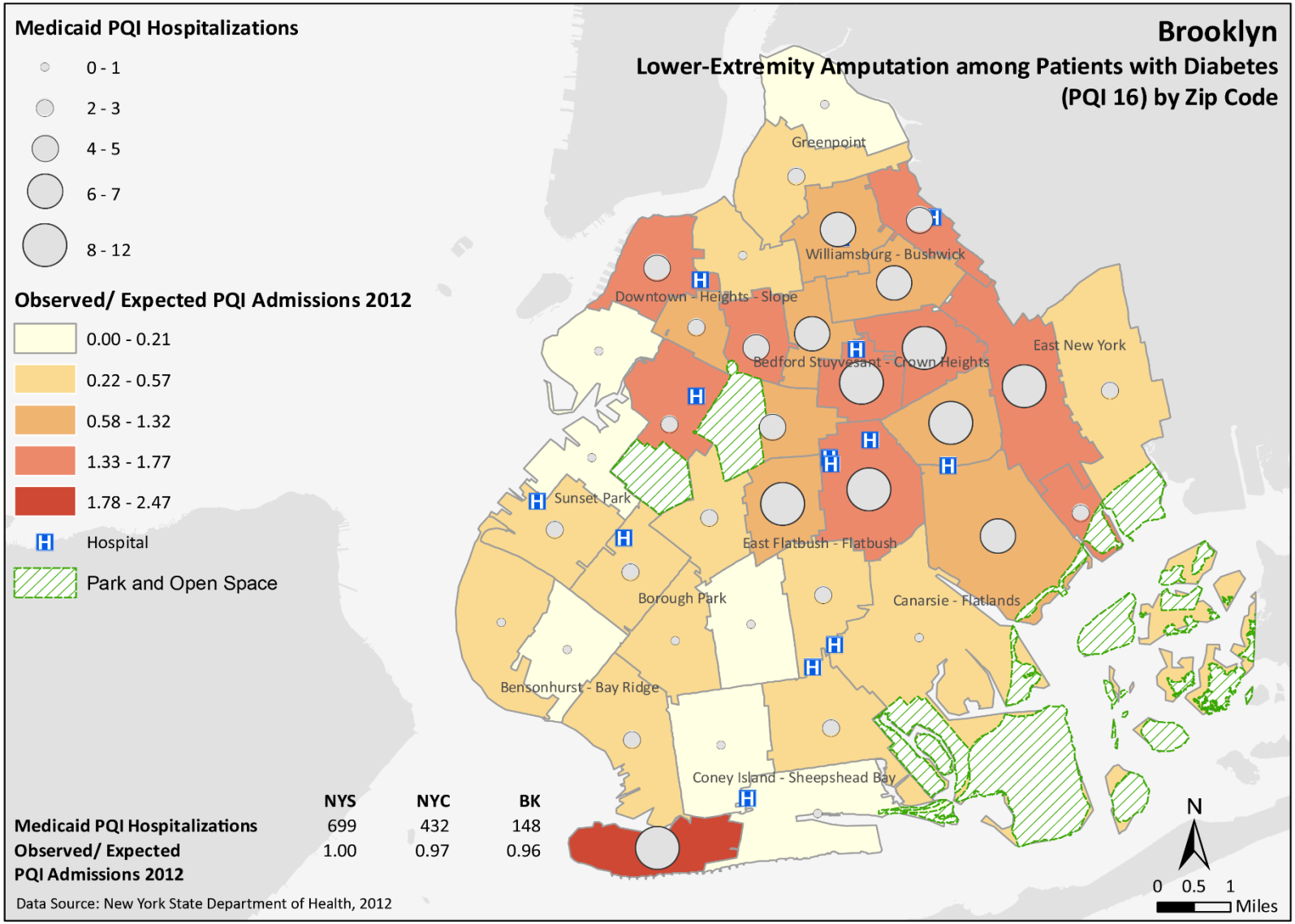
51. Asthma in Younger Adults (PQI 15) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	2,410	1,730	450
Observed/ Expected PQI Admissions 2012	1.00	1.11	0.88

Prepared by The New York Academy of Medicine

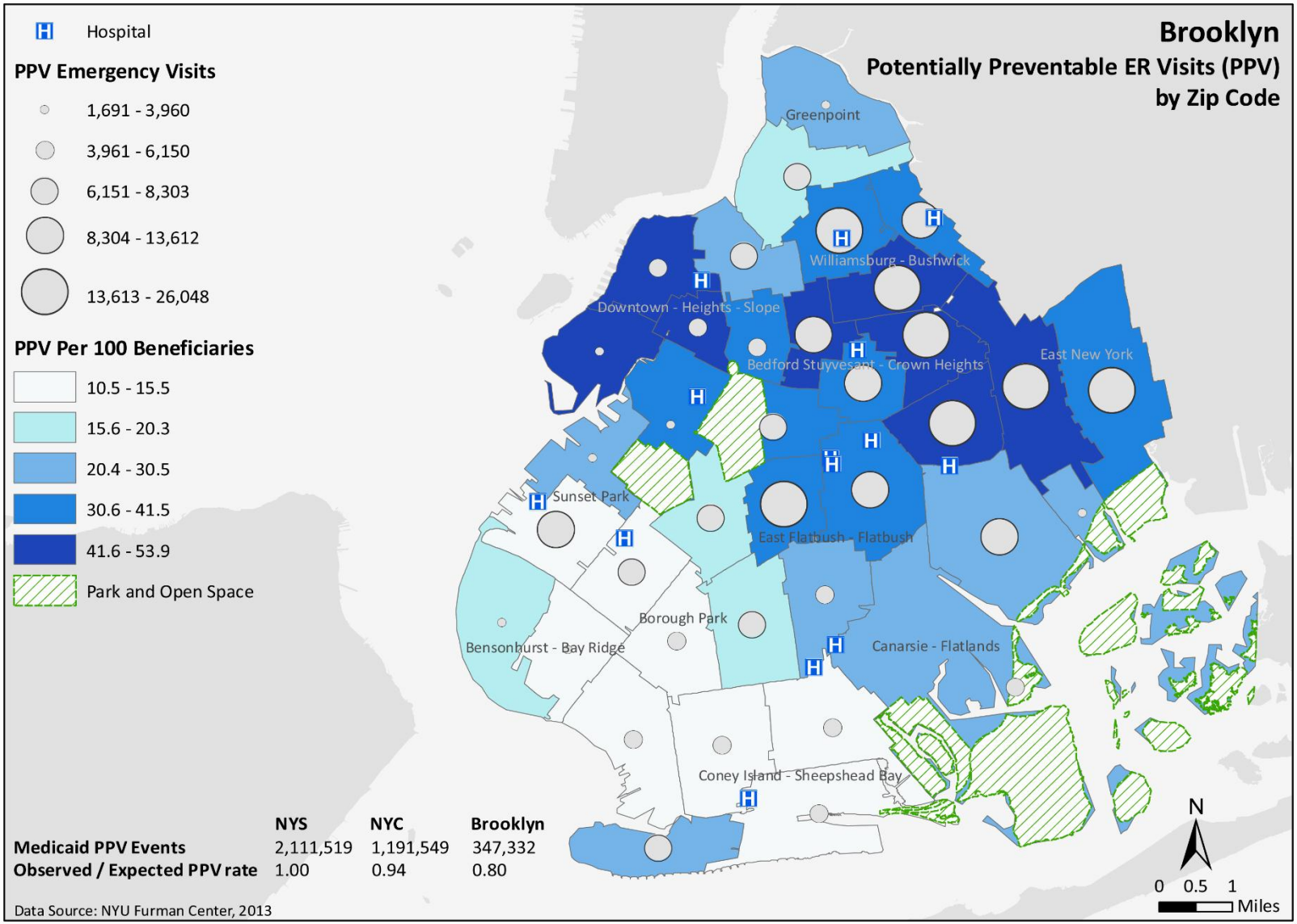
52. Lower-Extremity Amputation among Patients with Diabetes (PQI 16) by Zip Code



	NYS	NYC	BK
Medicaid PQI Hospitalizations	699	432	148
Observed/ Expected PQI Admissions 2012	1.00	0.97	0.96

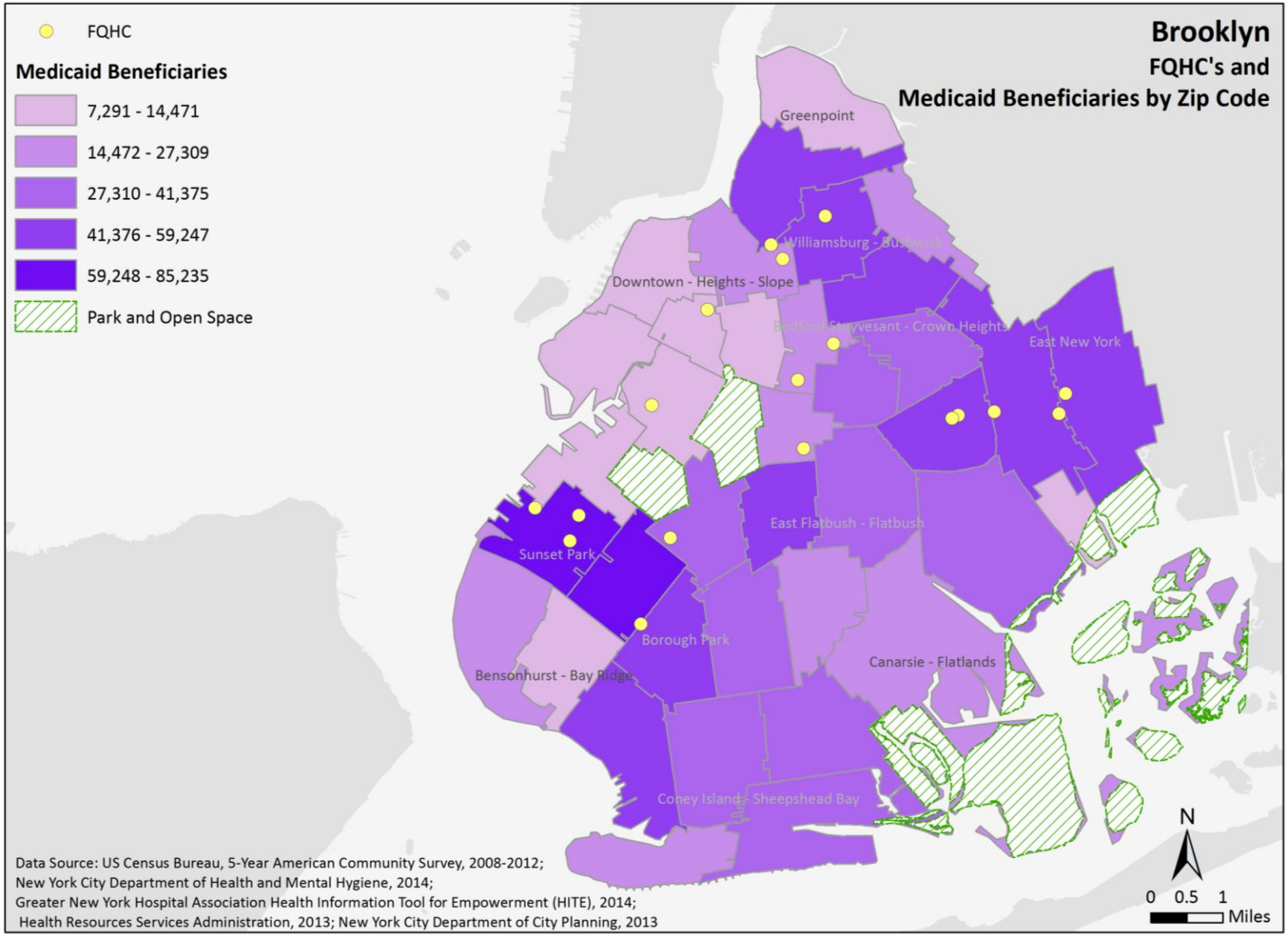
Prepared by The New York Academy of Medicine

53. Potentially Preventable ER Visits (PPV) by Zip Code



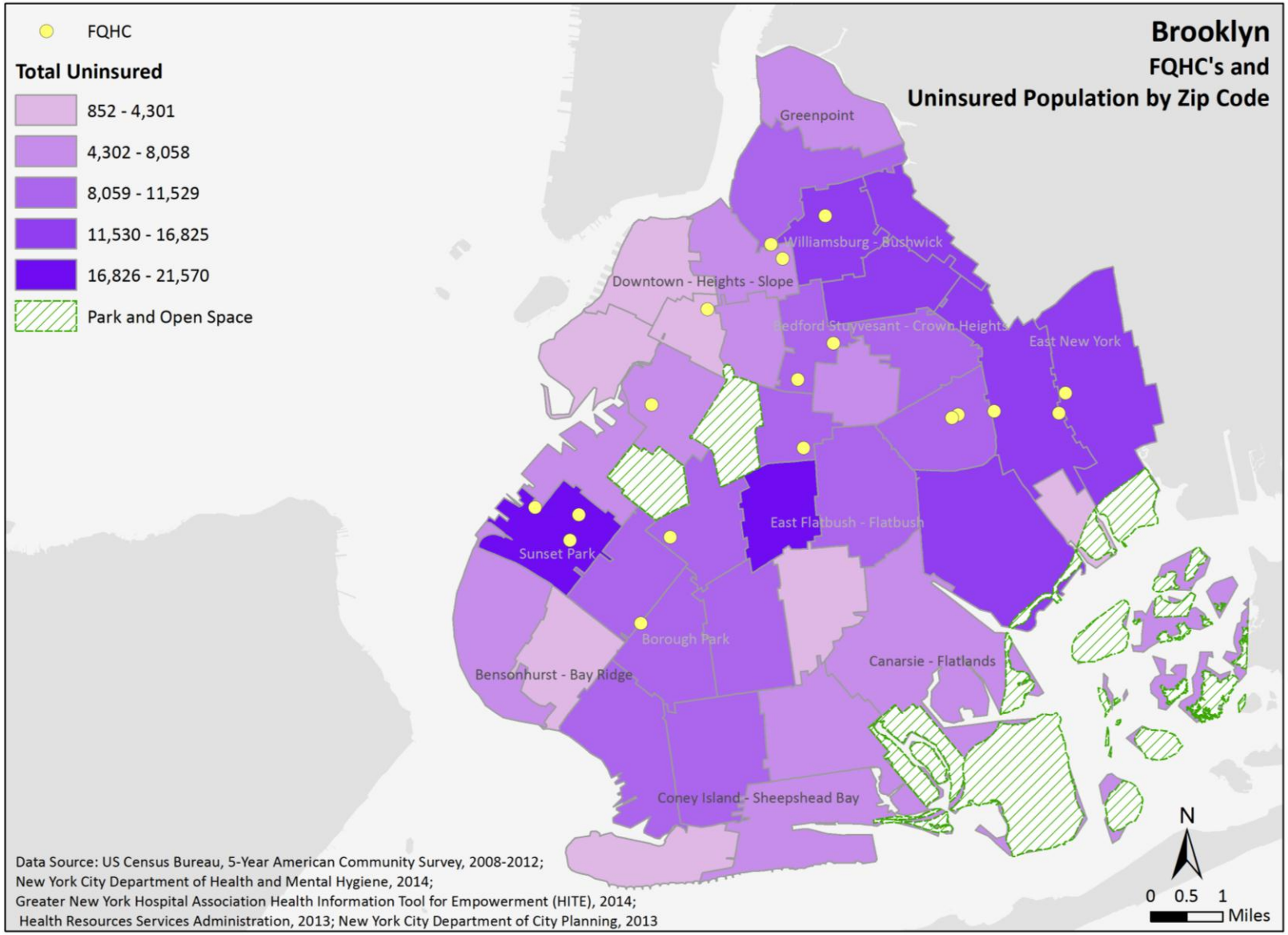
Prepared by The New York Academy of Medicine

54. FQHCs and Medicaid Beneficiaries by Zip Code



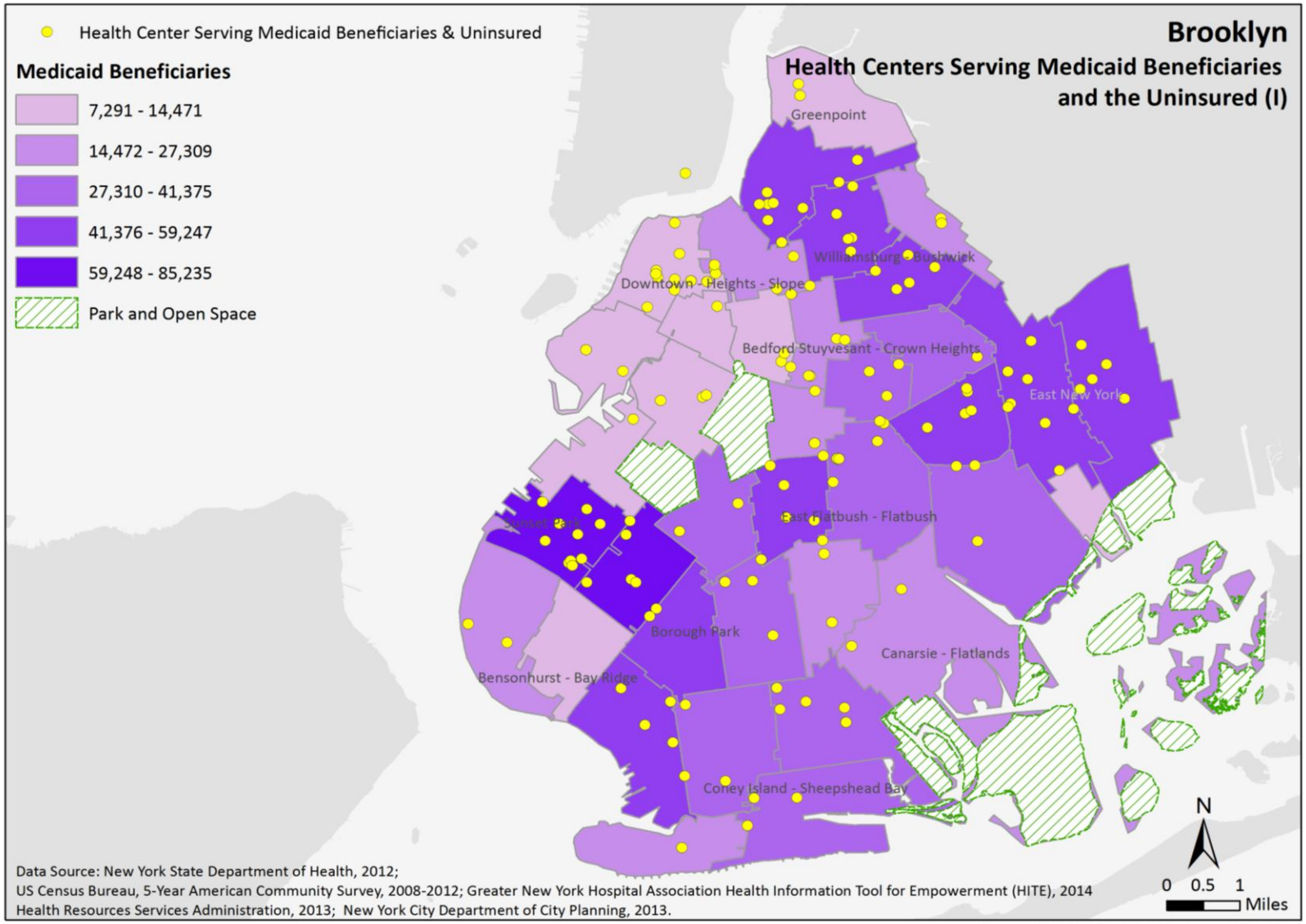
Prepared by The New York Academy of Medicine

55. FQHCs and Uninsured Population by Zip Code



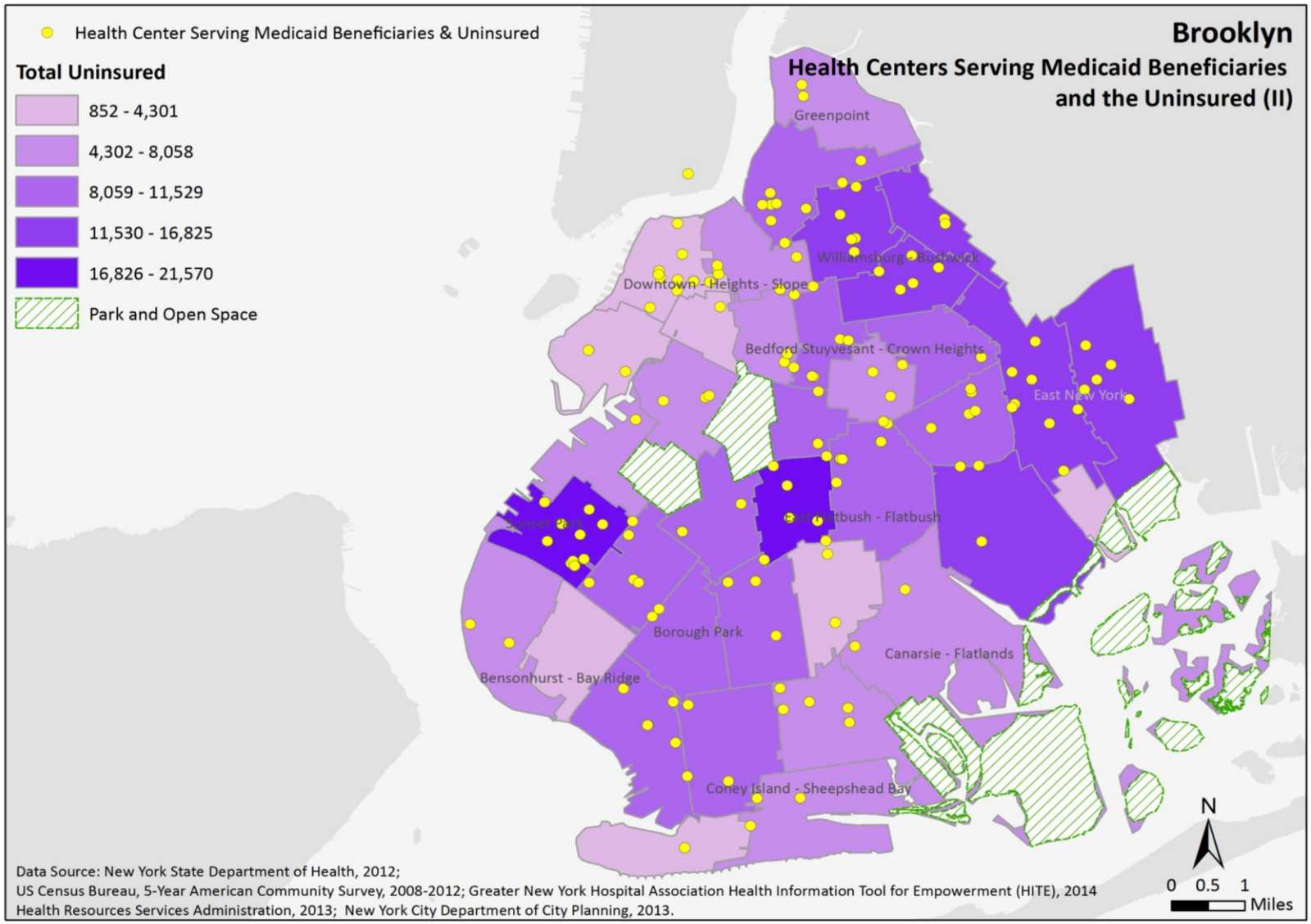
Prepared by The New York Academy of Medicine

56. Health Centers Serving Medicaid Beneficiaries and the Uninsured (I)



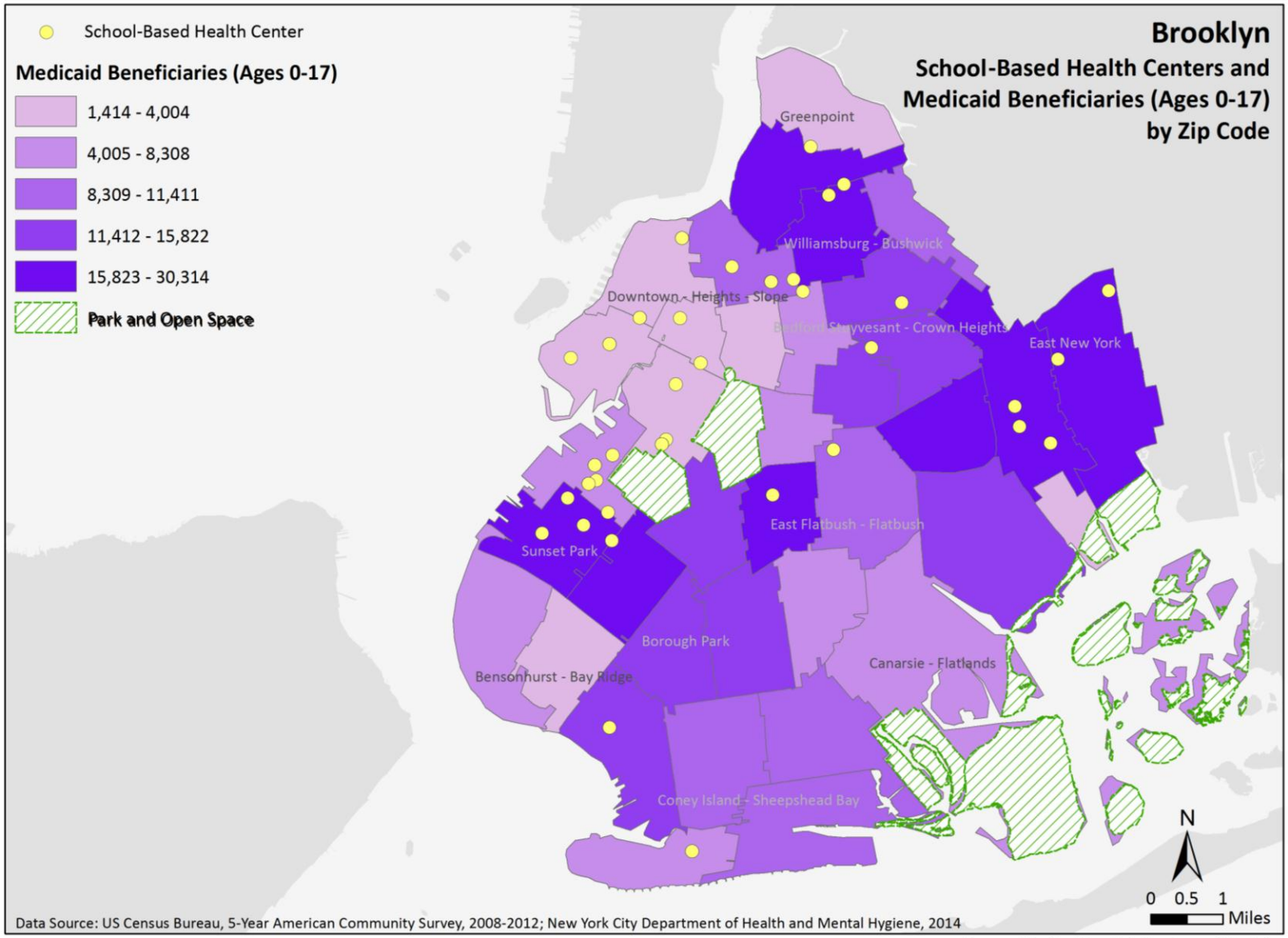
Prepared by The New York Academy of Medicine

57. Health Centers Serving Medicaid Beneficiaries and the Uninsured (II)



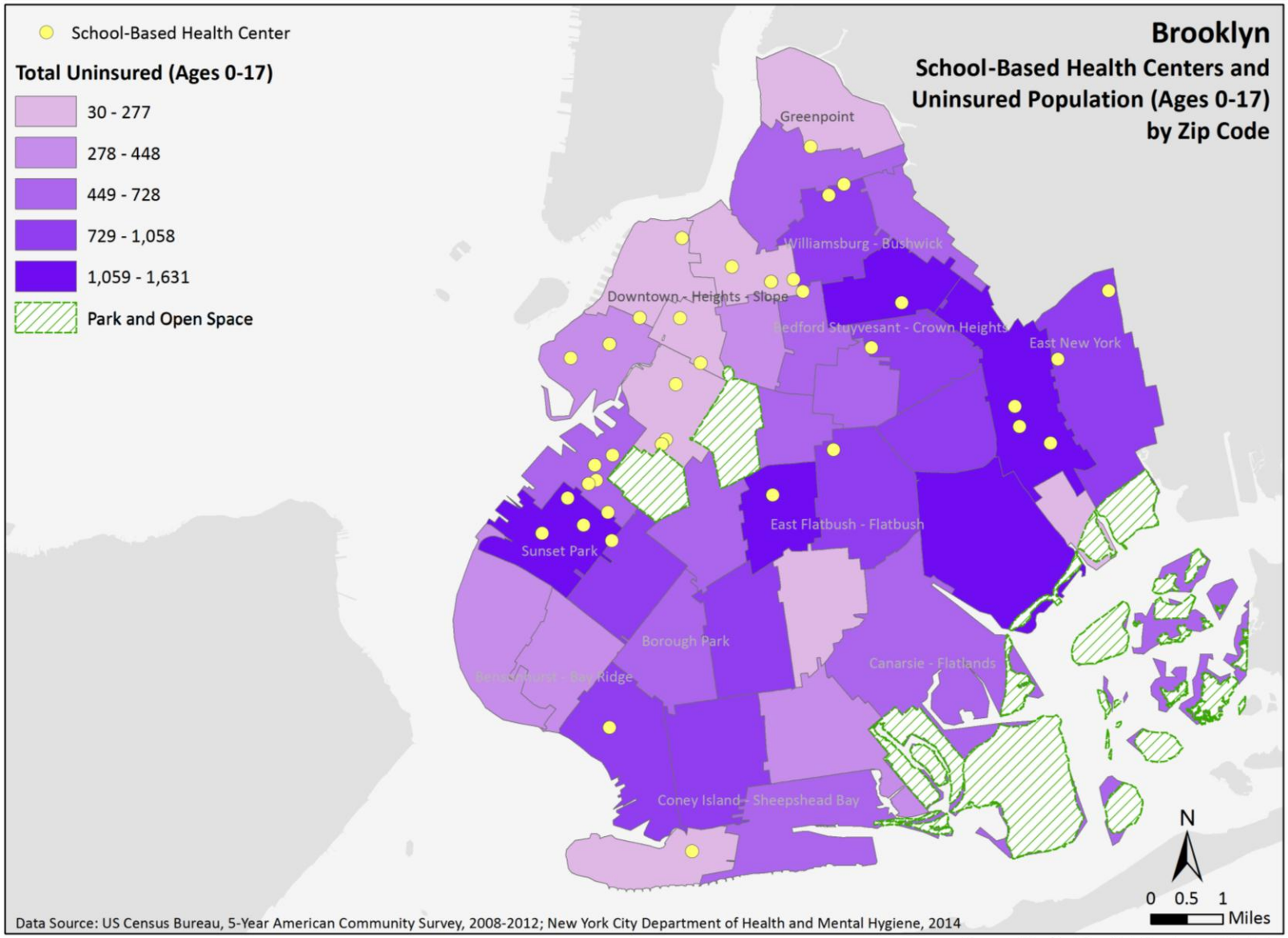
Prepared by The New York Academy of Medicine

58. School-Based Health Centers and Medicaid Beneficiaries (Ages 0-17) by Zip Code



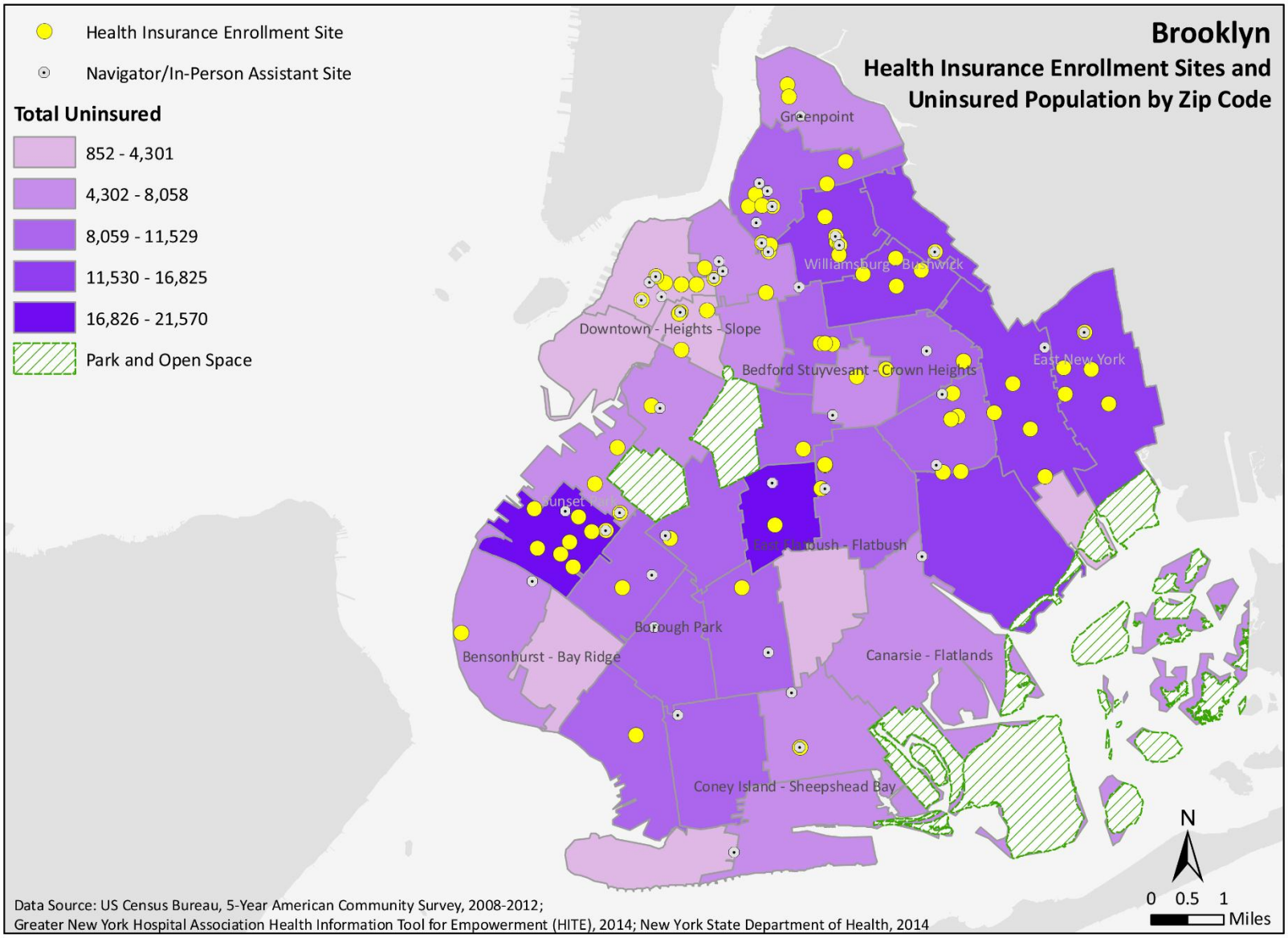
Prepared by The New York Academy of Medicine

59. School-Based Health Centers and Uninsured Population (Ages 0-17) by Zip Code



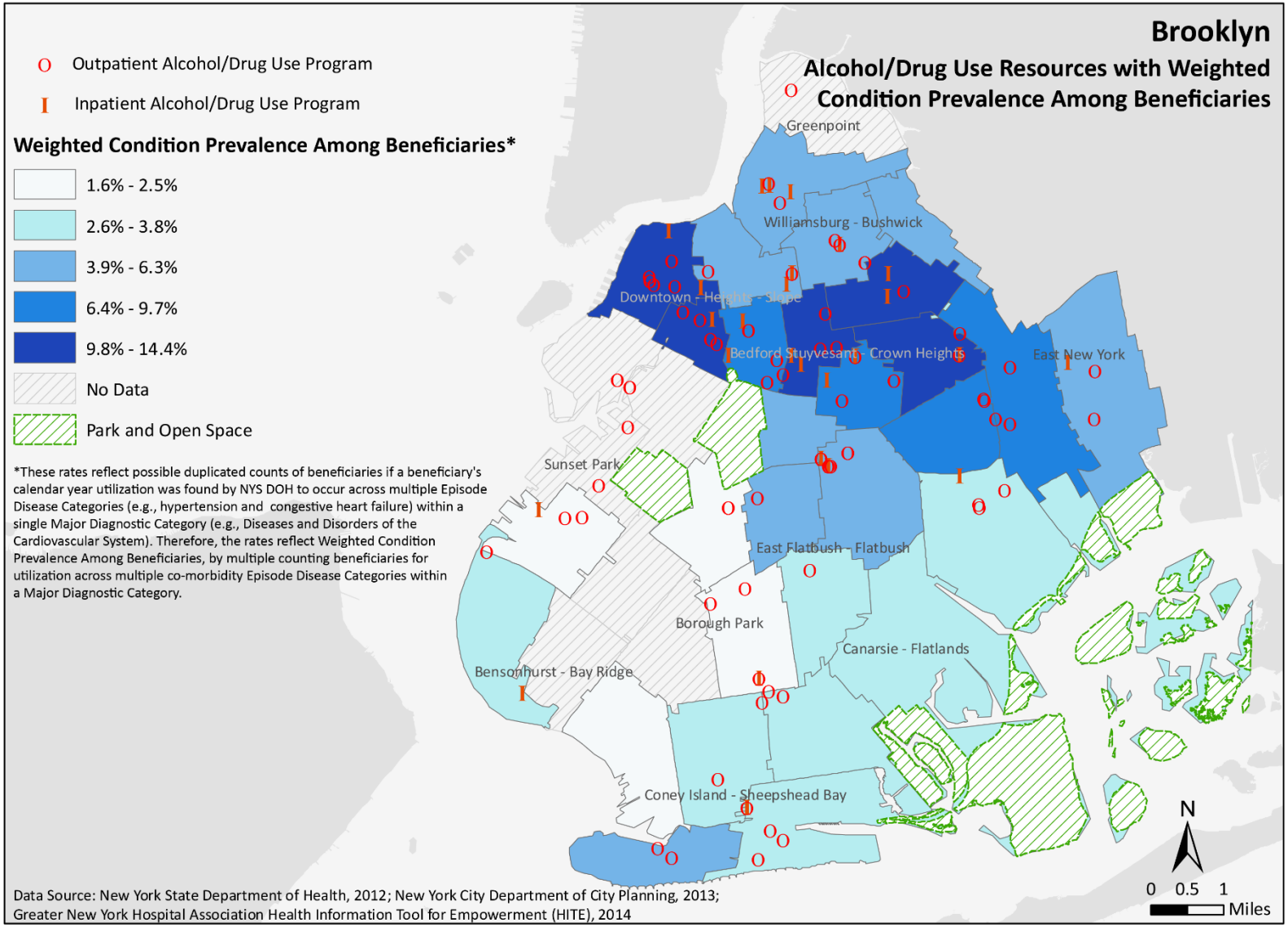
Prepared by The New York Academy of Medicine

60. Health Insurance Enrollment Sites and Uninsured Population by Zip Code



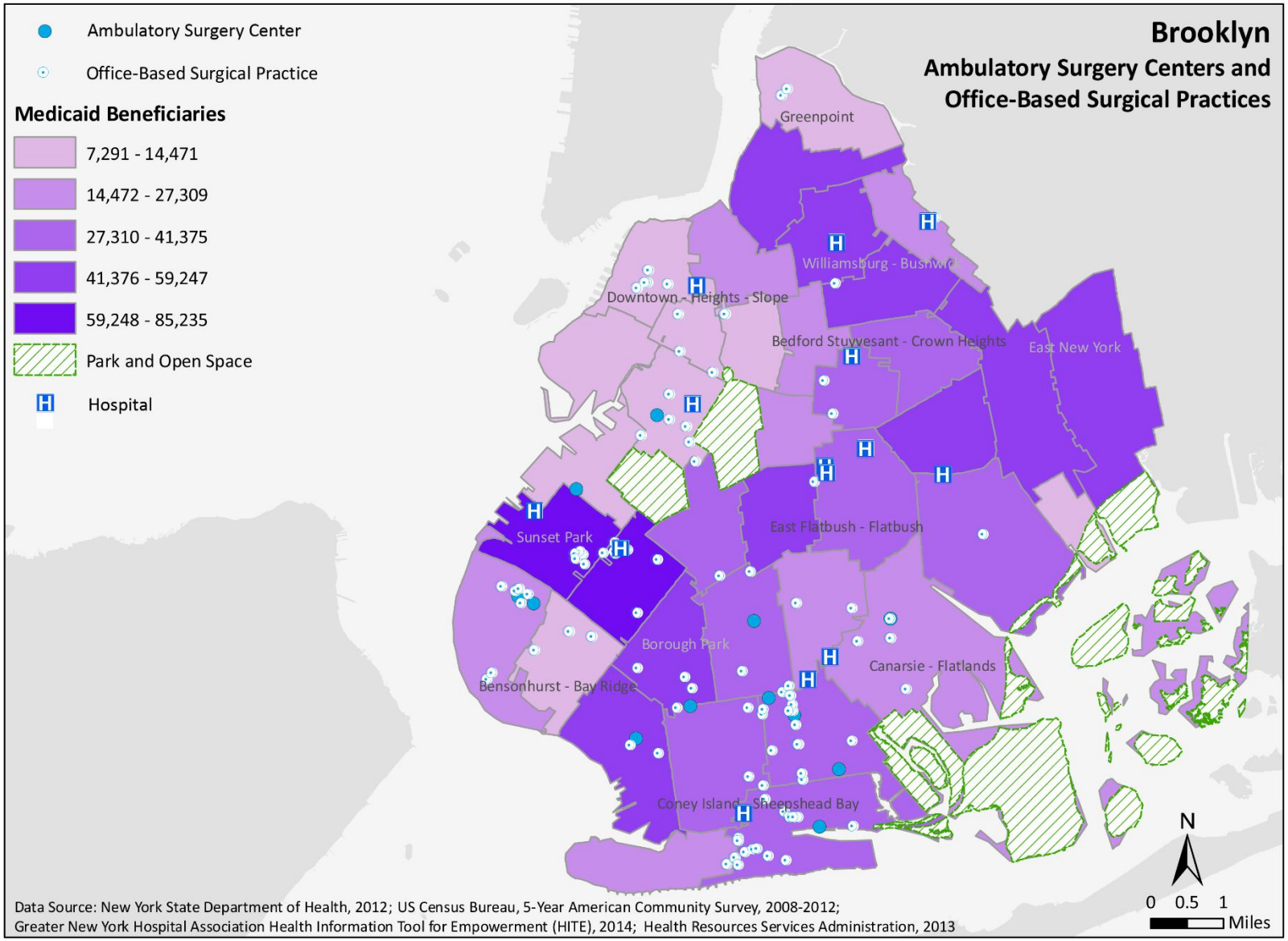
Prepared by The New York Academy of Medicine

61. Alcohol/Drug Use Resources with Weighted Condition Prevalence Among Beneficiaries



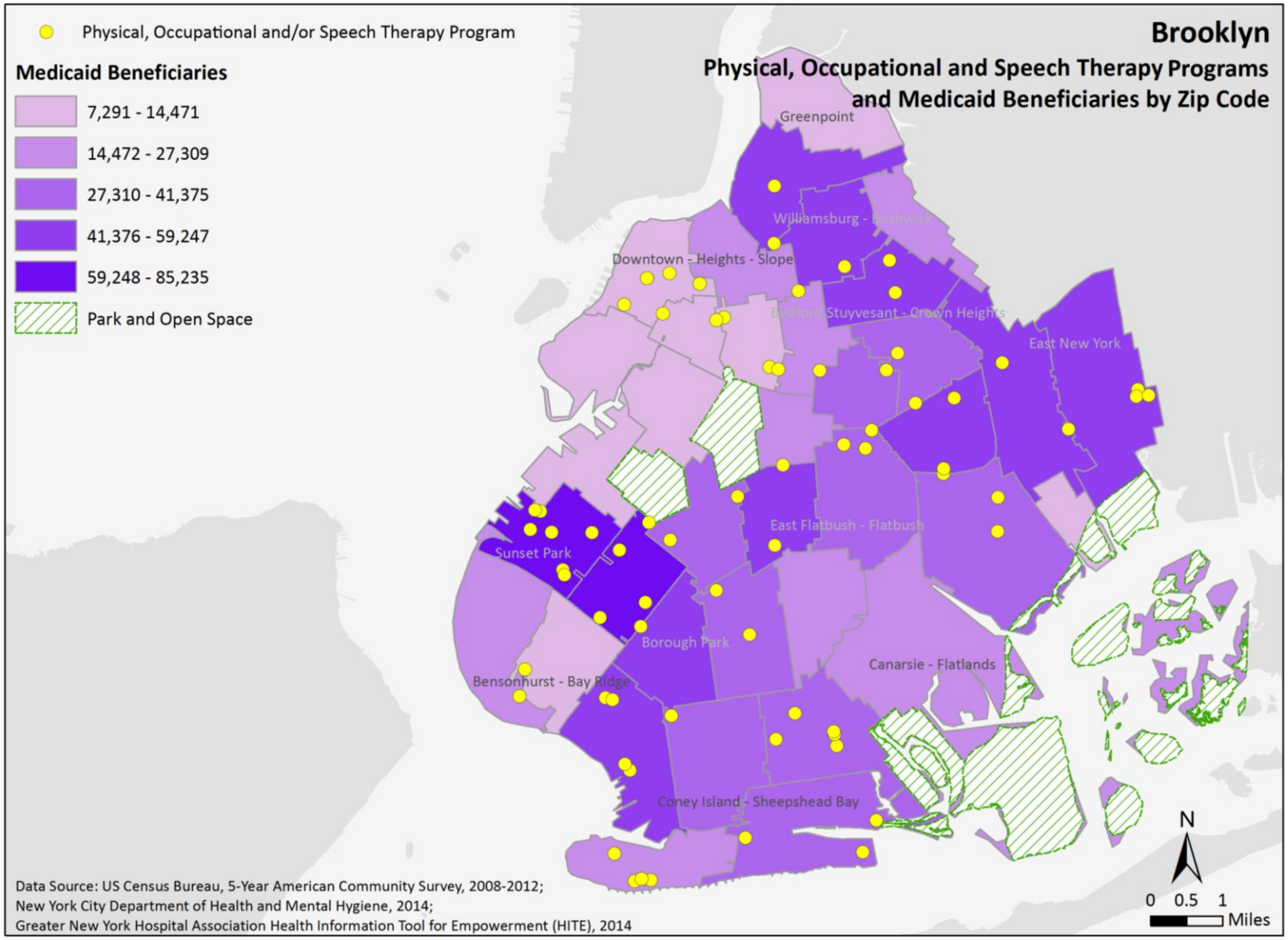
Prepared by The New York Academy of Medicine

62. Ambulatory Surgery Centers and Office-Based Surgical Practices



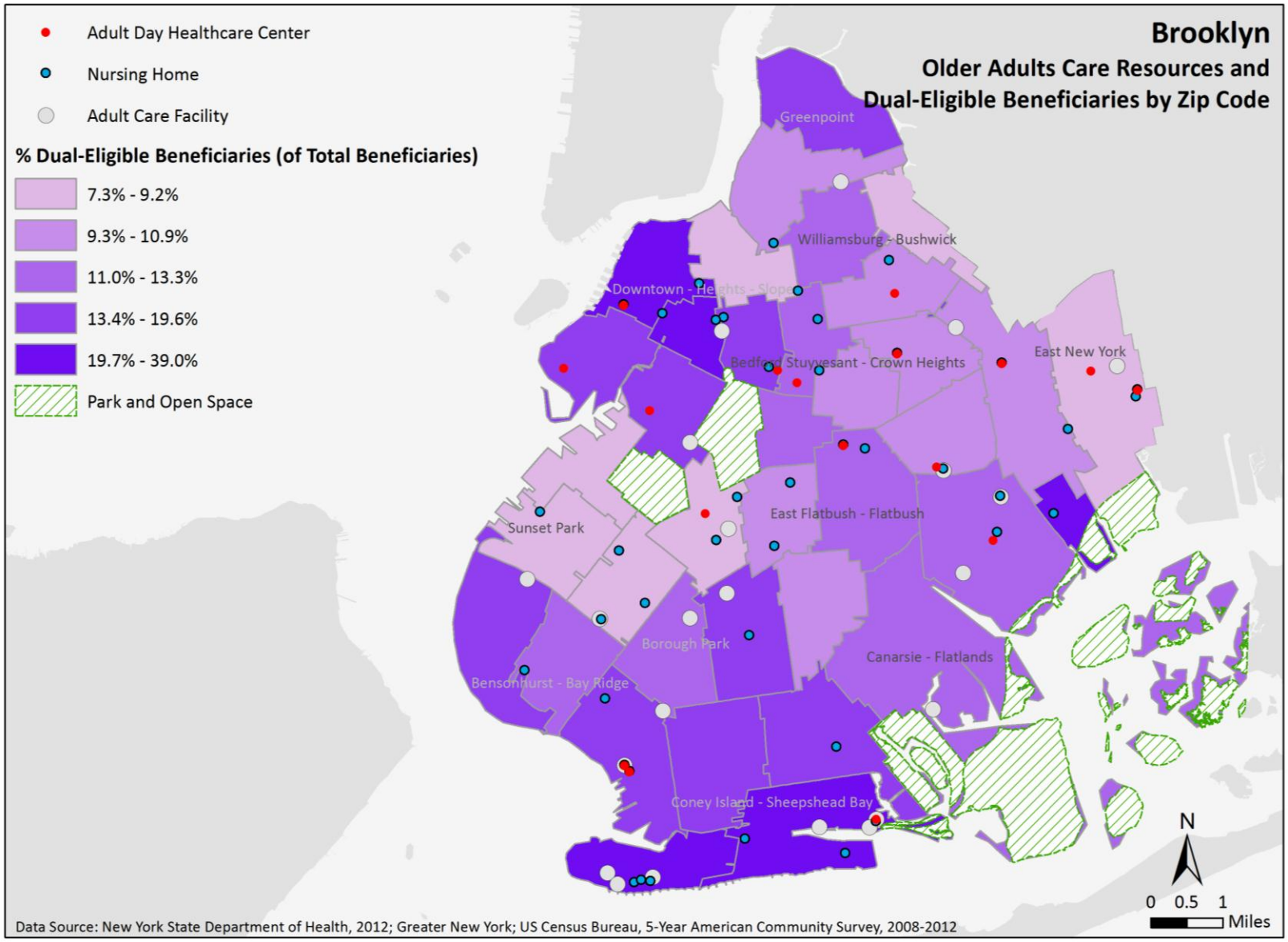
Prepared by The New York Academy of Medicine

63. Physical, Occupational and Speech Therapy Programs and Medicaid Beneficiaries by Zip Code



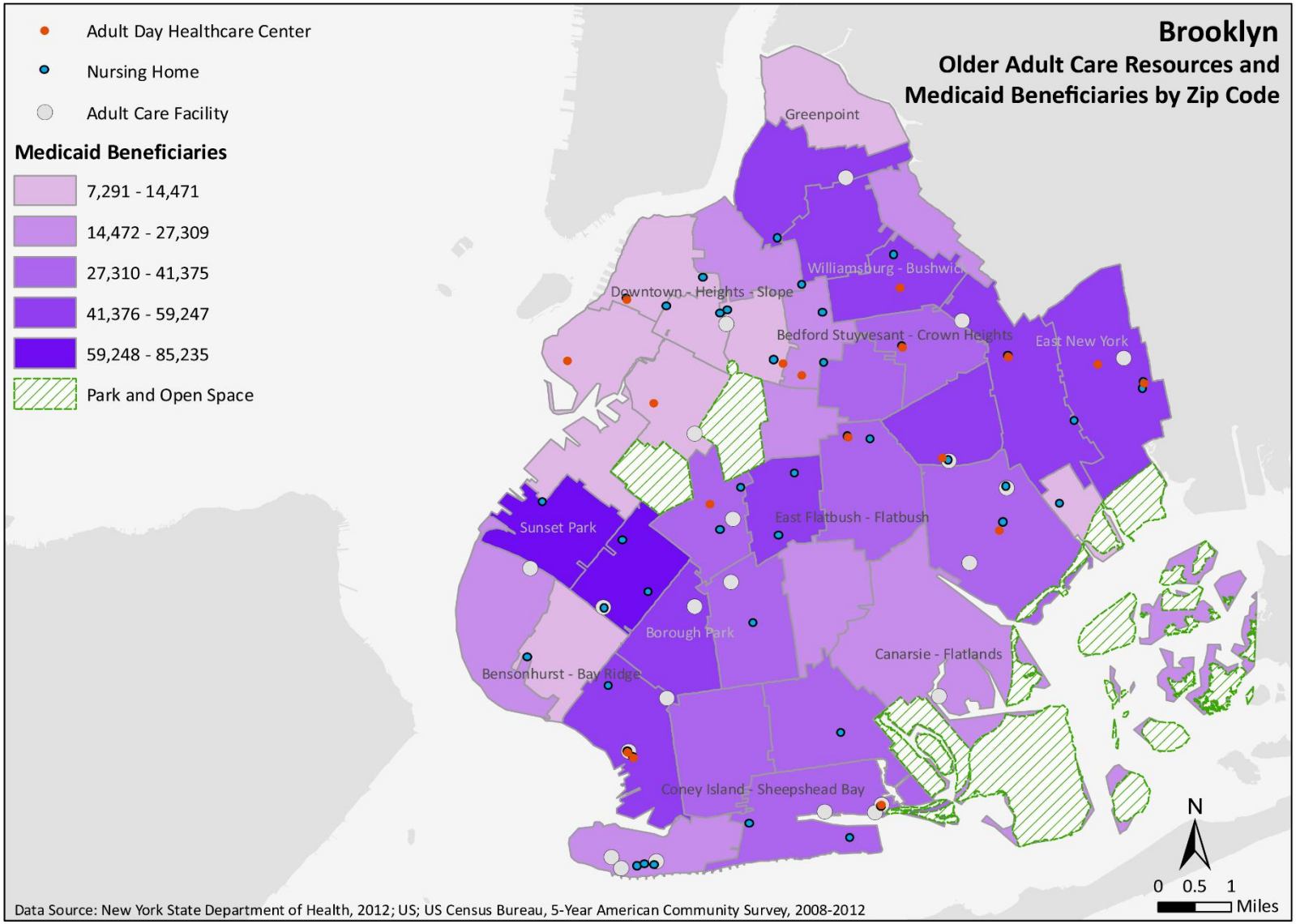
Prepared by The New York Academy of Medicine

64. Older Adults Care Resources and Dual-Eligible Beneficiaries by Zip Code



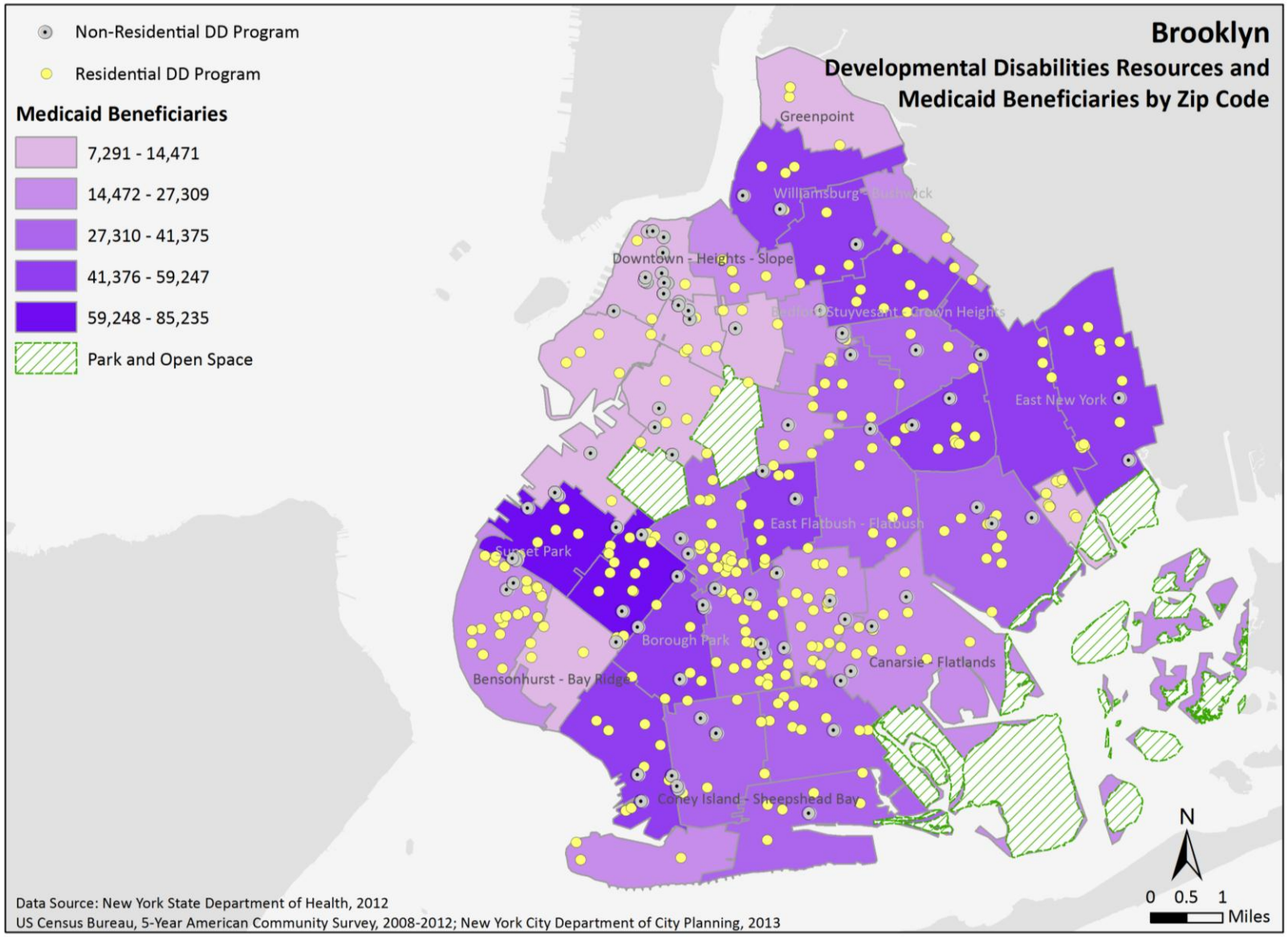
Prepared by The New York Academy of Medicine

65. Older Adult Care Resources and Medicaid Beneficiaries by Zip Code



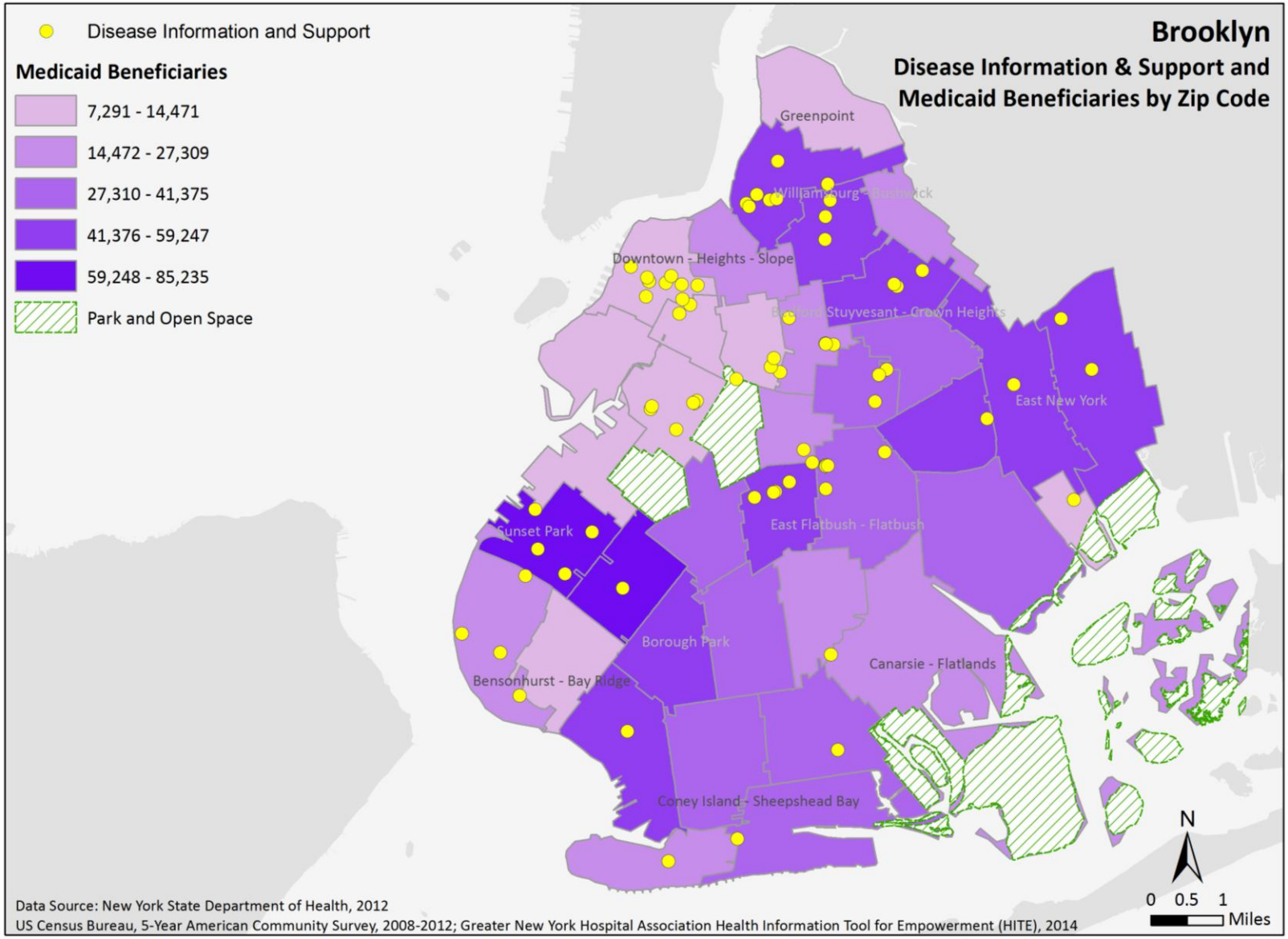
Prepared by The New York Academy of Medicine

66. Developmental Disabilities Resources and Medicaid Beneficiaries by Zip Code

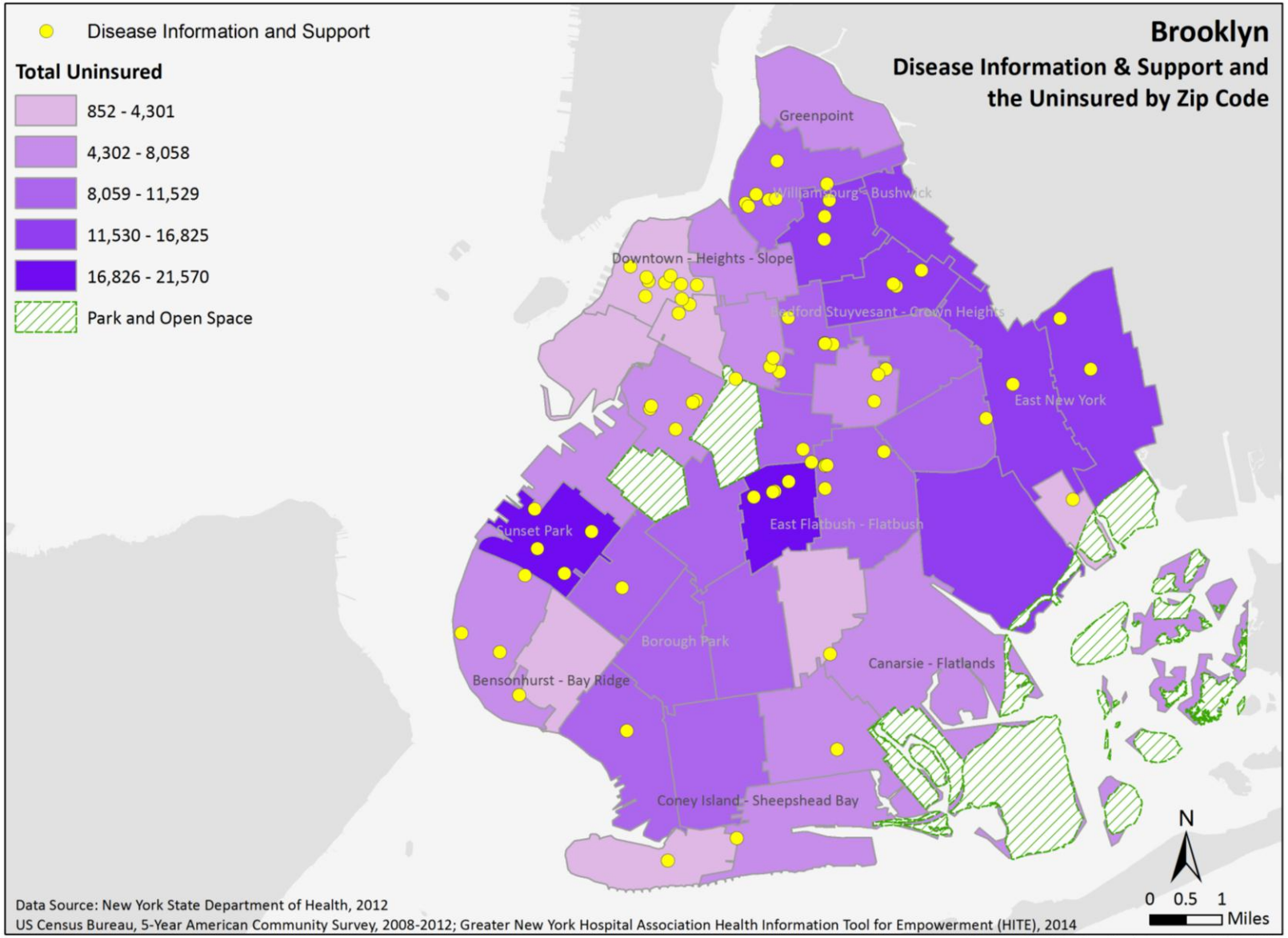


Prepared by The New York Academy of Medicine

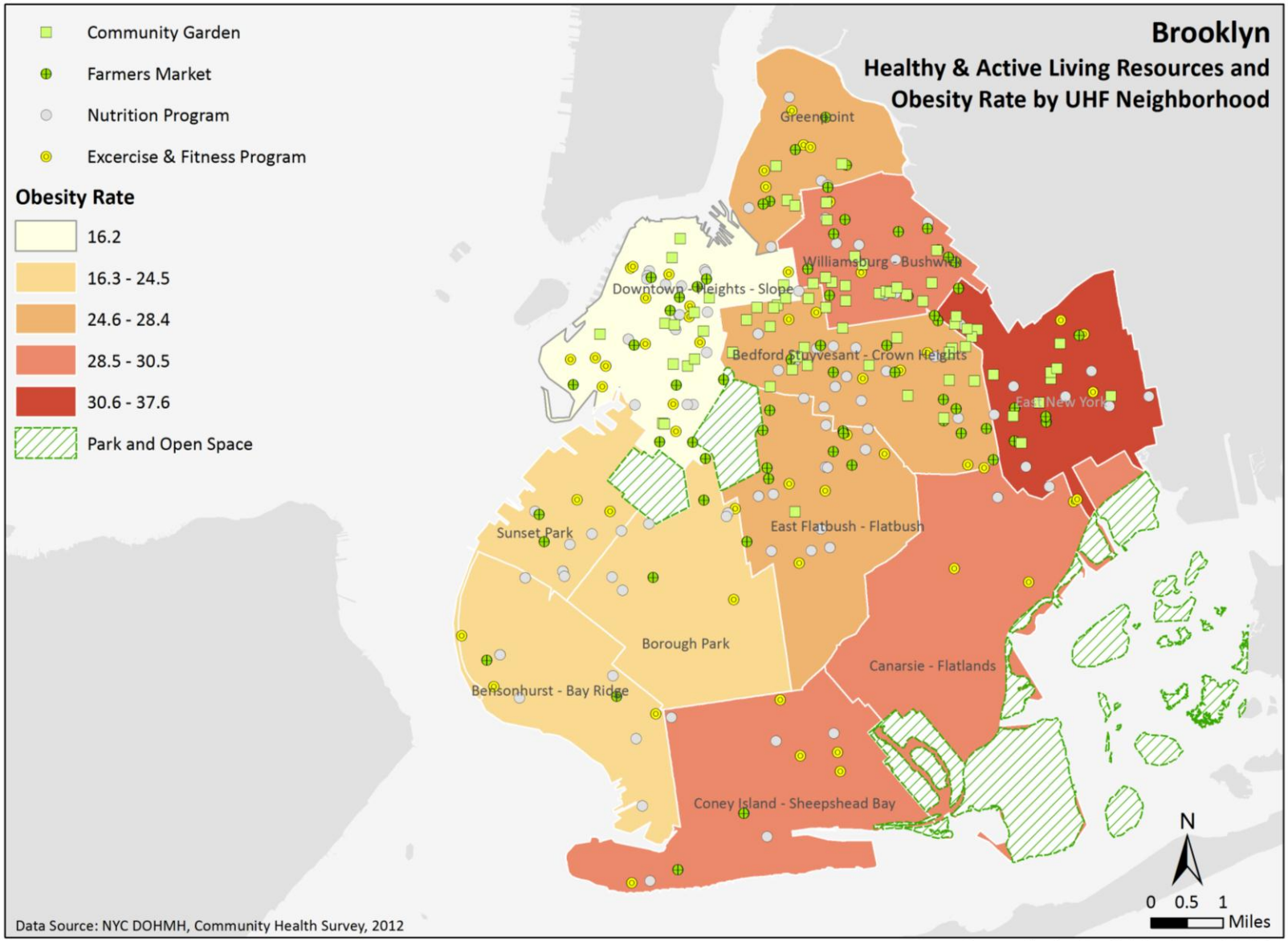
67. Disease Information and Support and Medicaid Beneficiaries by Zip Code



68. Disease Information and Support and the Uninsured by Zip Code



69. Healthy and Active Living Resources and Obesity Rate by UHF Neighborhood



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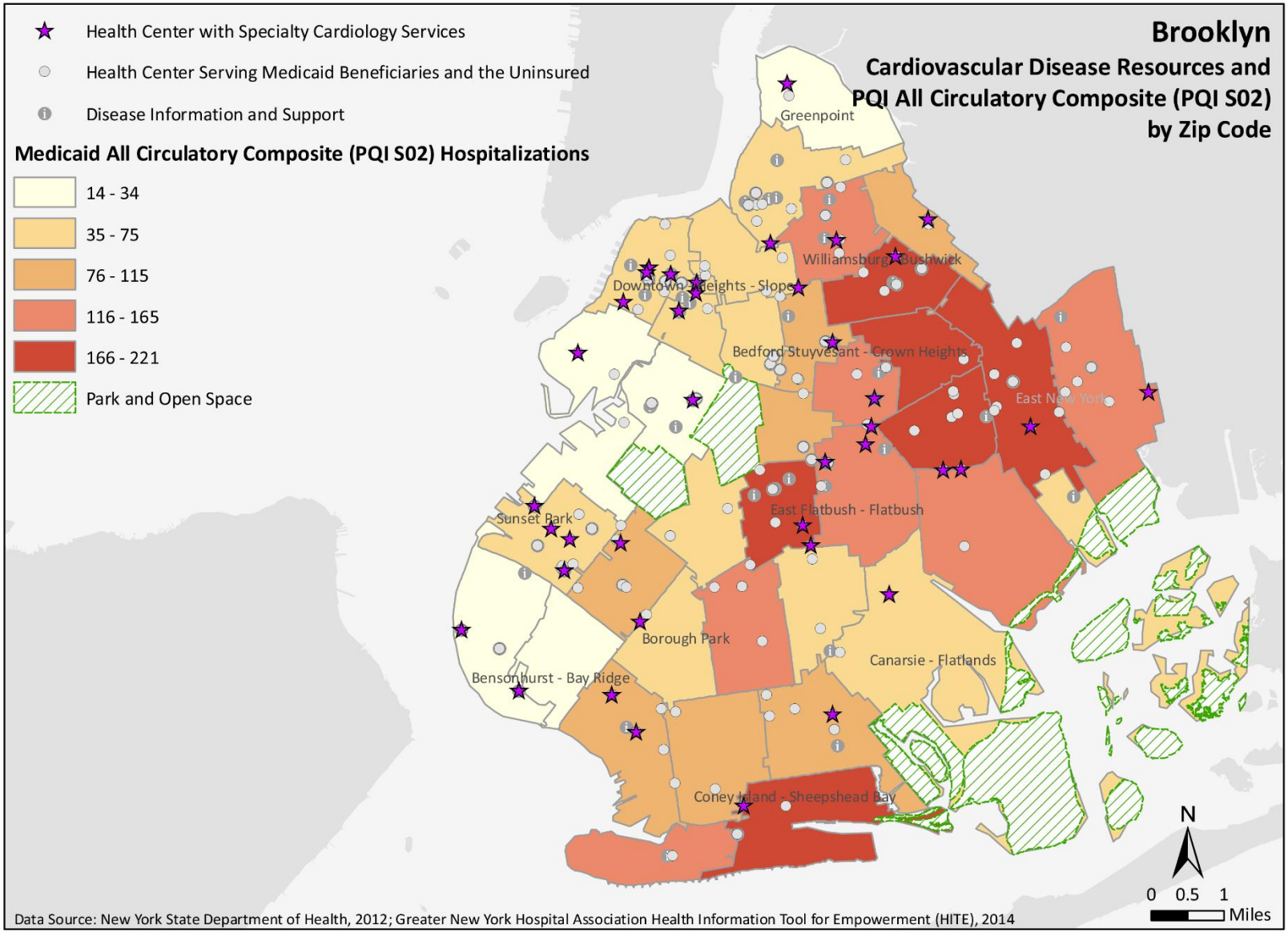

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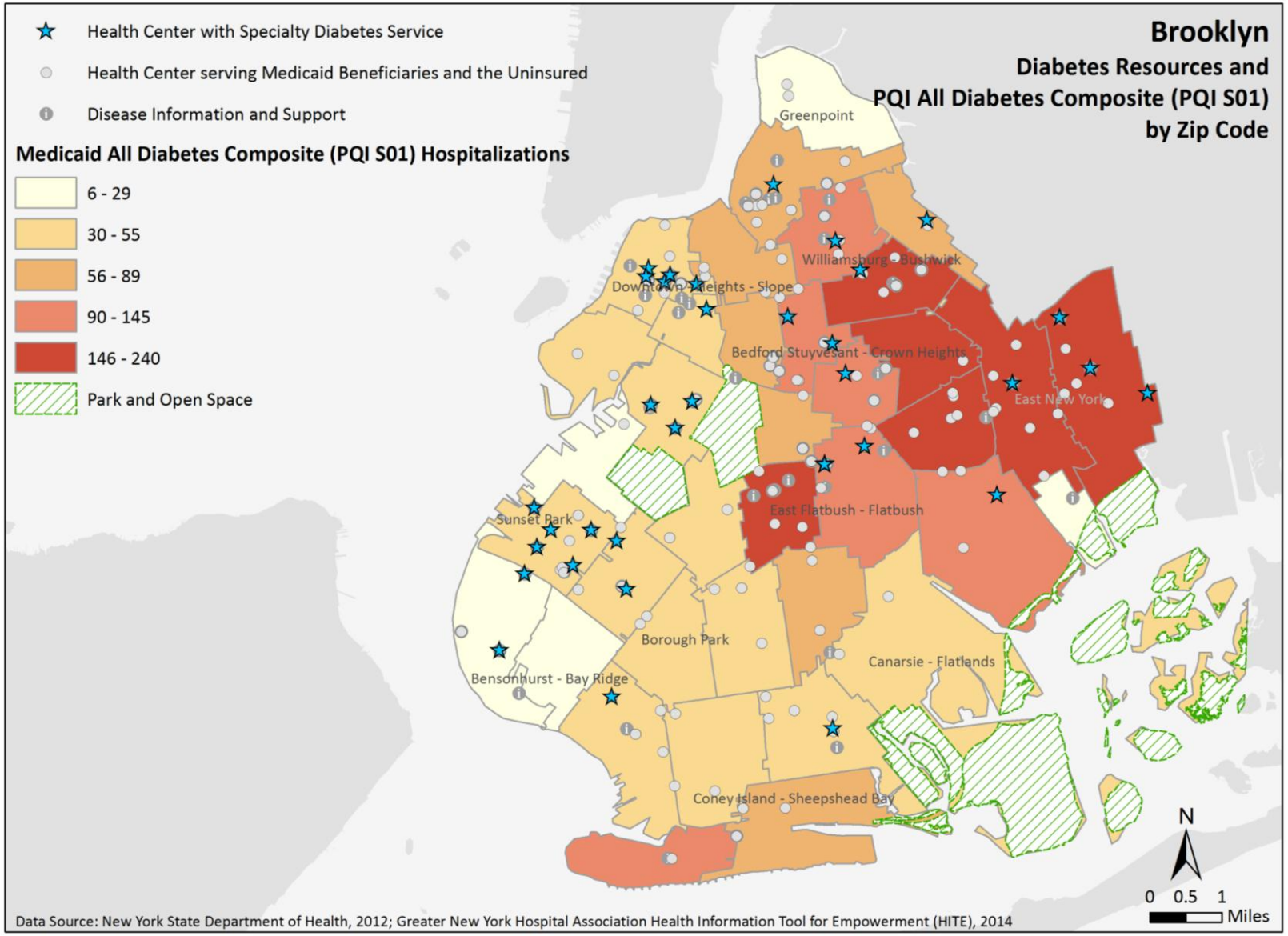

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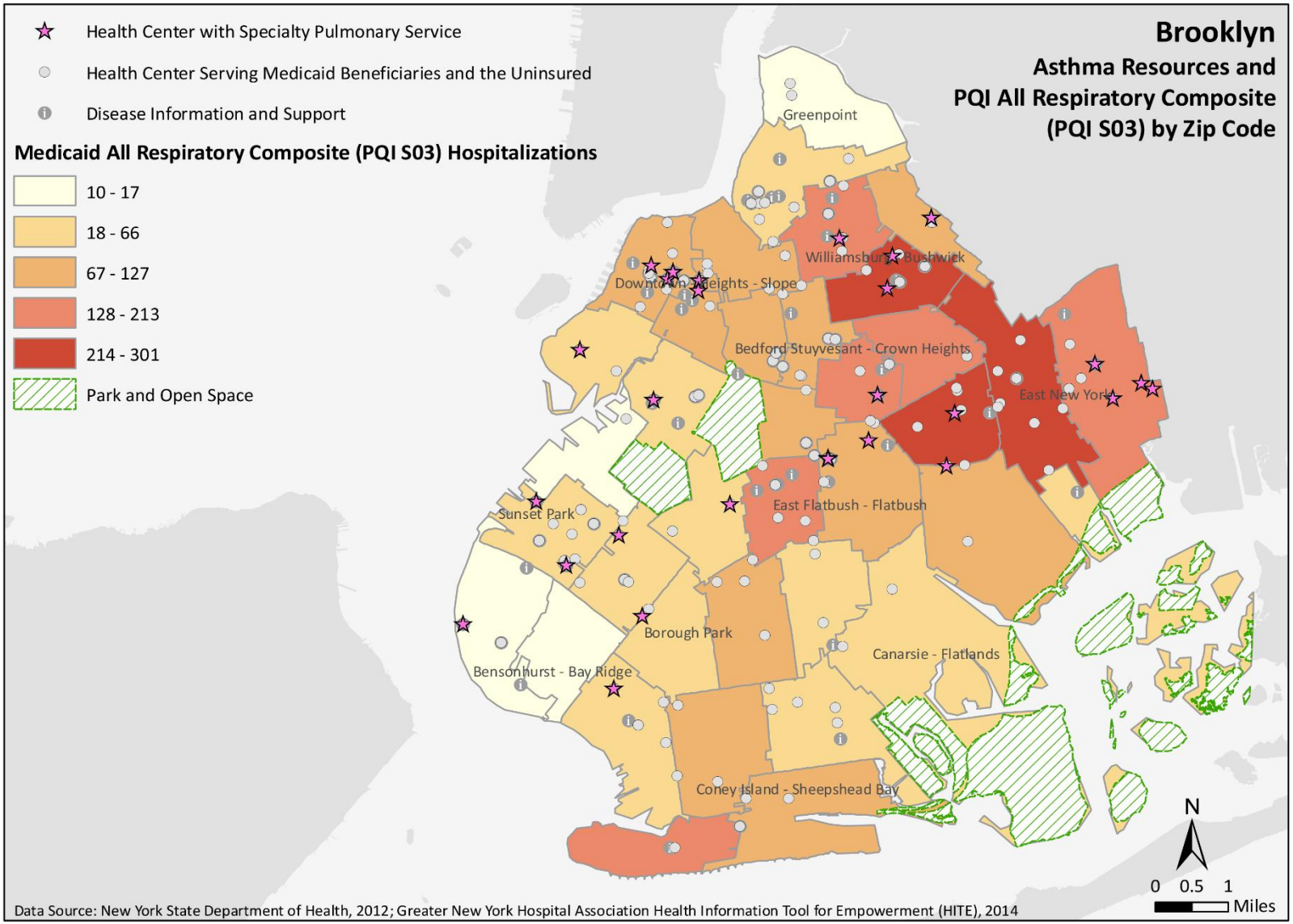

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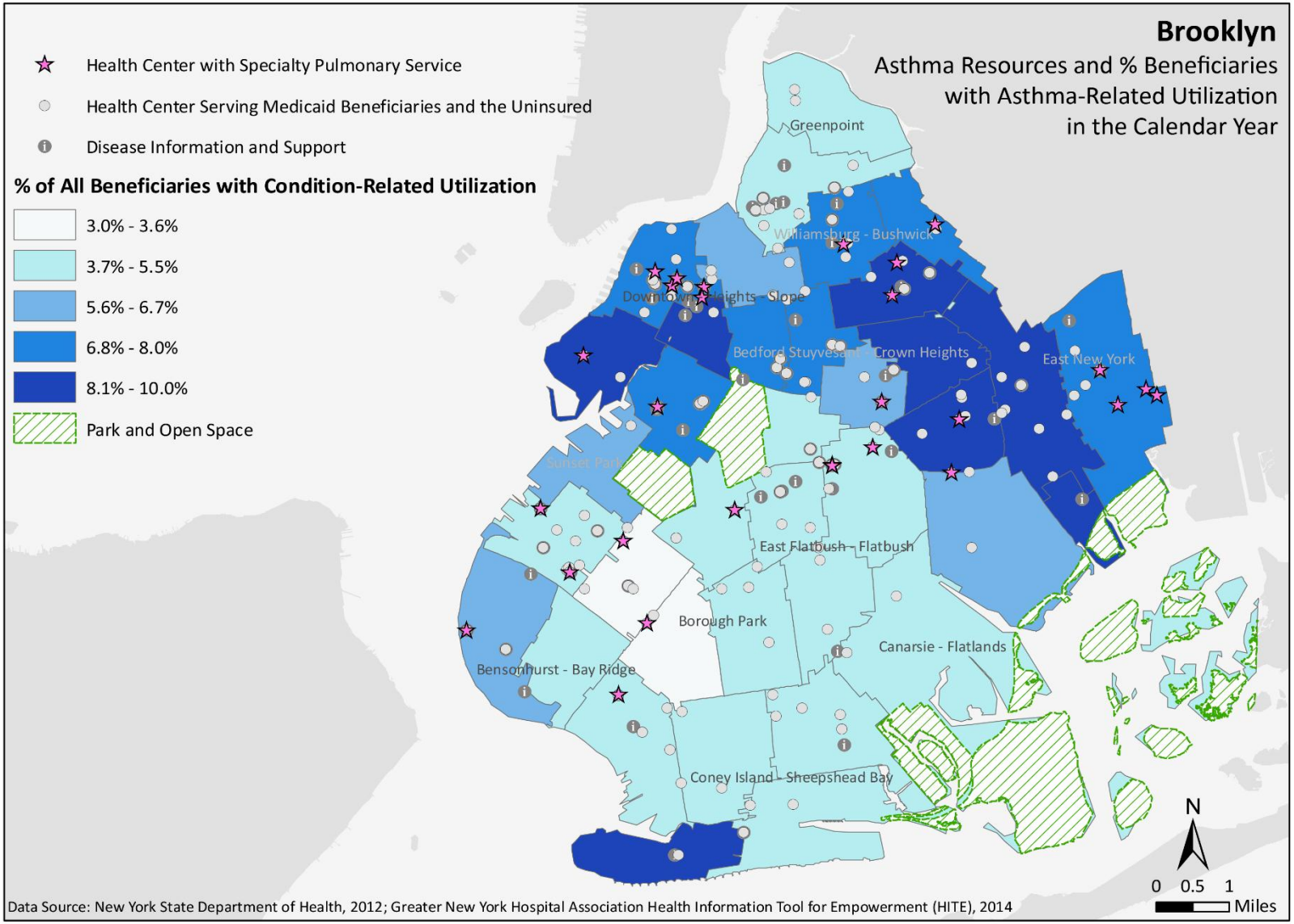

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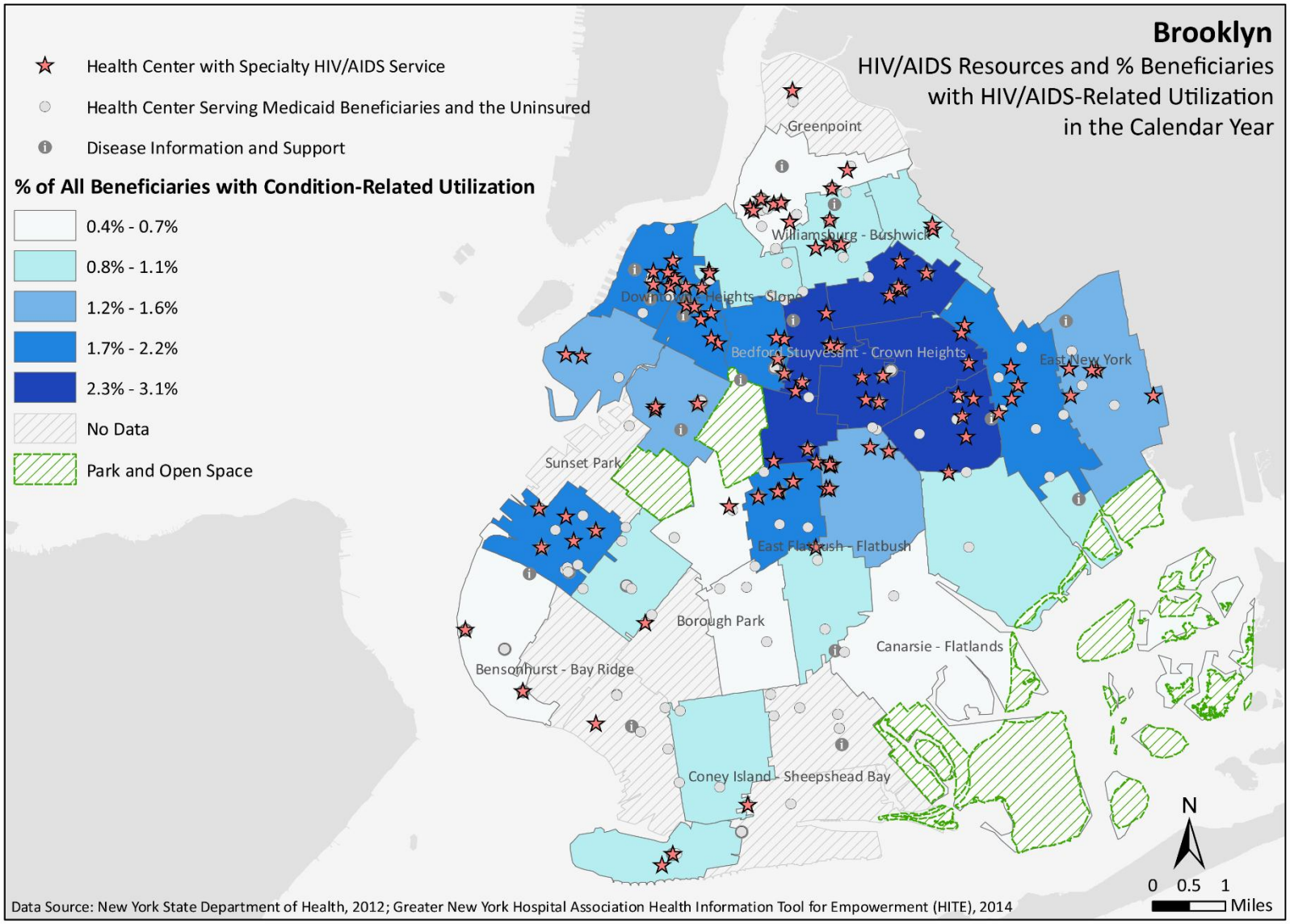

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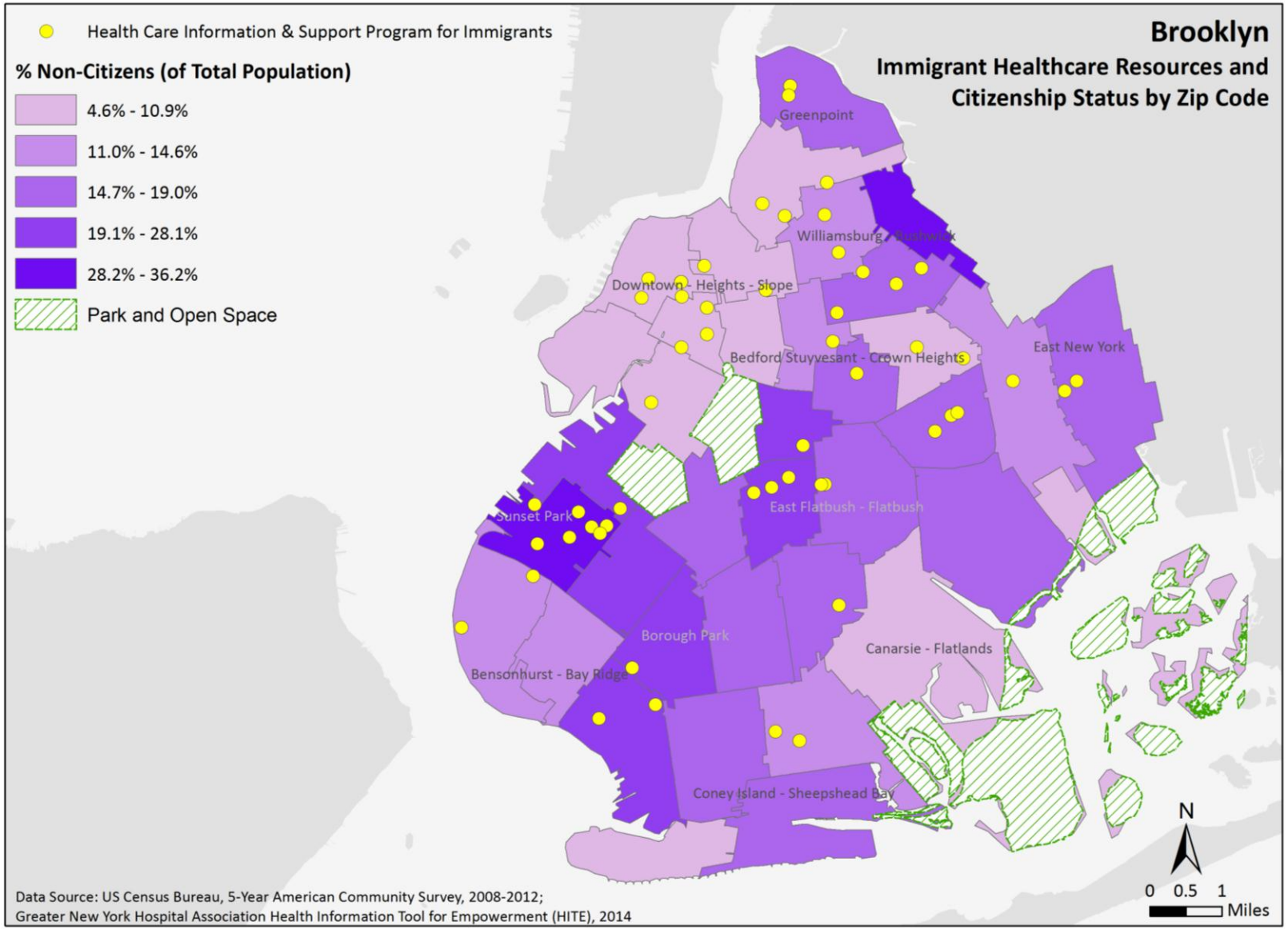

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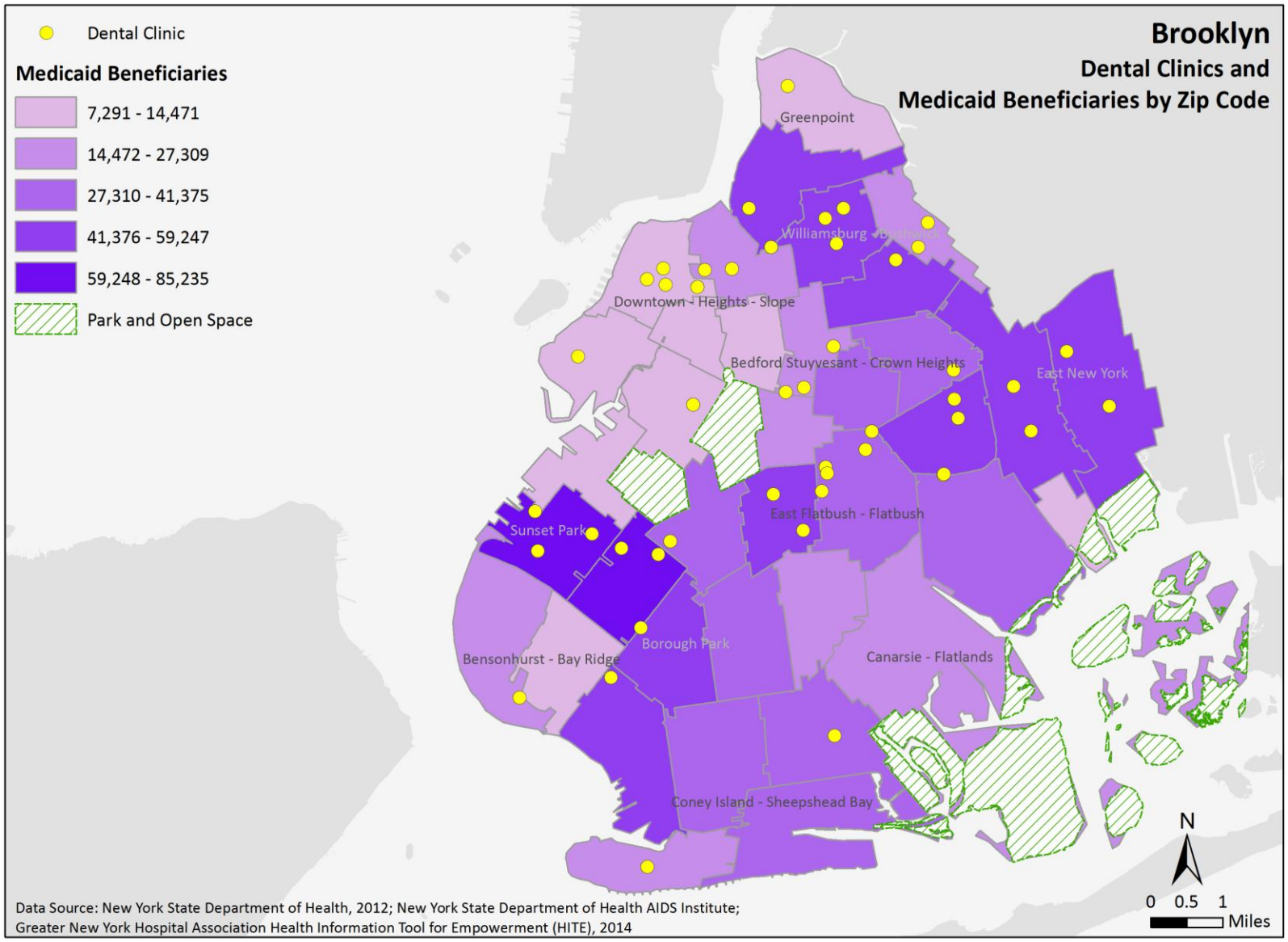

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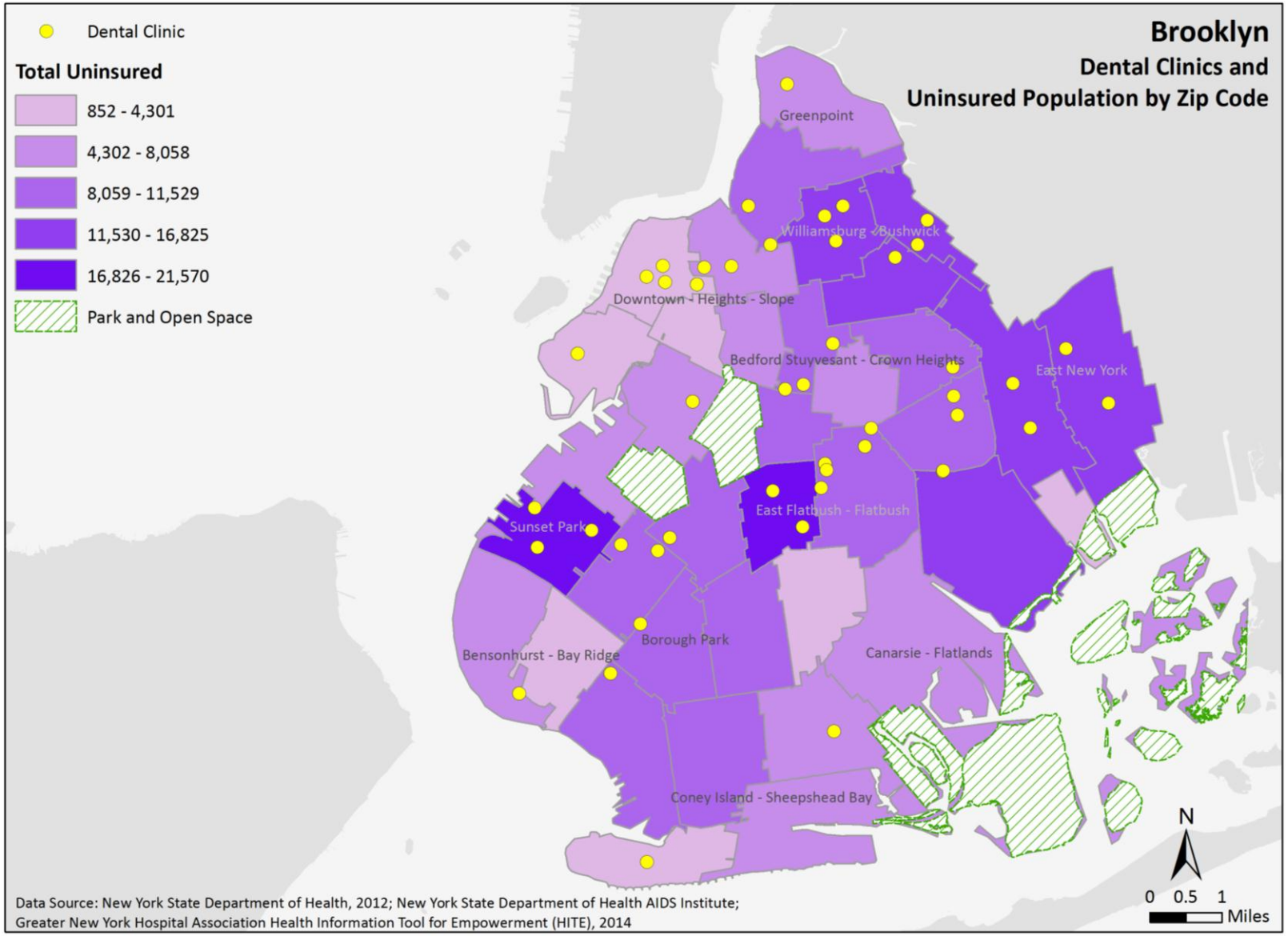

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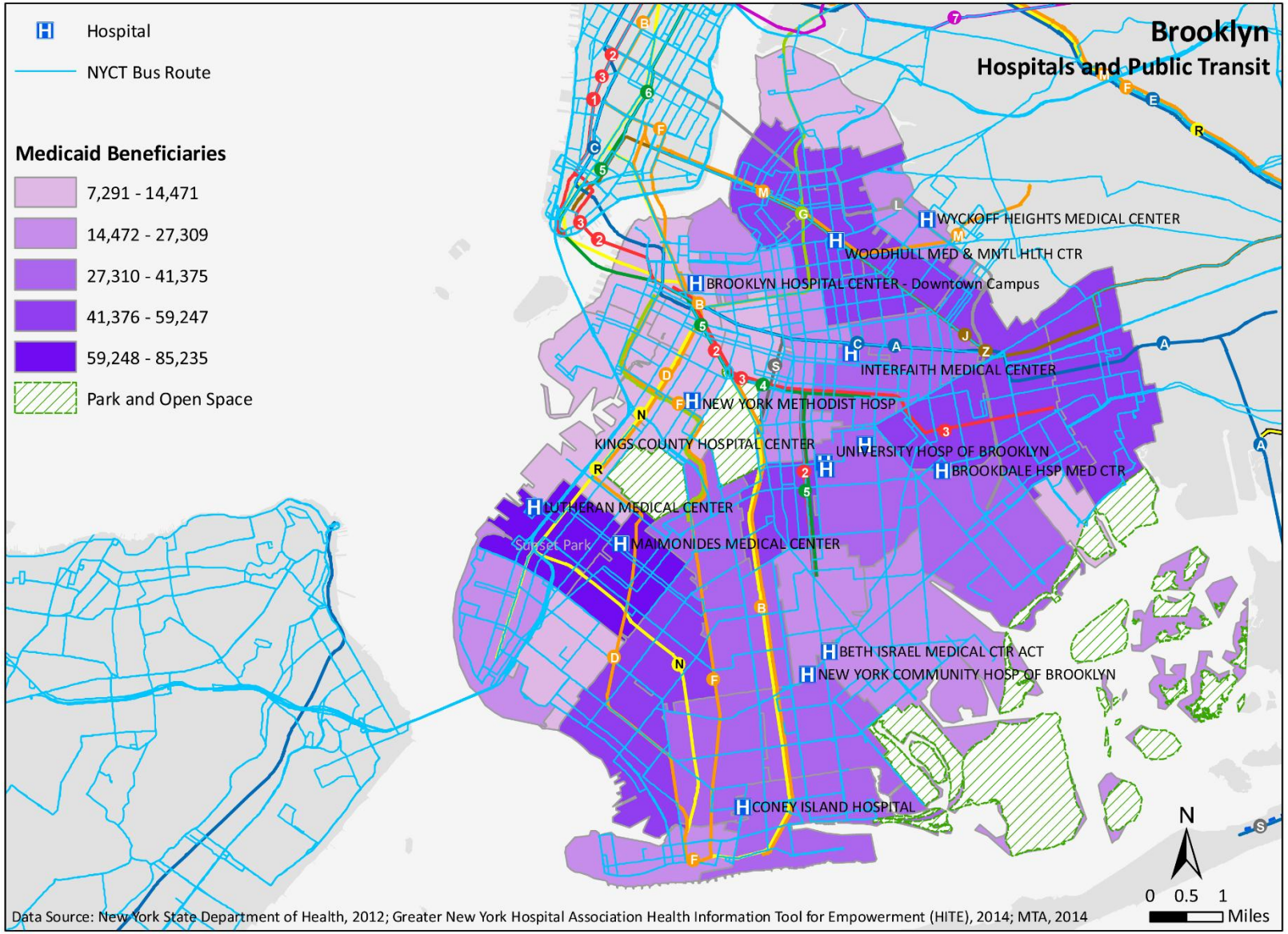

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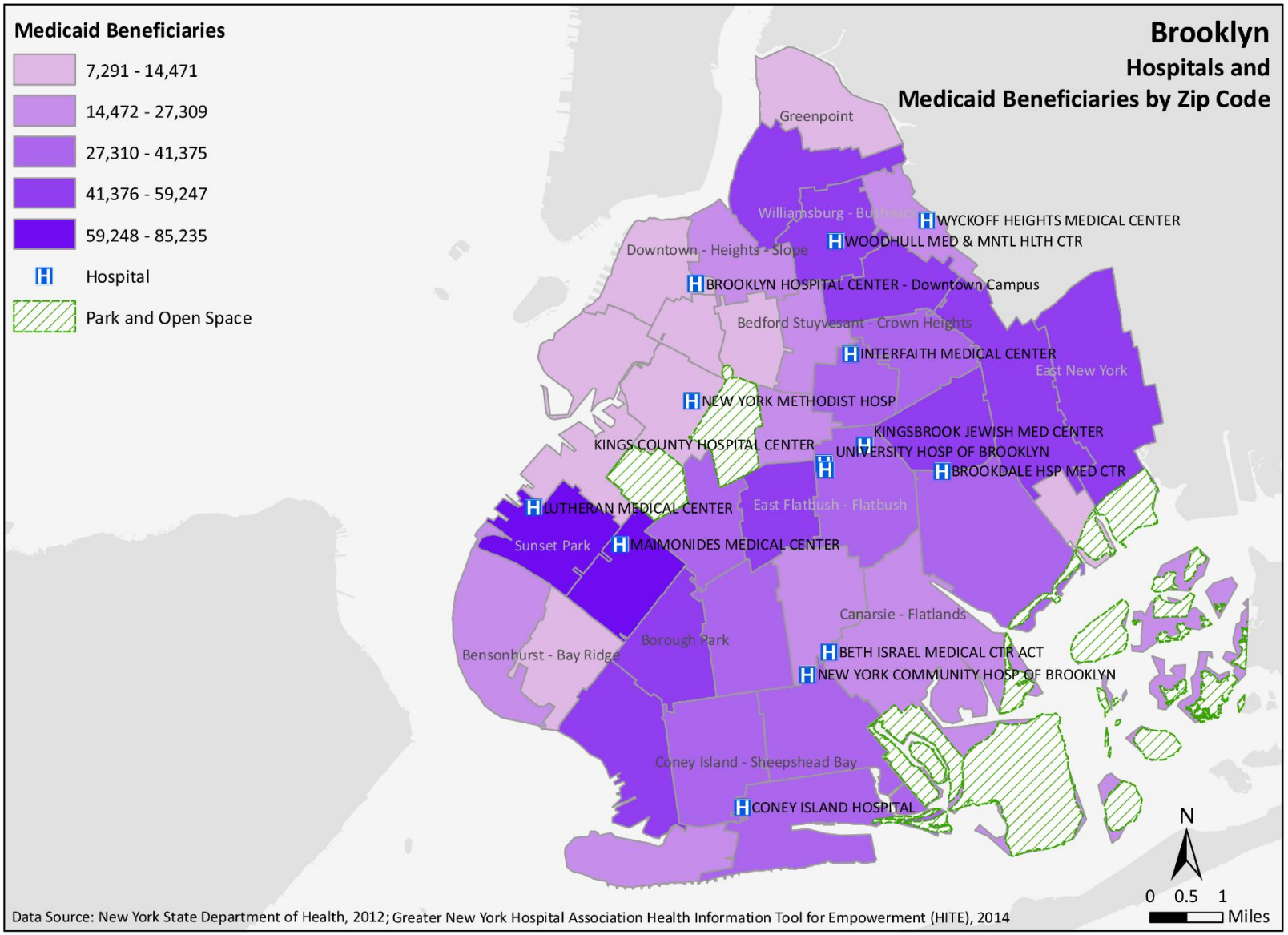

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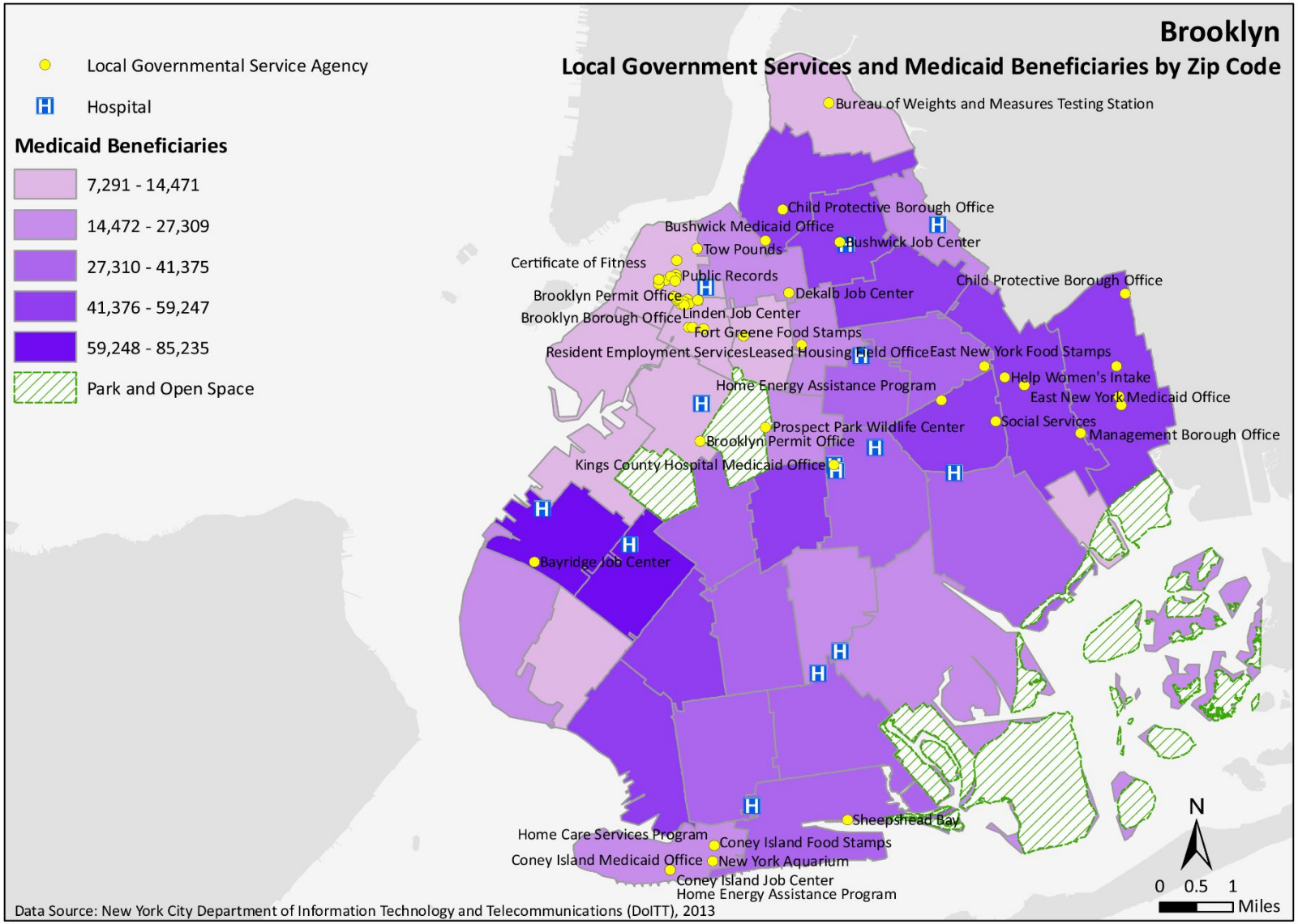

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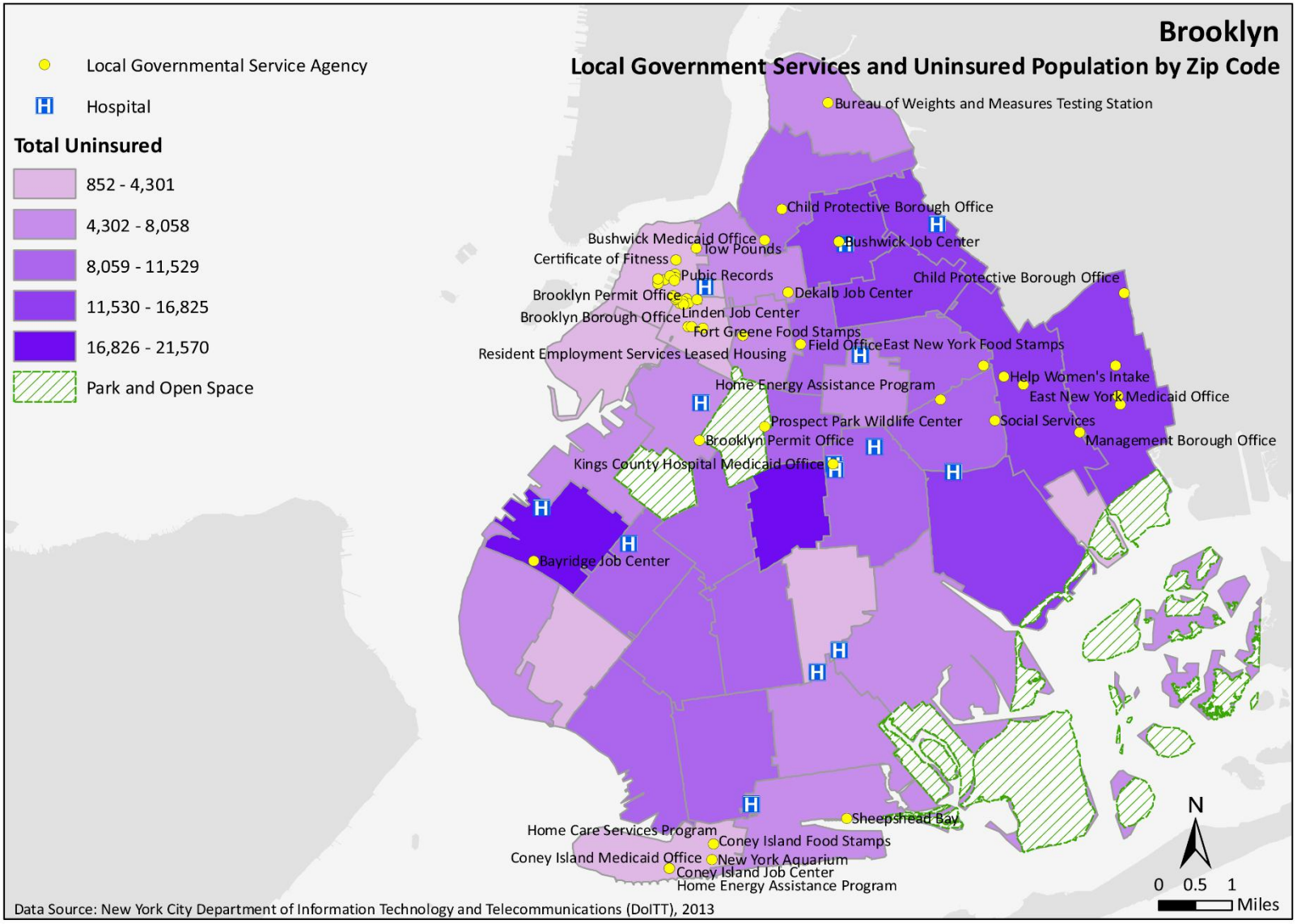

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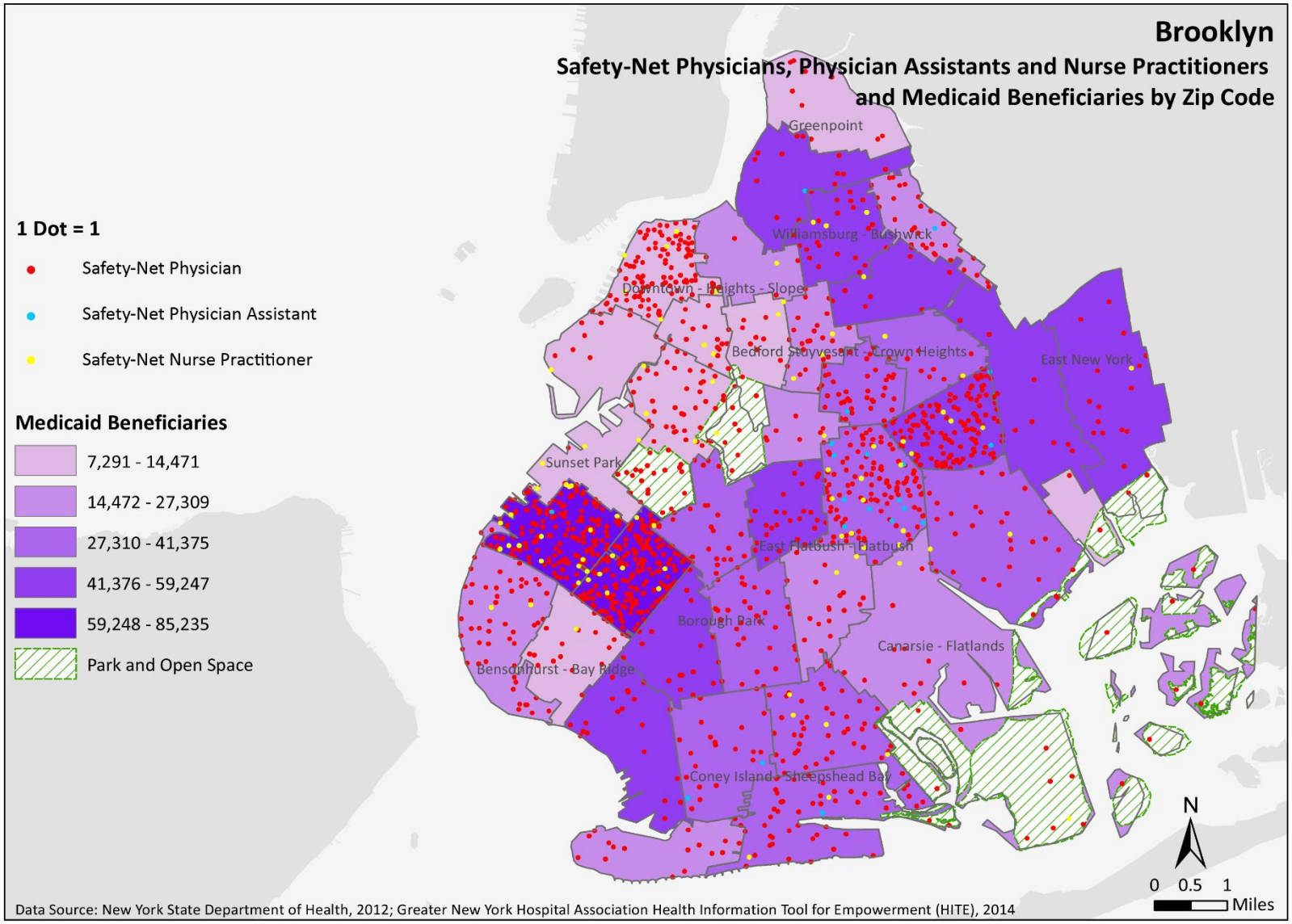

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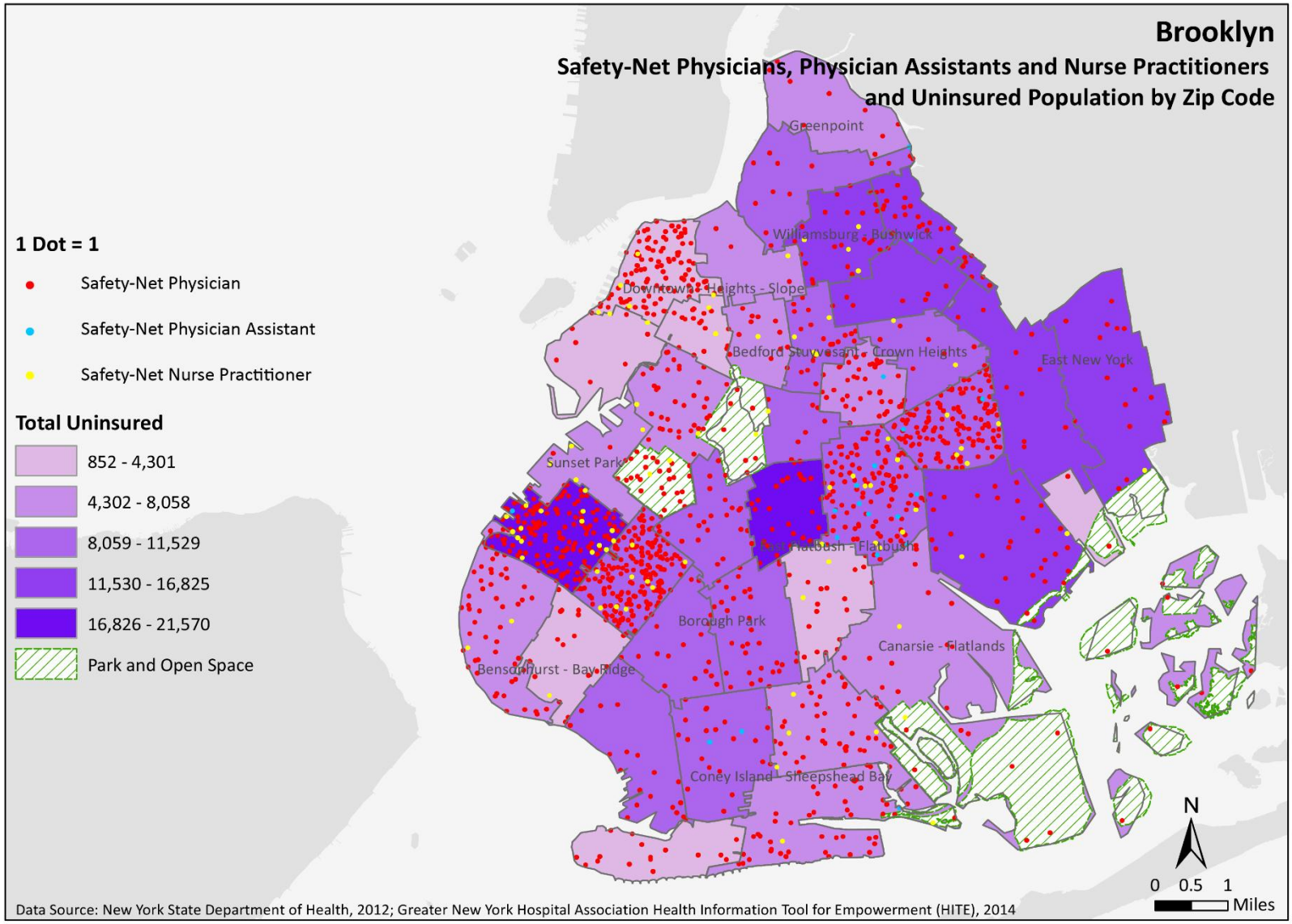

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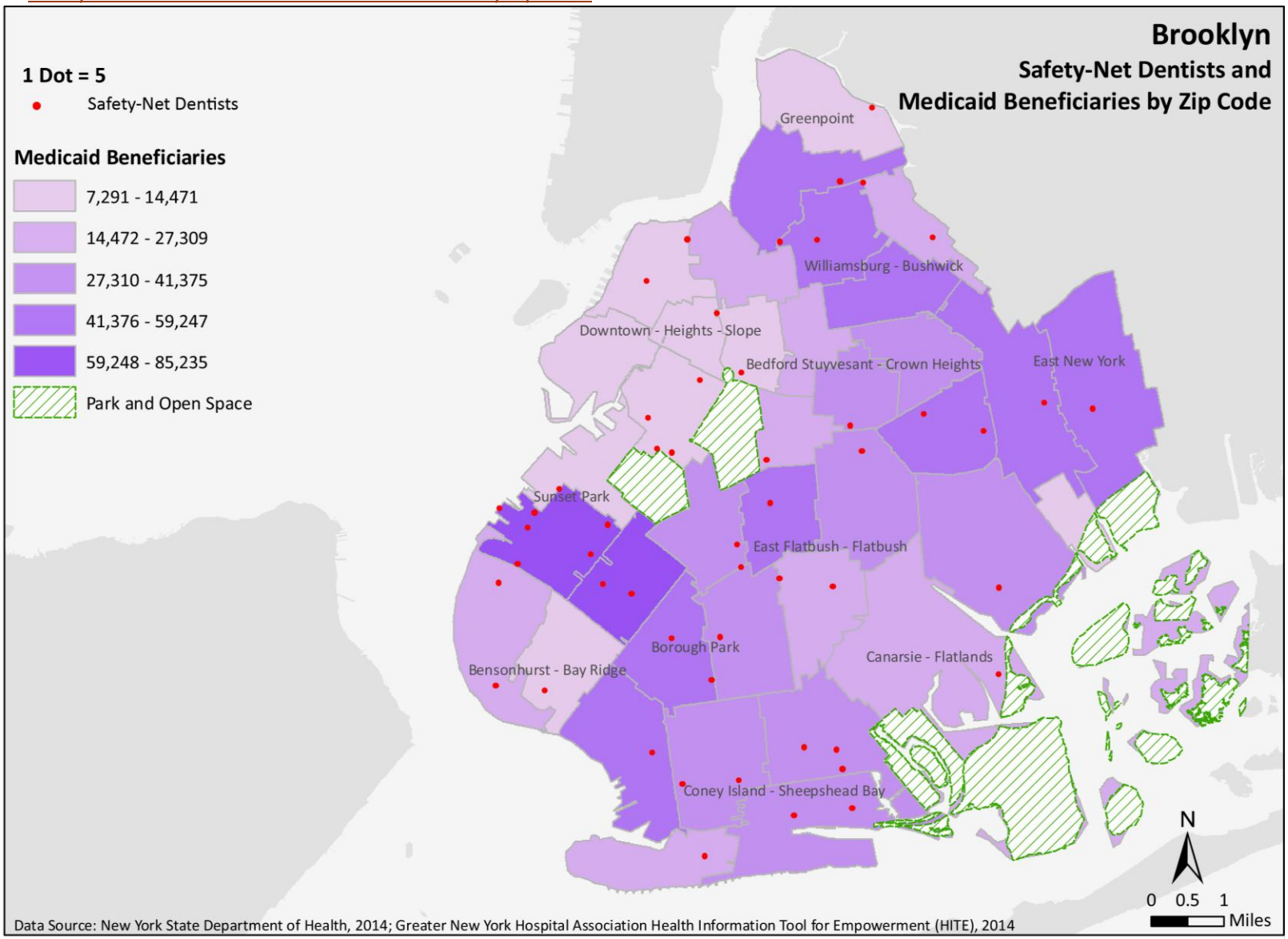

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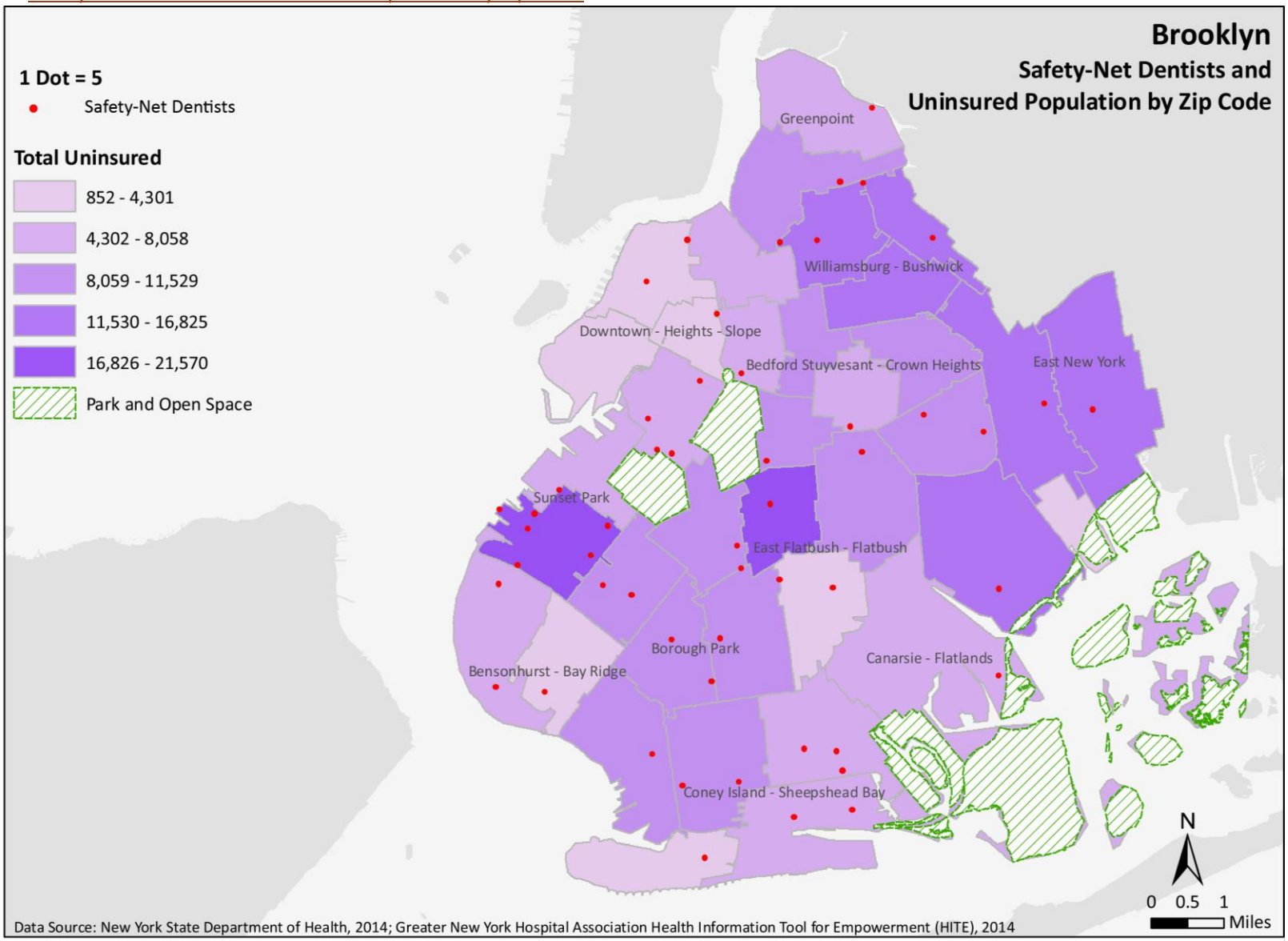

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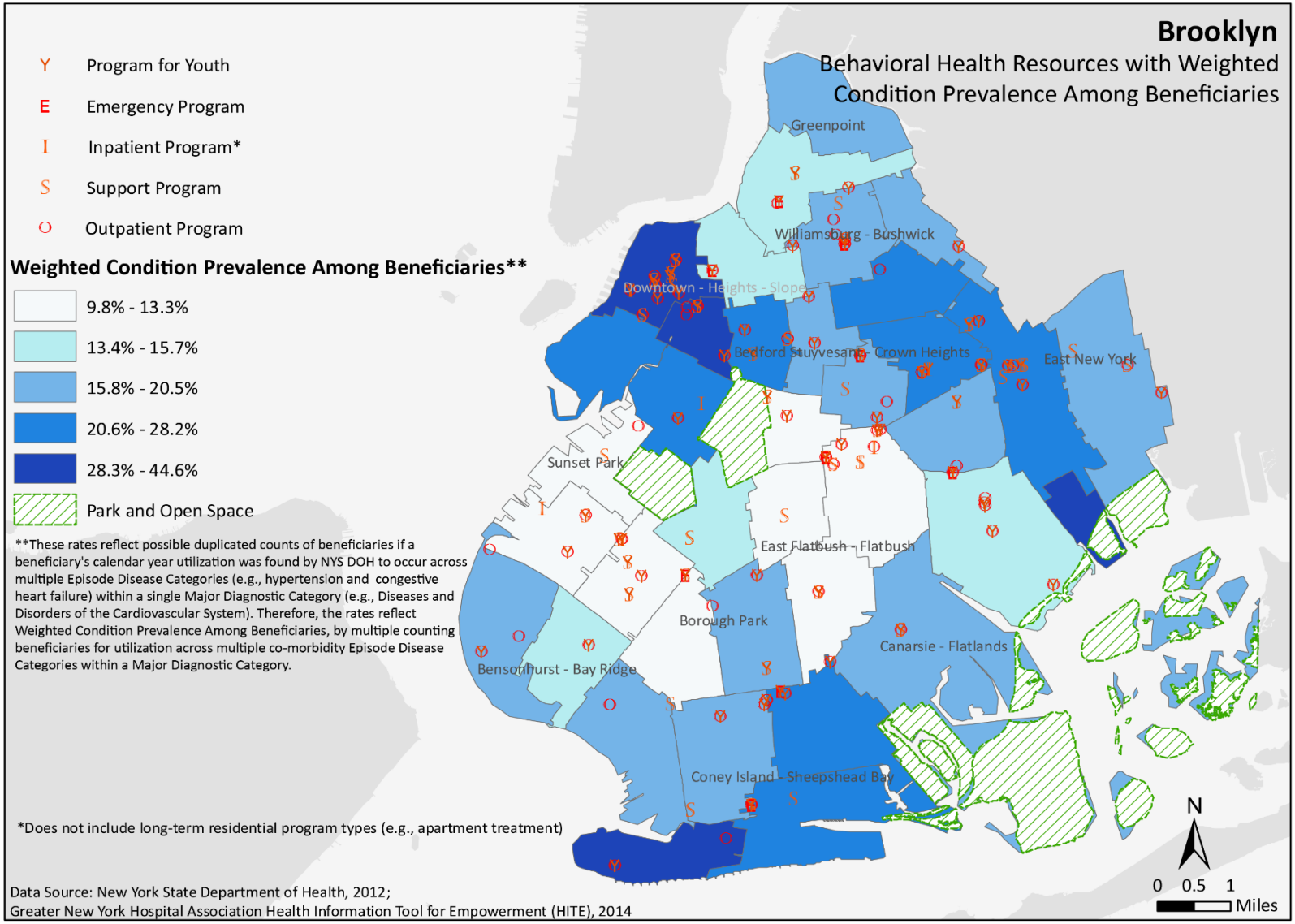

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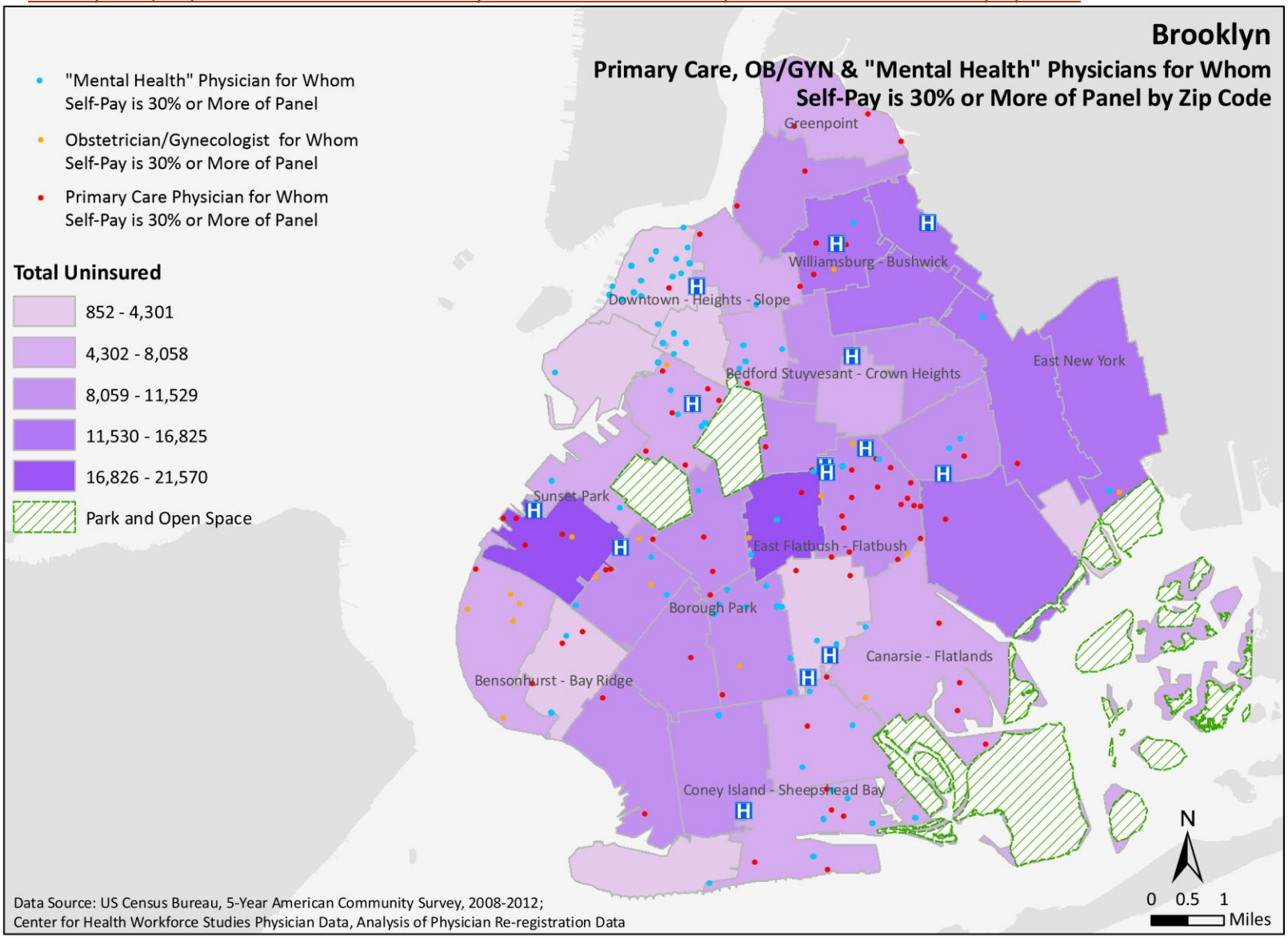

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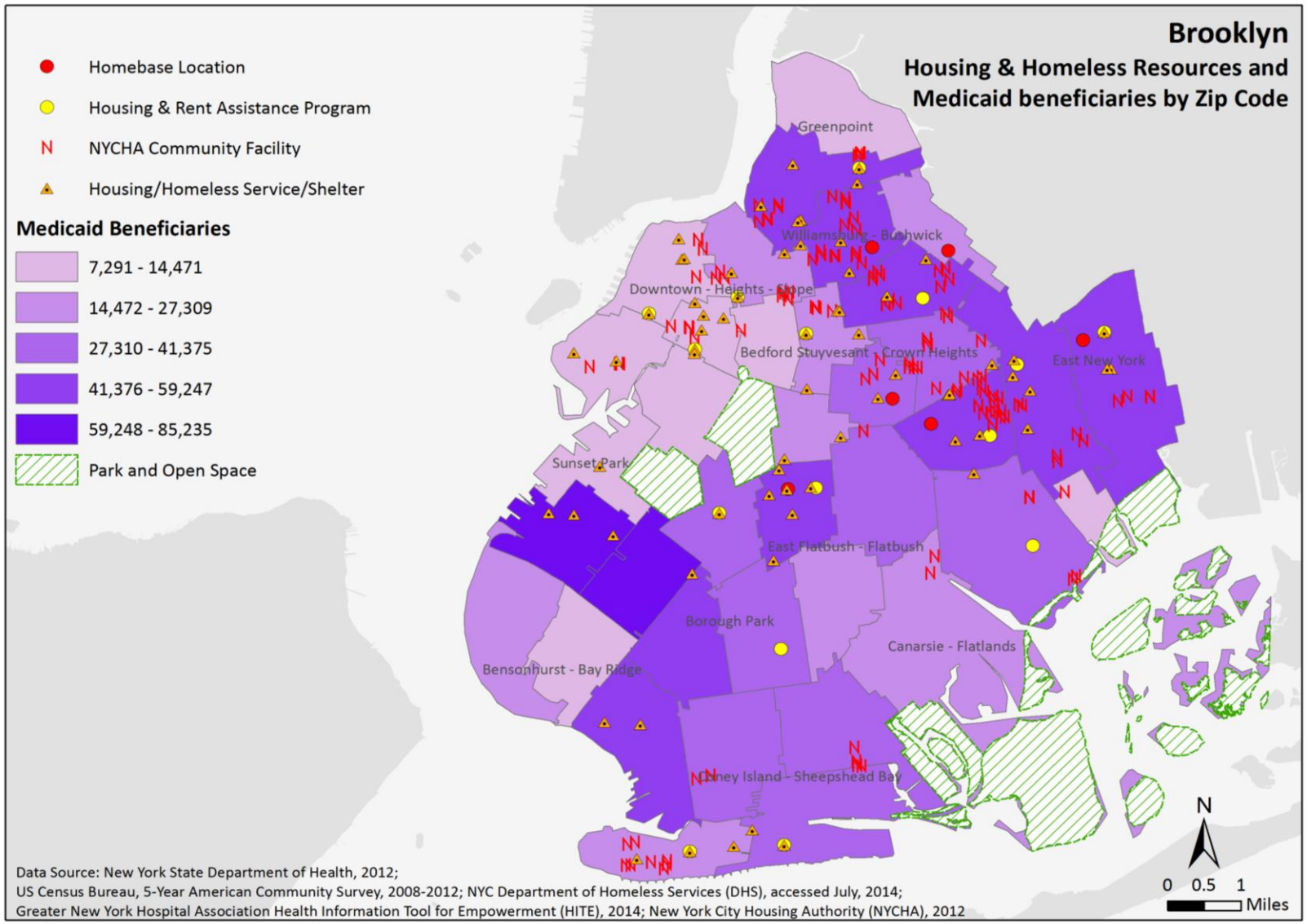

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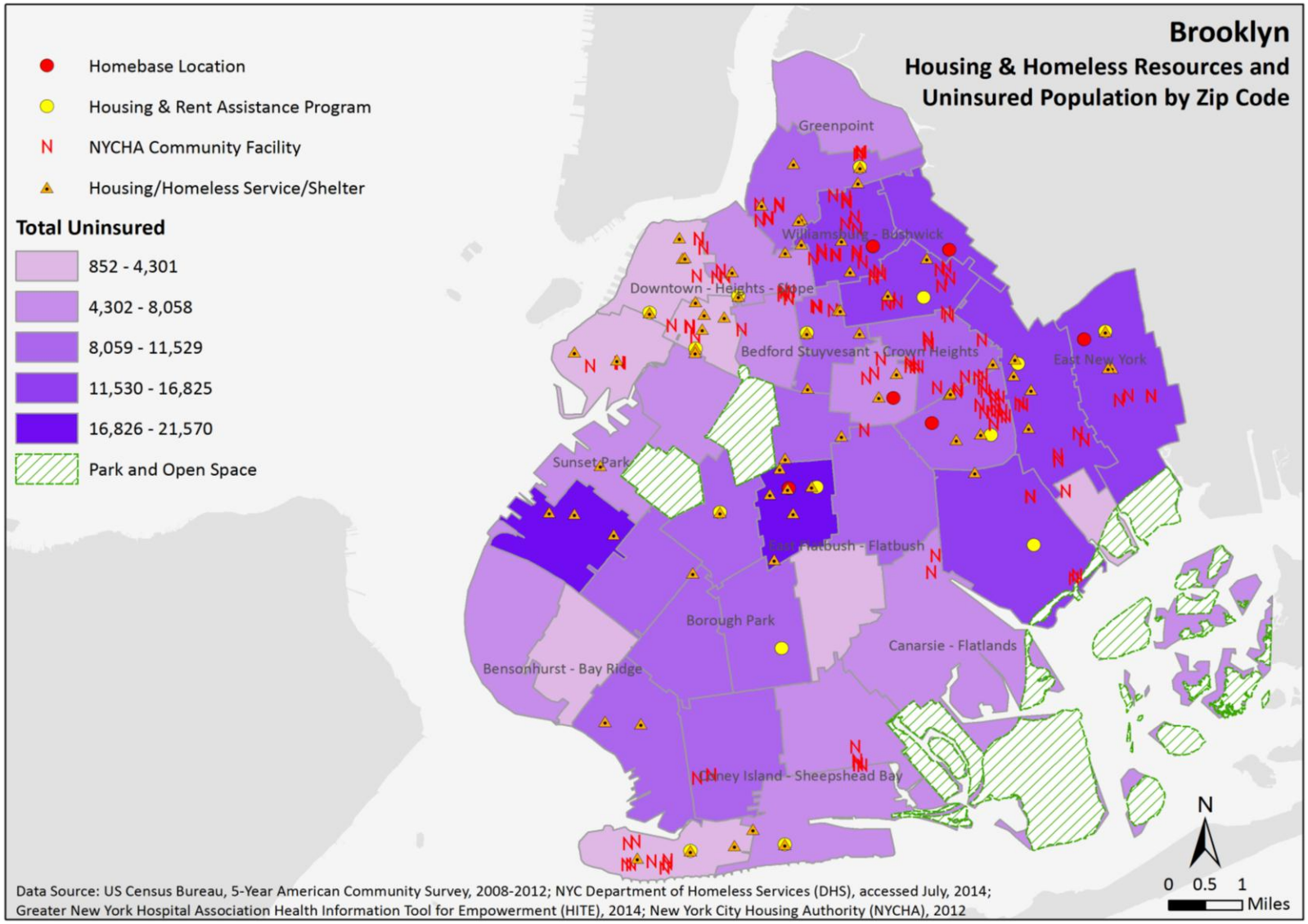

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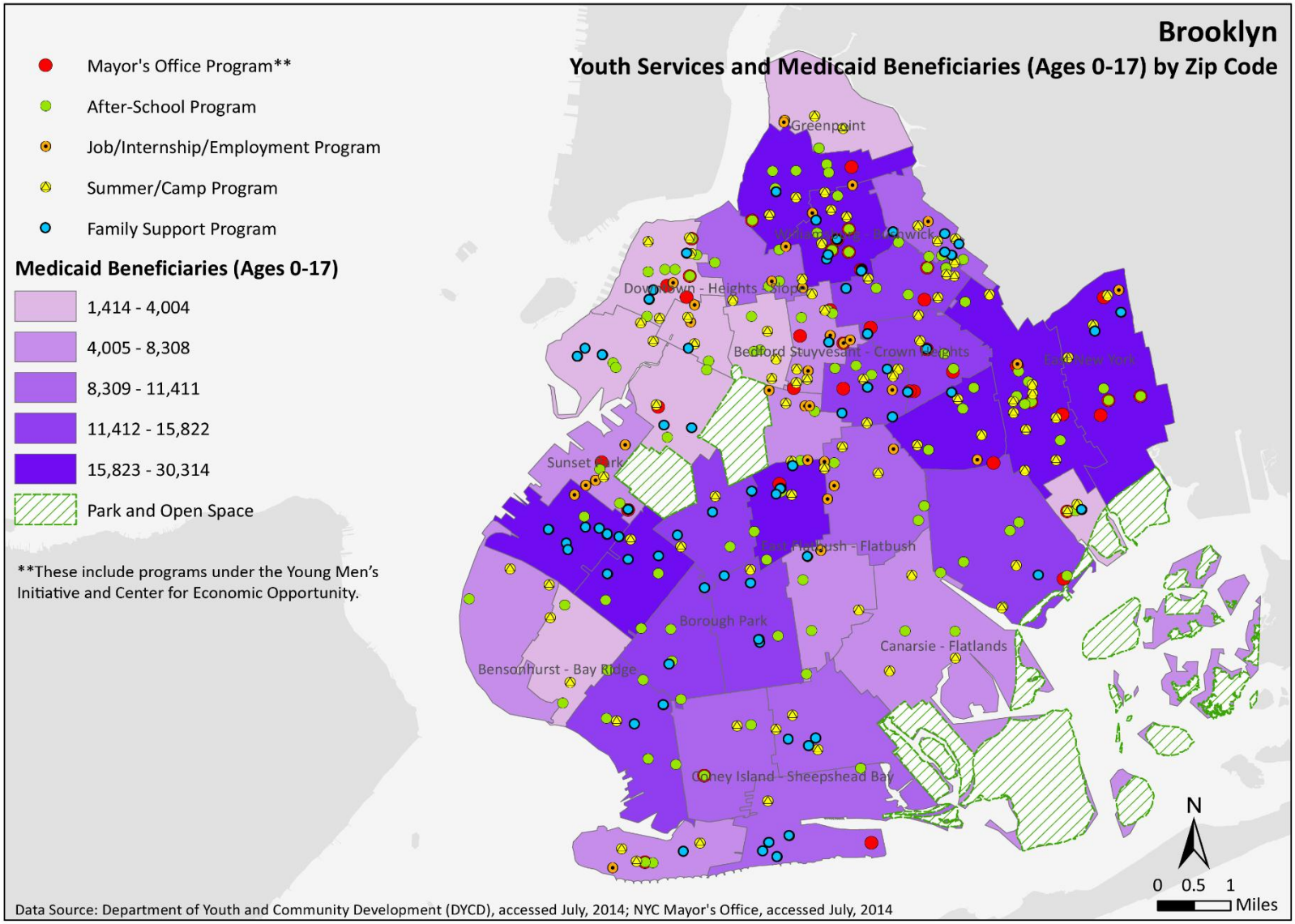

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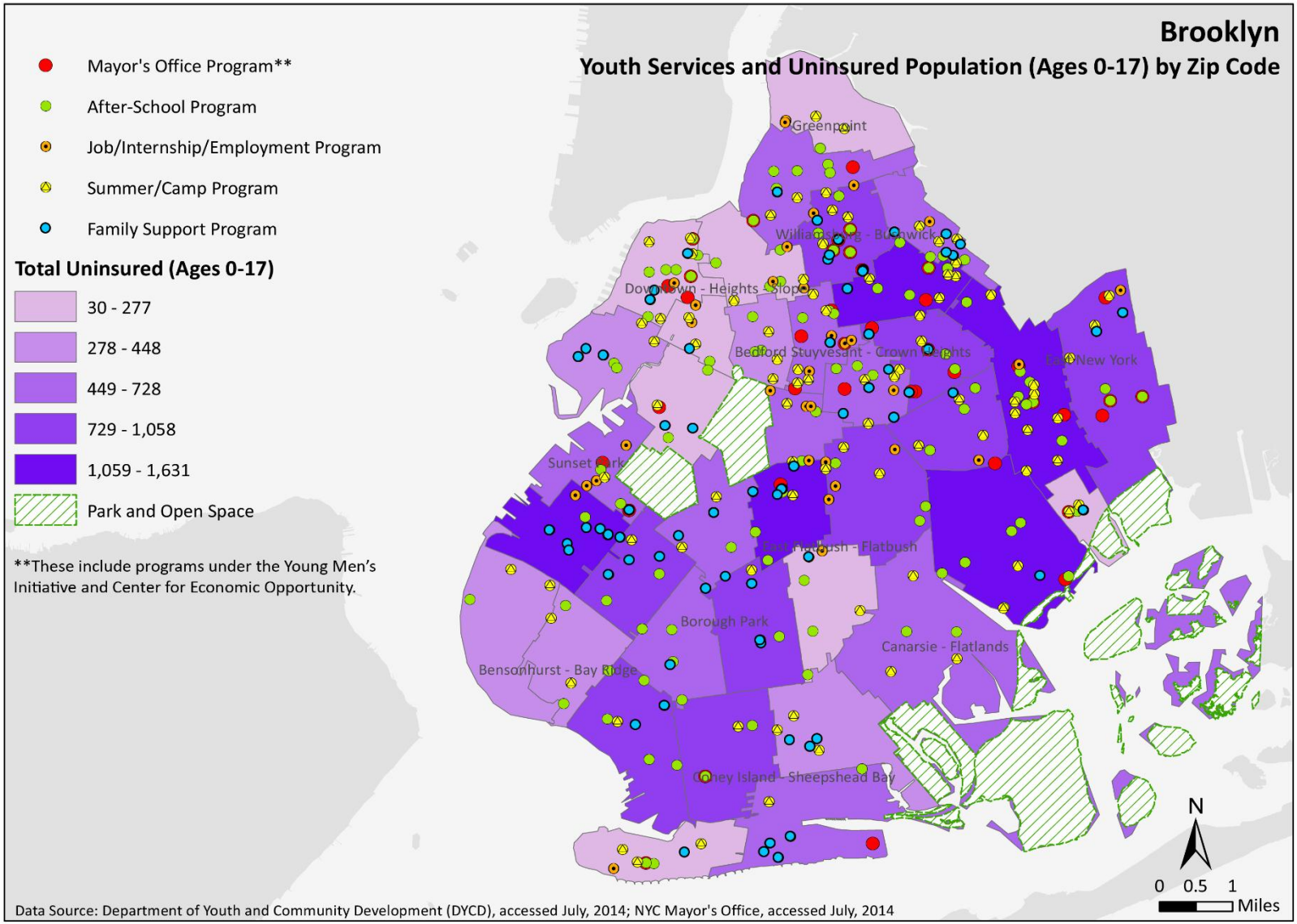
91. Youth Services and Uninsured Population (Ages 0-17) by Zip Code



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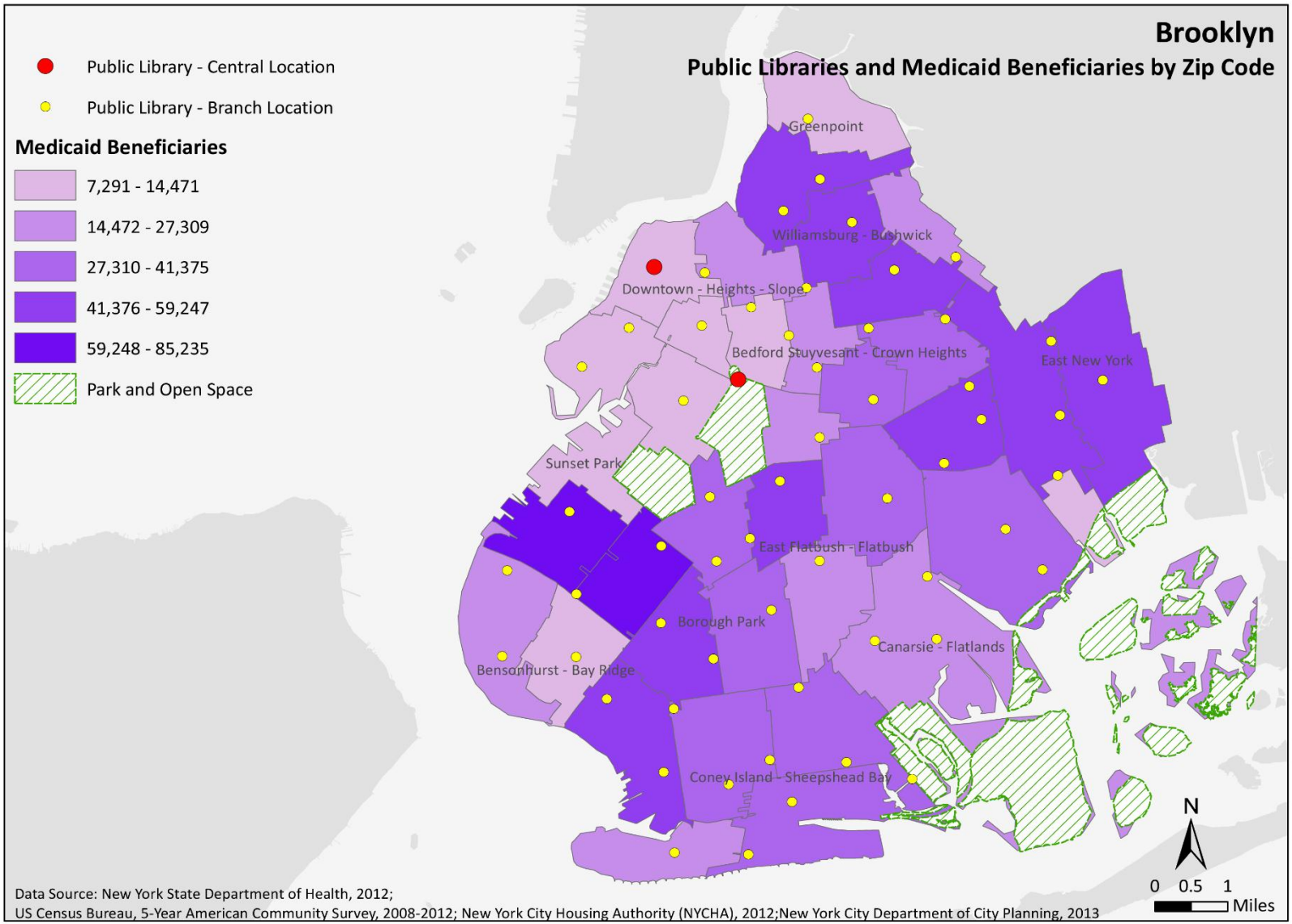

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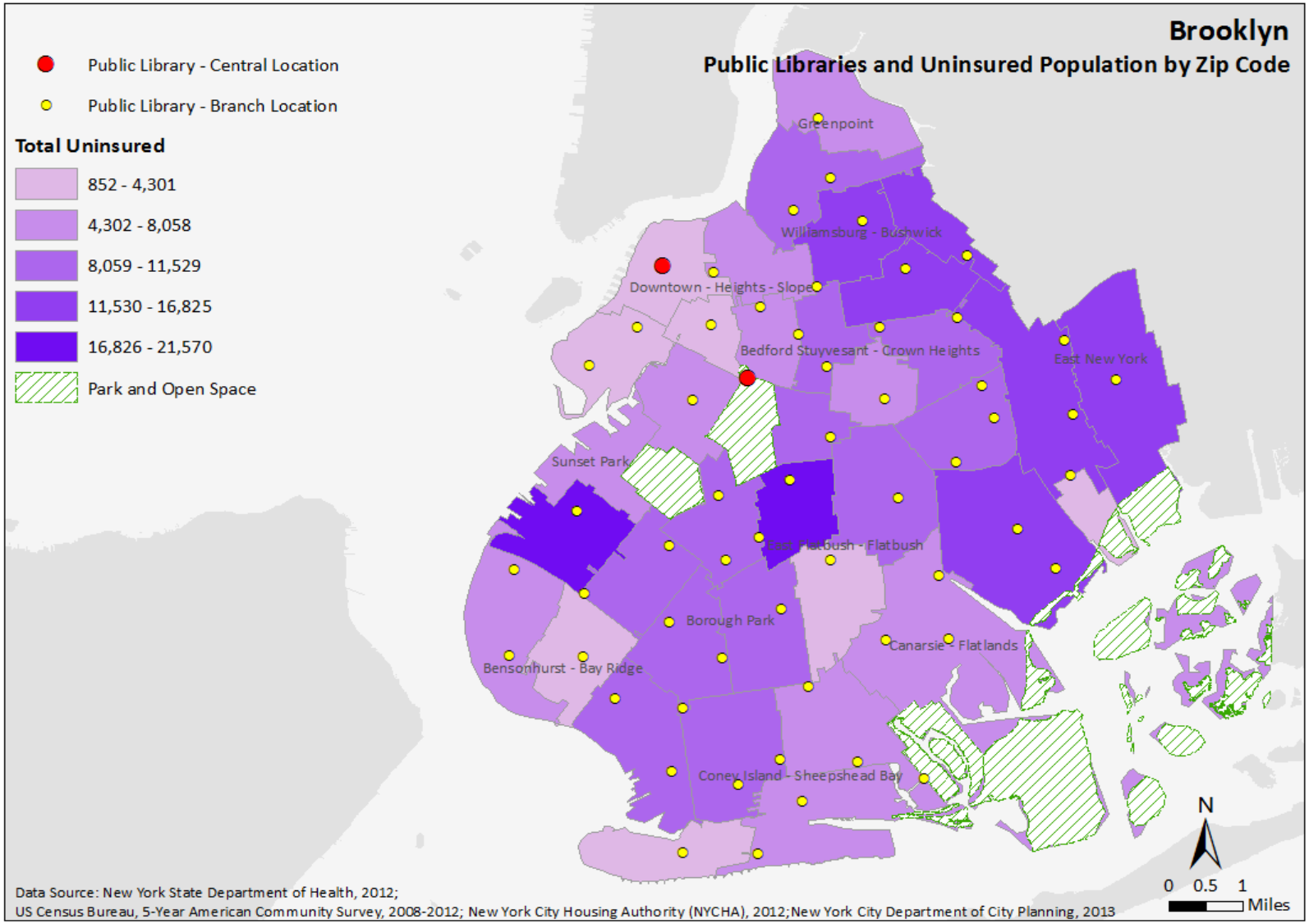

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BRONX COMMUNITY NEEDS ASSESSMENT
APPENDIX A - MAPS

December16, 2014

NEW YORK CITY HEALTH AND HOSPITALS CORPORATION The New York Academy of Medicine

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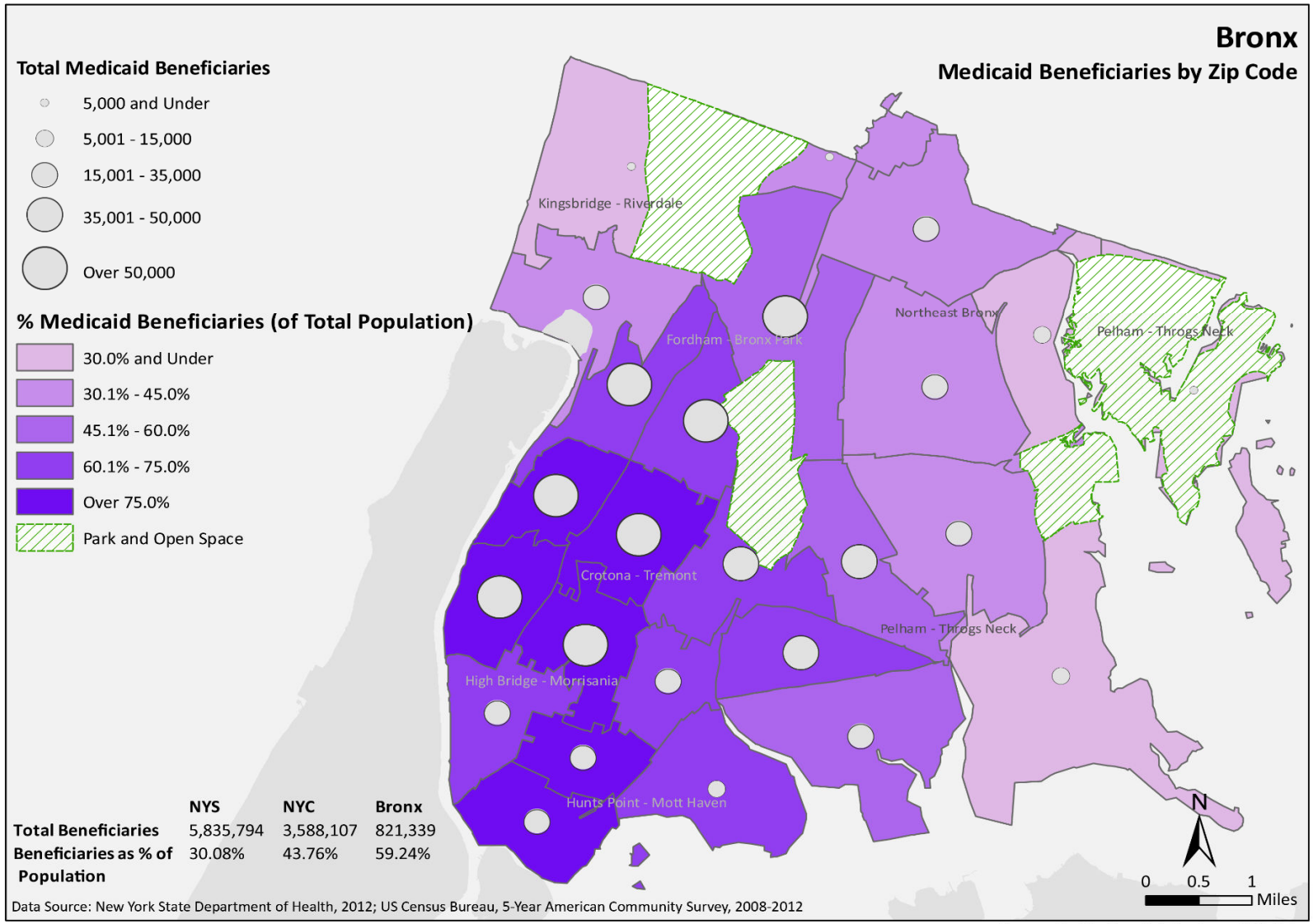

	NYS	NYC	Bronx
Total Beneficiaries	5,835,794	3,588,107	821,339
Beneficiaries as % of Population	30.08%	43.76%	59.24%

Data Source: New York State Department of Health, 2012; US Census Bureau, 5-Year American Community Survey, 2008-2012

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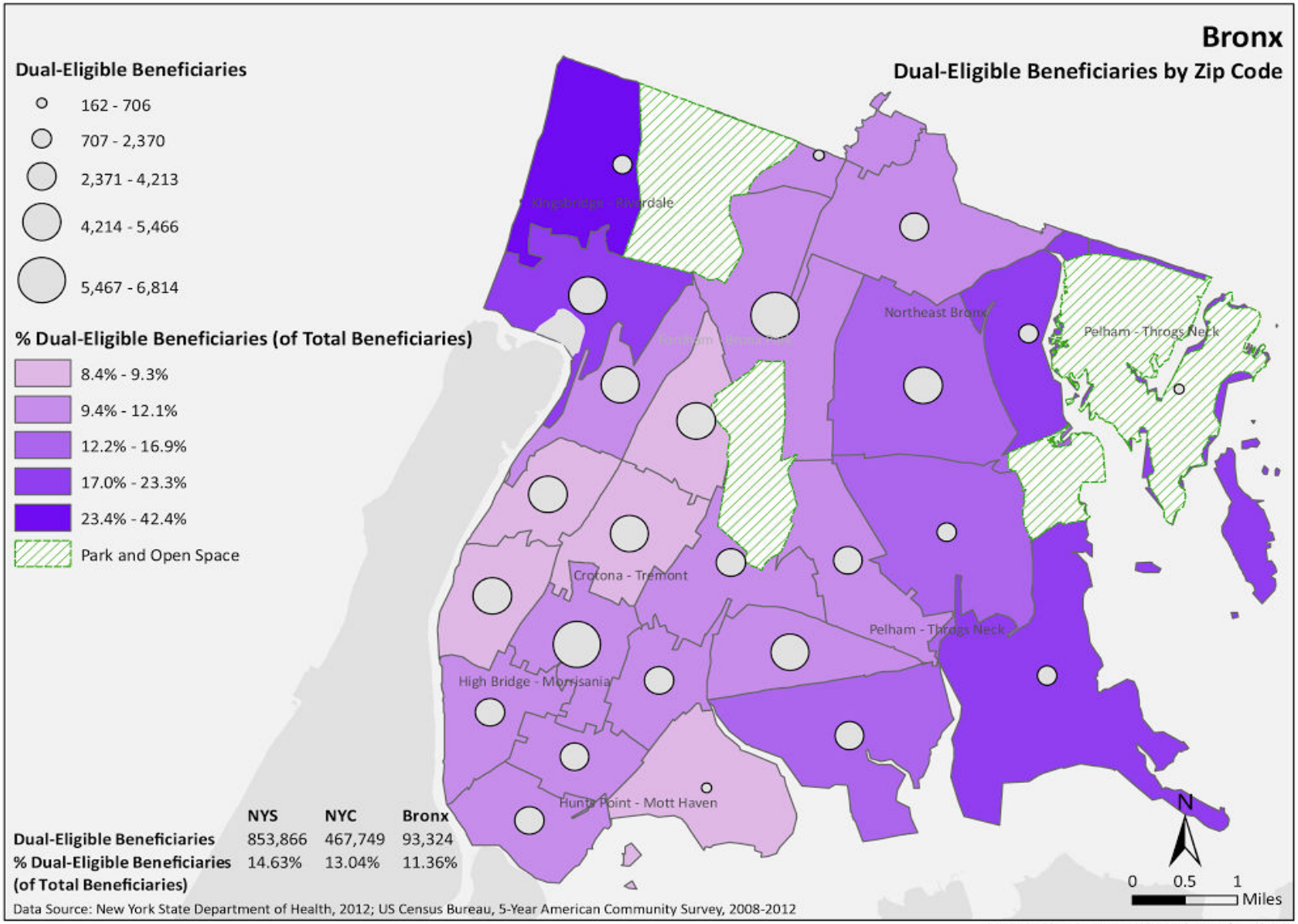
2. Dual-Eligible Beneficiaries by Zip Code



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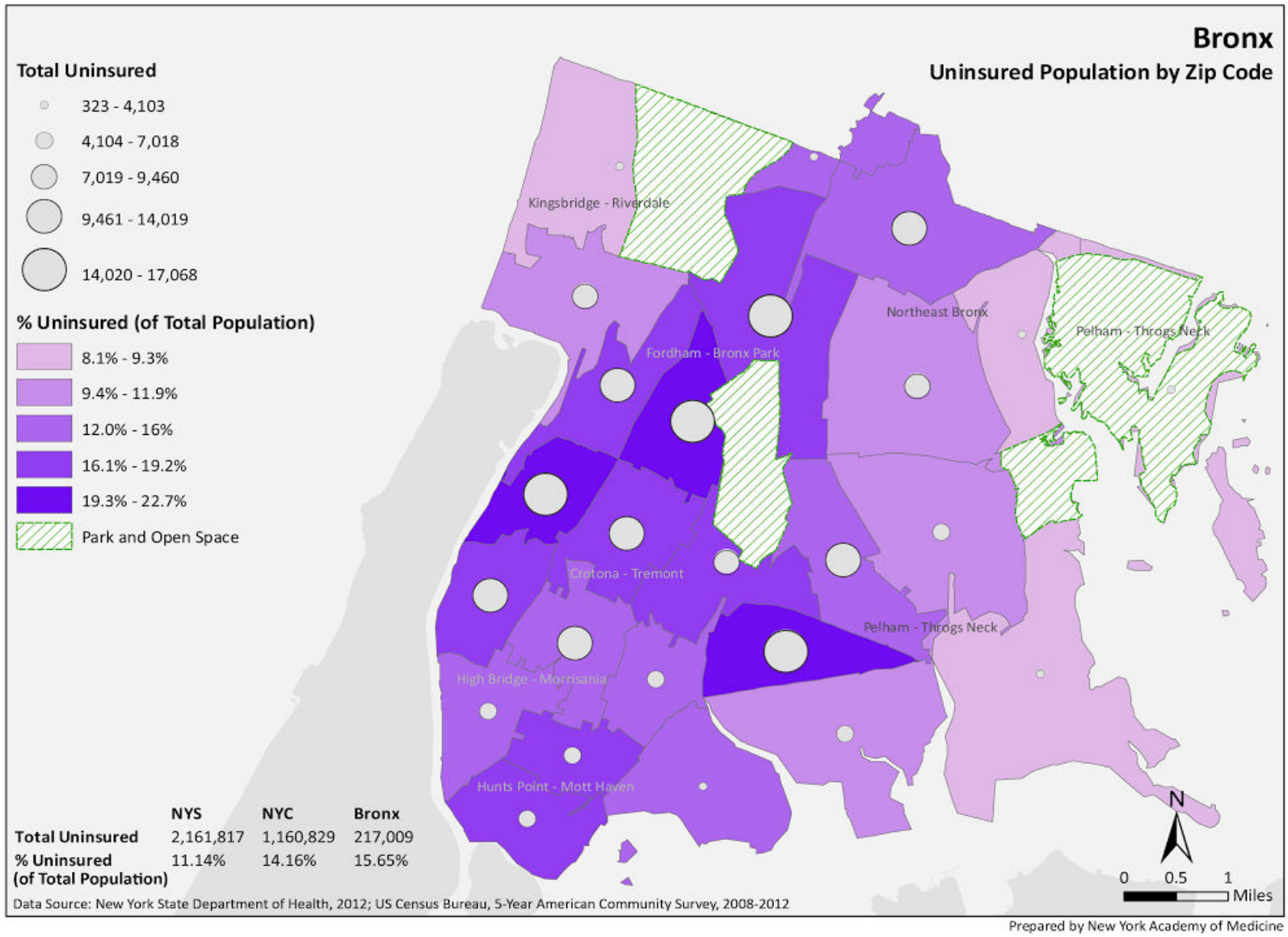

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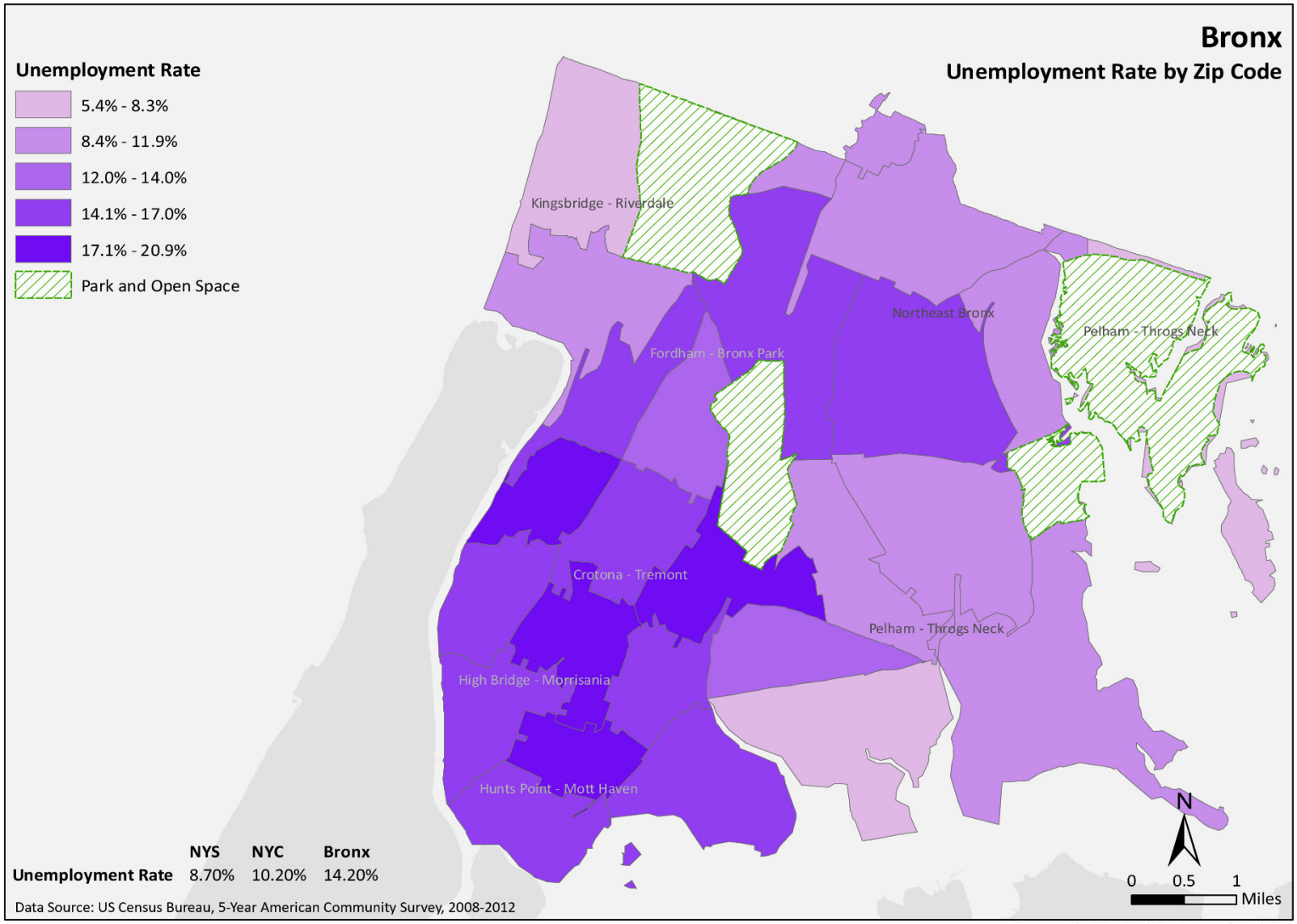

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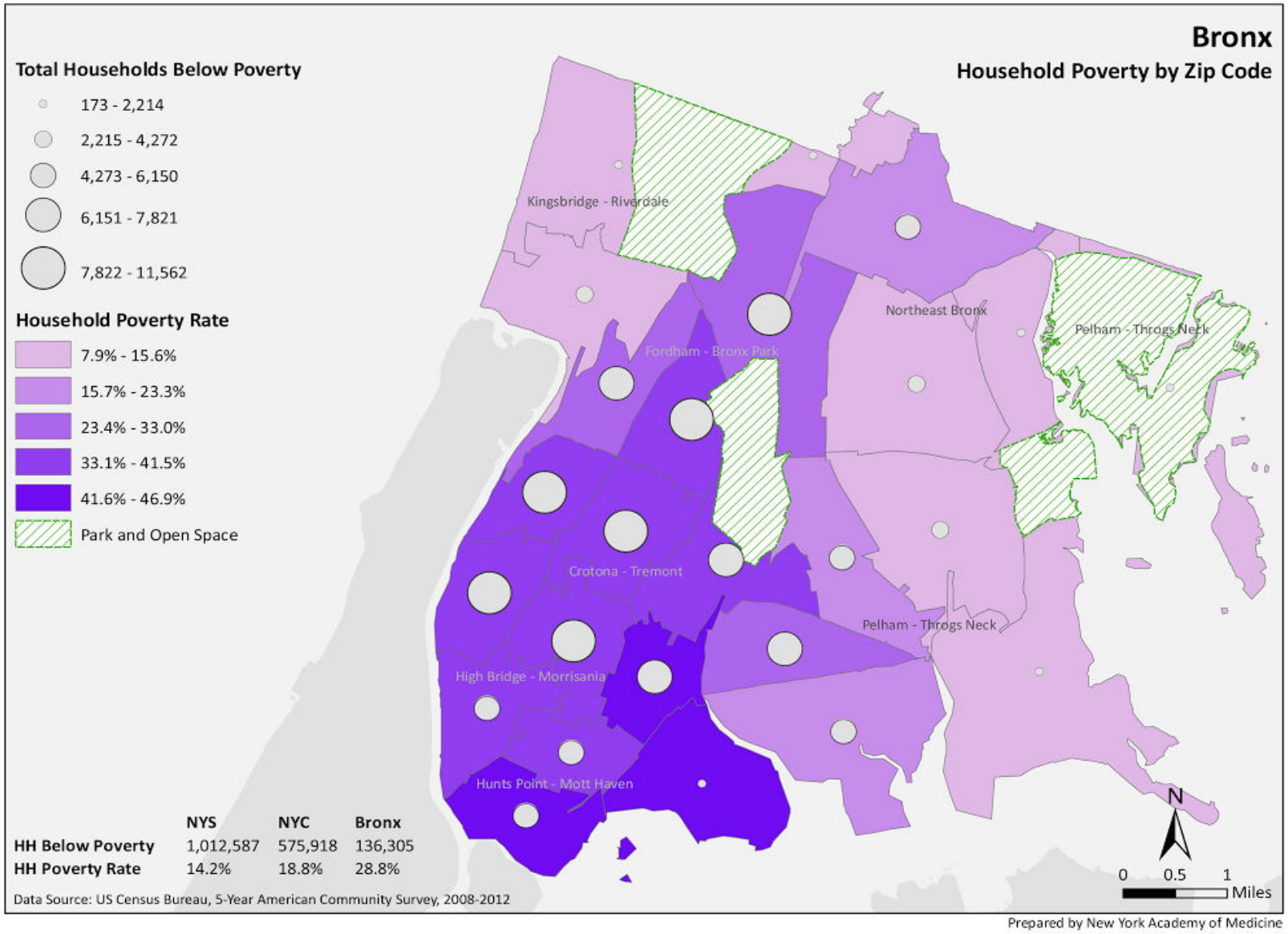

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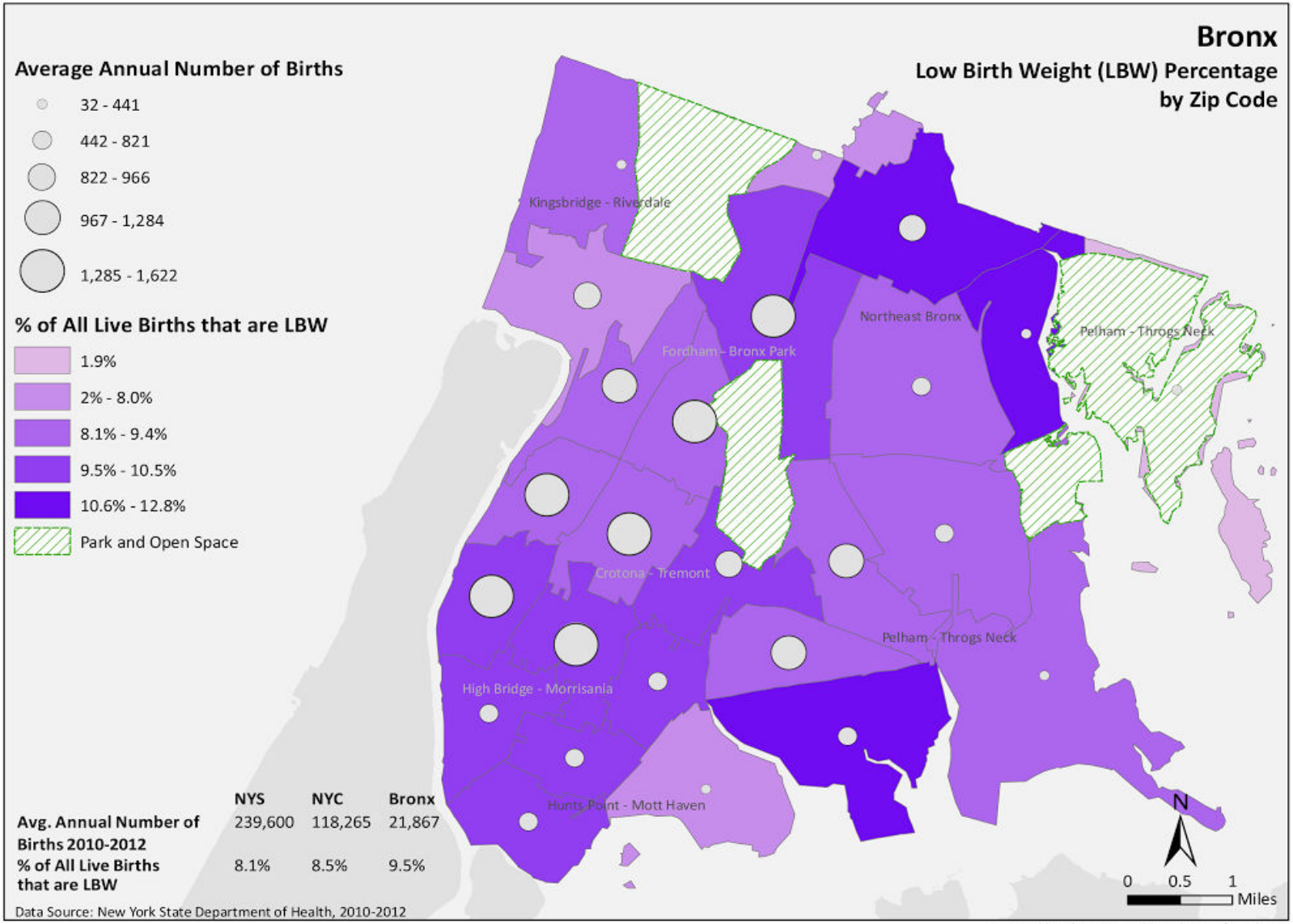

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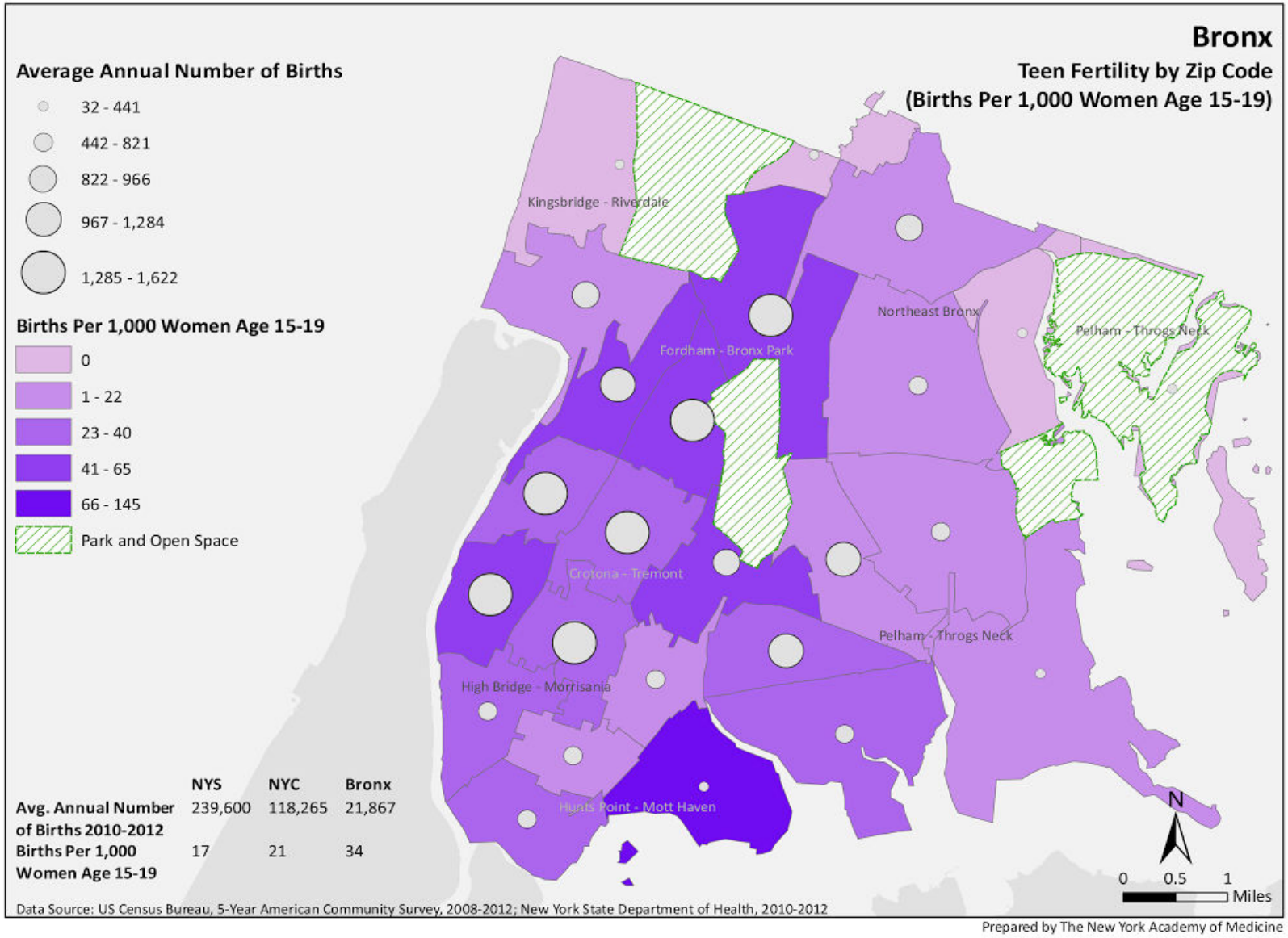

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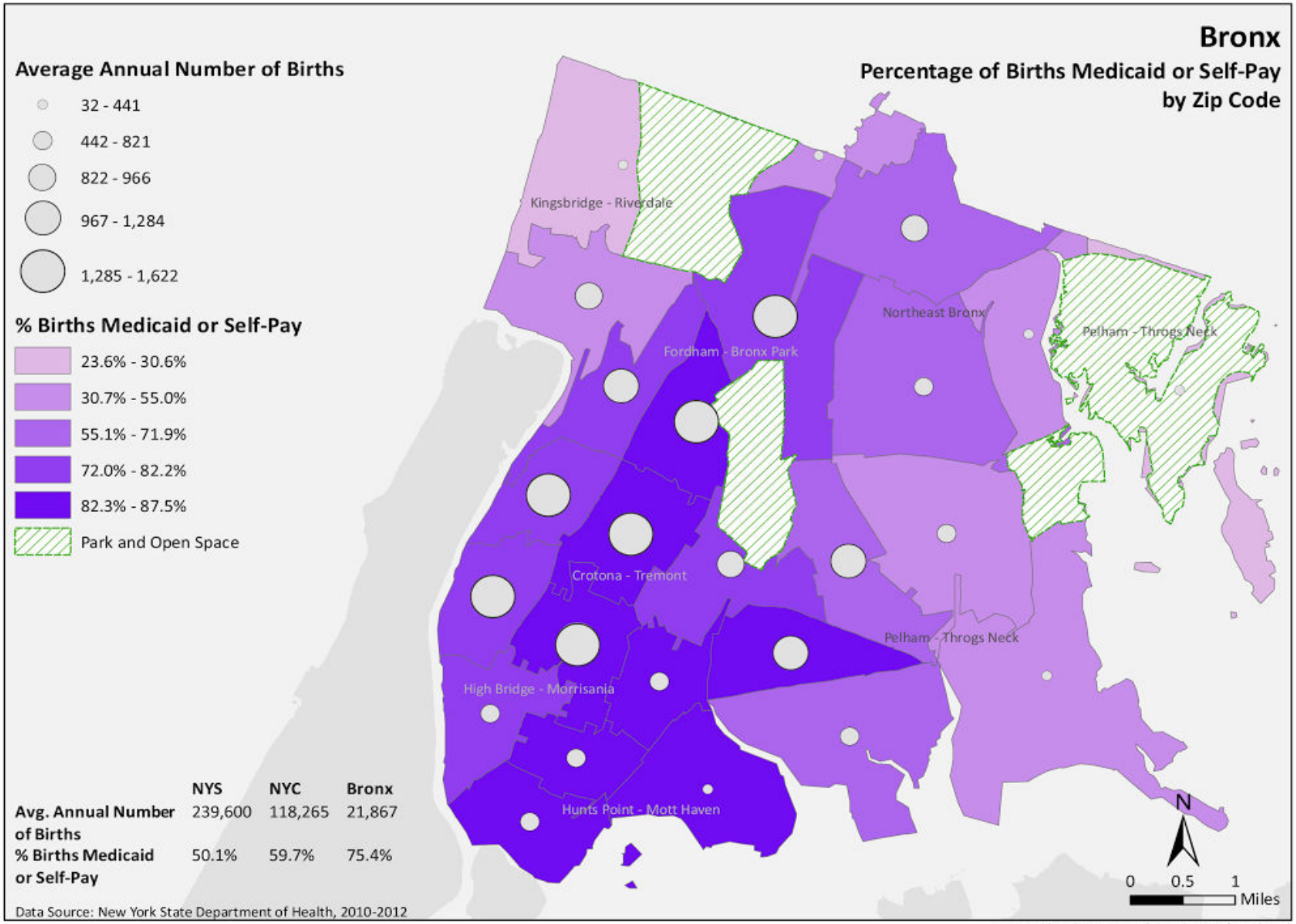

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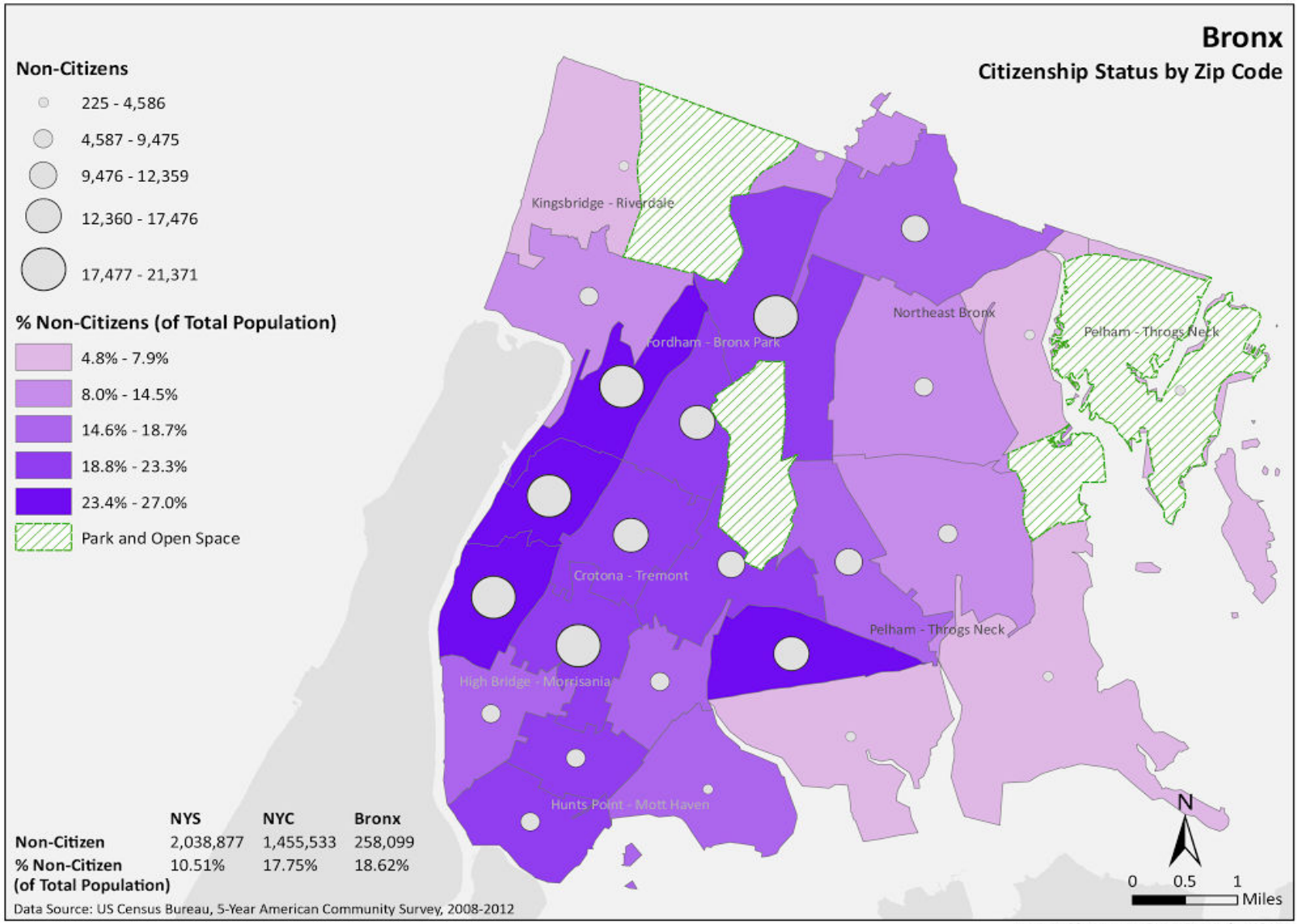

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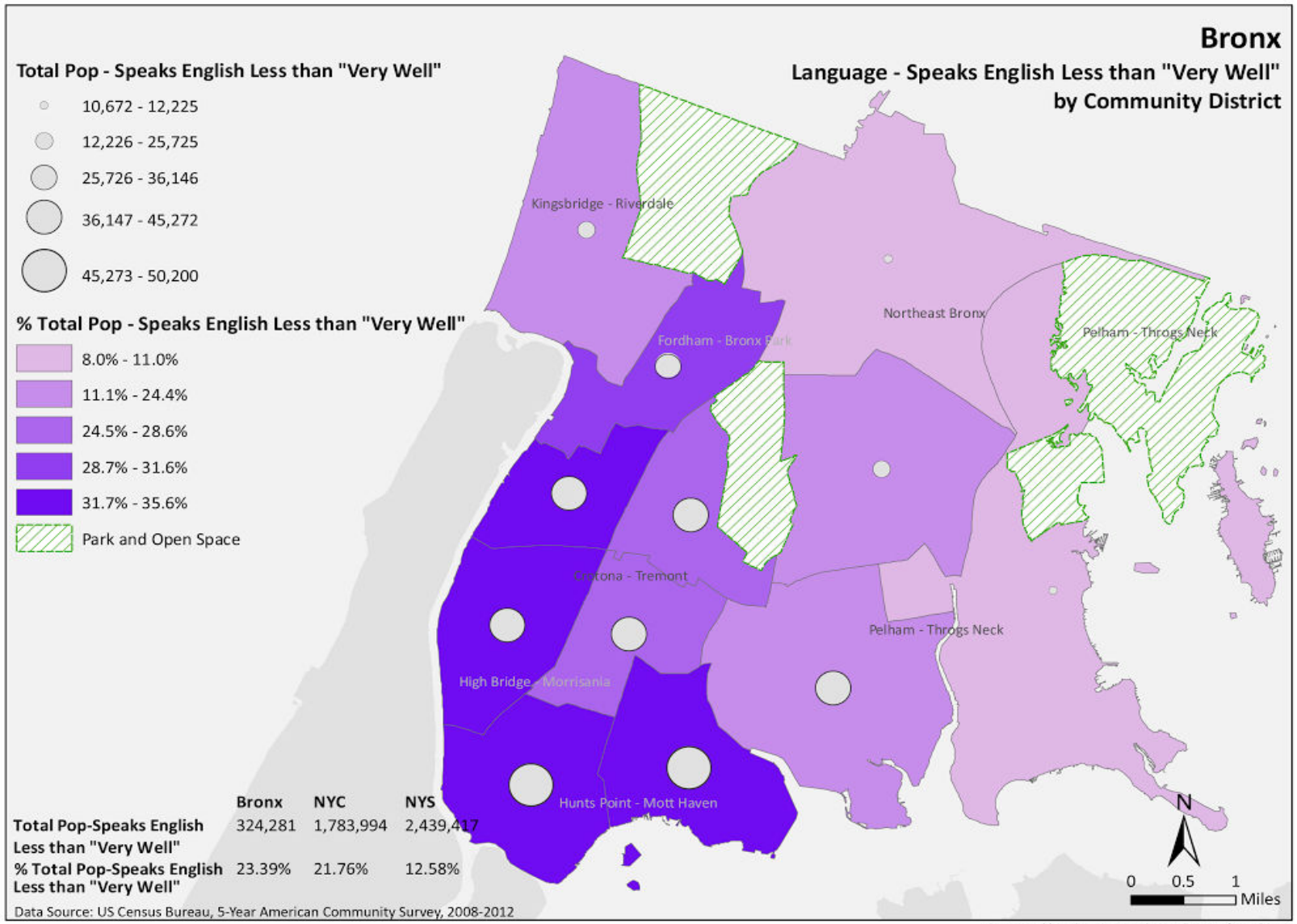

	Bronx	NYC	NYS
Total Pop-Speaks English Less than "Very Well"	324,281	1,783,994	2,439,417
% Total Pop-Speaks English Less than "Very Well"	23.39%	21.76%	12.58%

Data Source: US Census Bureau, 5-Year American Community Survey, 2008-2012

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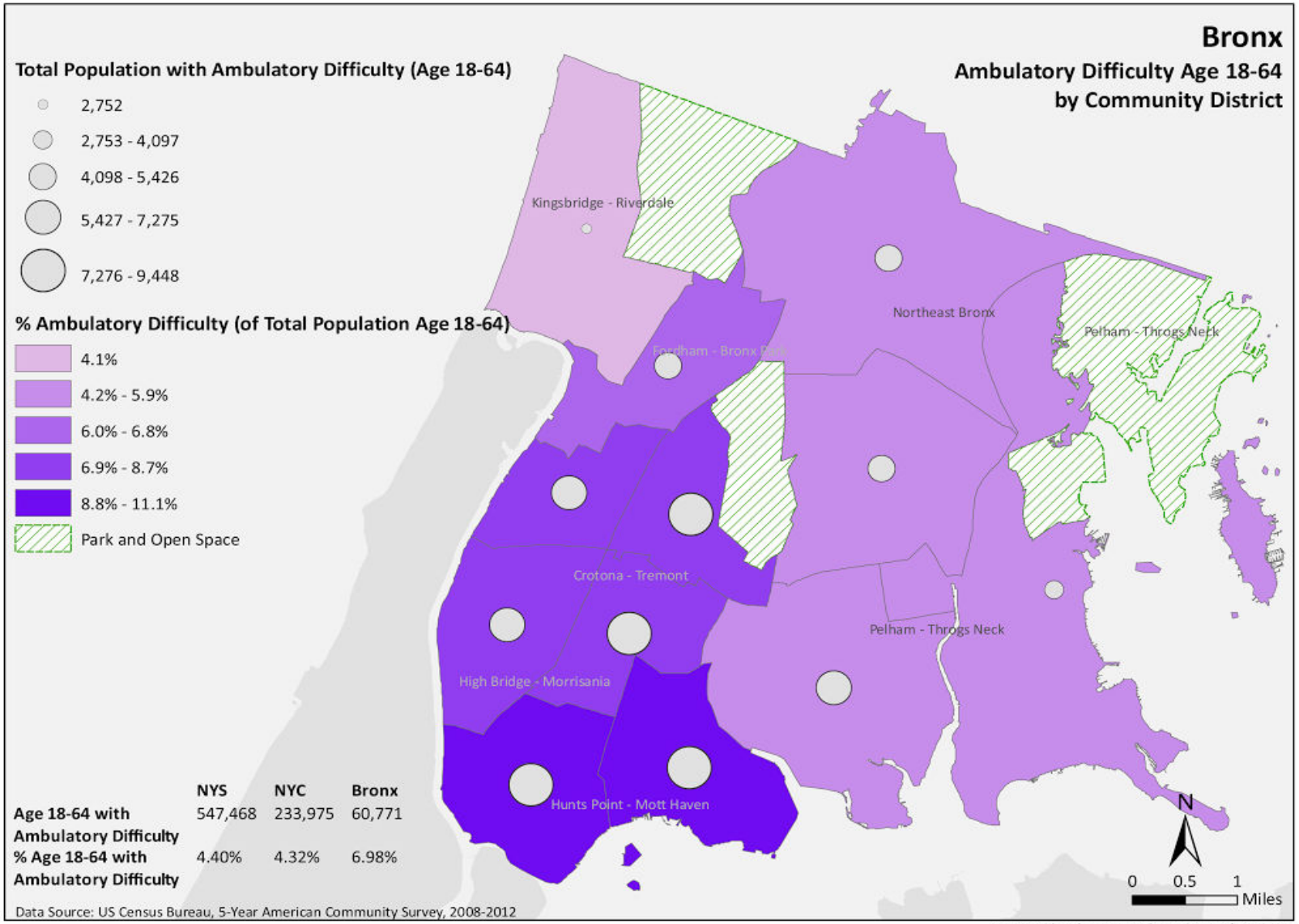
11. Ambulatory Difficulty (Ages 18-64) by Zip Code



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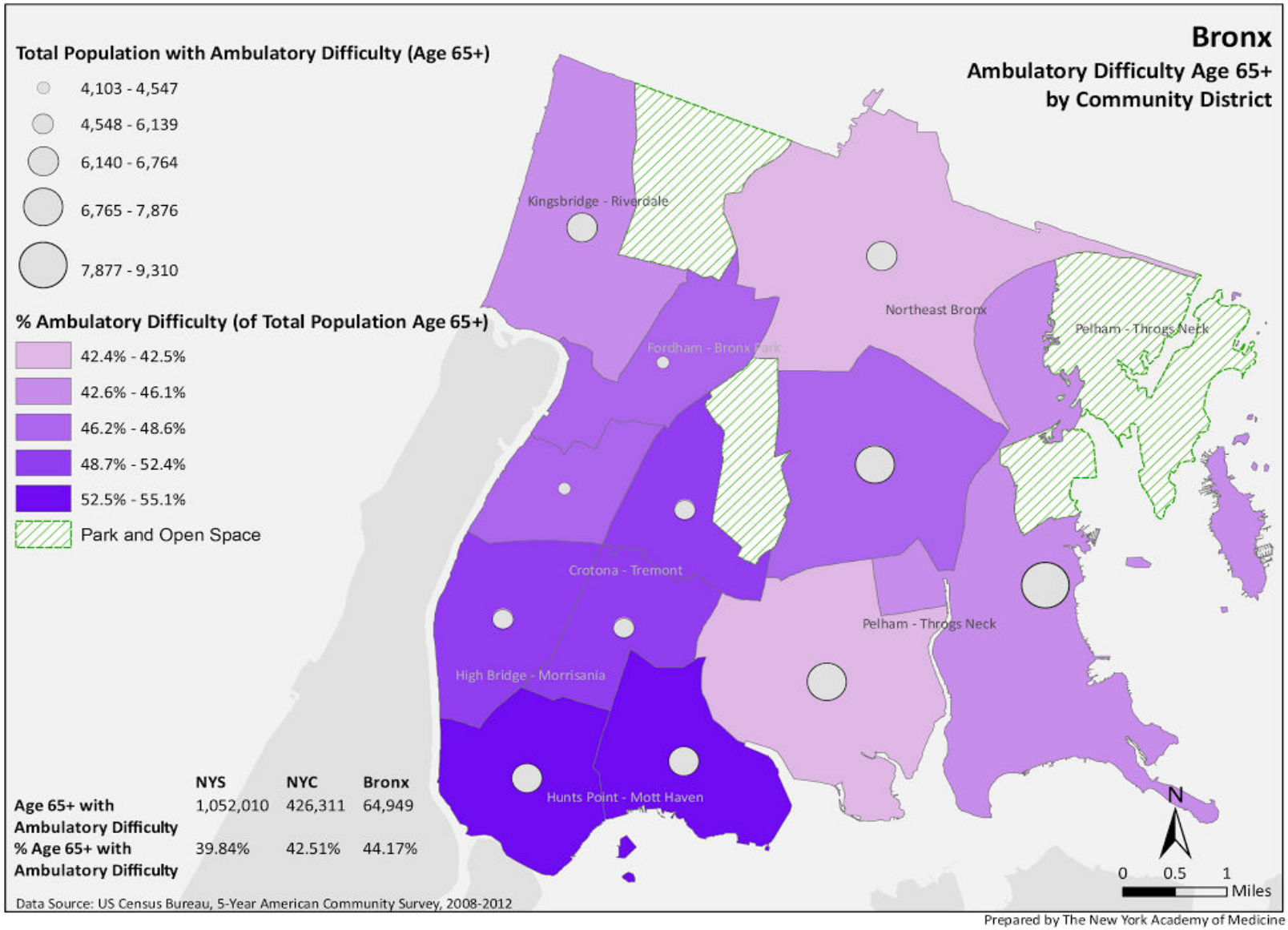
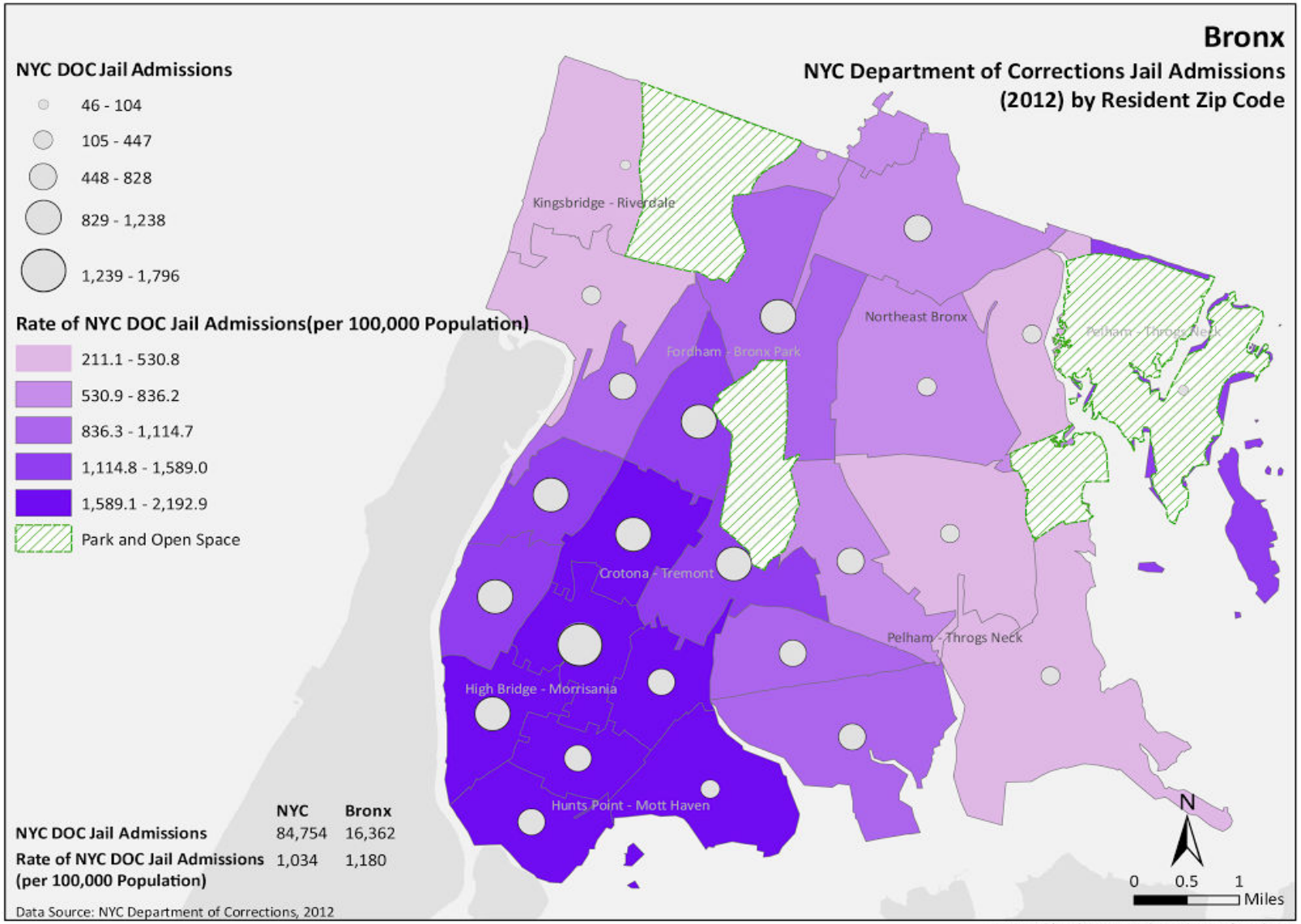


	NYS	NYC	Bronx
Age 65+ with Ambulatory Difficulty	1,052,010	426,311	64,949
% Age 65+ with Ambulatory Difficulty	39.84%	42.51%	44.17%

13. NYC Department of Corrections Jail Admissions by Resident Zip Code



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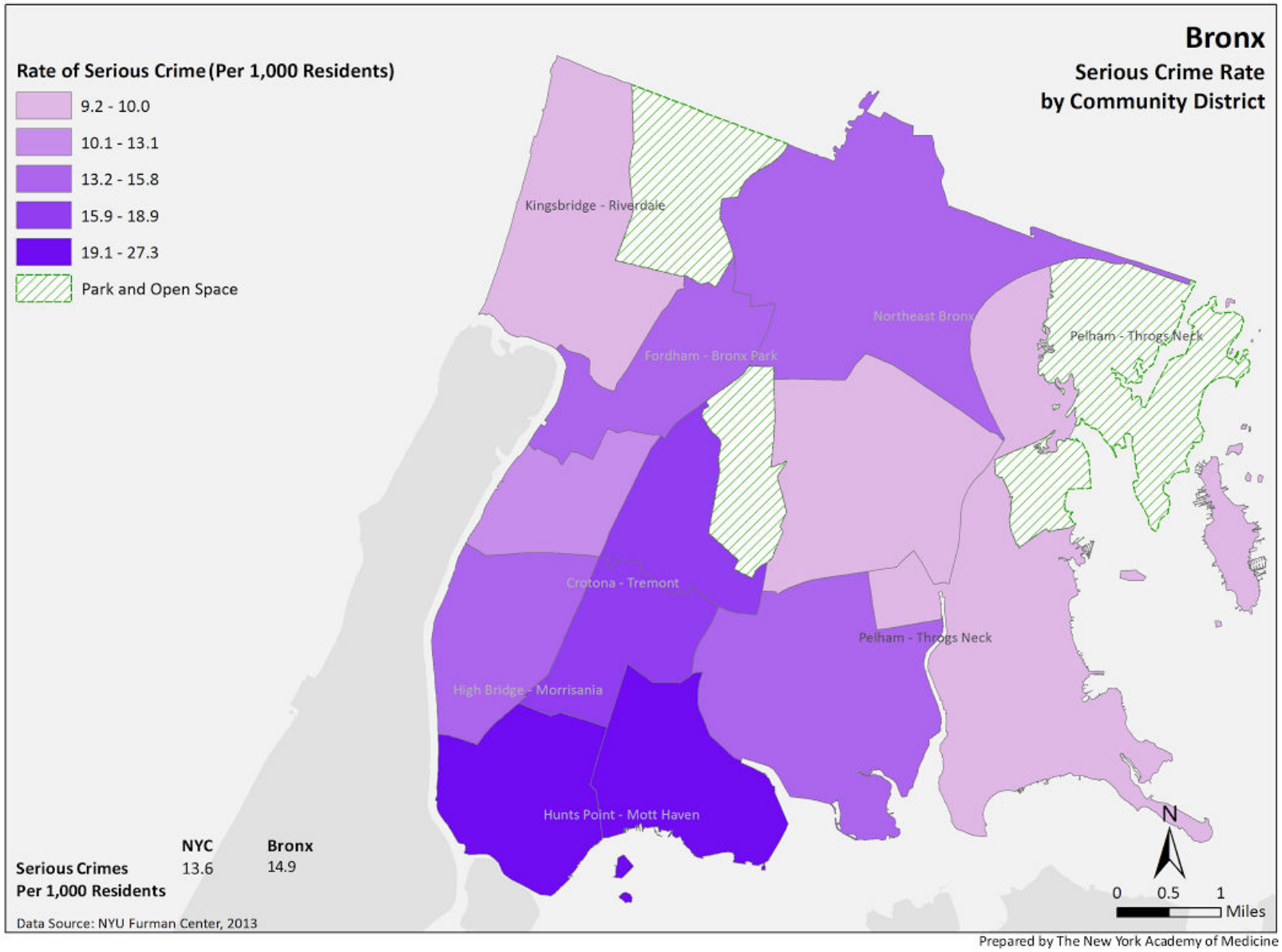

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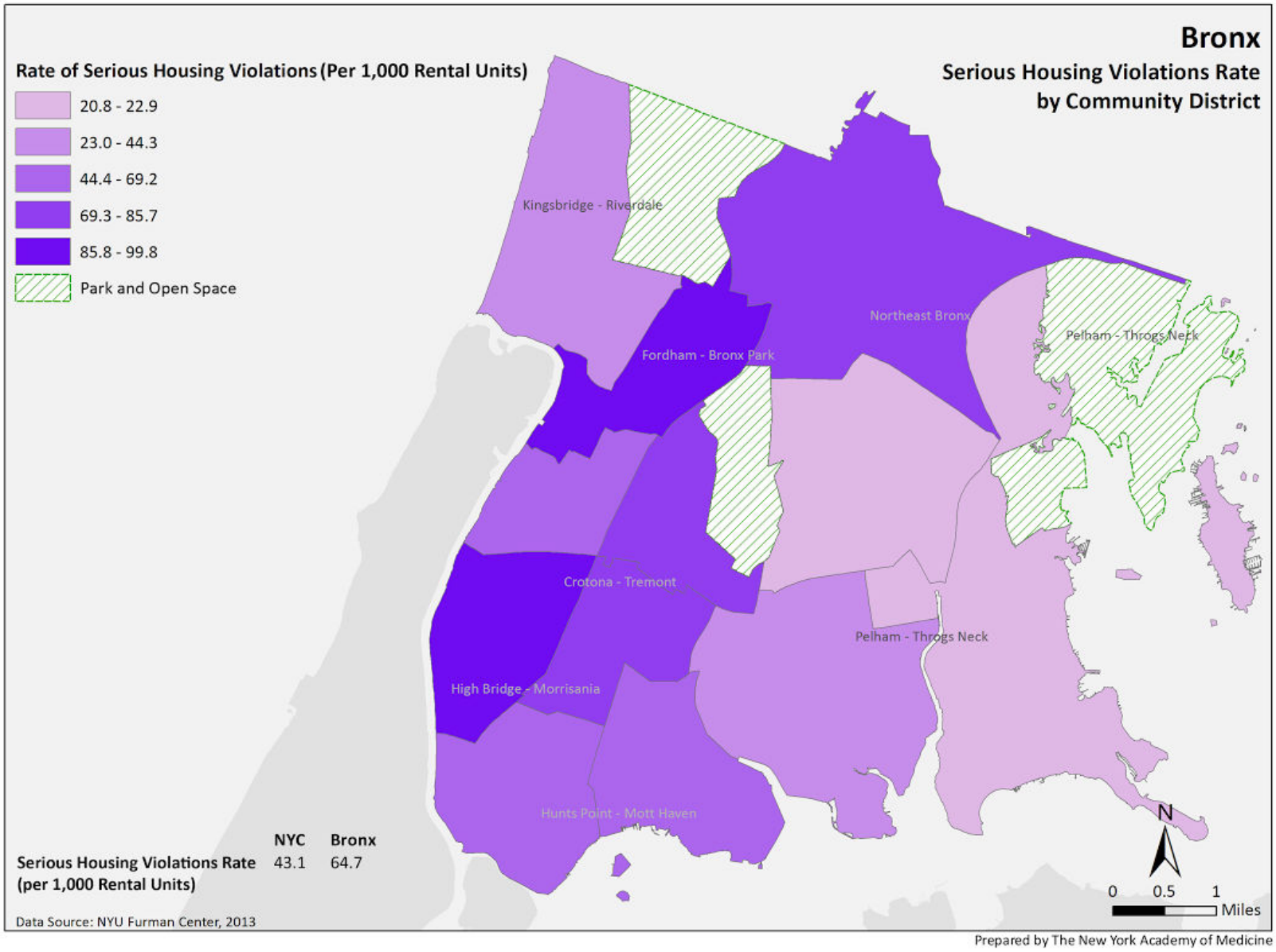

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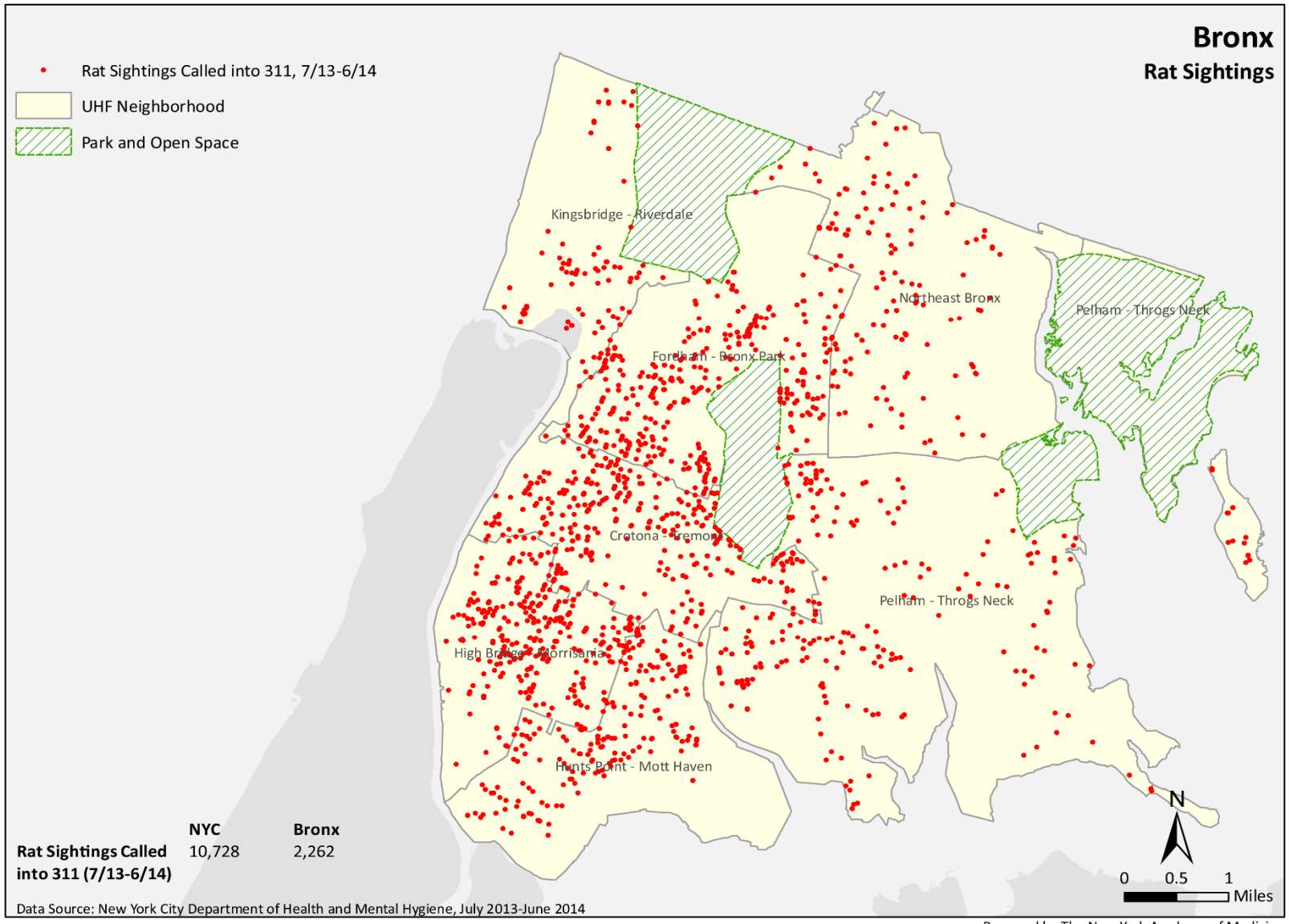

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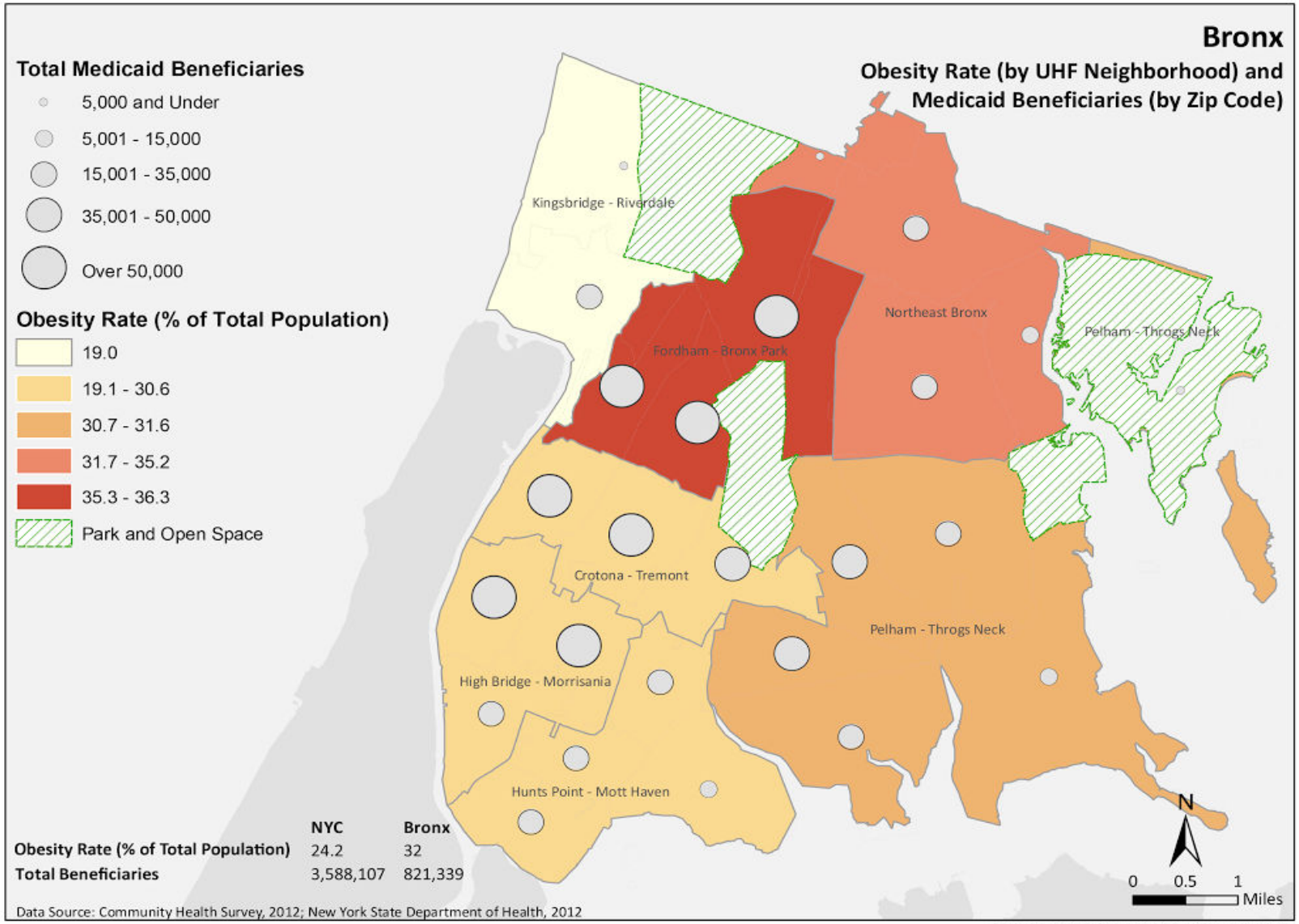
17. Obesity Rate (by UHF Neighborhood) and Medicaid Beneficiaries (by Zip Code)



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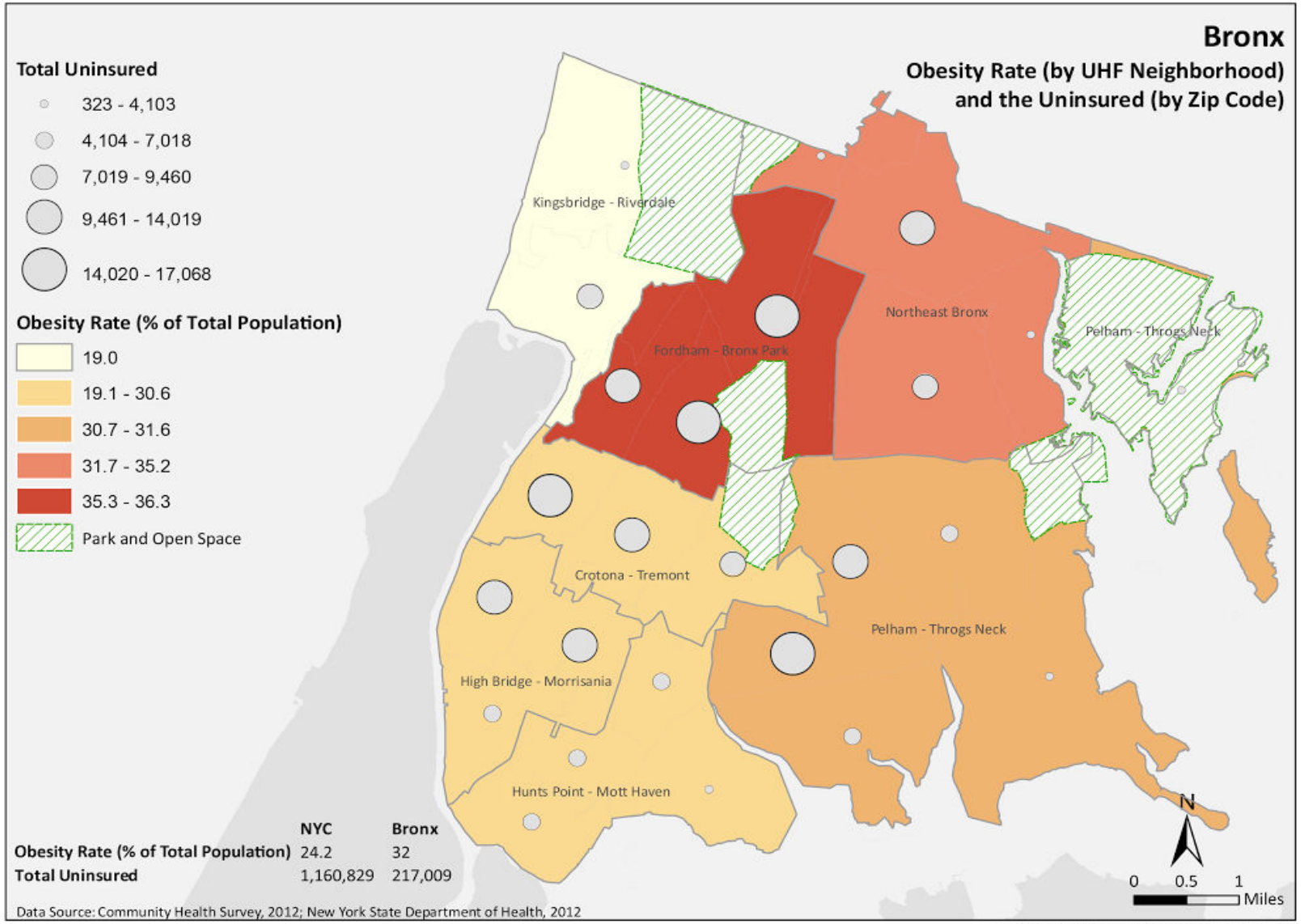

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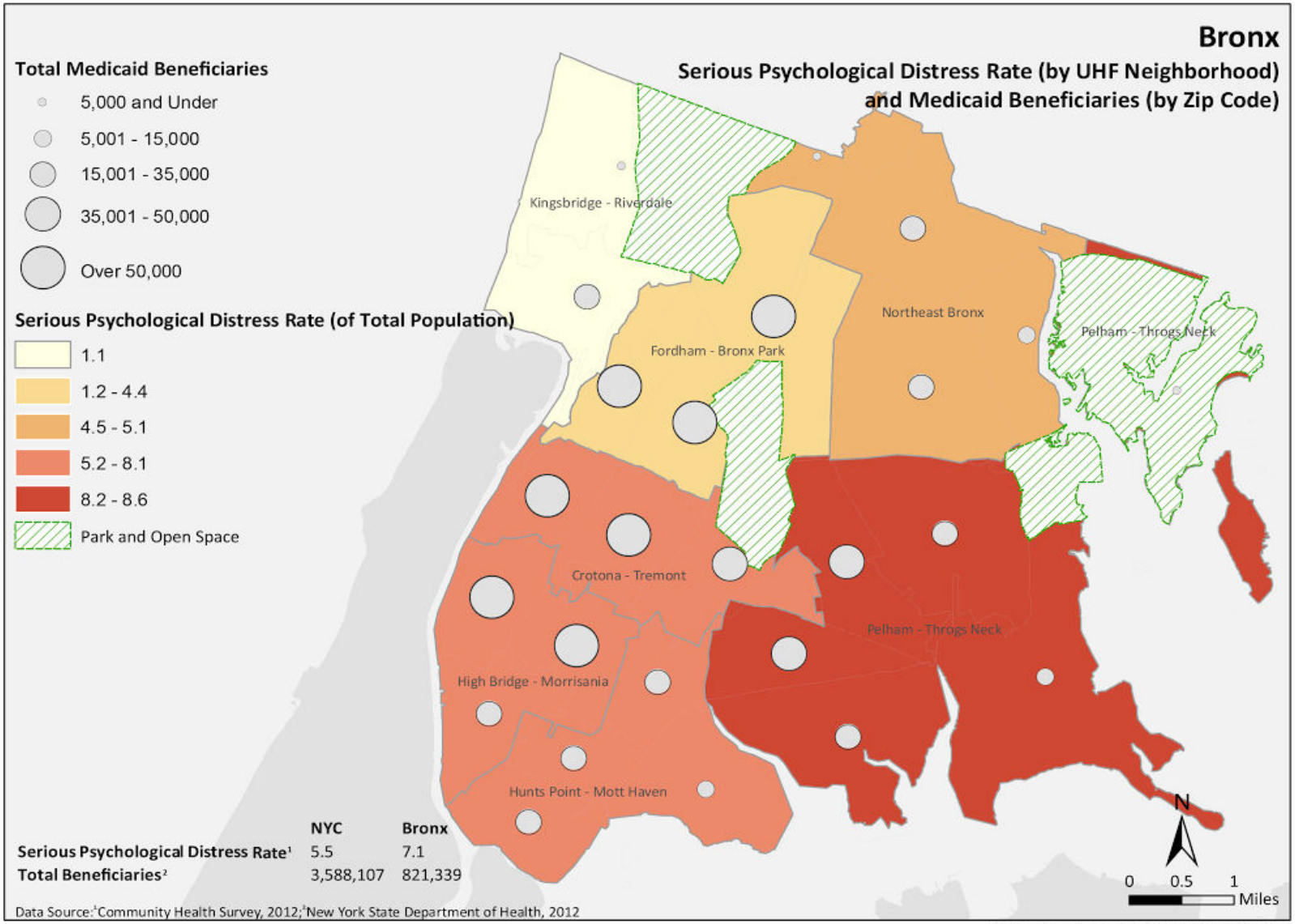

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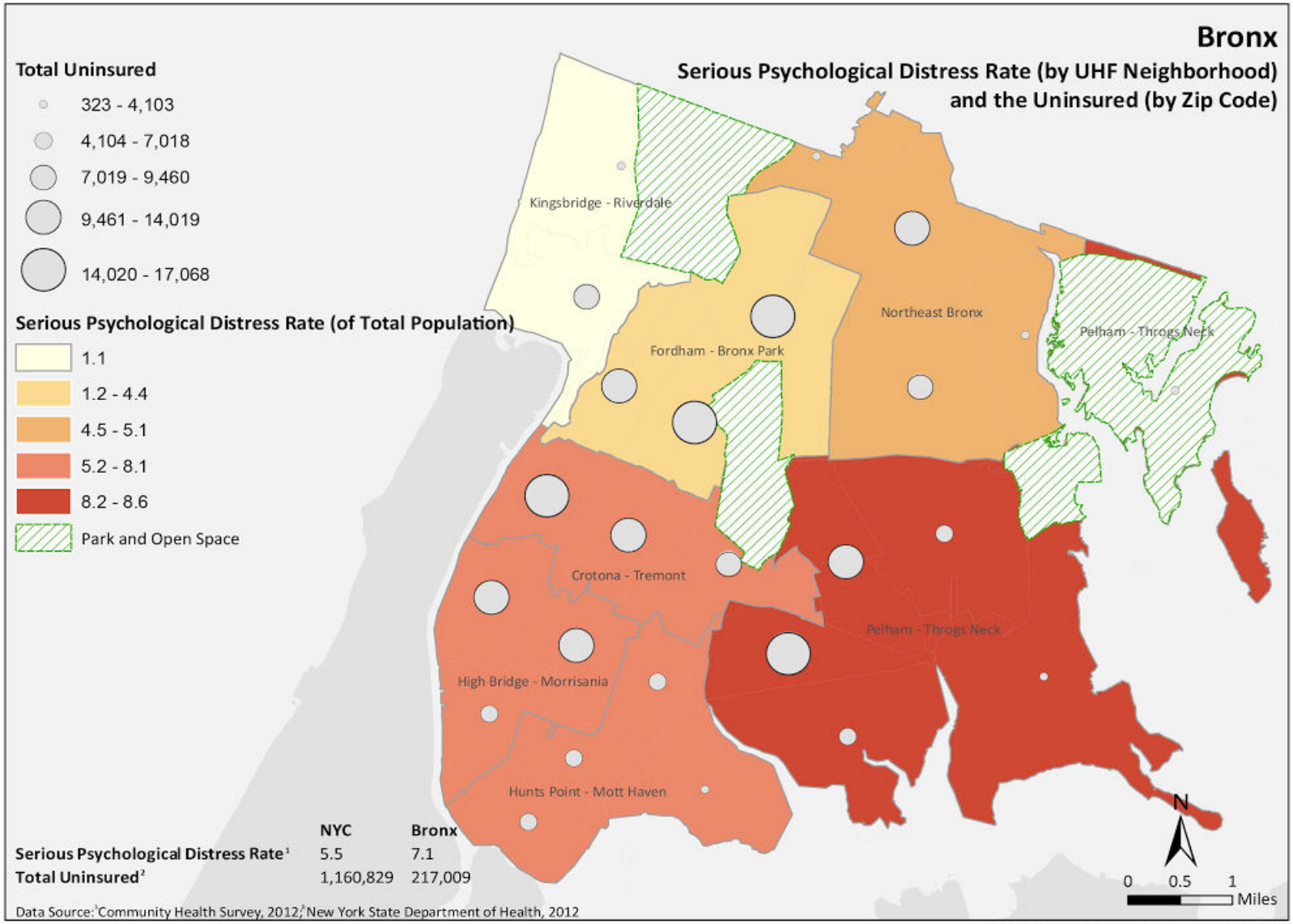

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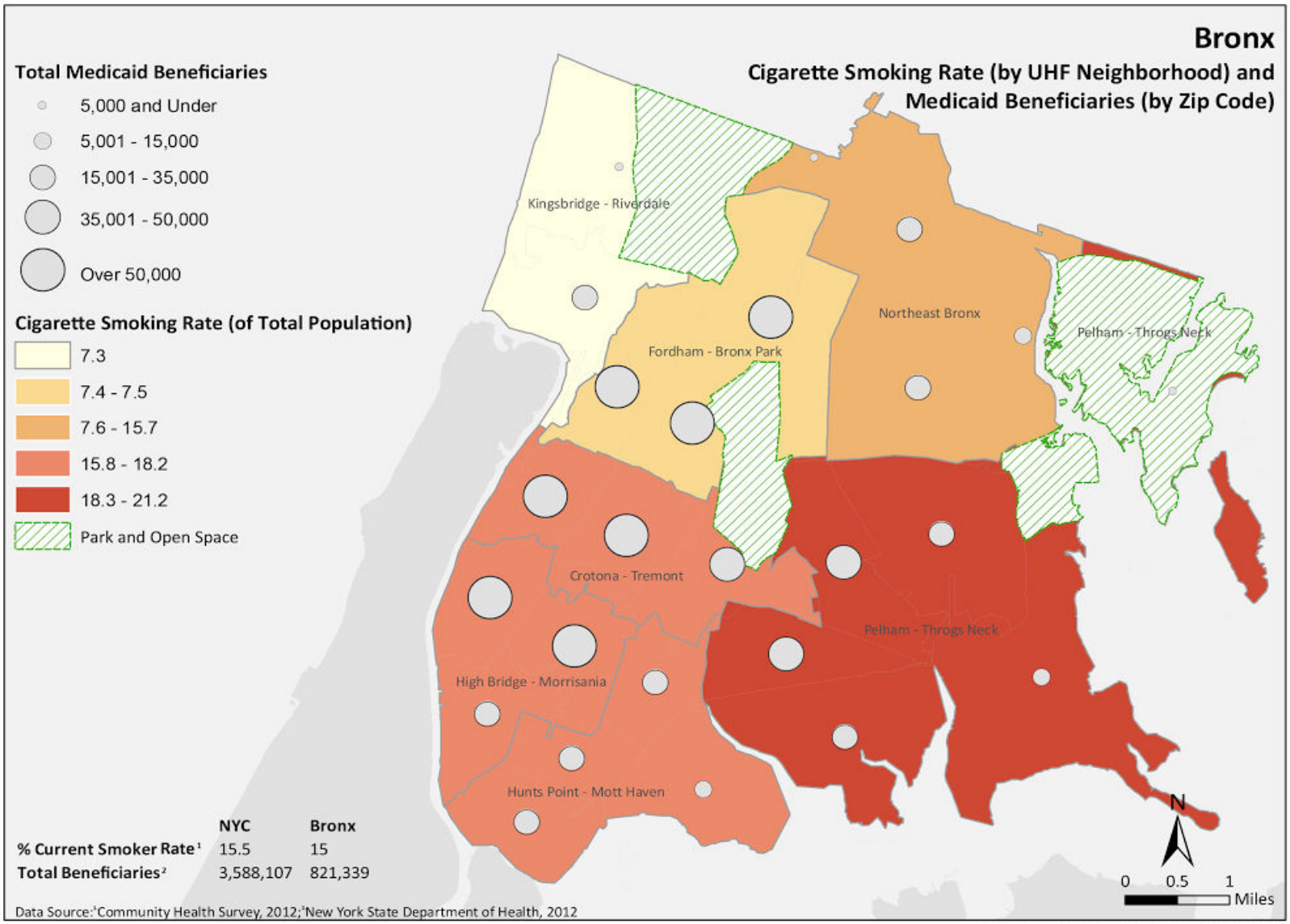

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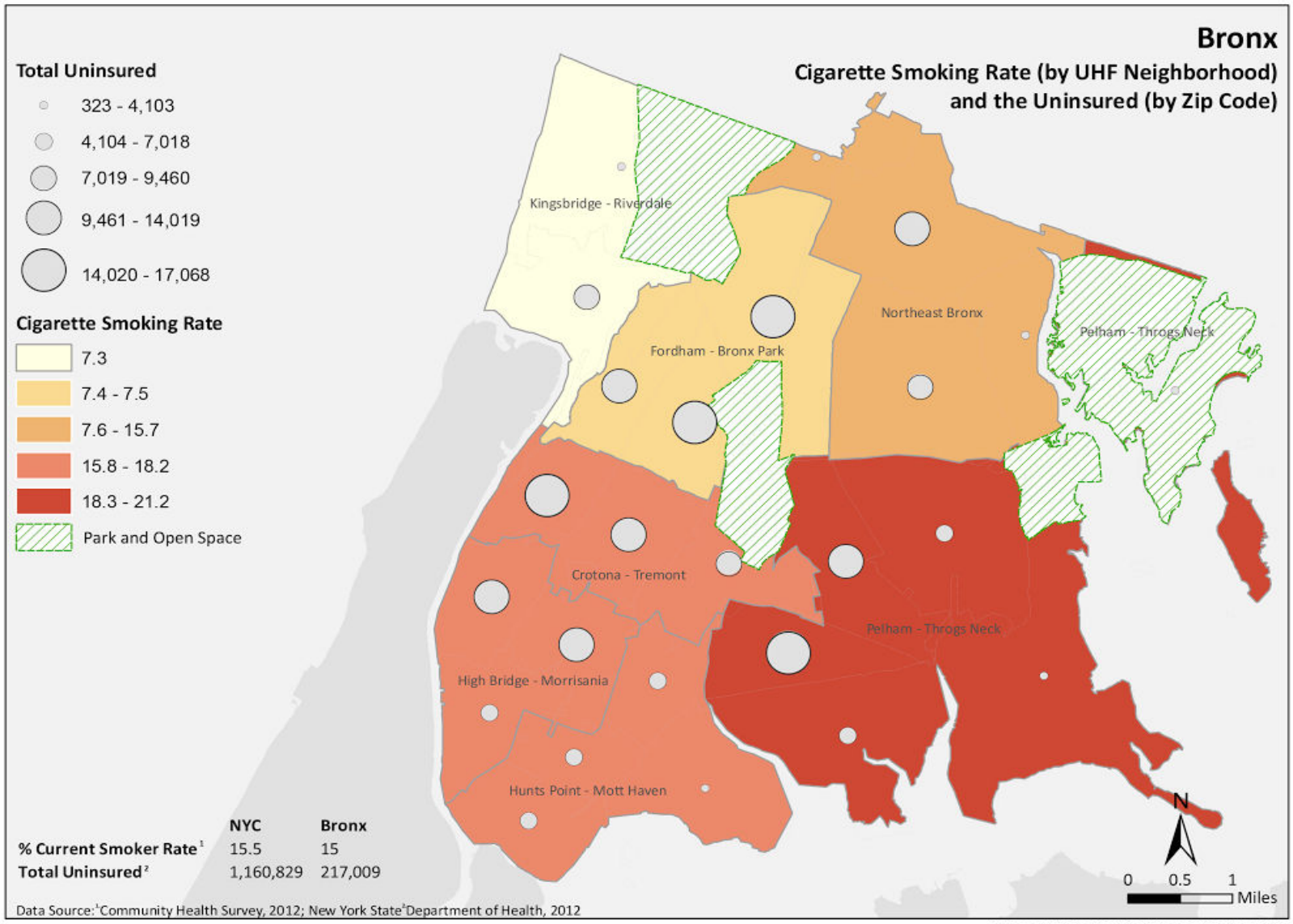

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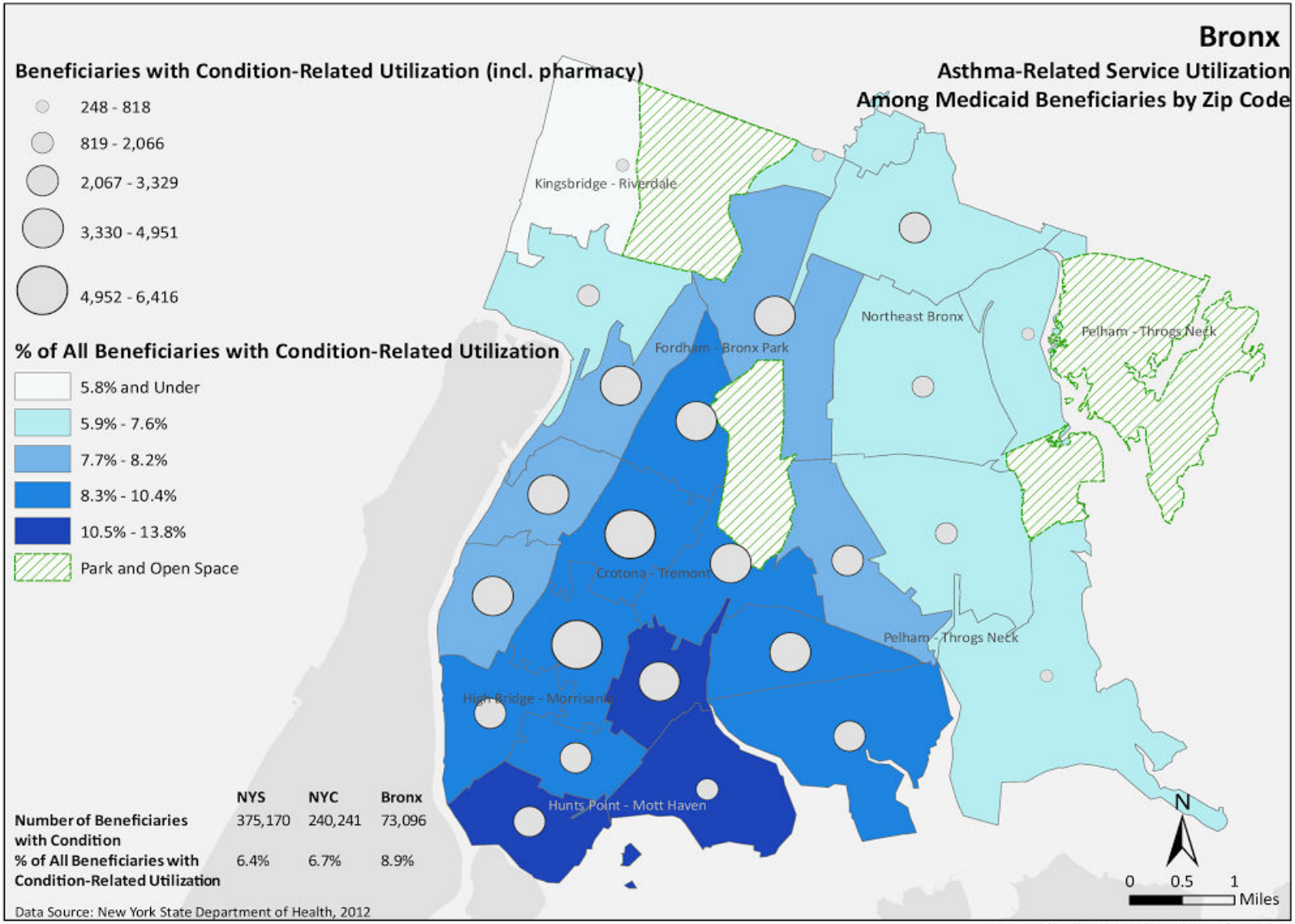

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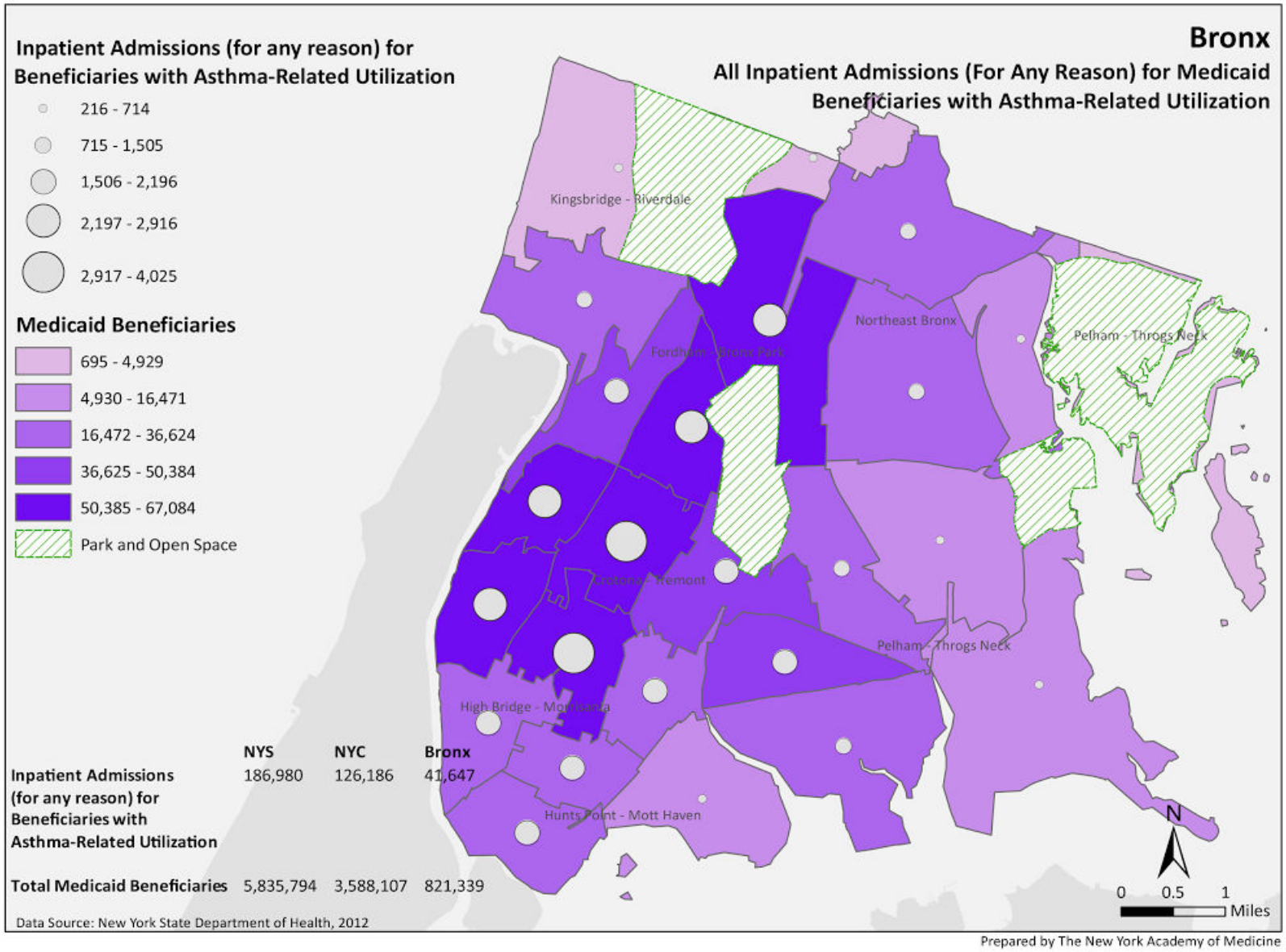
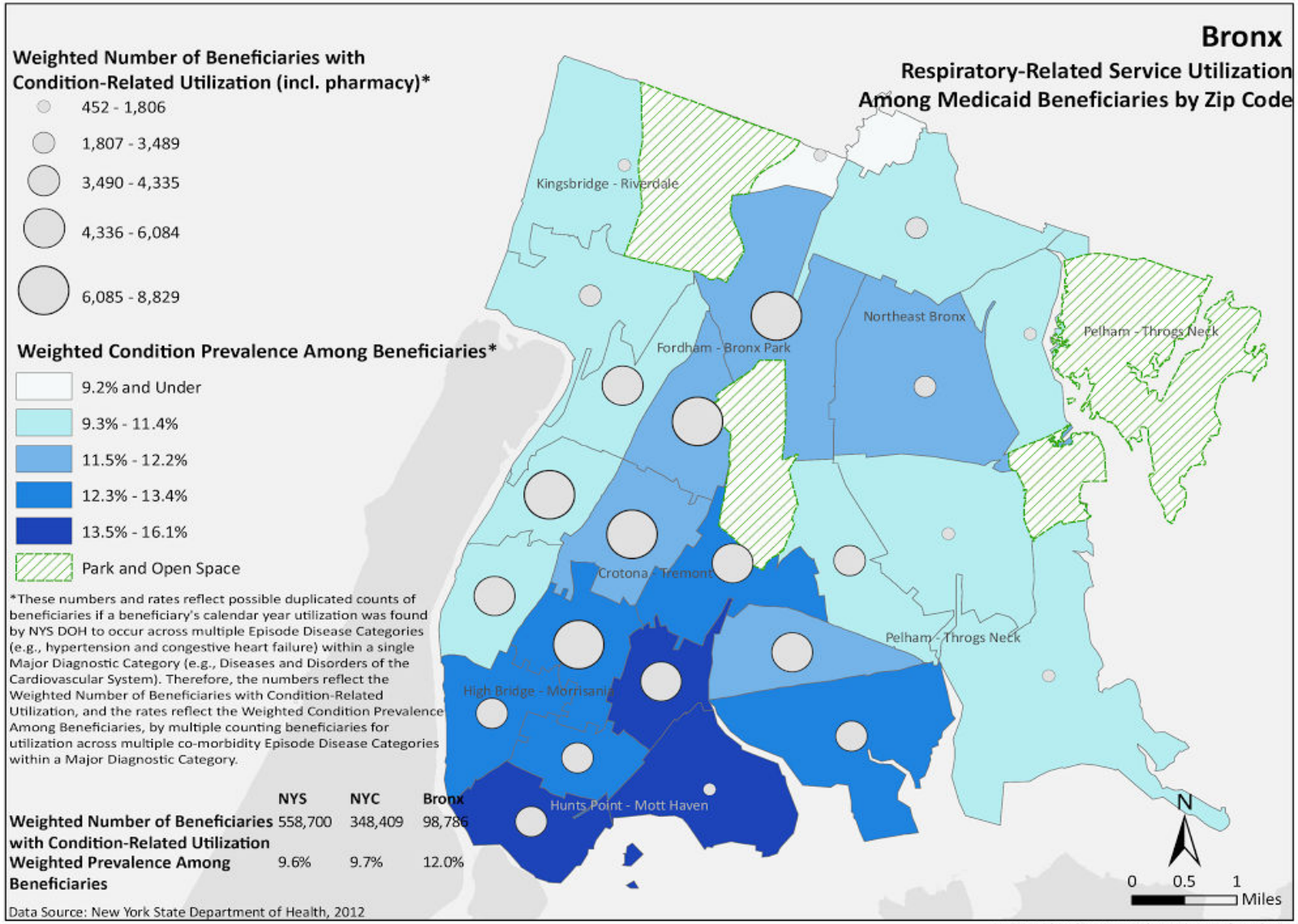


	NYS	NYC	Bronx
Inpatient Admissions (for any reason) for Beneficiaries with Asthma-Related Utilization	186,980	126,186	41,647
Total Medicaid Beneficiaries	5,835,794	3,588,107	821,339

25. Respiratory-Related Service Utilization Among Medicaid Beneficiaries



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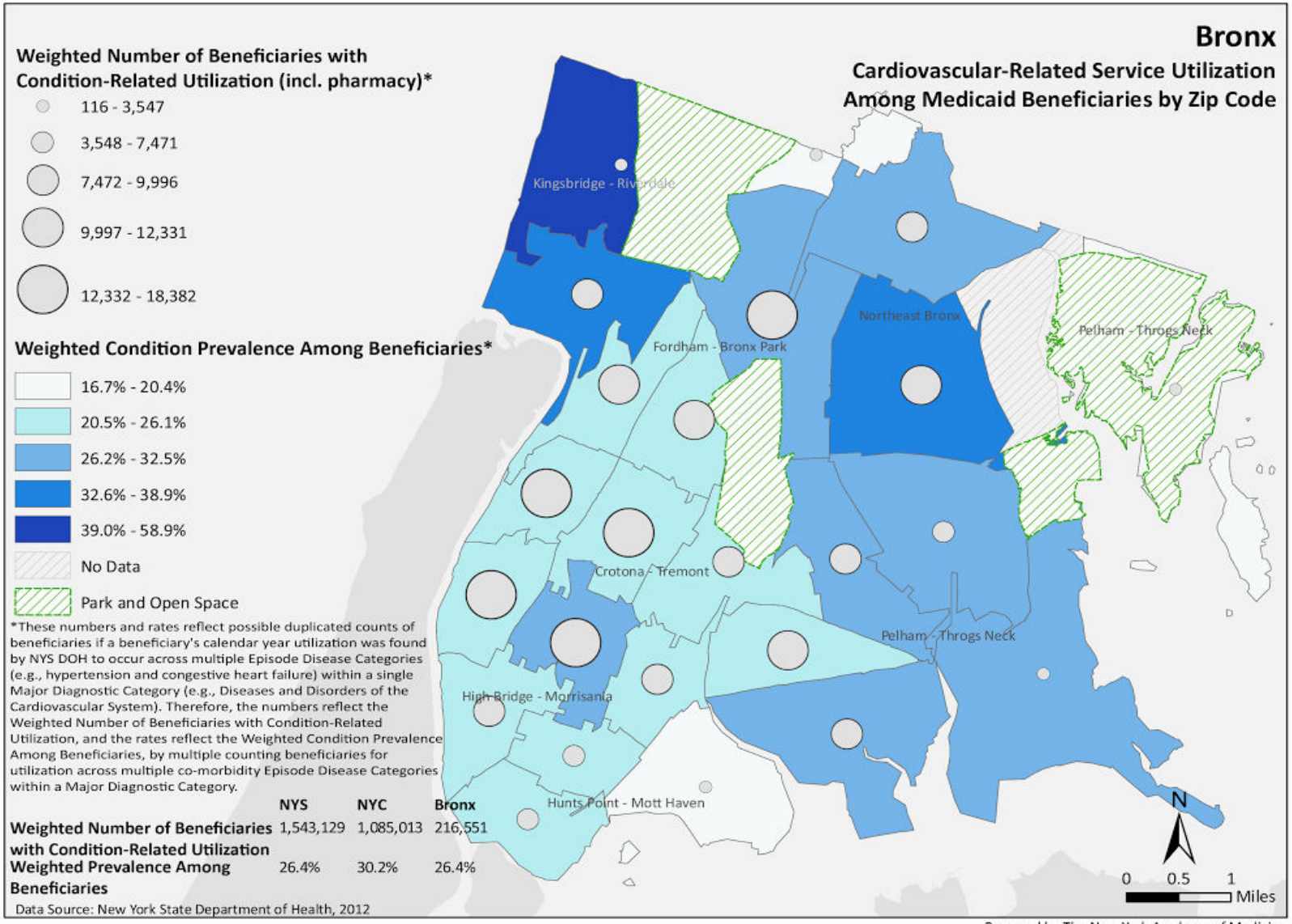
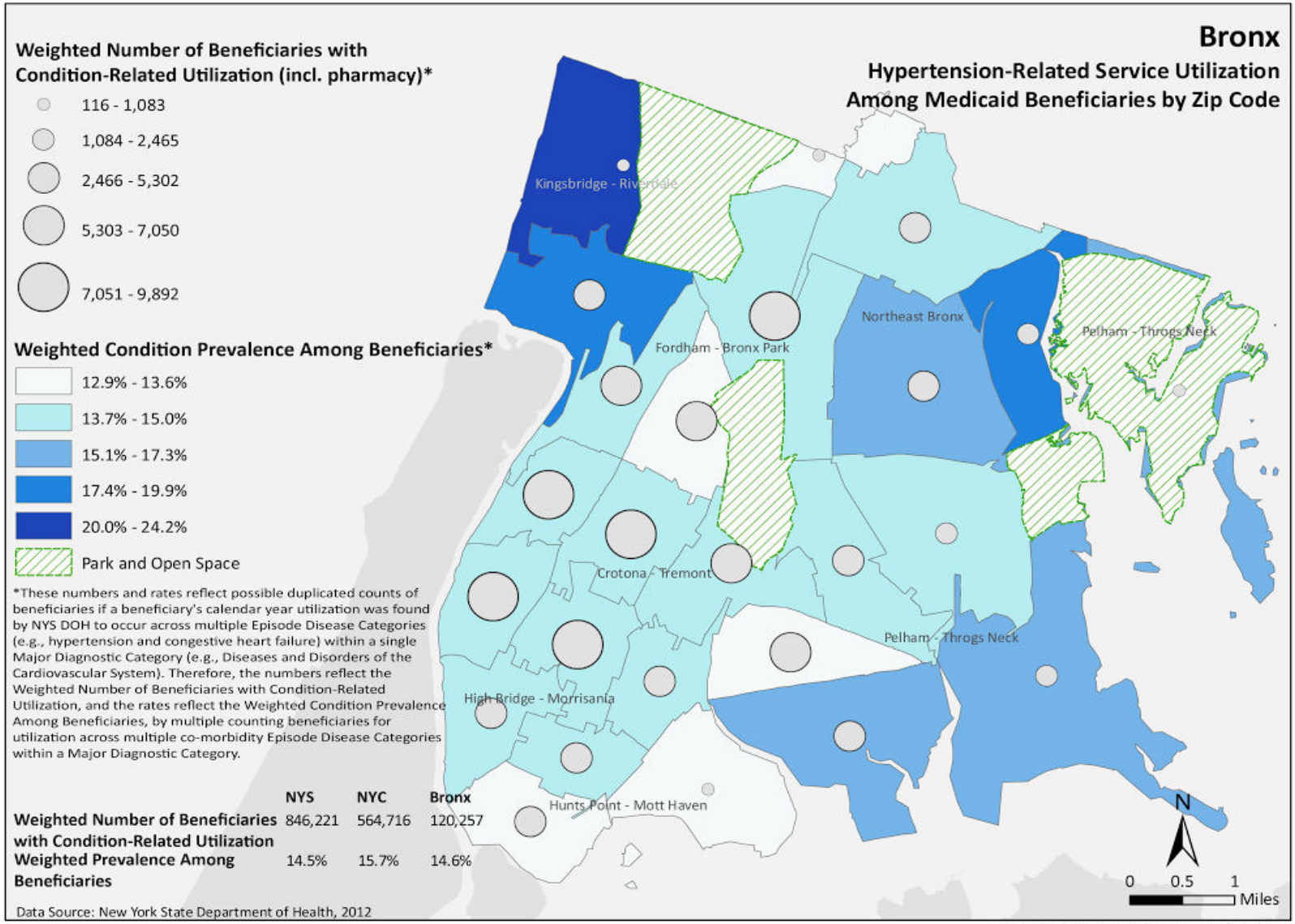
26. Cardiovascular-Related Service Utilization Among Medicaid Beneficiaries



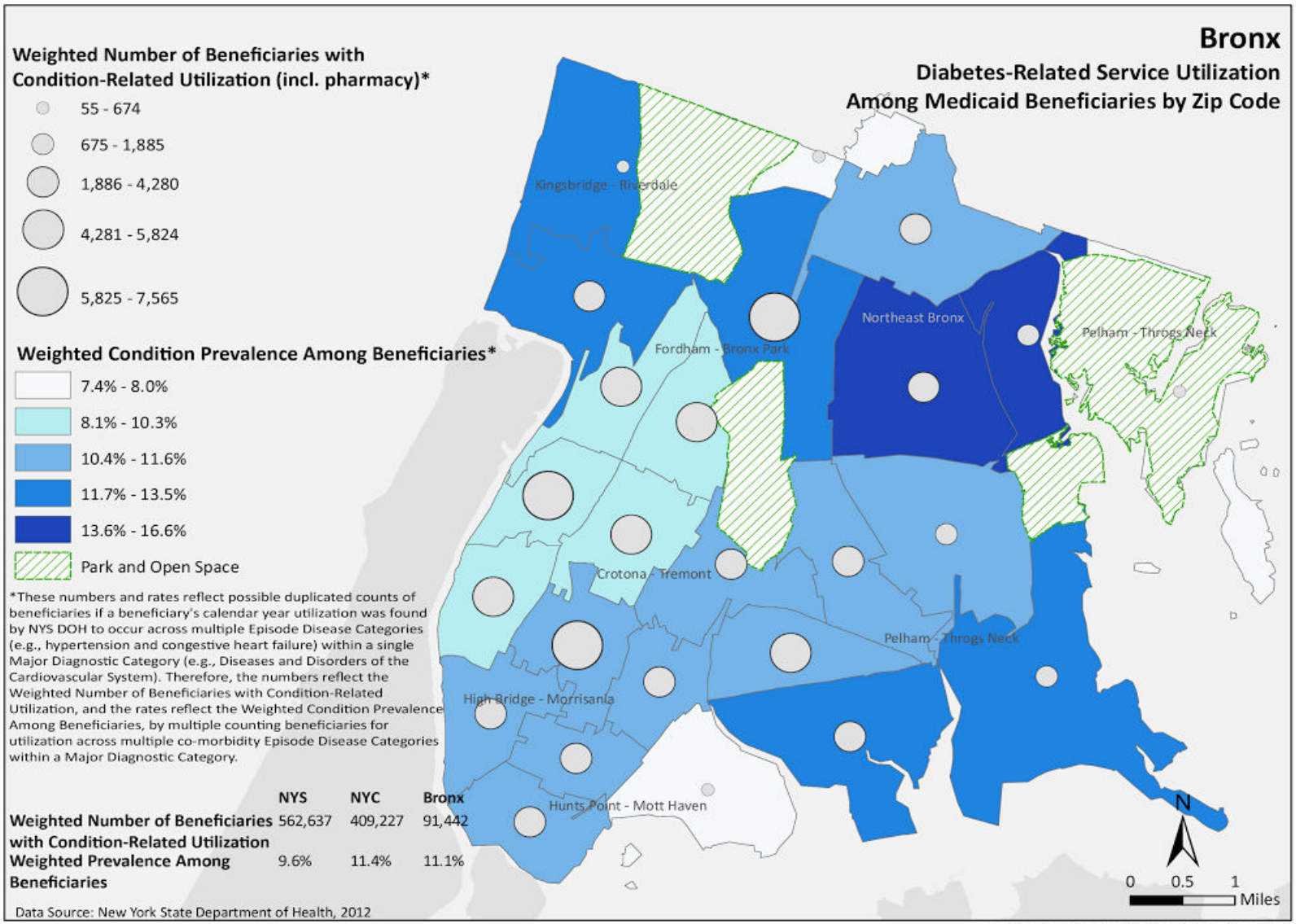
	NYS	NYC	Bronx
Weighted Number of Beneficiaries with Condition-Related Utilization	1,543,129	1,085,013	216,551
Weighted Prevalence Among Beneficiaries	26.4%	30.2%	26.4%

27. Hypertension-Related Service Utilization Among Medicaid Beneficiaries

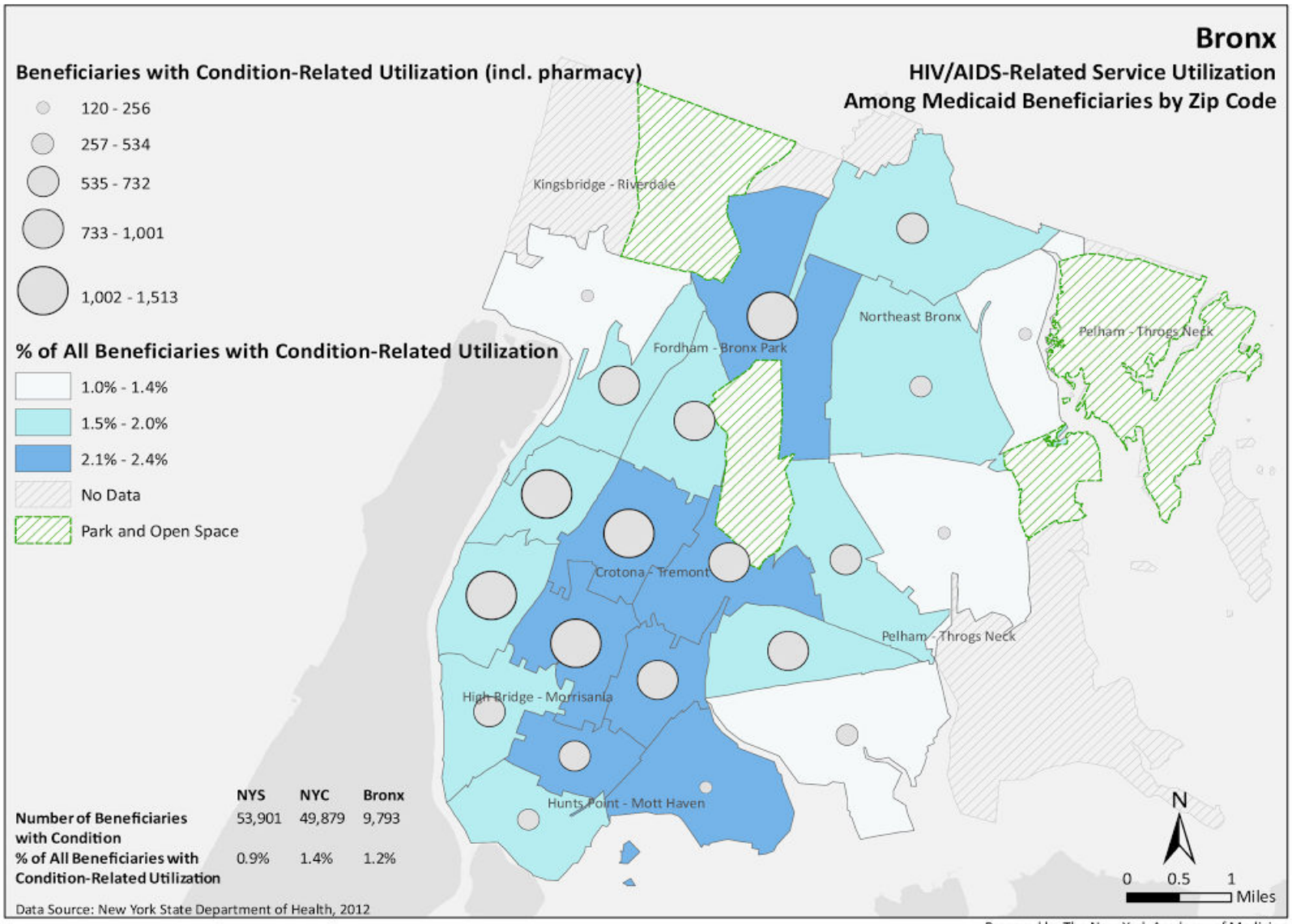


	NYS	NYC	Bronx
Weighted Number of Beneficiaries with Condition-Related Utilization	846,221	564,716	120,257
Weighted Prevalence Among Beneficiaries	14.5%	15.7%	14.6%

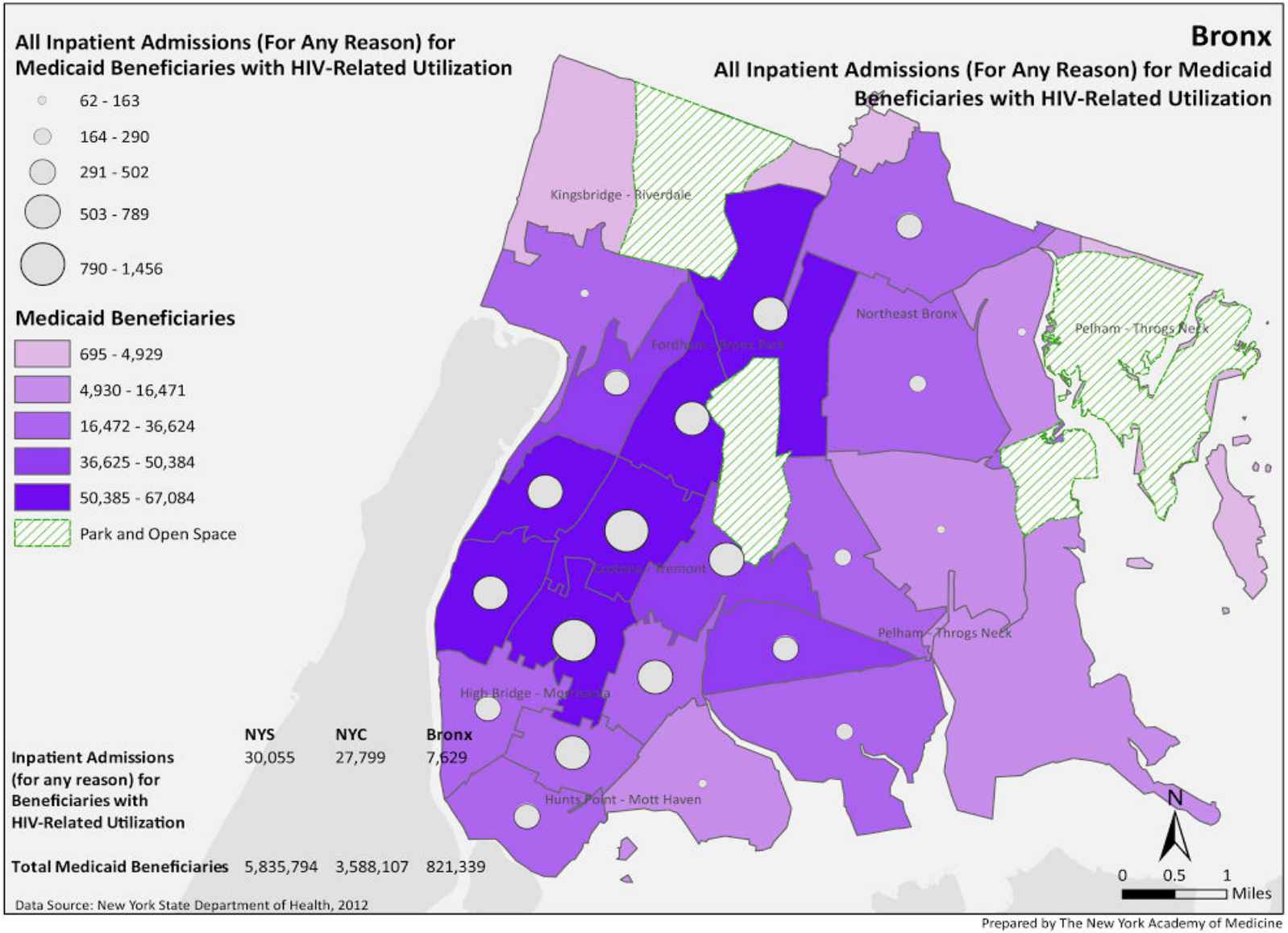
28. Diabetes-Related Service Utilization Among Medicaid Beneficiaries



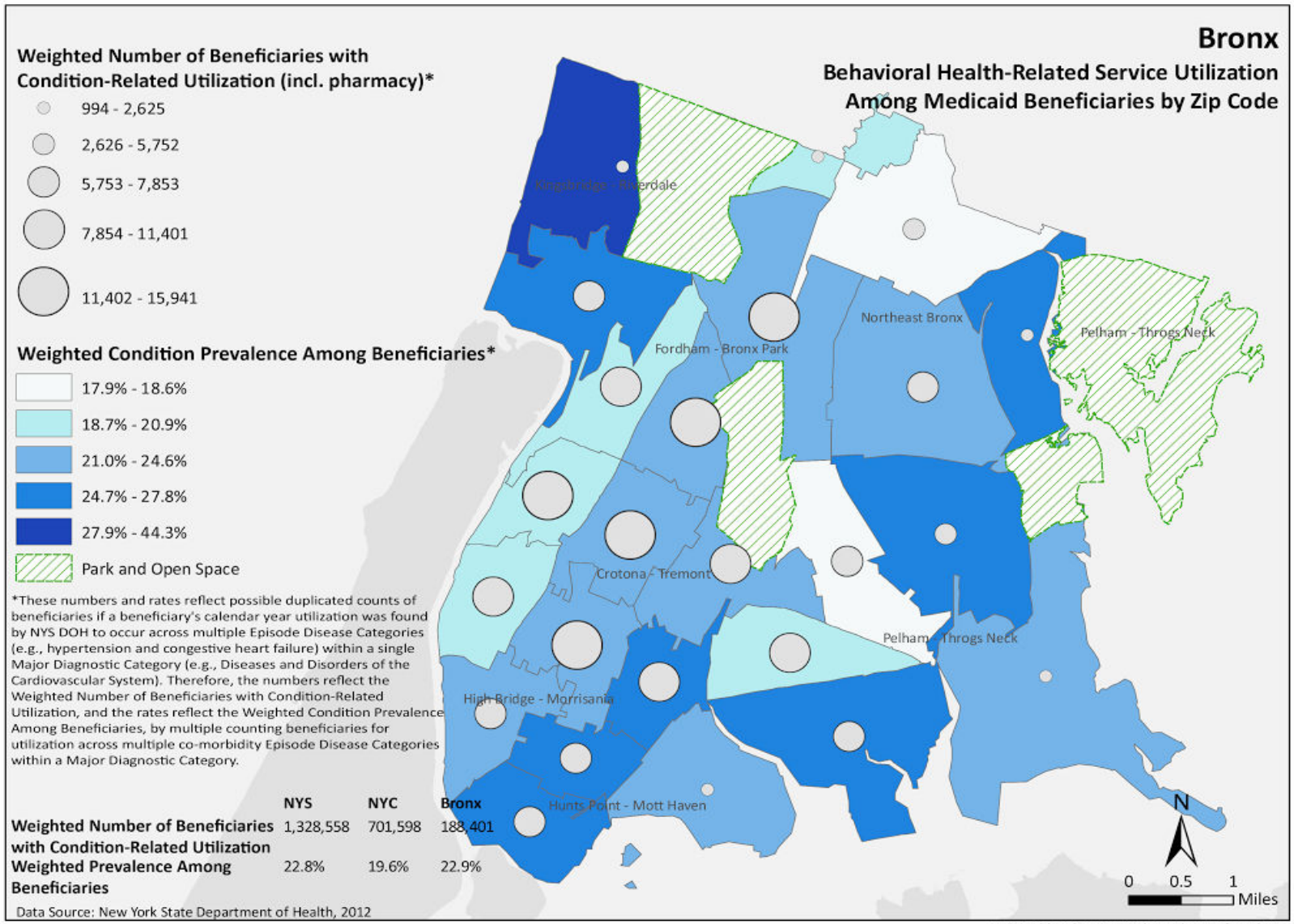
29. HIV/AIDS-Related Service Utilization Among Medicaid Beneficiaries



30. All Inpatient Admissions (For Any Reason) for Medicaid Beneficiaries with HIV -Related Utilization

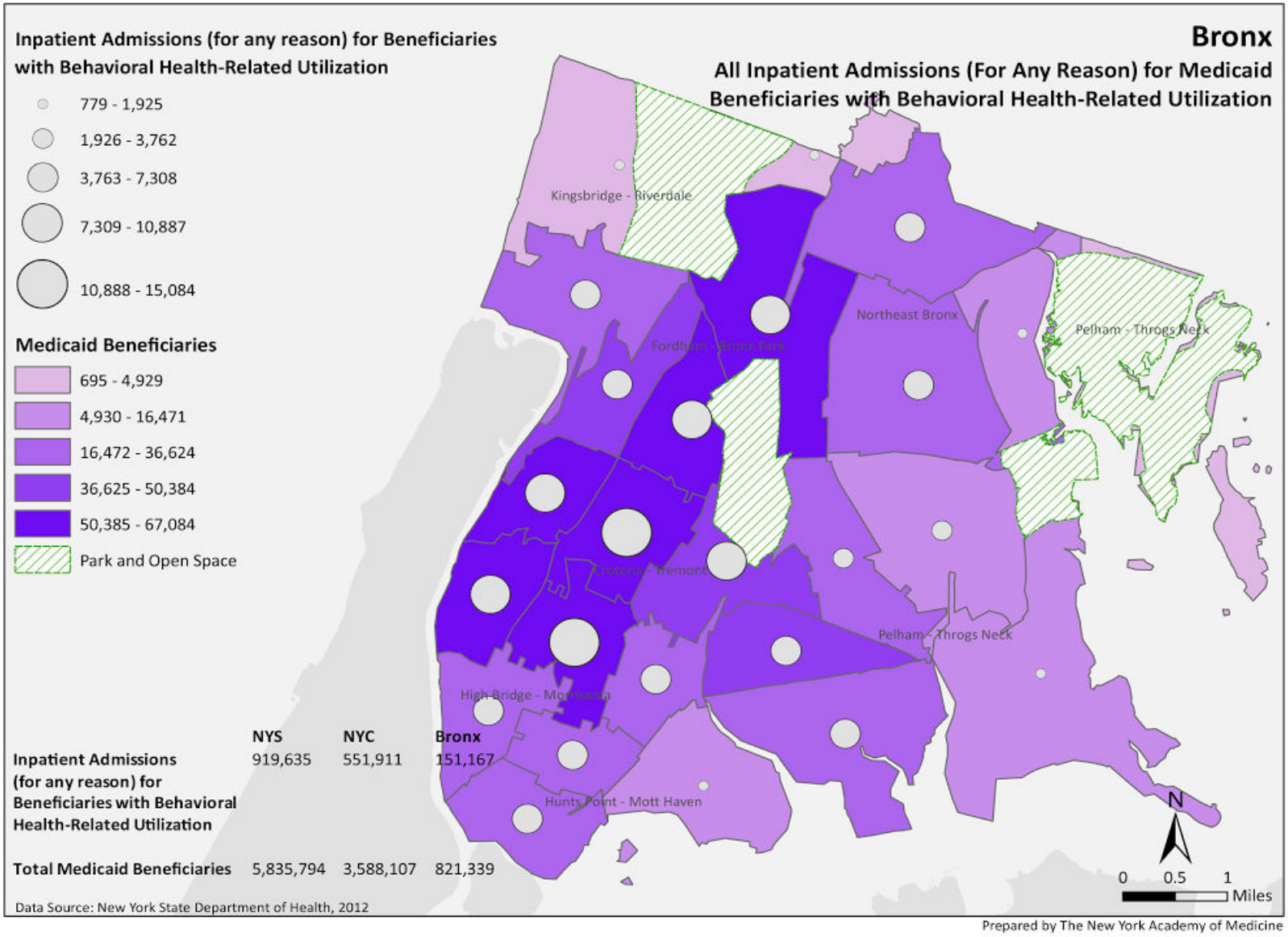


31. Behavioral Health-Related Service Utilization Among Medicaid Beneficiaries

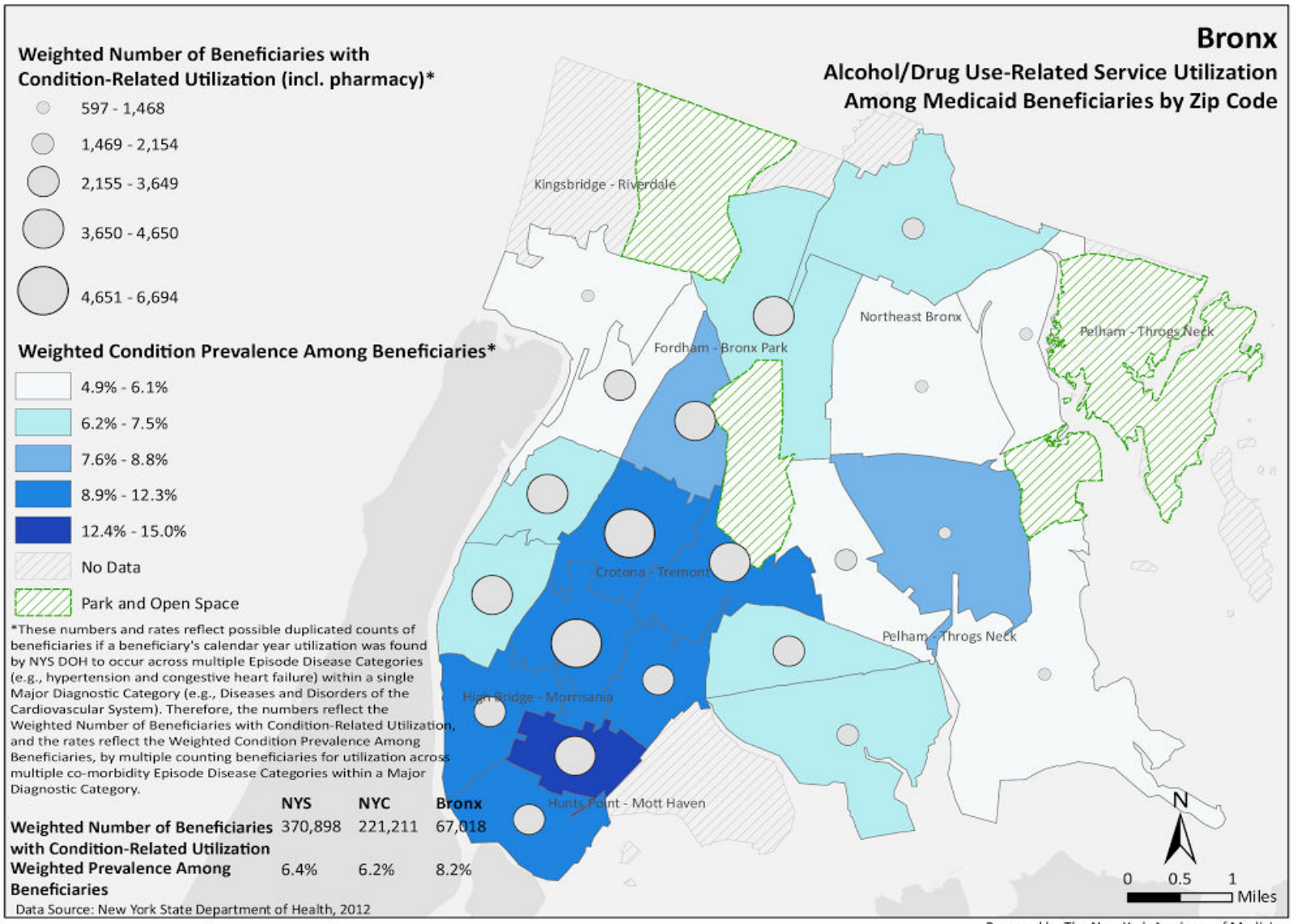


	NYS	NYC	Bronx
Weighted Number of Beneficiaries with Condition-Related Utilization	1,328,558	701,598	188,401
Weighted Prevalence Among Beneficiaries	22.8%	19.6%	22.9%

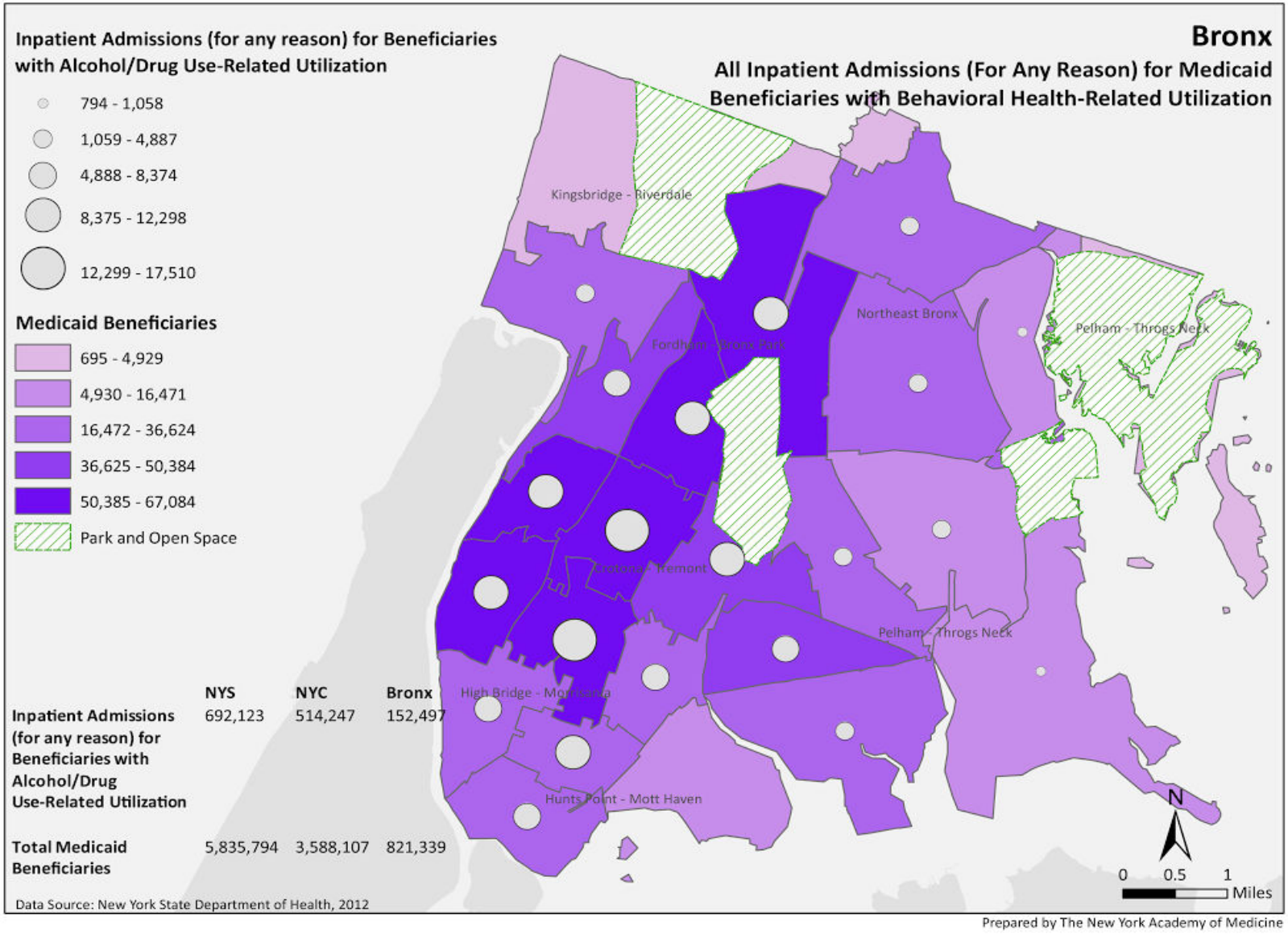
32. All Inpatient Admissions (For Any Reason) for Medicaid Beneficiaries with Behavioral Health-Related Utilization



33. Alcohol/Drug Use-Related Service Utilization among Medicaid Beneficiaries



34. All Inpatient Admissions (For Any Reason) for Medicaid Beneficiaries with Alcohol/Drug Use-Related Utilization



	NYS	NYC	Bronx
Inpatient Admissions (for any reason) for Beneficiaries with Alcohol/Drug Use-Related Utilization	692,123	514,247	152,497
Total Medicaid Beneficiaries	5,835,794	3,588,107	821,339

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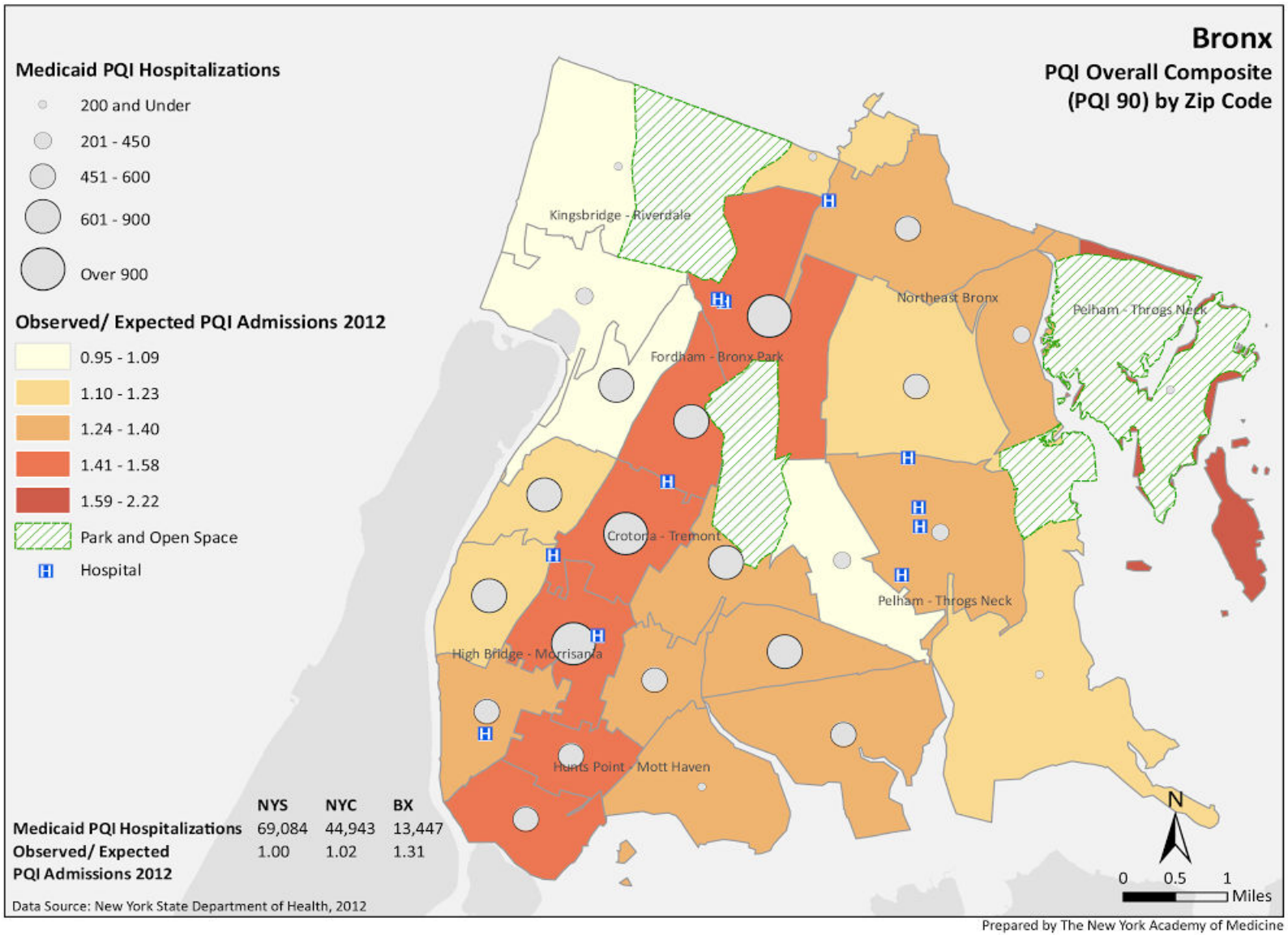
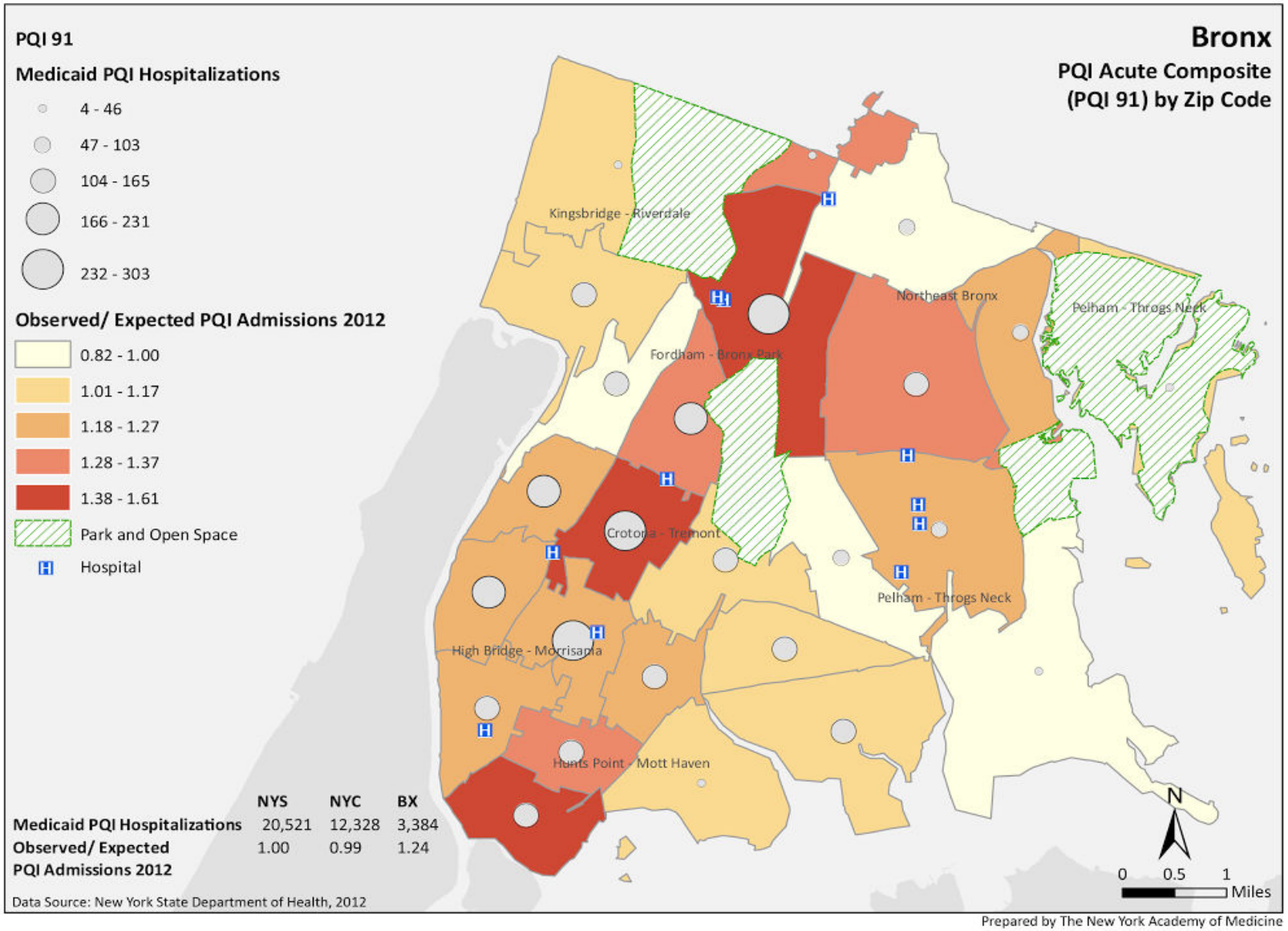
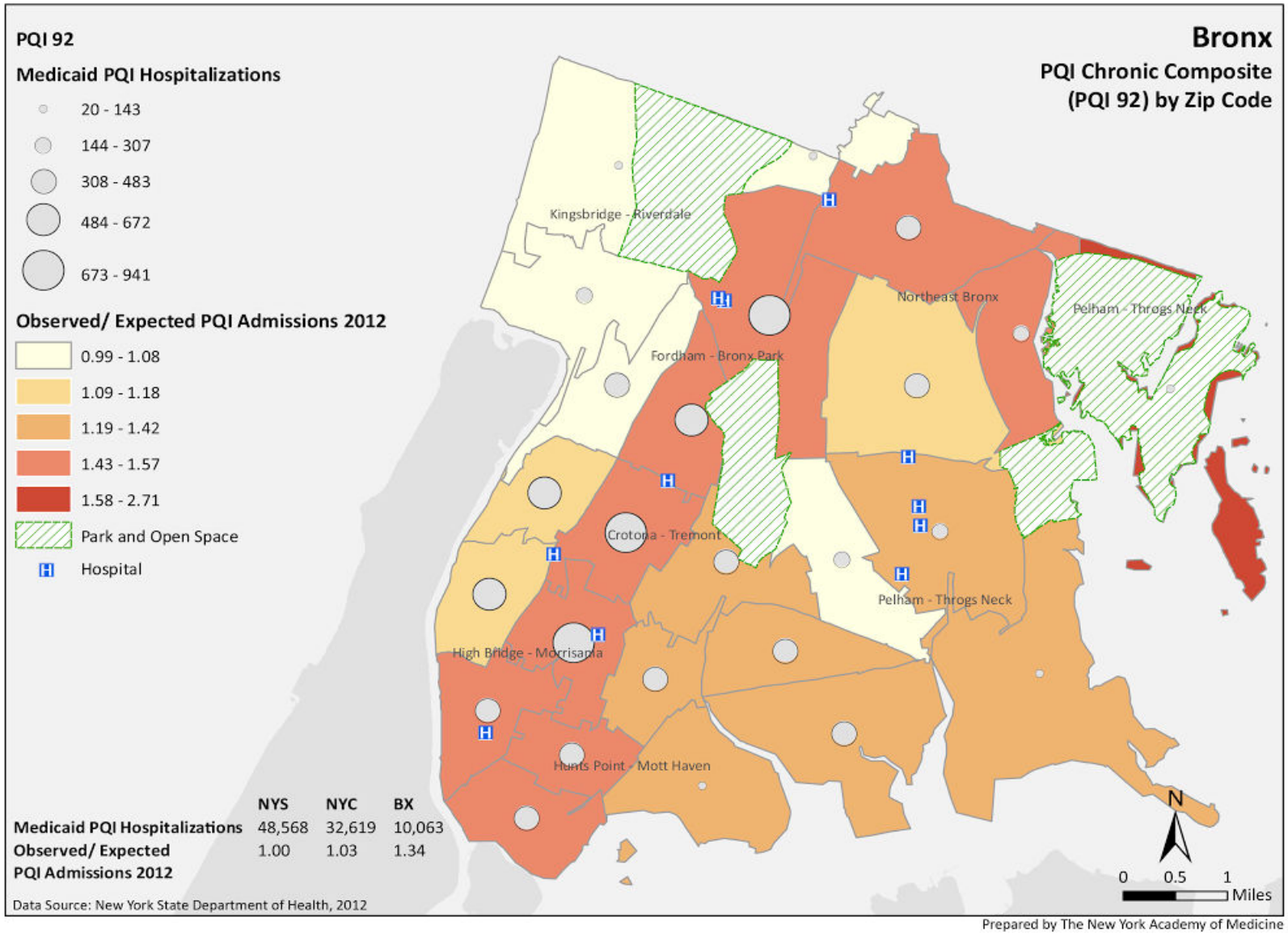
35. PQI Overall Composite (PQI 90) by Zip Code



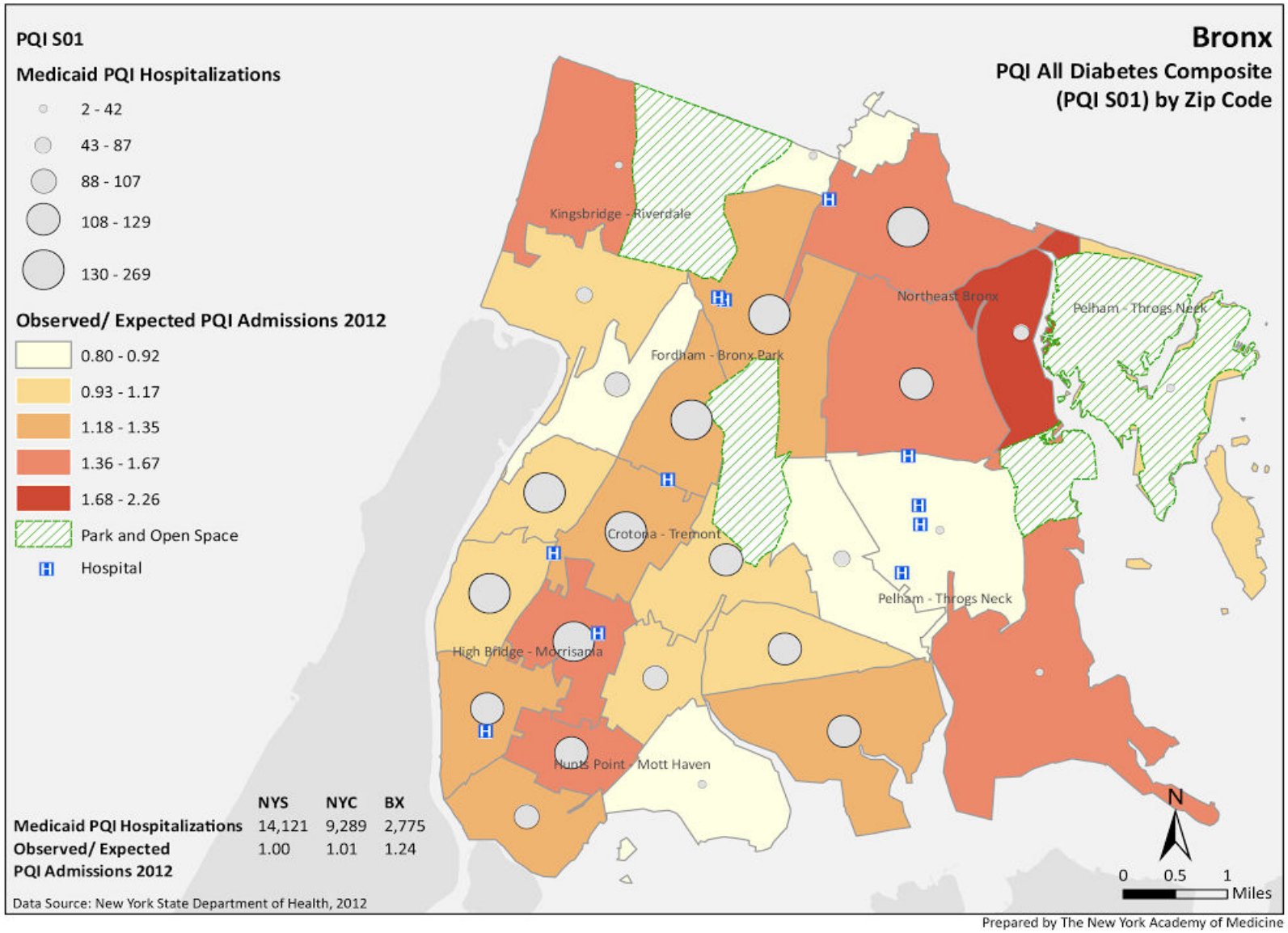
36. PQI Acute Composite (PQI 91) by Zip Code



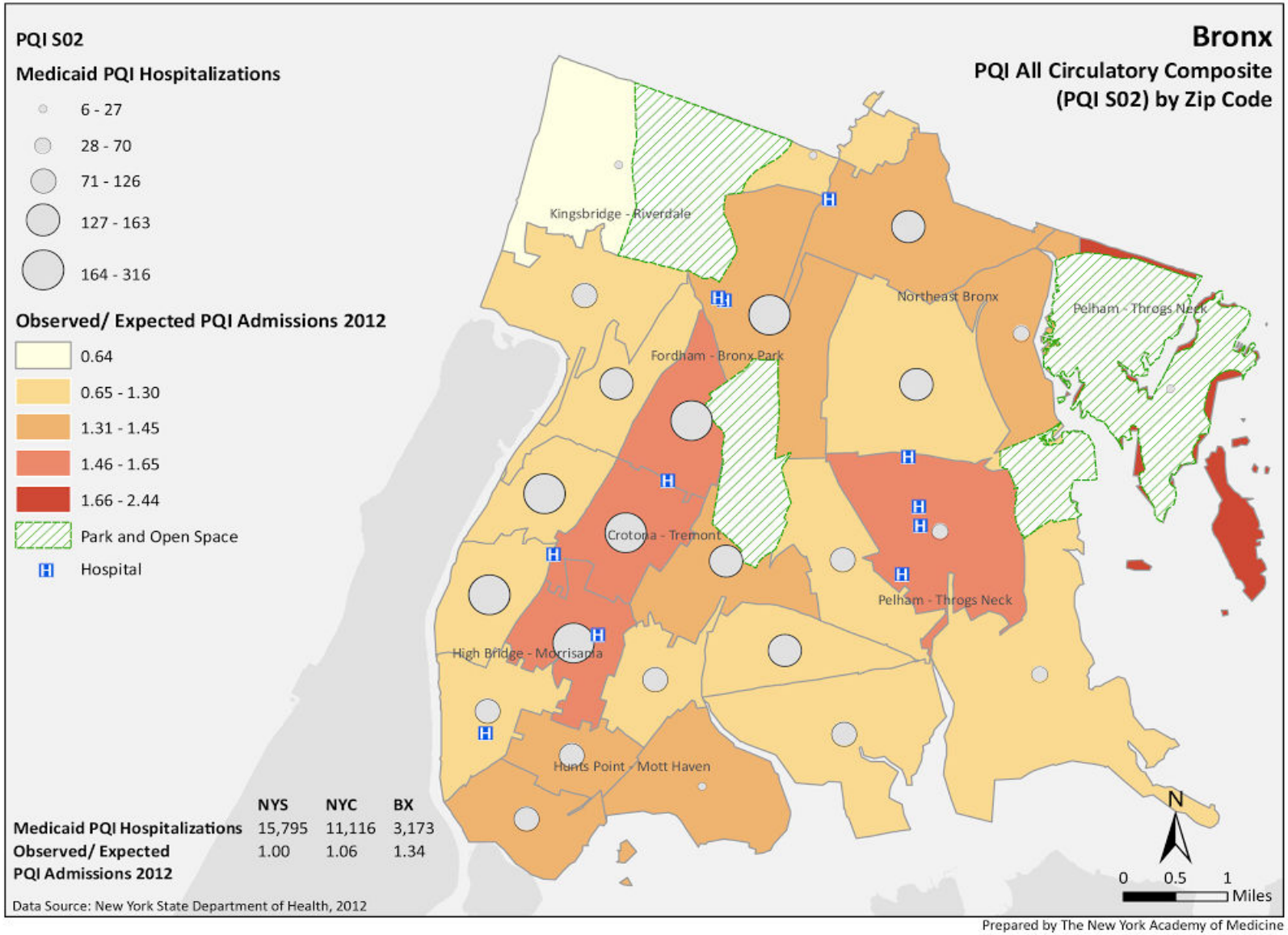
37. PQI Chronic Composite (PQI 92) by Zip Code



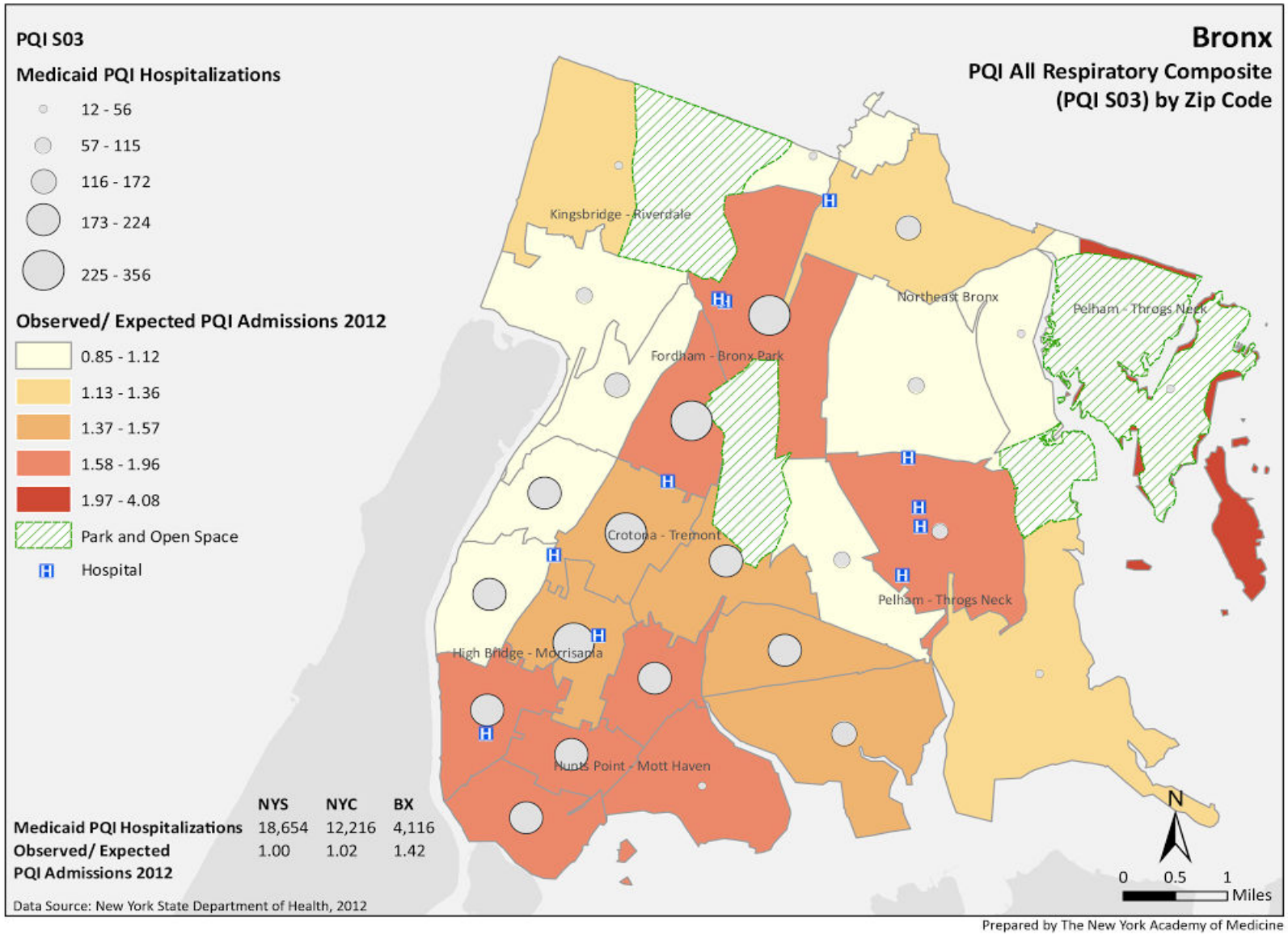
38. PQI All Diabetes Composite (PQI S01) by Zip Code



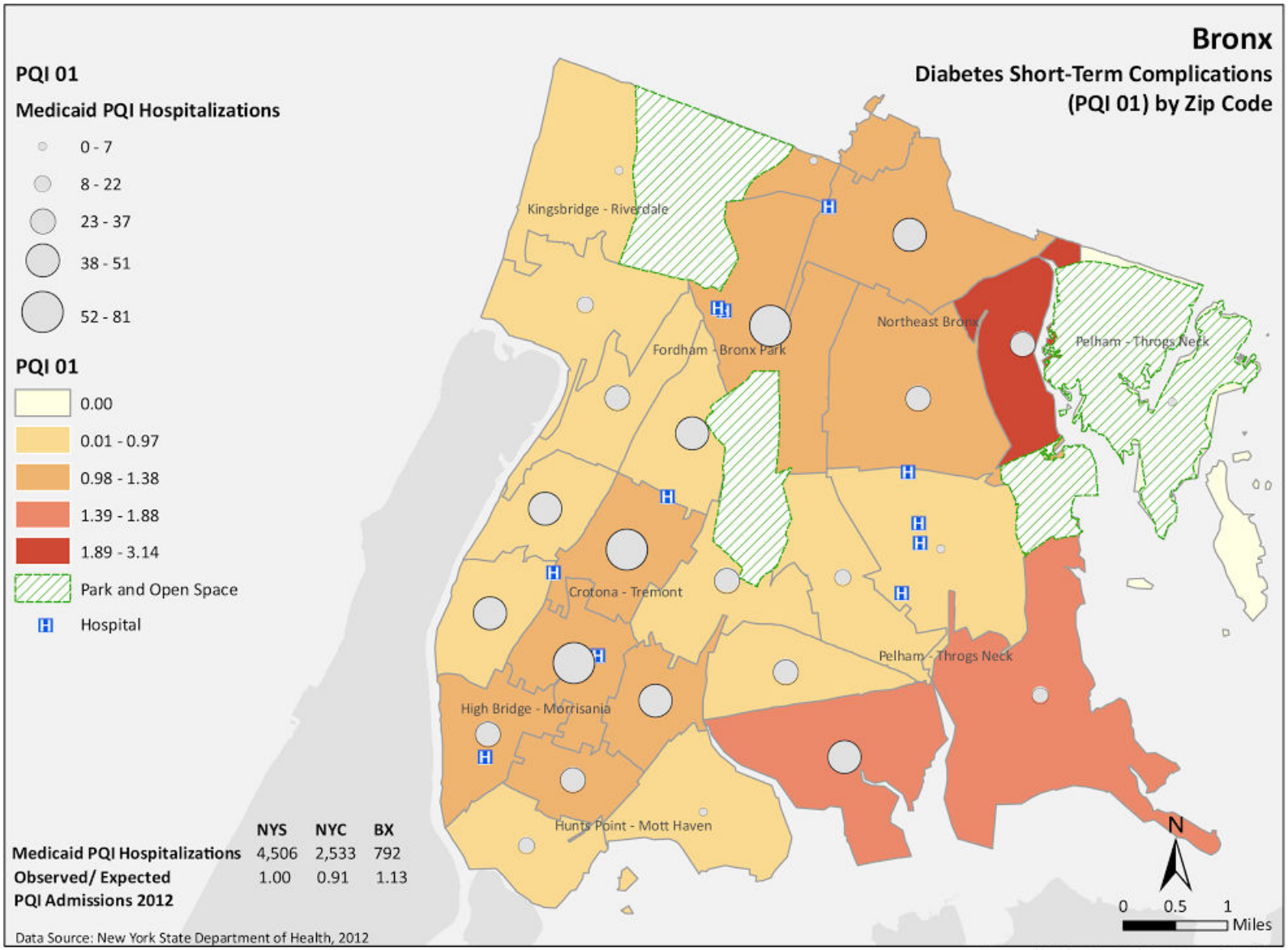
39. PQI All Circulatory Composite (PQI S02) by Zip Code



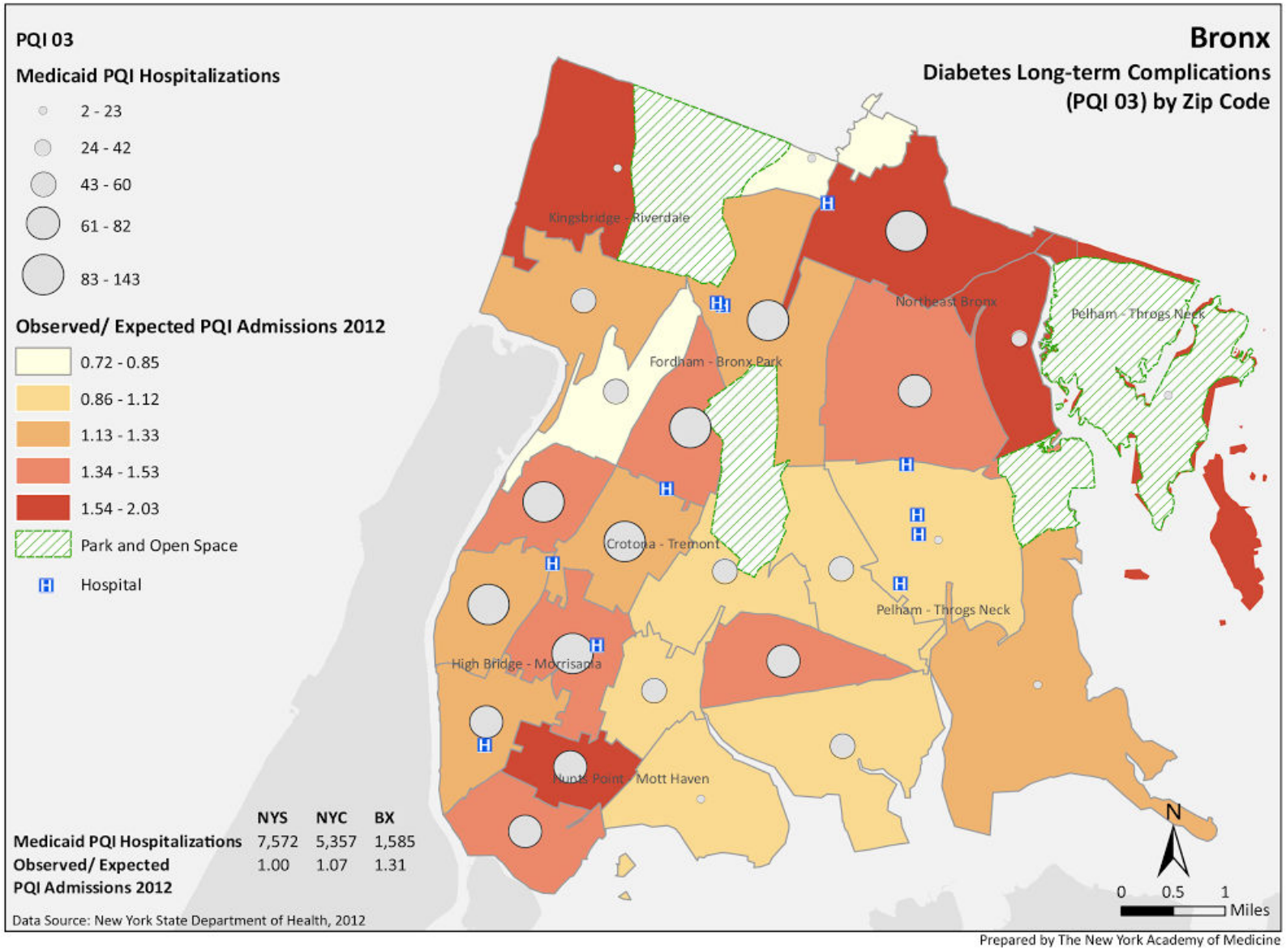
40. PQI All Respiratory Composite (PQI S03) by Zip Code



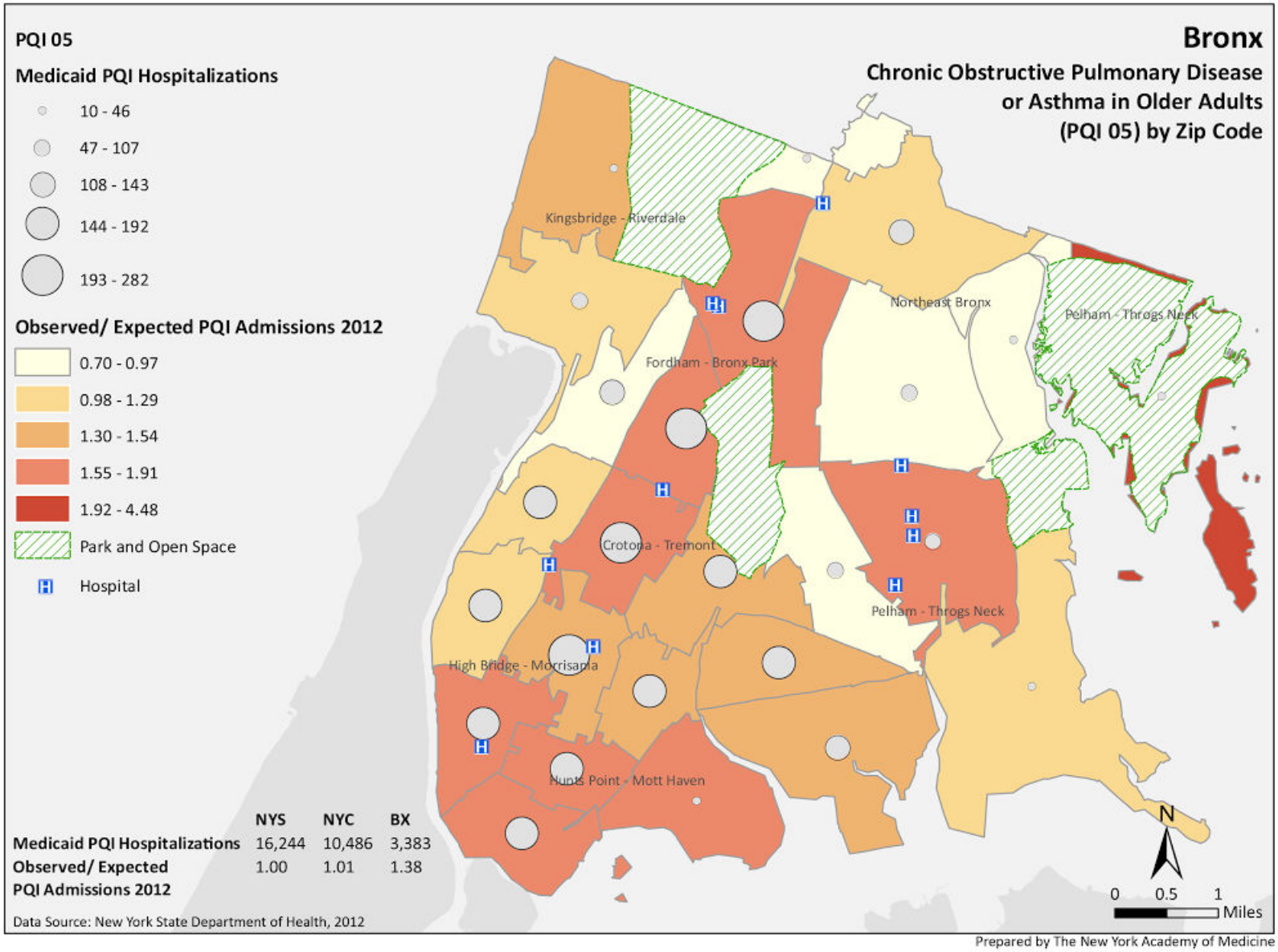
41. Diabetes Short-term Complications (PQI 01) by Zip Code



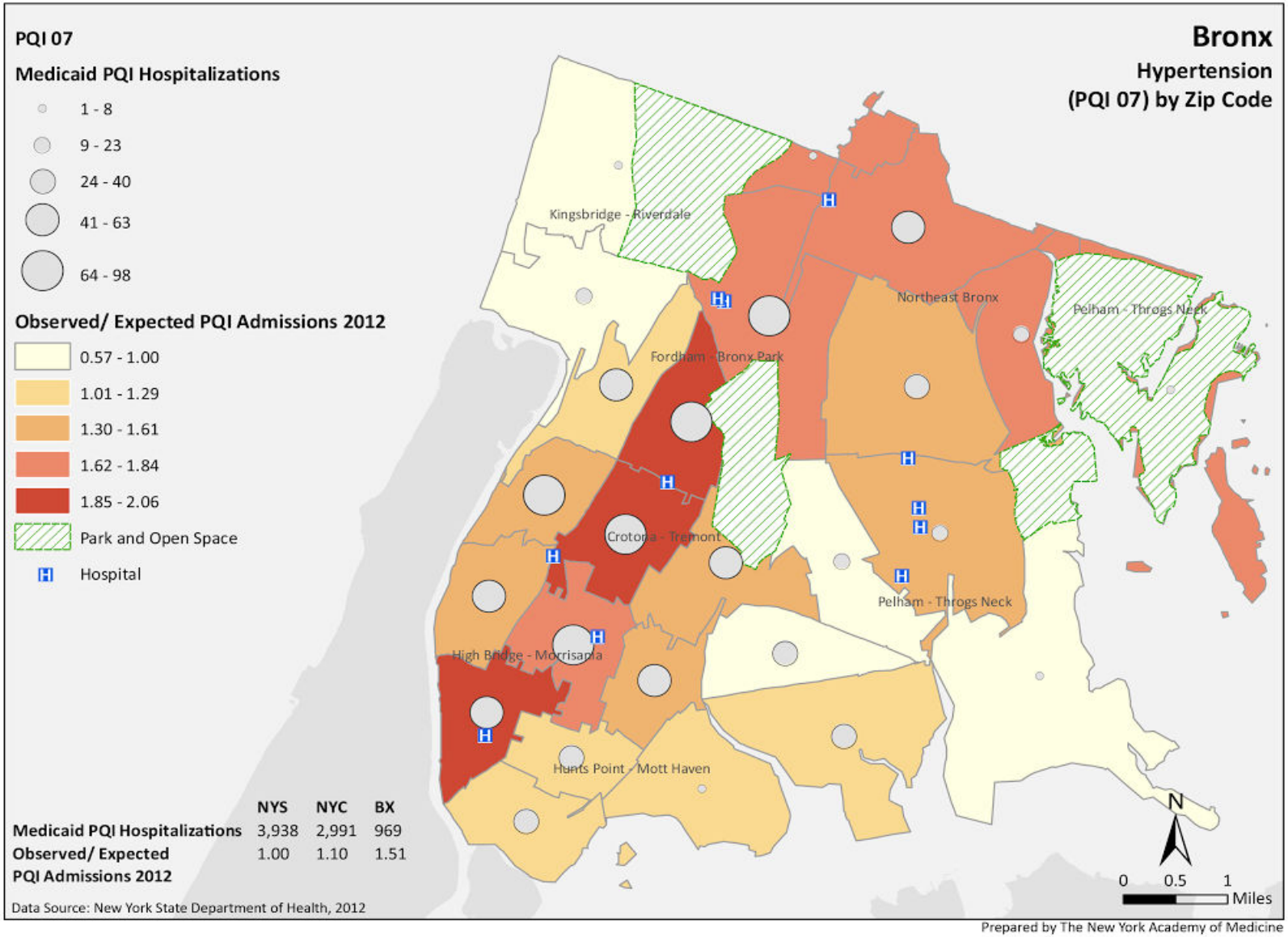
42. Diabetes Long-term Complications (PQI 03) by Zip Code



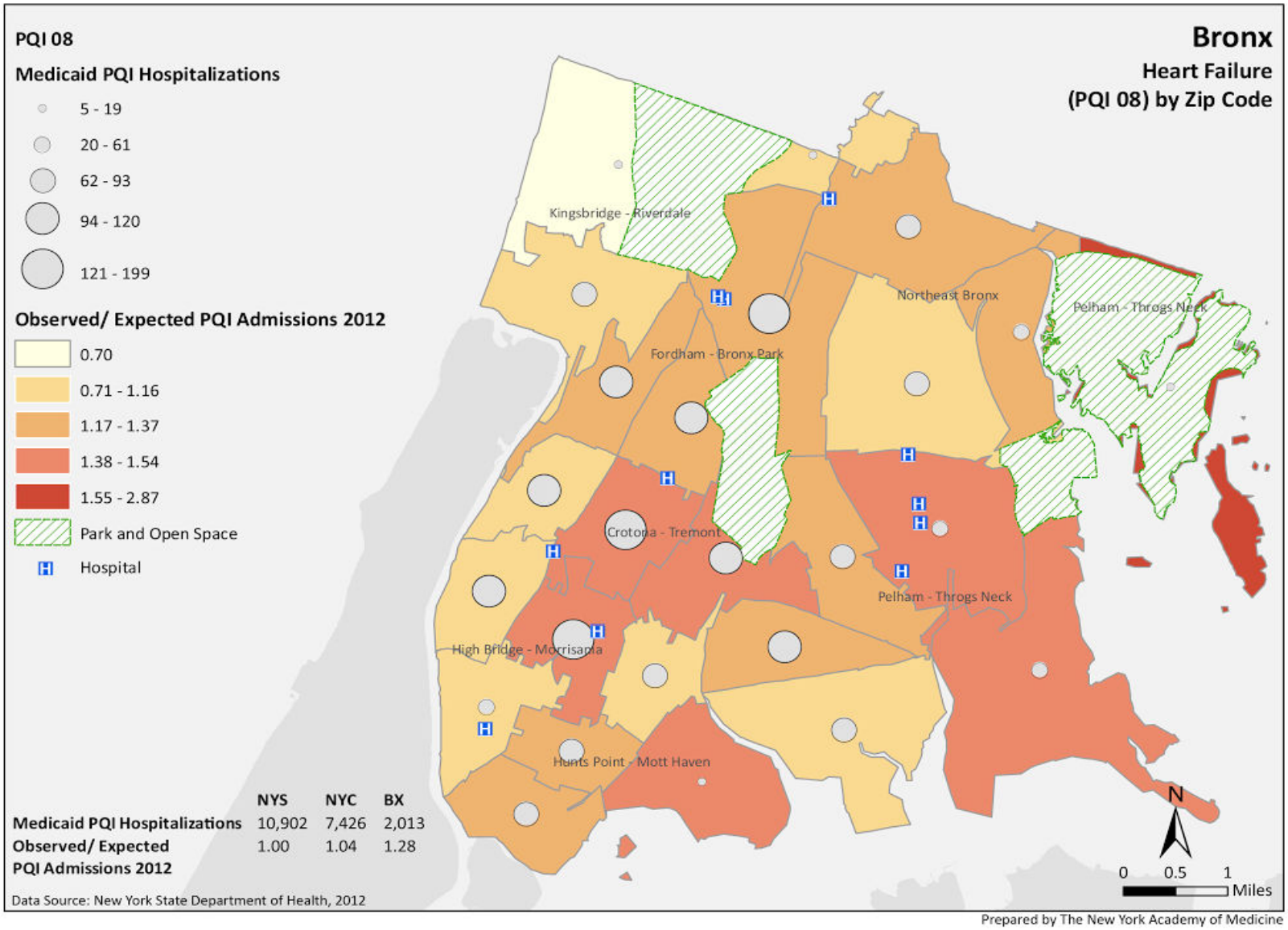
43. Chronic Obstructive Pulmonary Disease or Asthma in Older Adults (PQI 05) by Zip Code



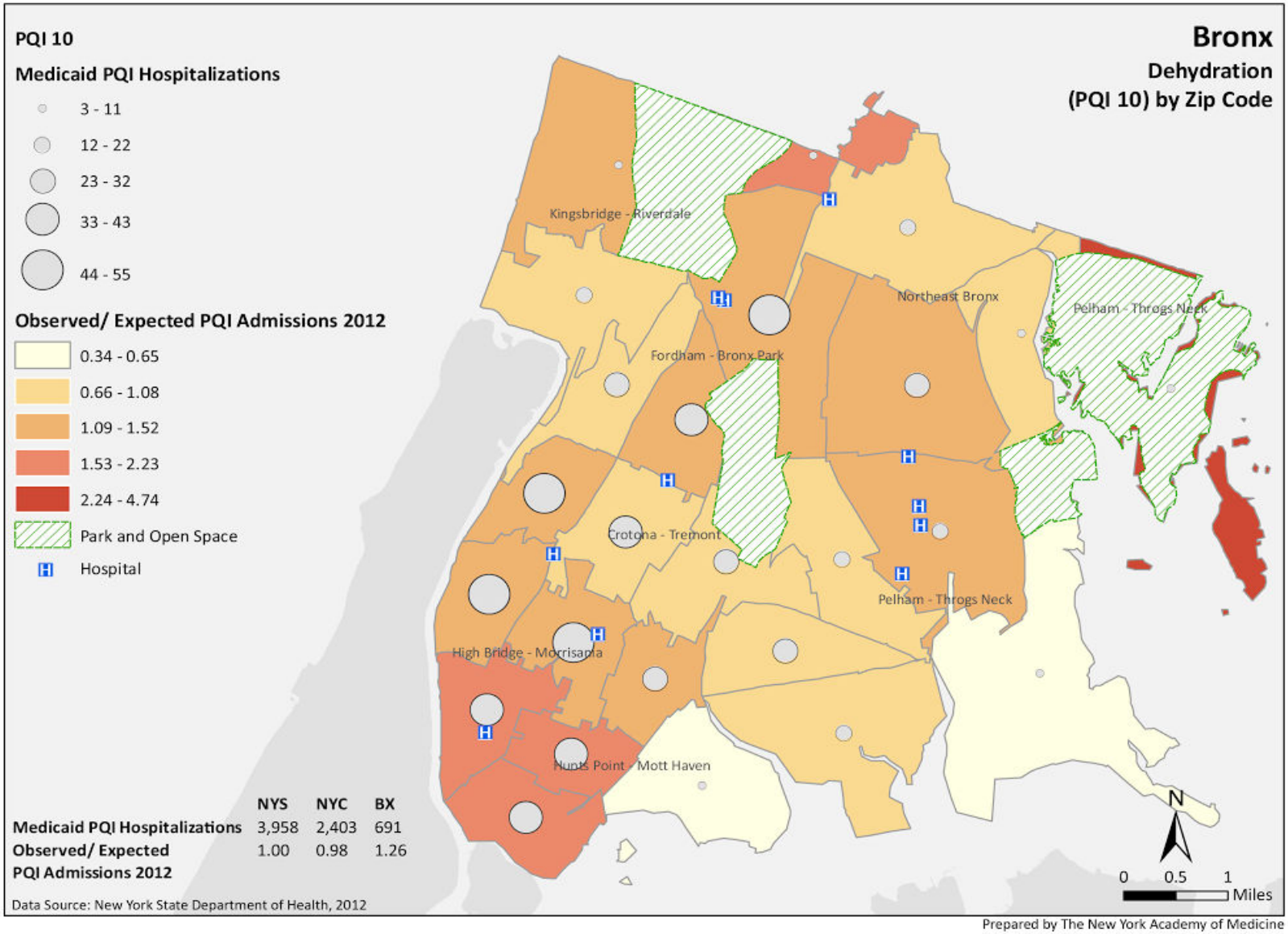
44. Hypertension (PQI 07) by Zip Code



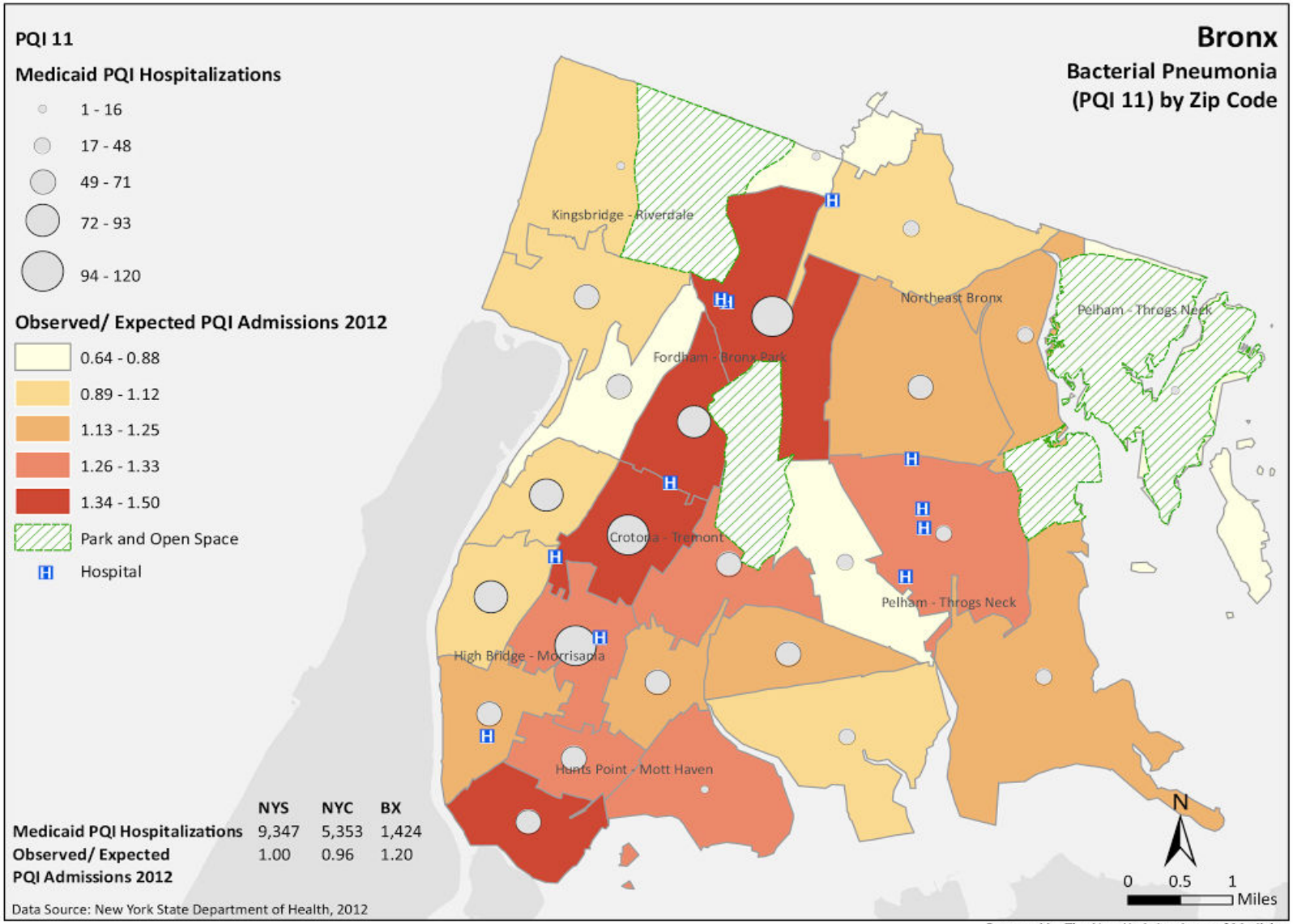
45. Heart Failure (PQI 08) by Zip Code



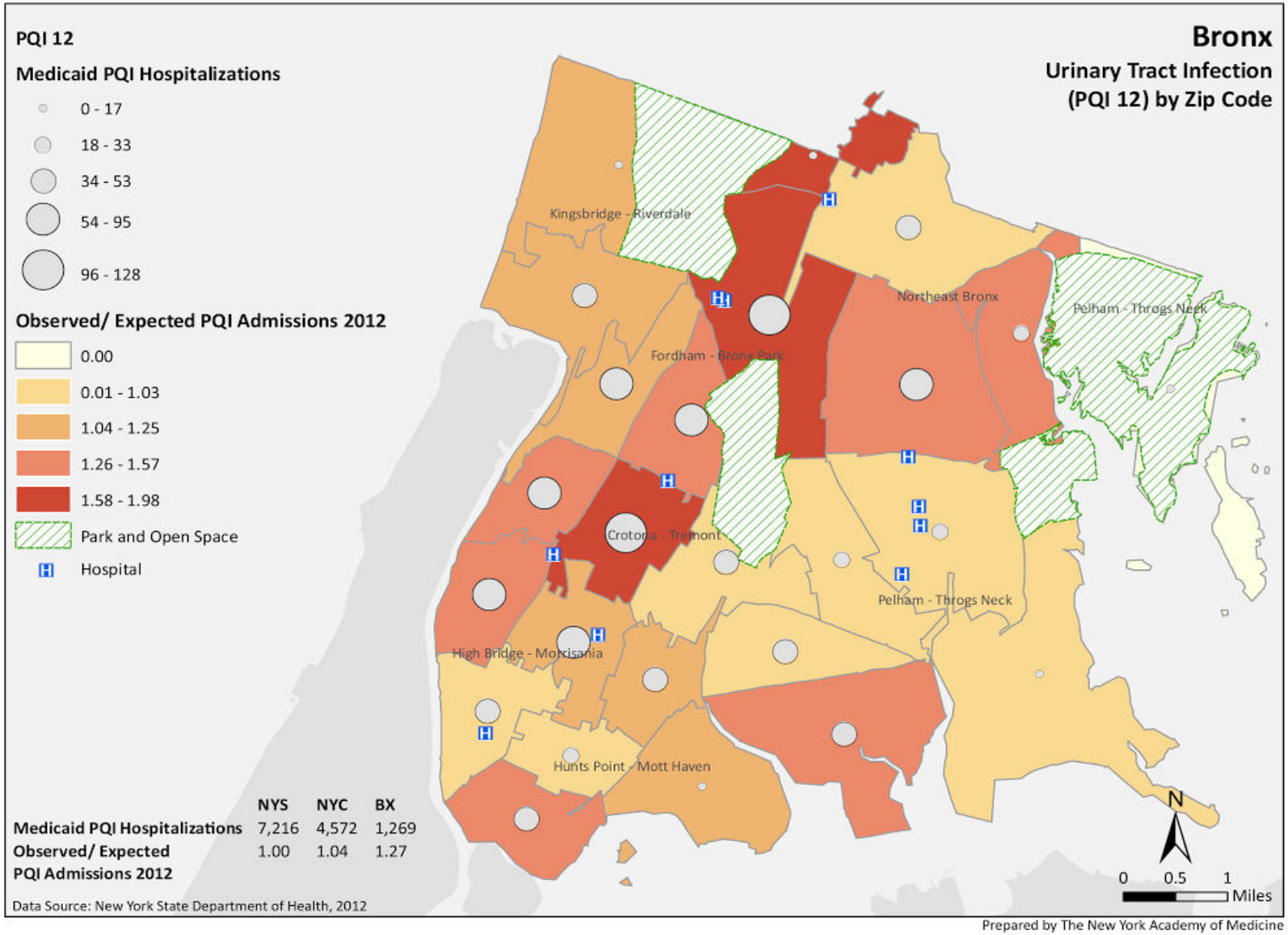
46. Dehydration (PQI 10) by Zip Code



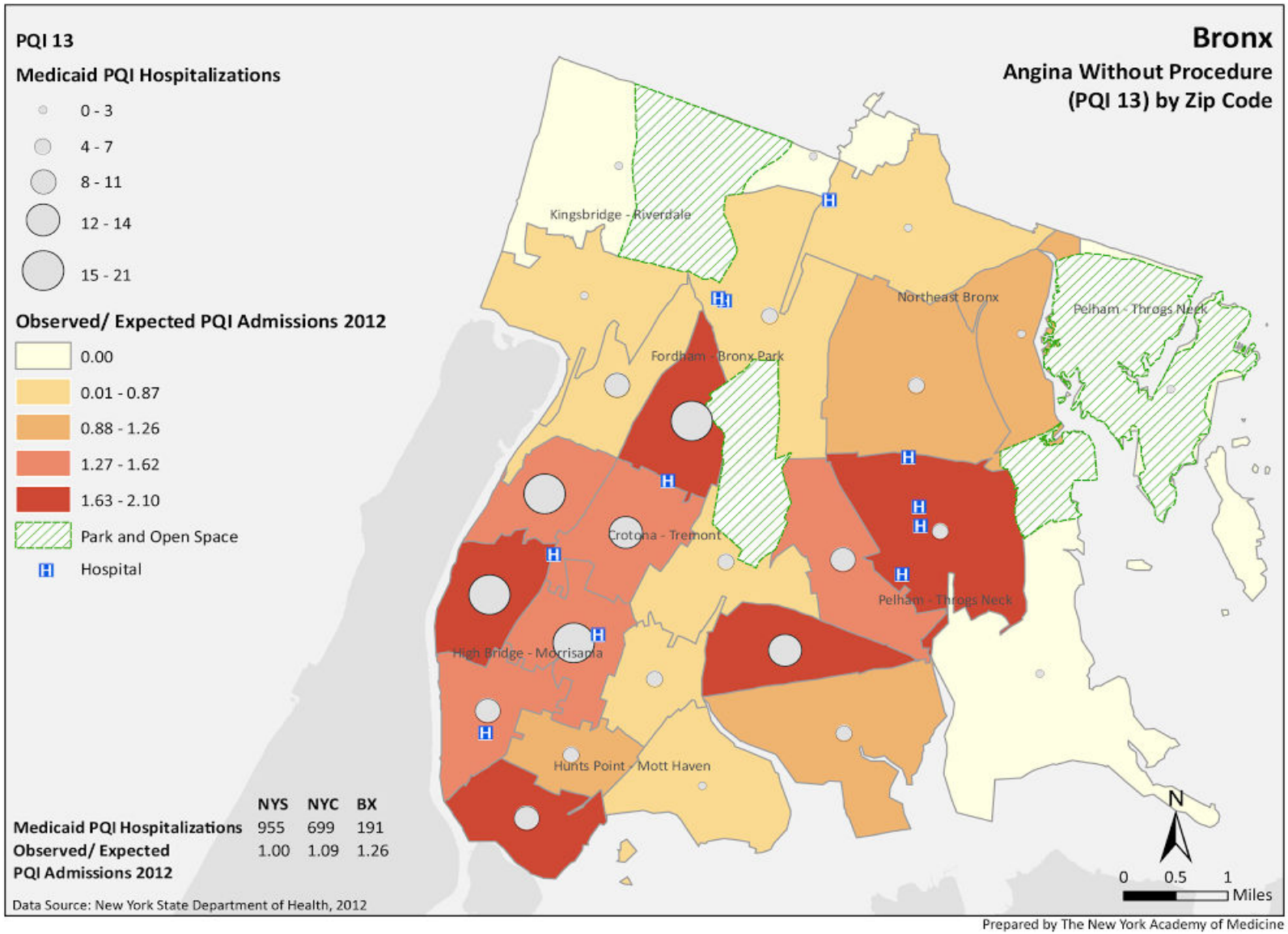
47. Bacterial Pneumonia (PQI 11) by Zip Code



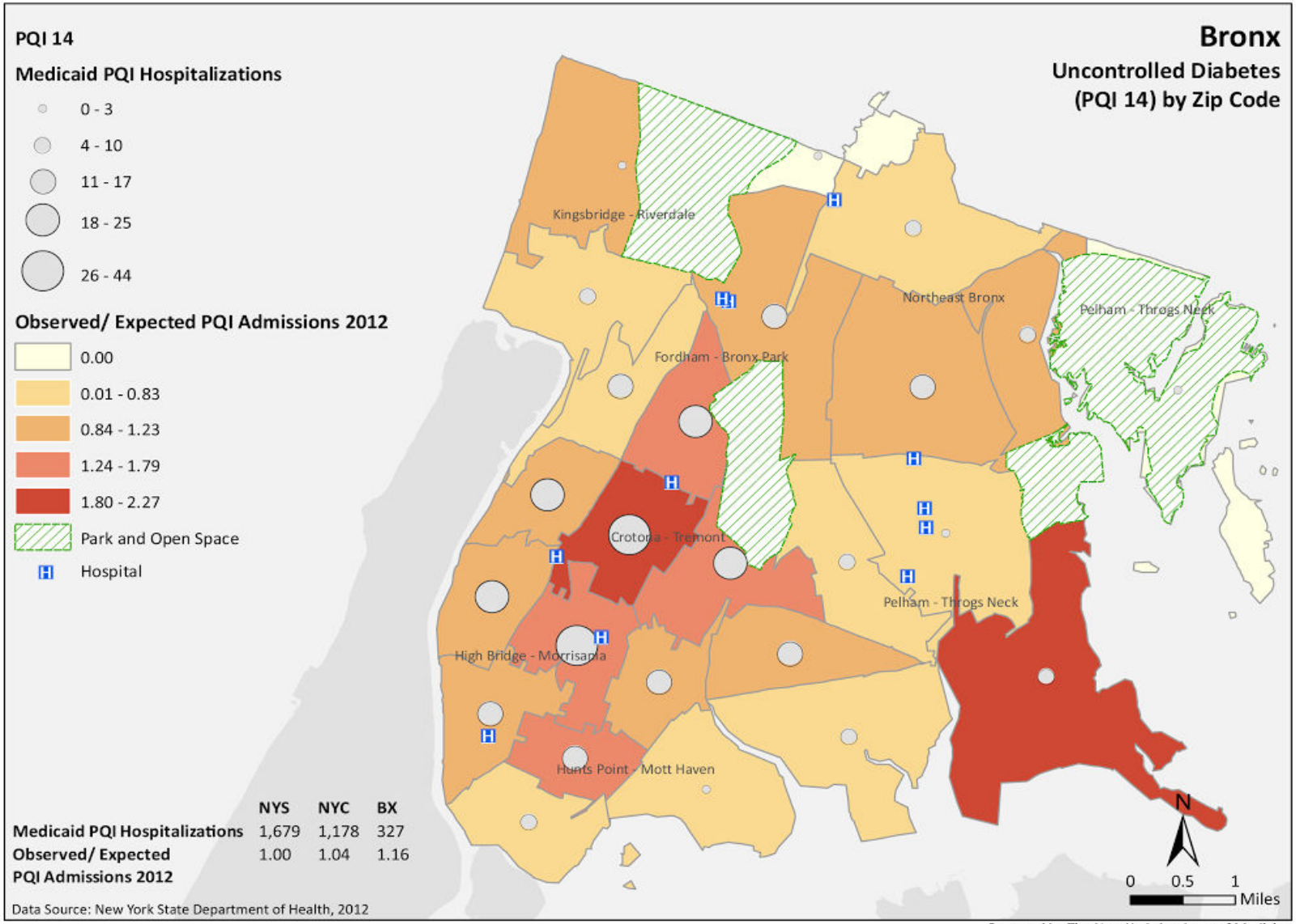
48. Urinary Tract Infection (PQI 12) by Zip Code



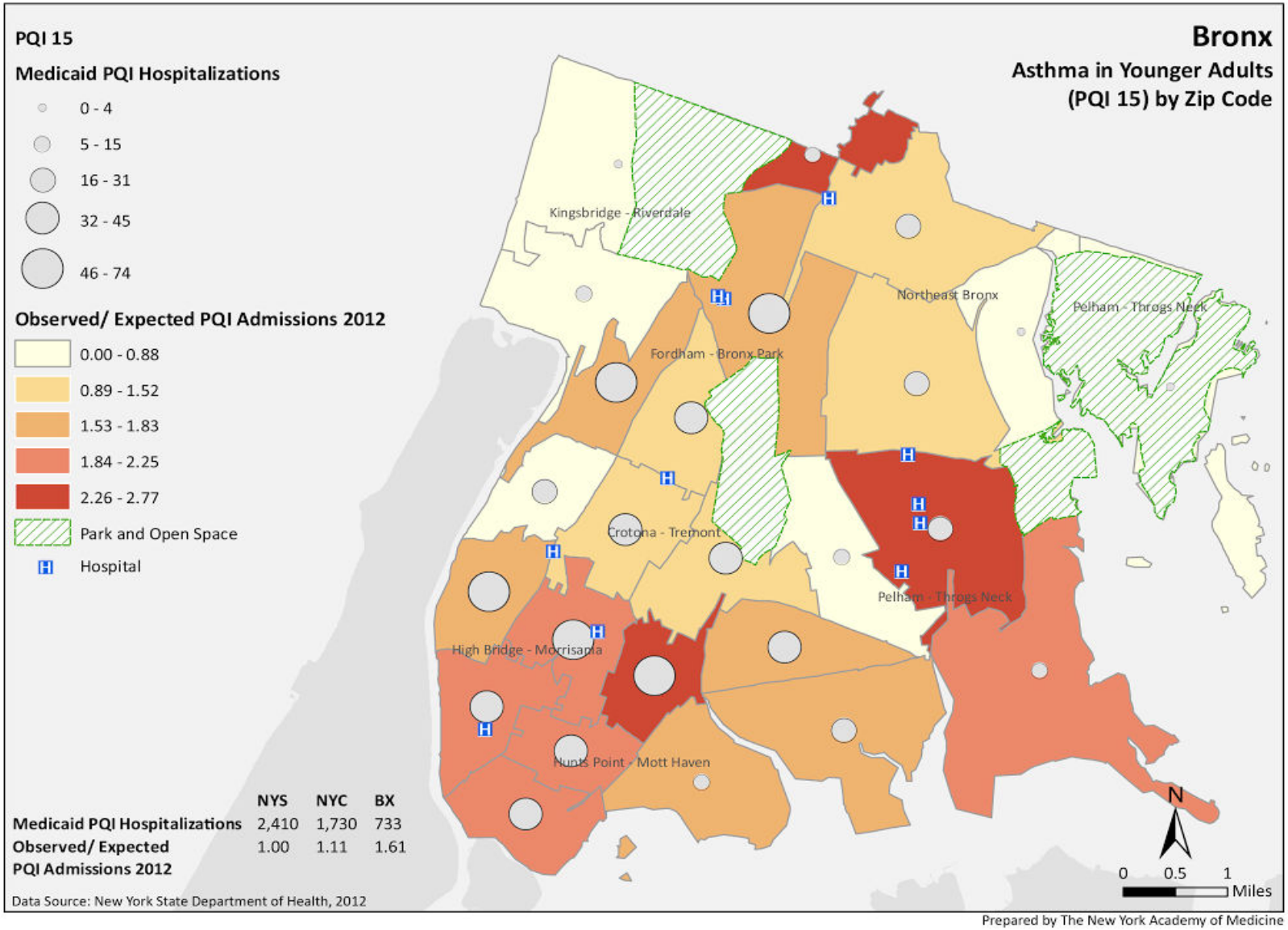
49. Angina Without Procedure (PQI 13) by Zip Code



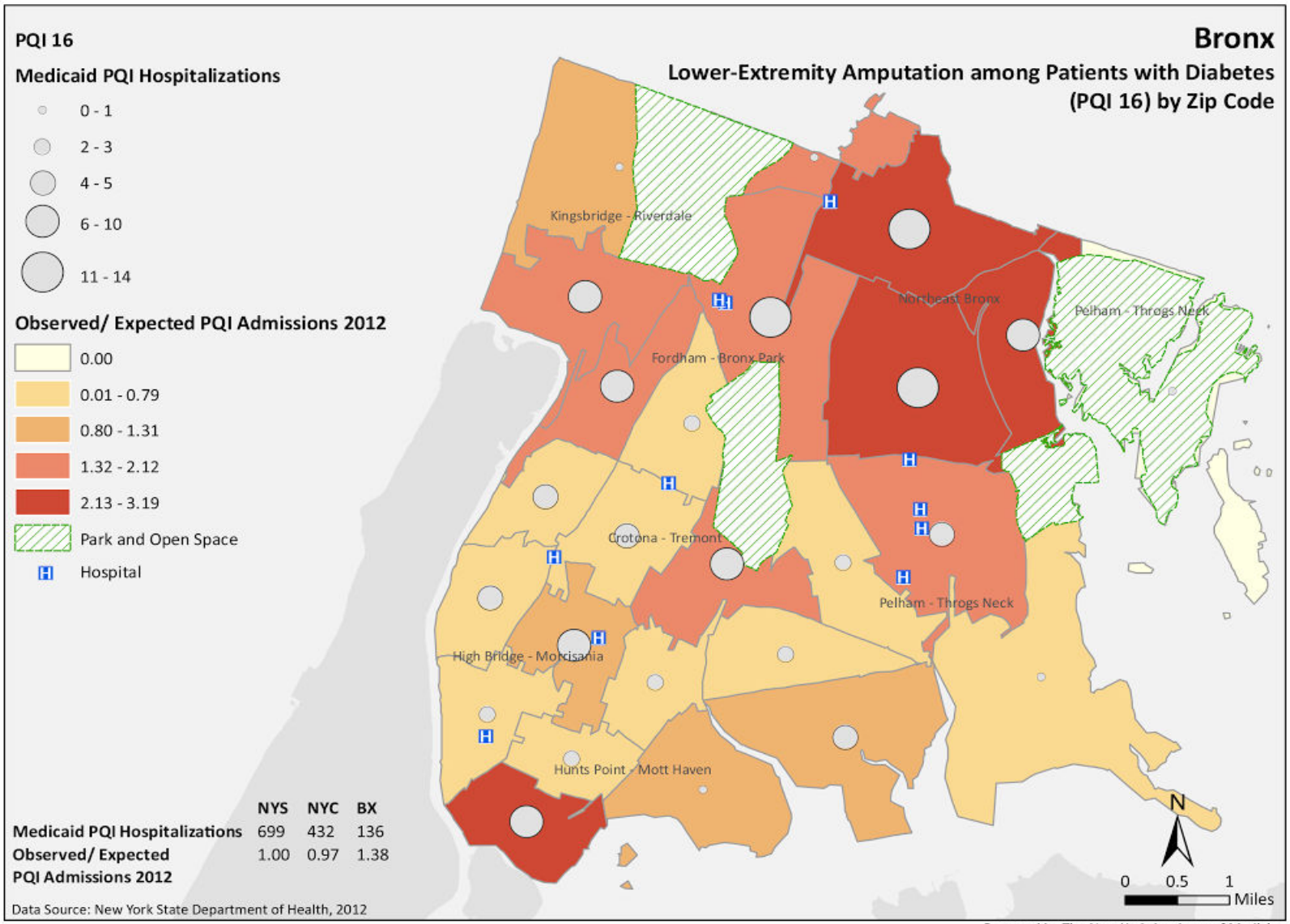
50. Uncontrolled Diabetes (PQI 14) by Zip Code



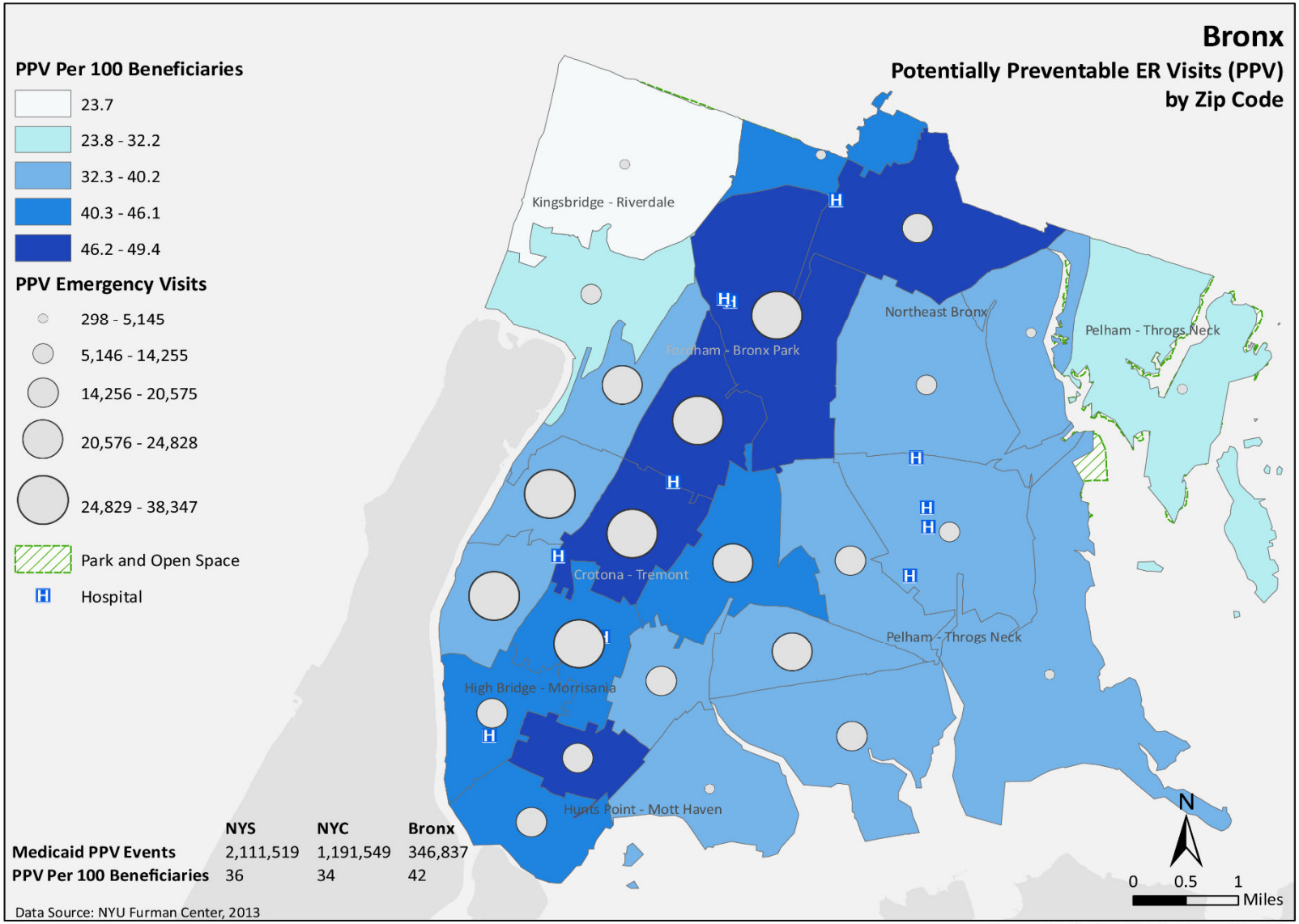
51. Asthma in Younger Adults (PQI 15) by Zip Code



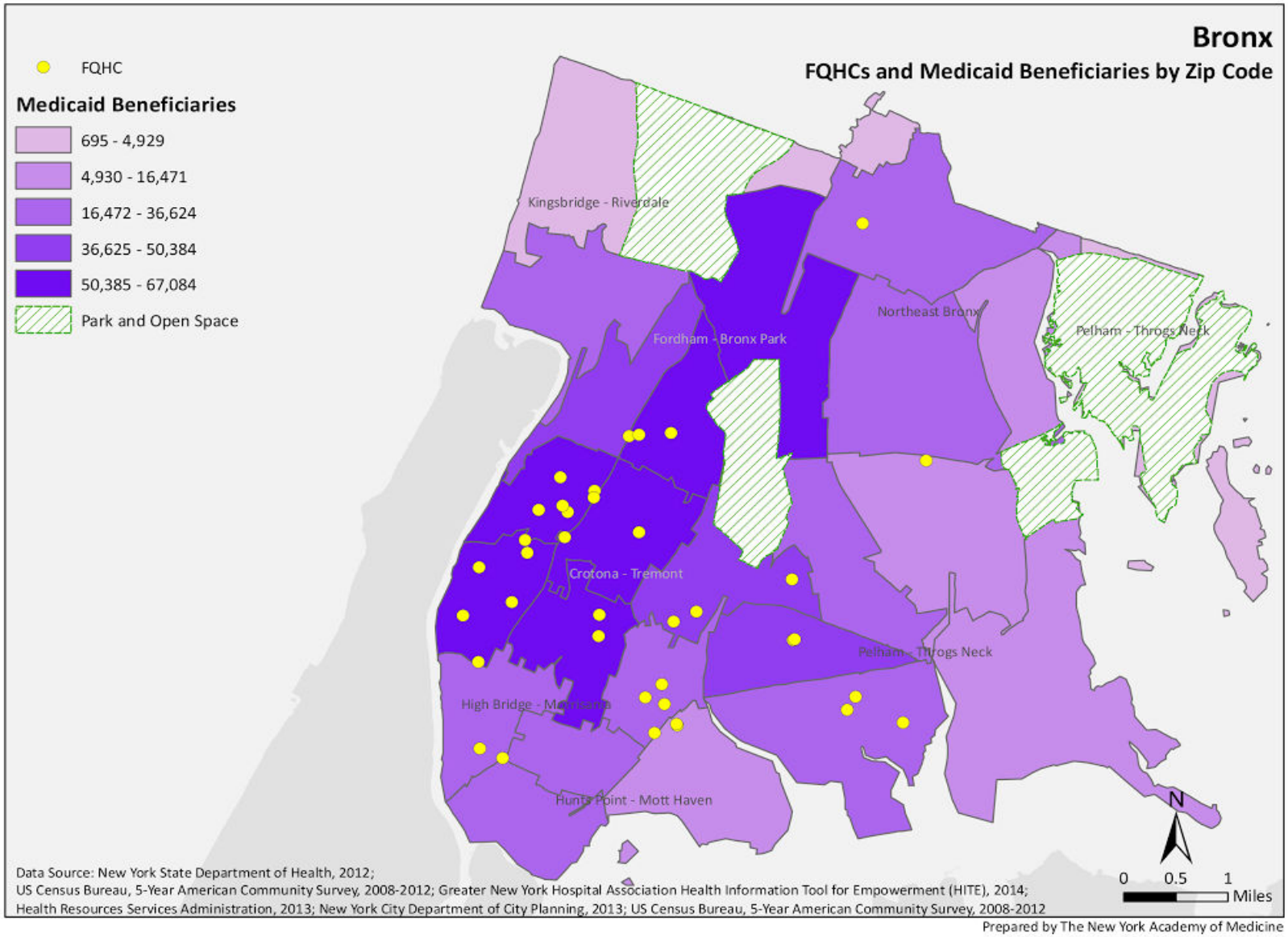
52. Lower-Extremity Amputation among Patients with Diabetes (PQI 16) by Zip Code



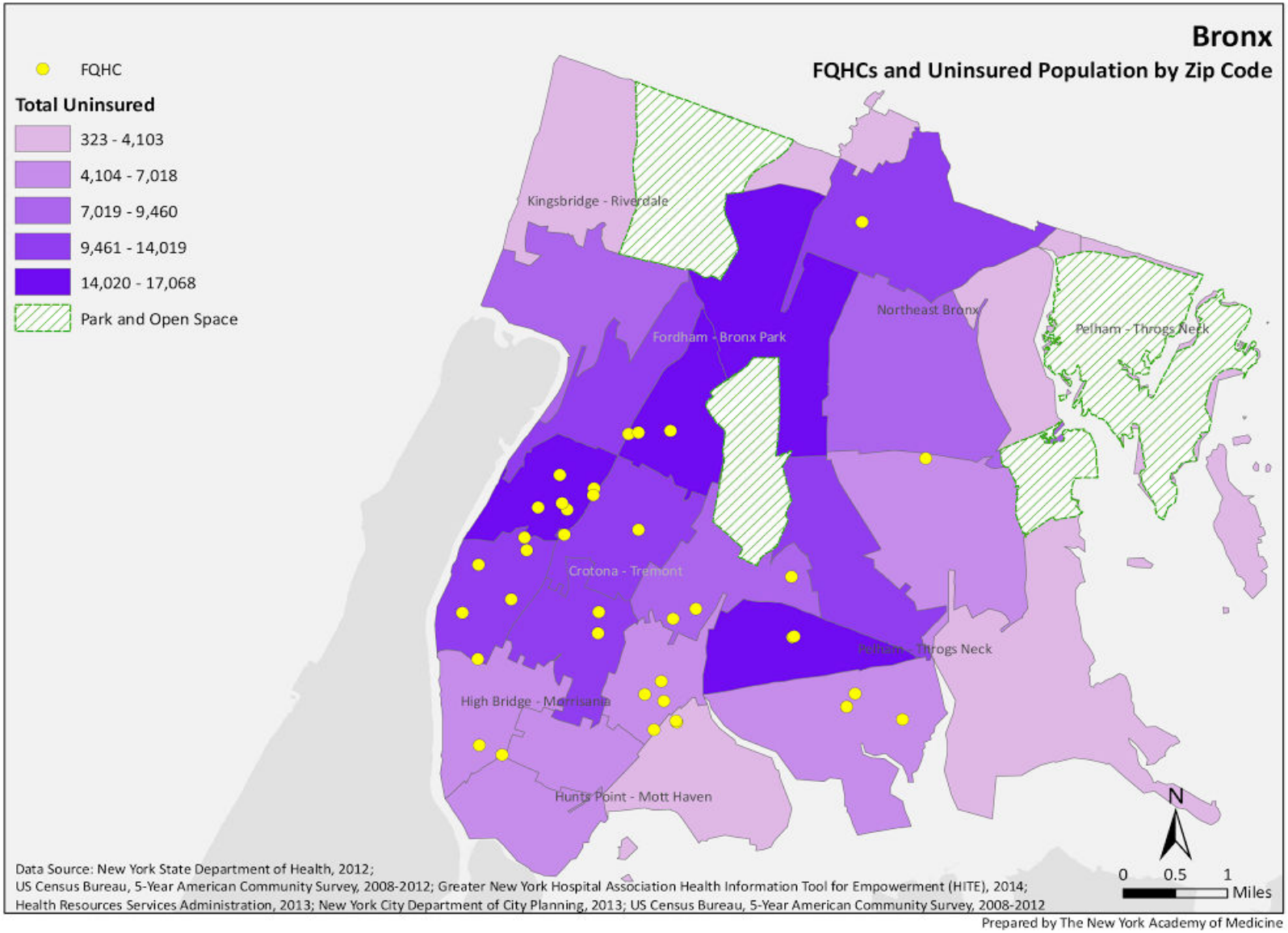
53. Potentially Preventable ER Visits (PPV) by Zip Code



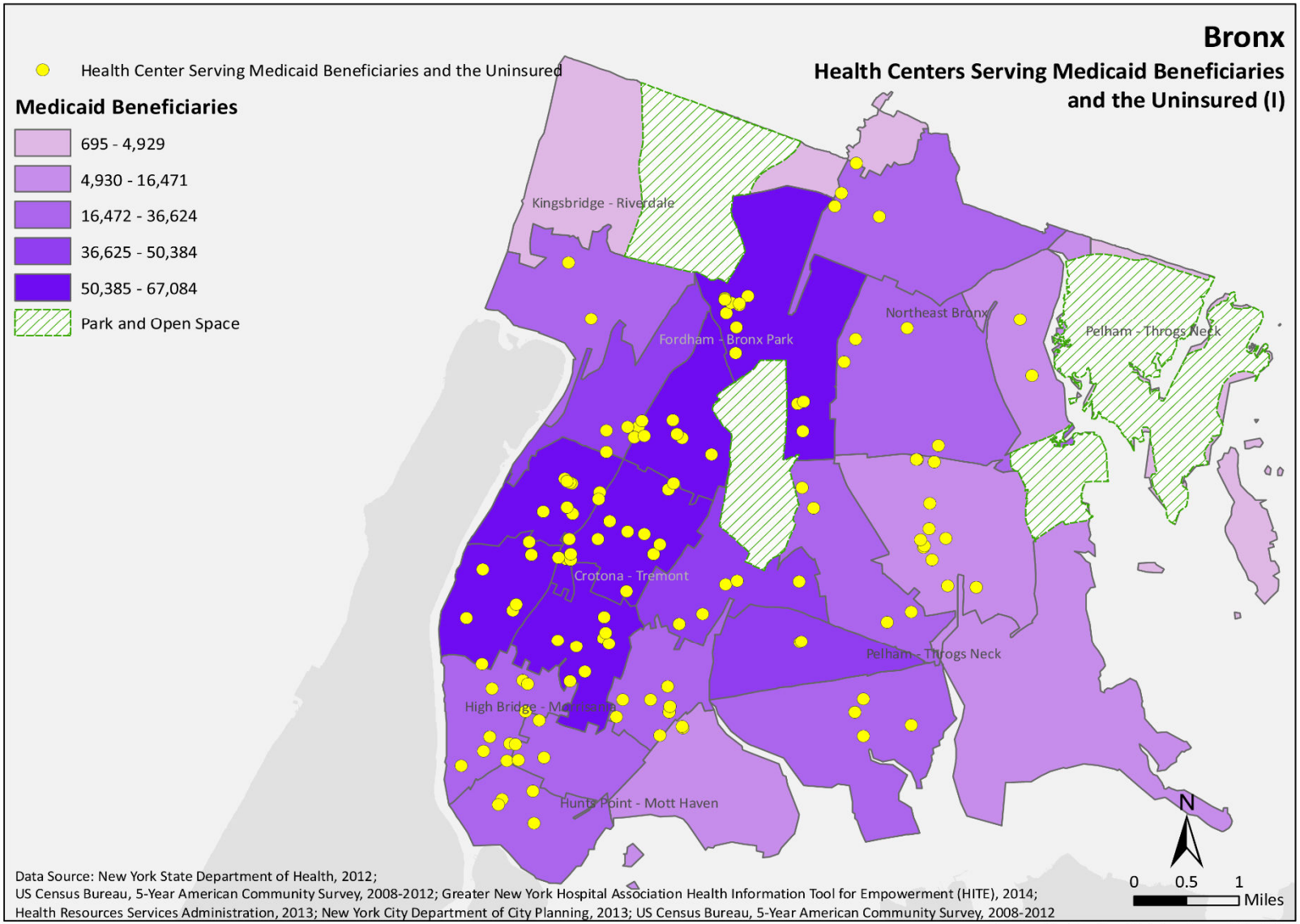
54. FQHCs and Medicaid Beneficiaries by Zip Code



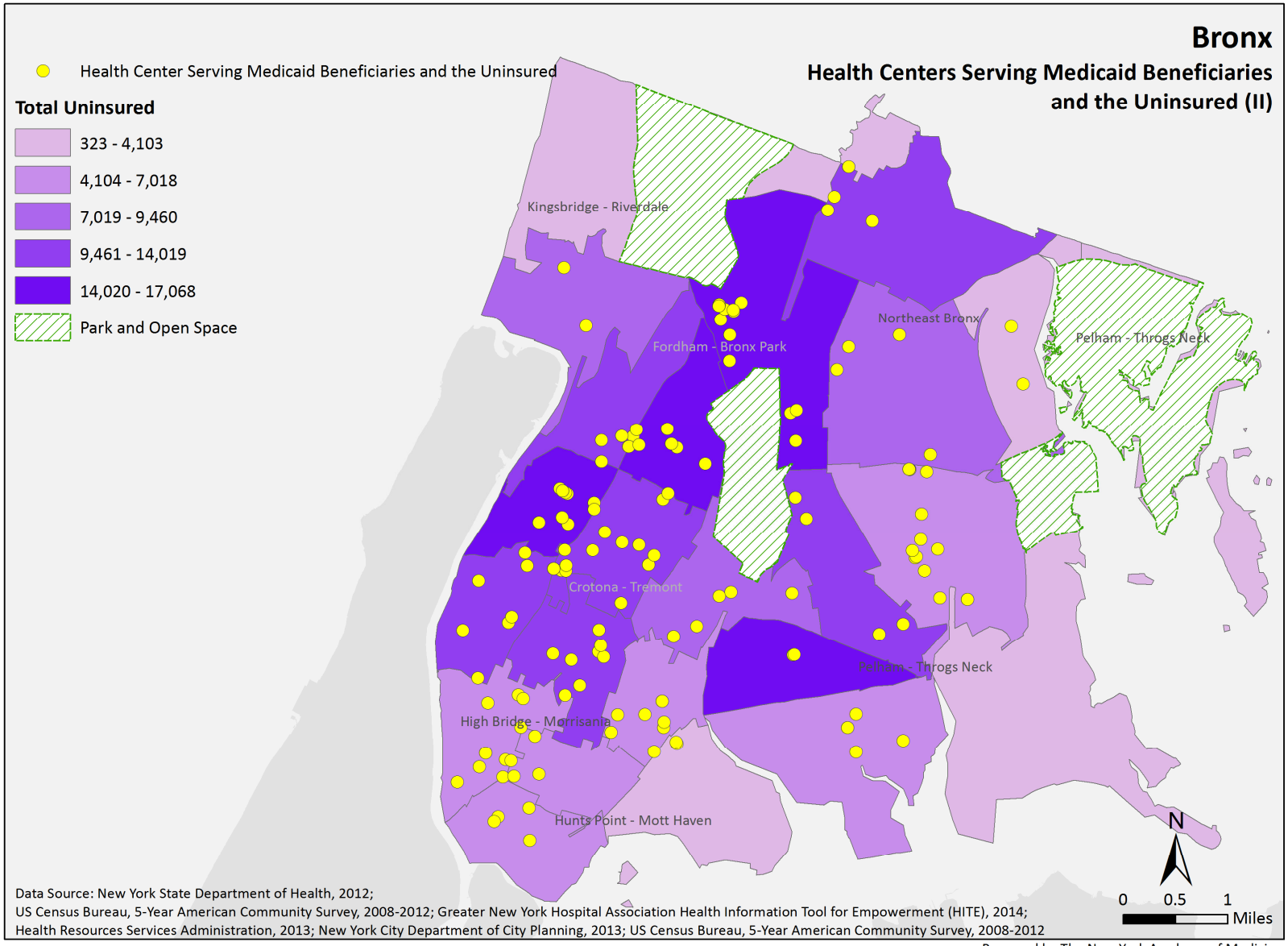
55. FQHCs and Uninsured Population by Zip Code



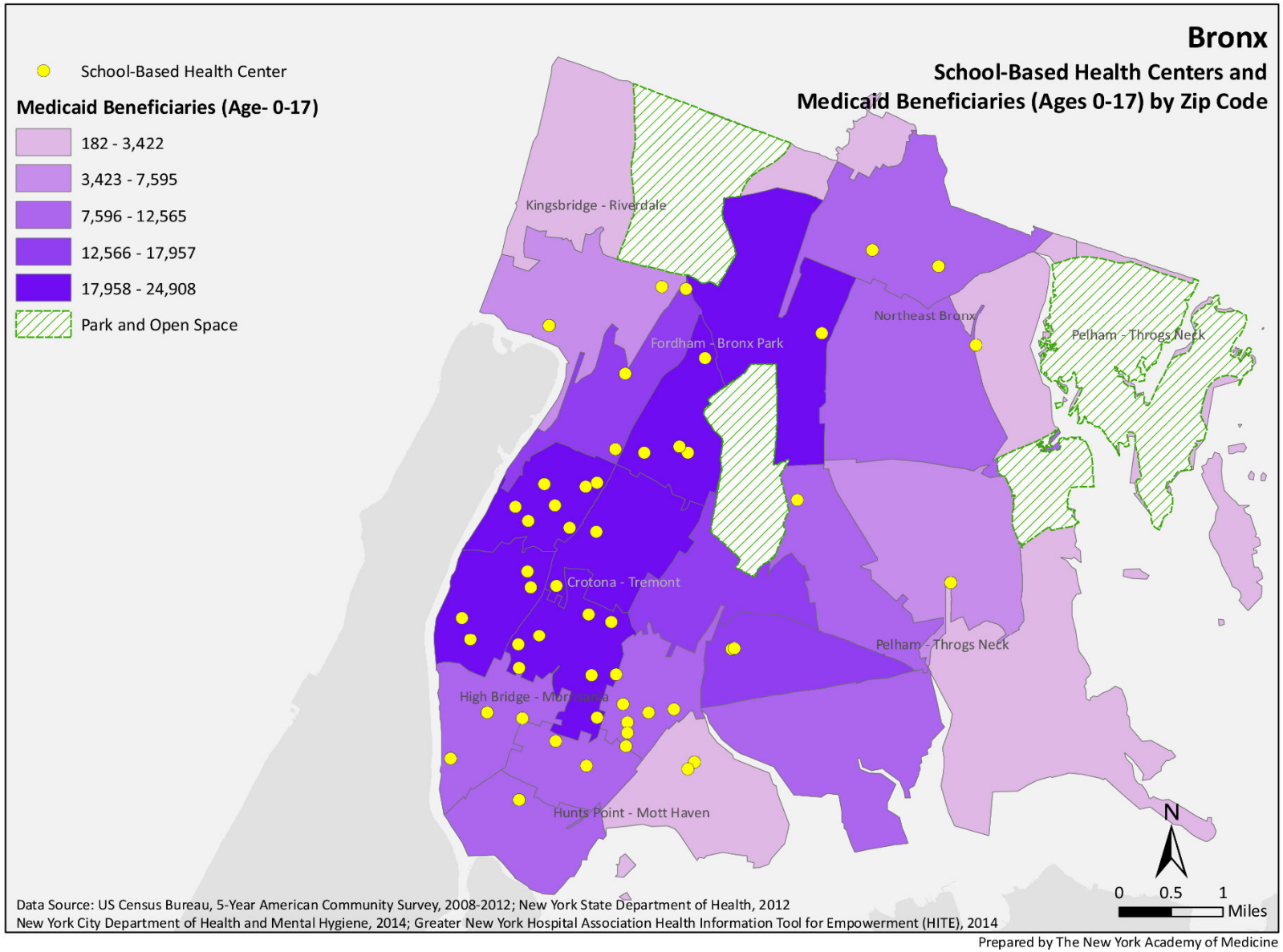
56. Health Centers Serving Medicaid Beneficiaries and the Uninsured (I)



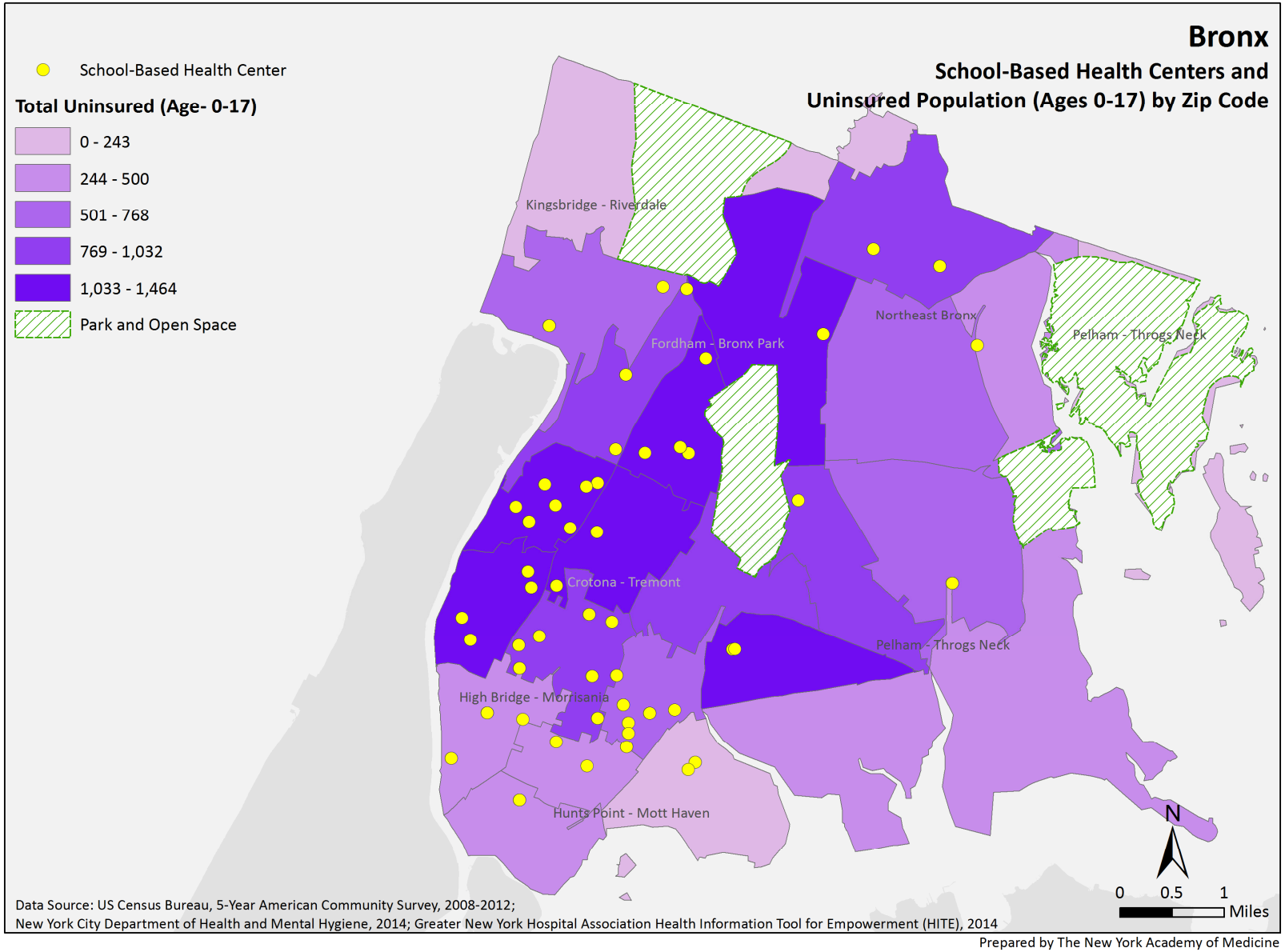
57. Health Centers Serving Medicaid Beneficiaries and the Uninsured (II)



58. School-Based Health Centers and Medicaid Beneficiaries (Ages 0-17) by Zip Code



59. School-Based Health Centers and Uninsured Population (Ages 0-17) by Zip Code



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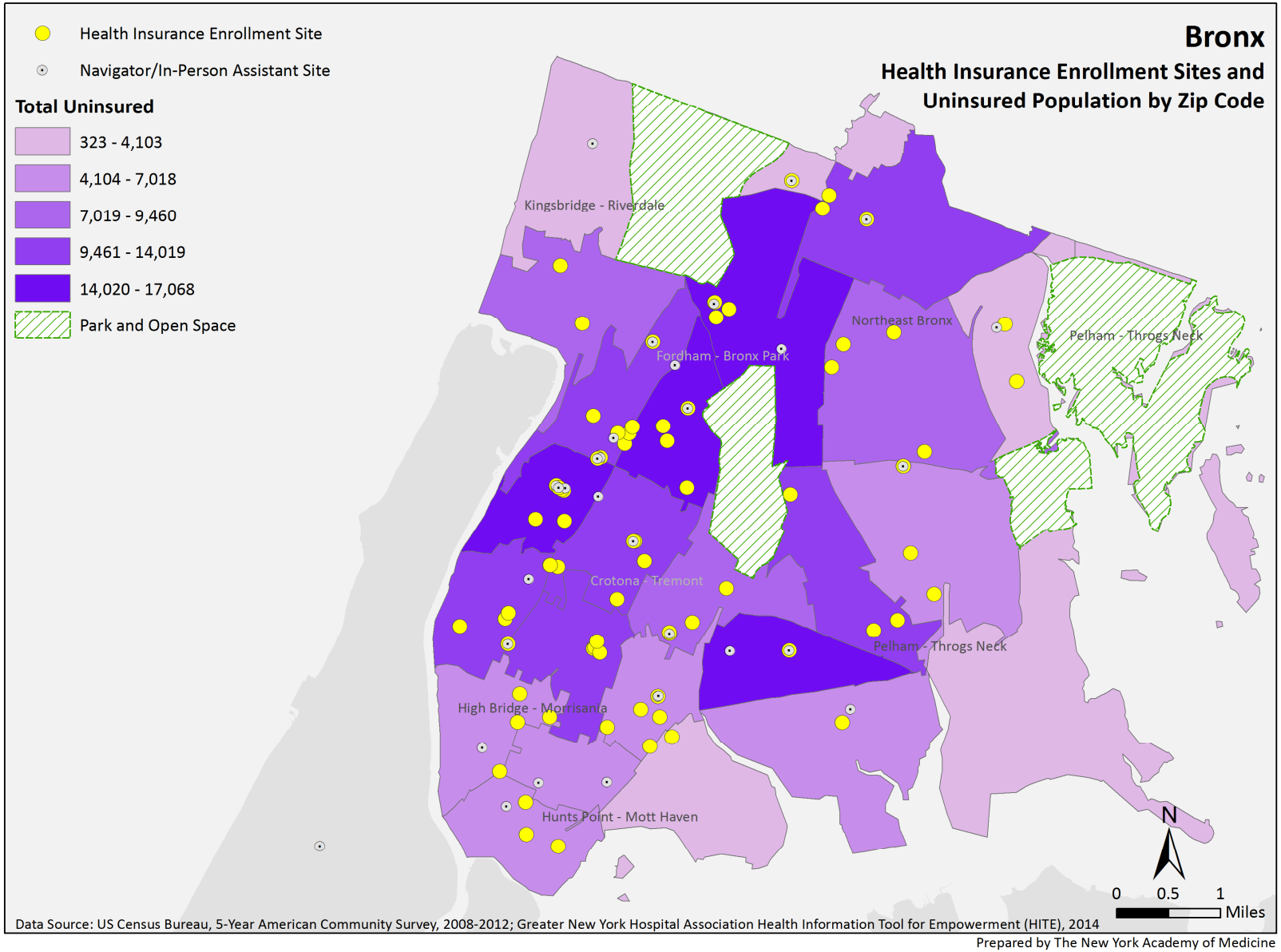
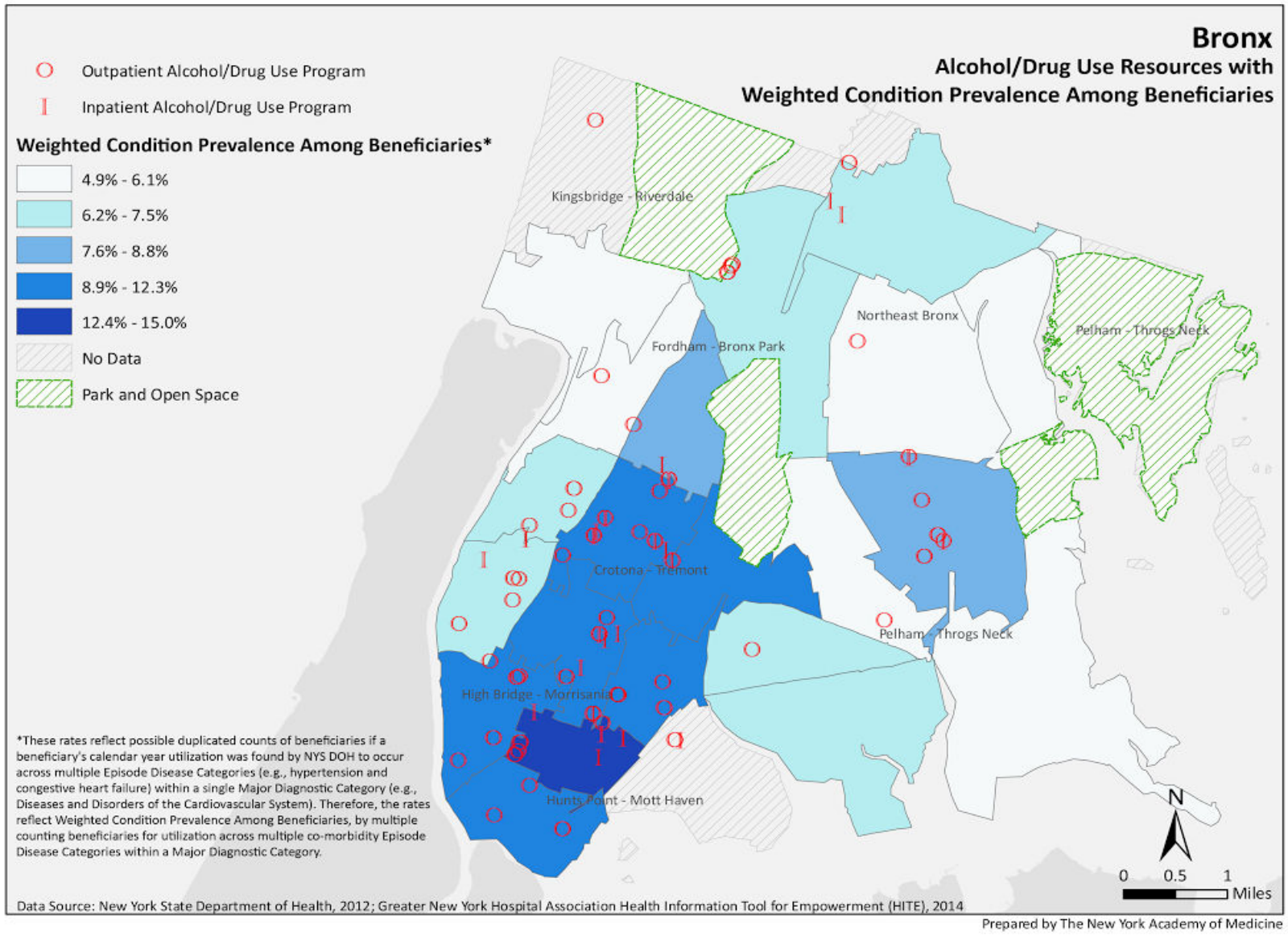
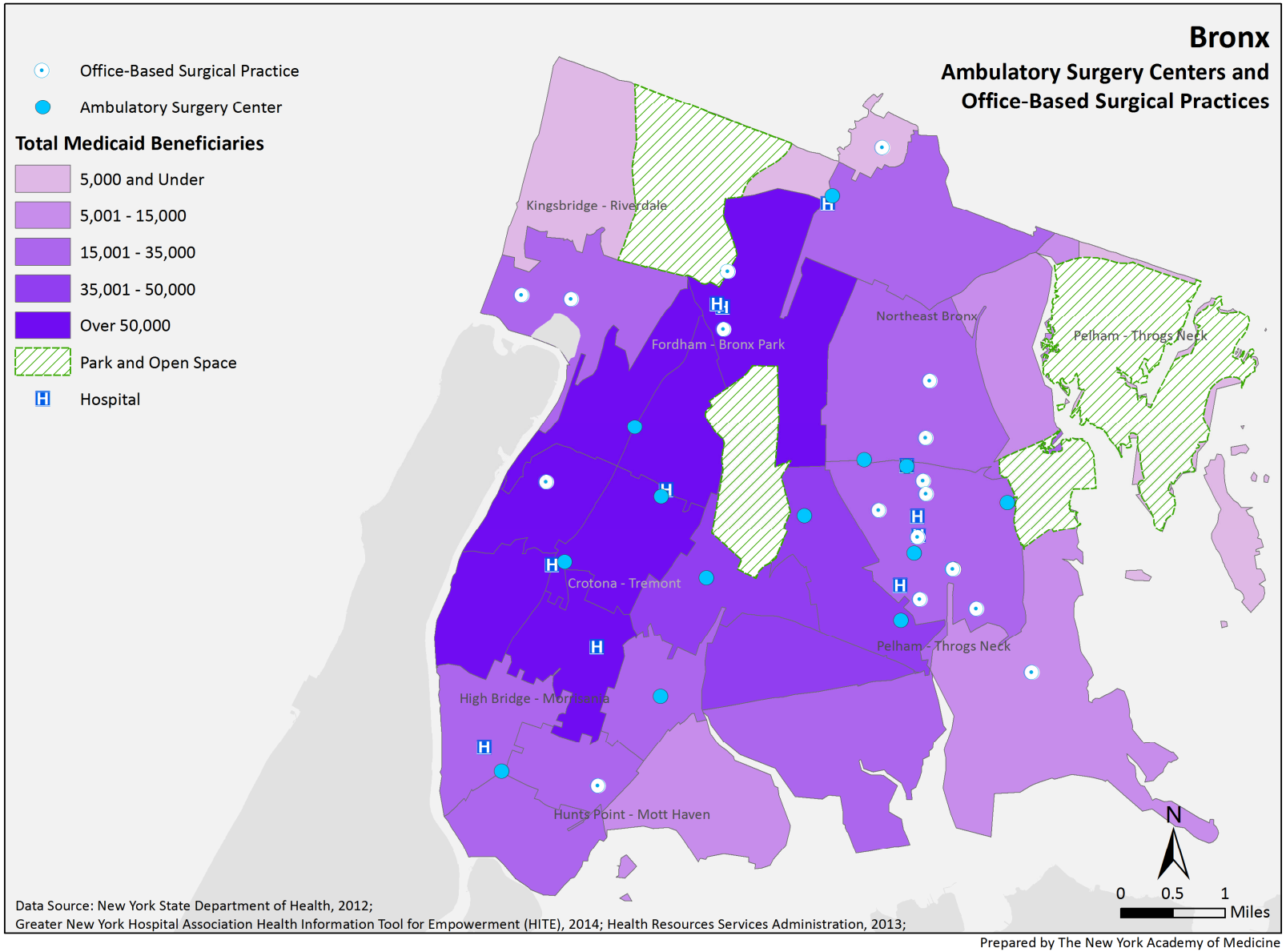
60. Health Insurance Enrollment Sites and Uninsured Population by Zip Code



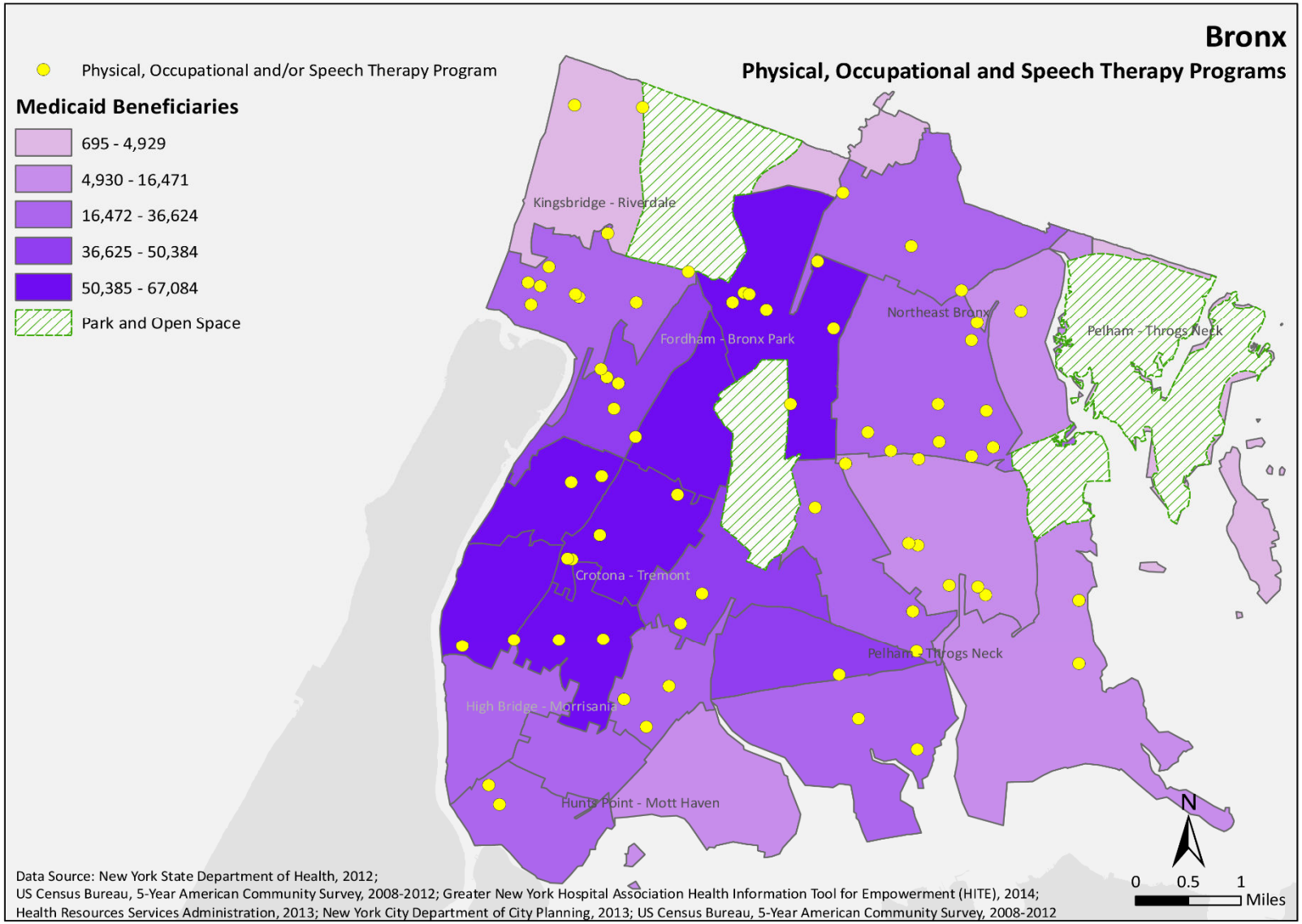
61. Alcohol/Drug Use Resources with Weighted Condition Prevalence among Beneficiaries



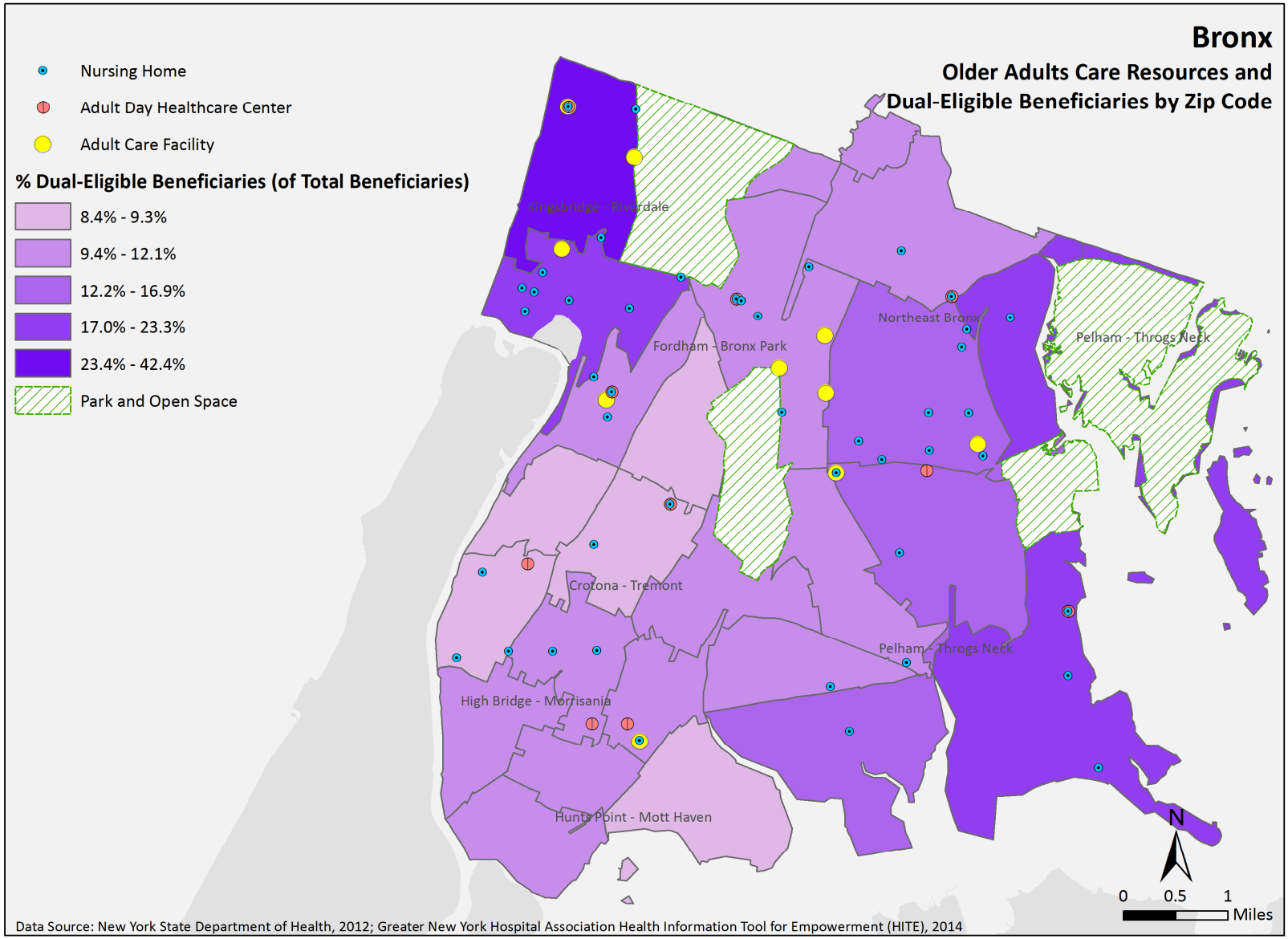
62. Ambulatory Surgery Centers and Office-Based Surgical Practices



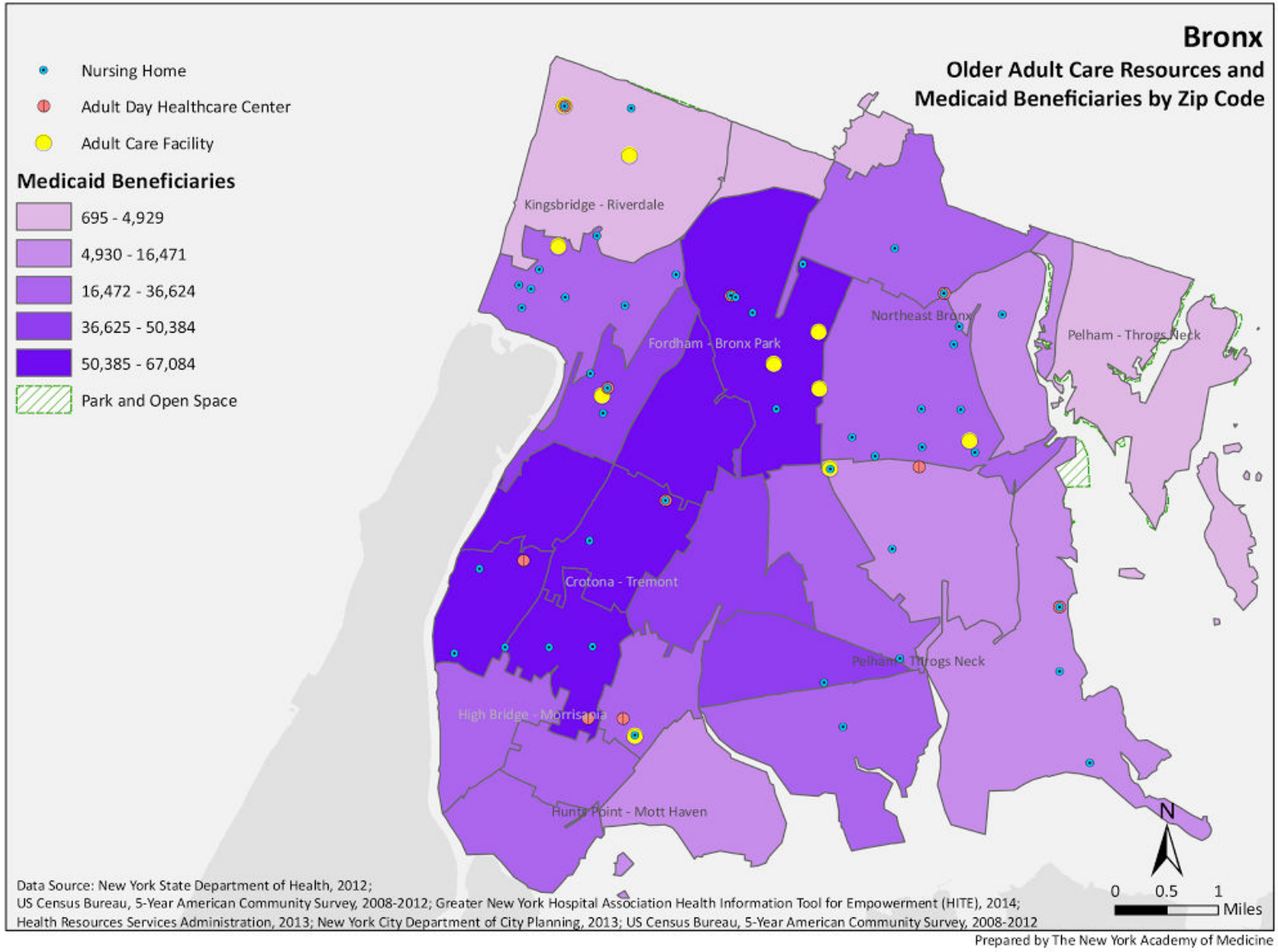
63. Physical, Occupational and Speech Therapy Programs and Medicaid Beneficiaries by Zip Code



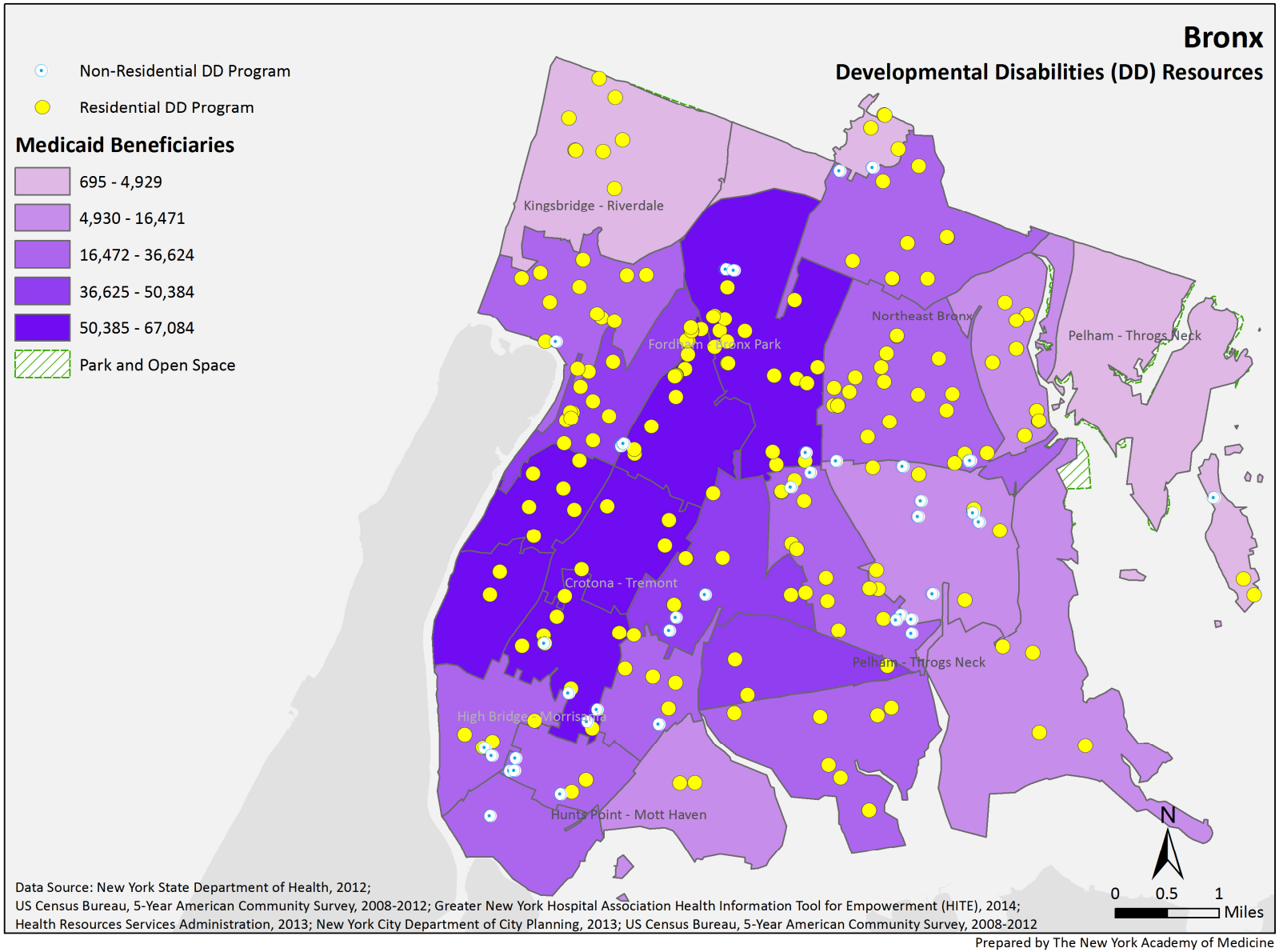
64. Older Adults Care Resources and Dual-Eligible Beneficiaries by Zip Code



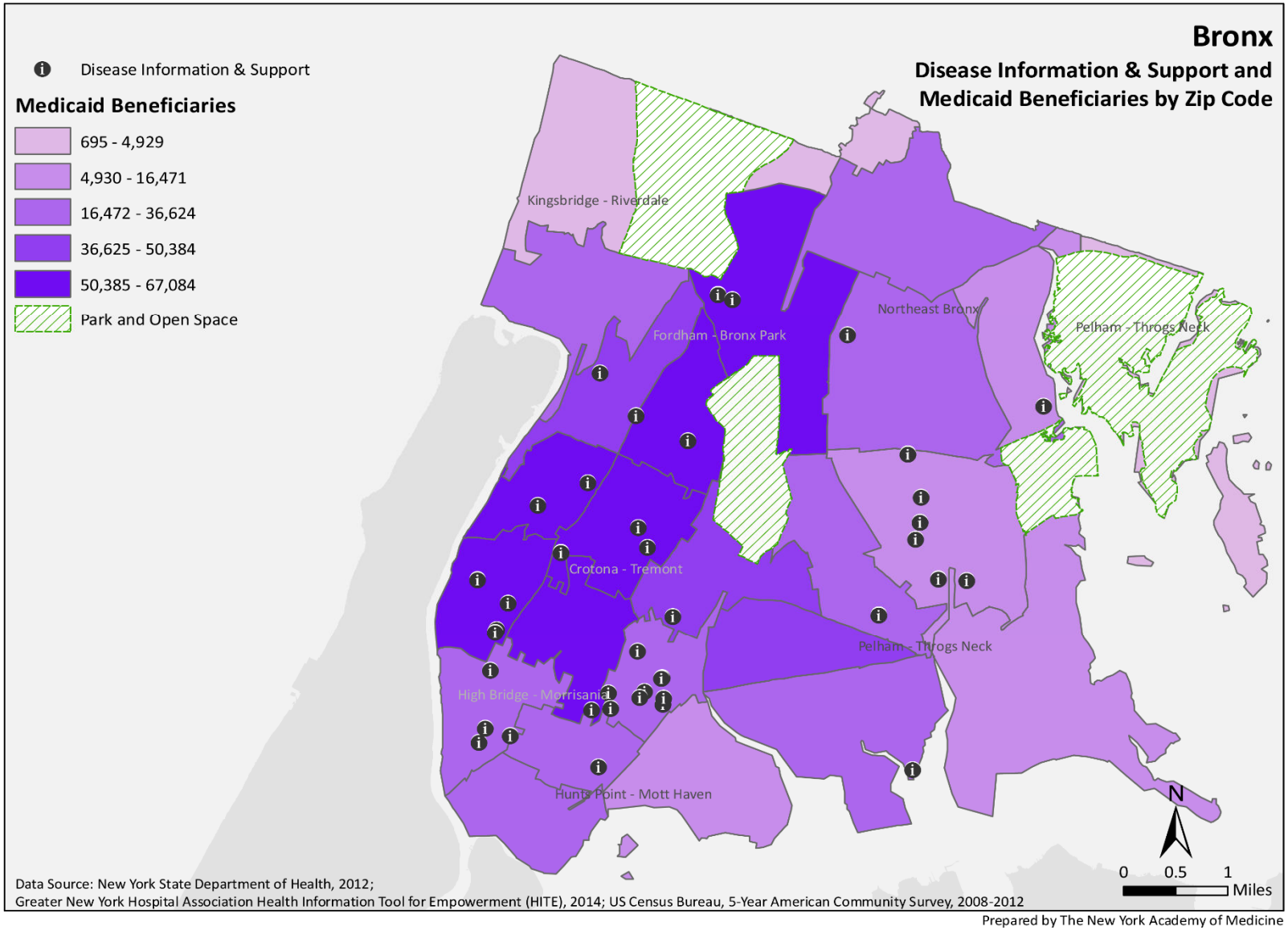
65. Older Adult Care Resources and Medicaid Beneficiaries by Zip Code



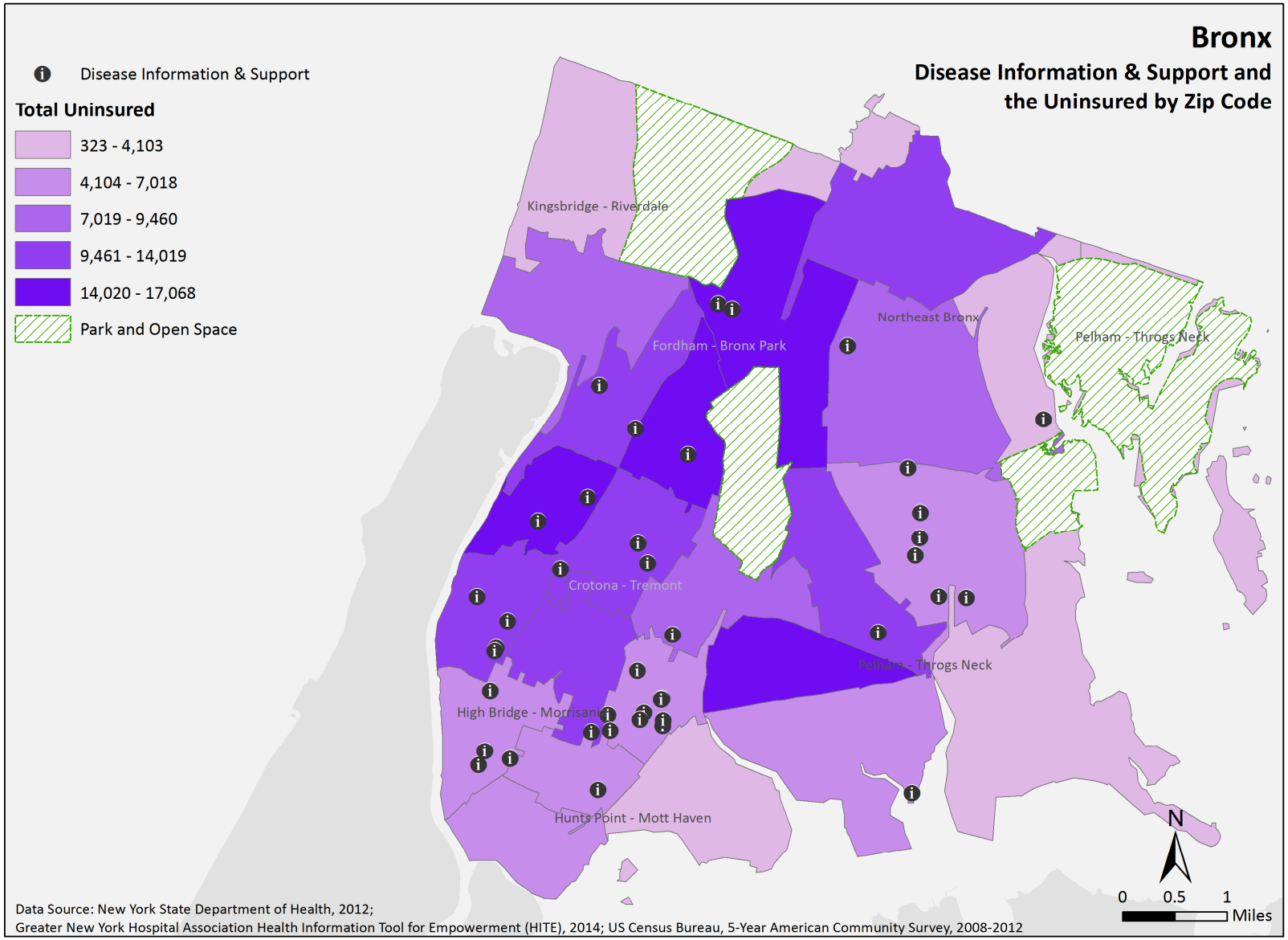
66. Developmental Disabilities Resources and Medicaid Beneficiaries by Zip Code



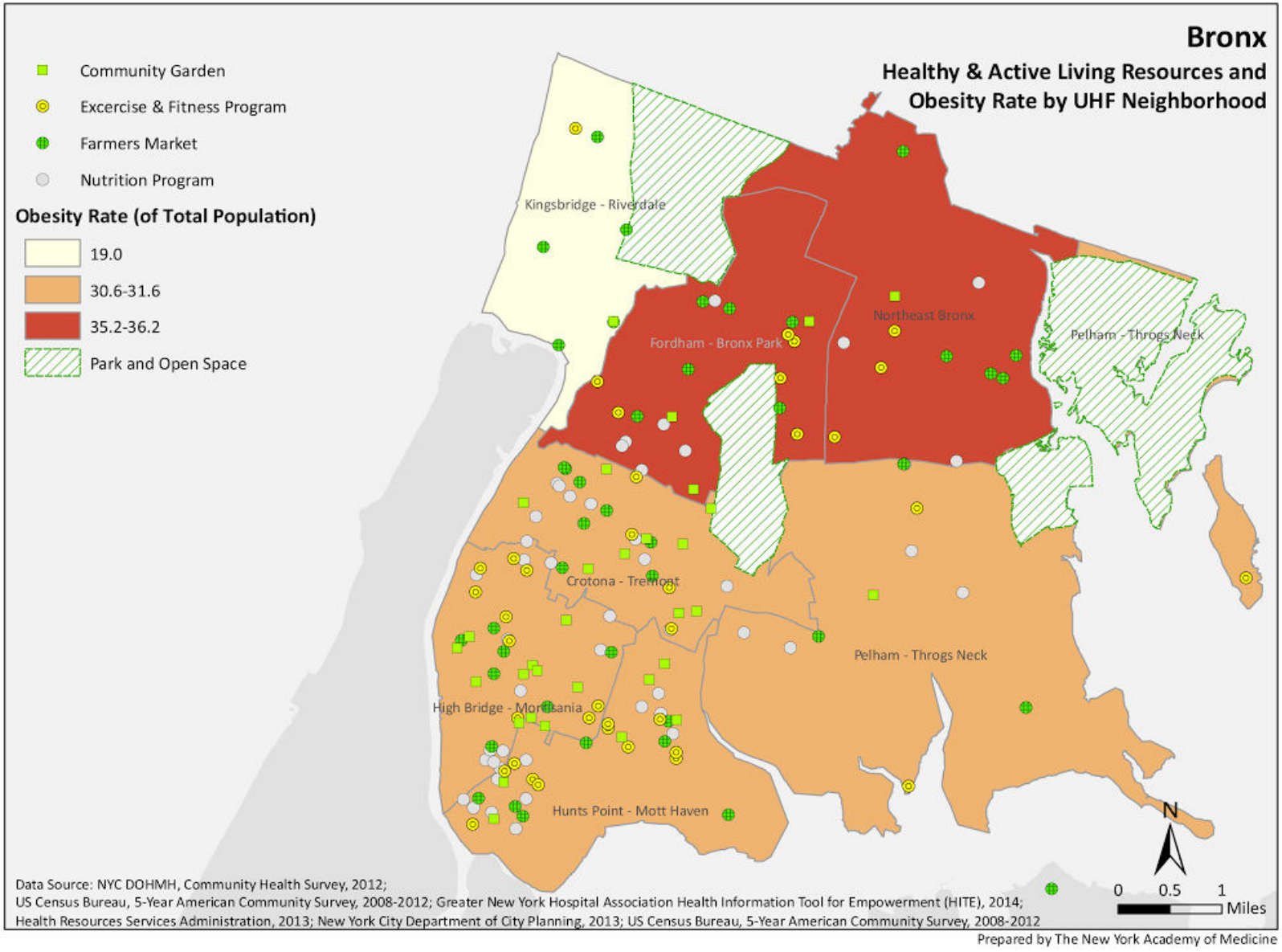
67. Disease Information and Support and Medicaid Beneficiaries by Zip Code



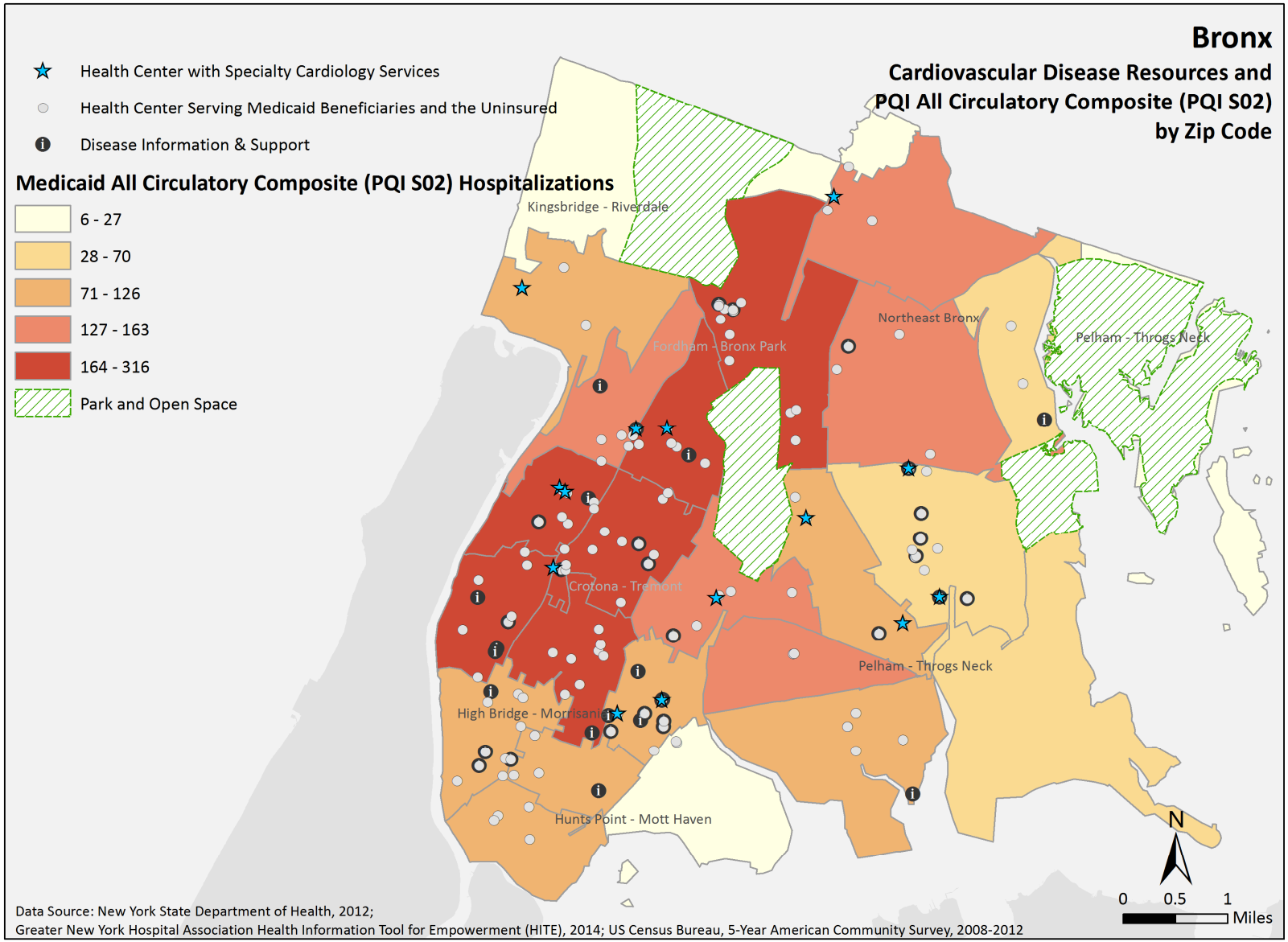
68. Disease Information and Support and the Uninsured by Zip Code



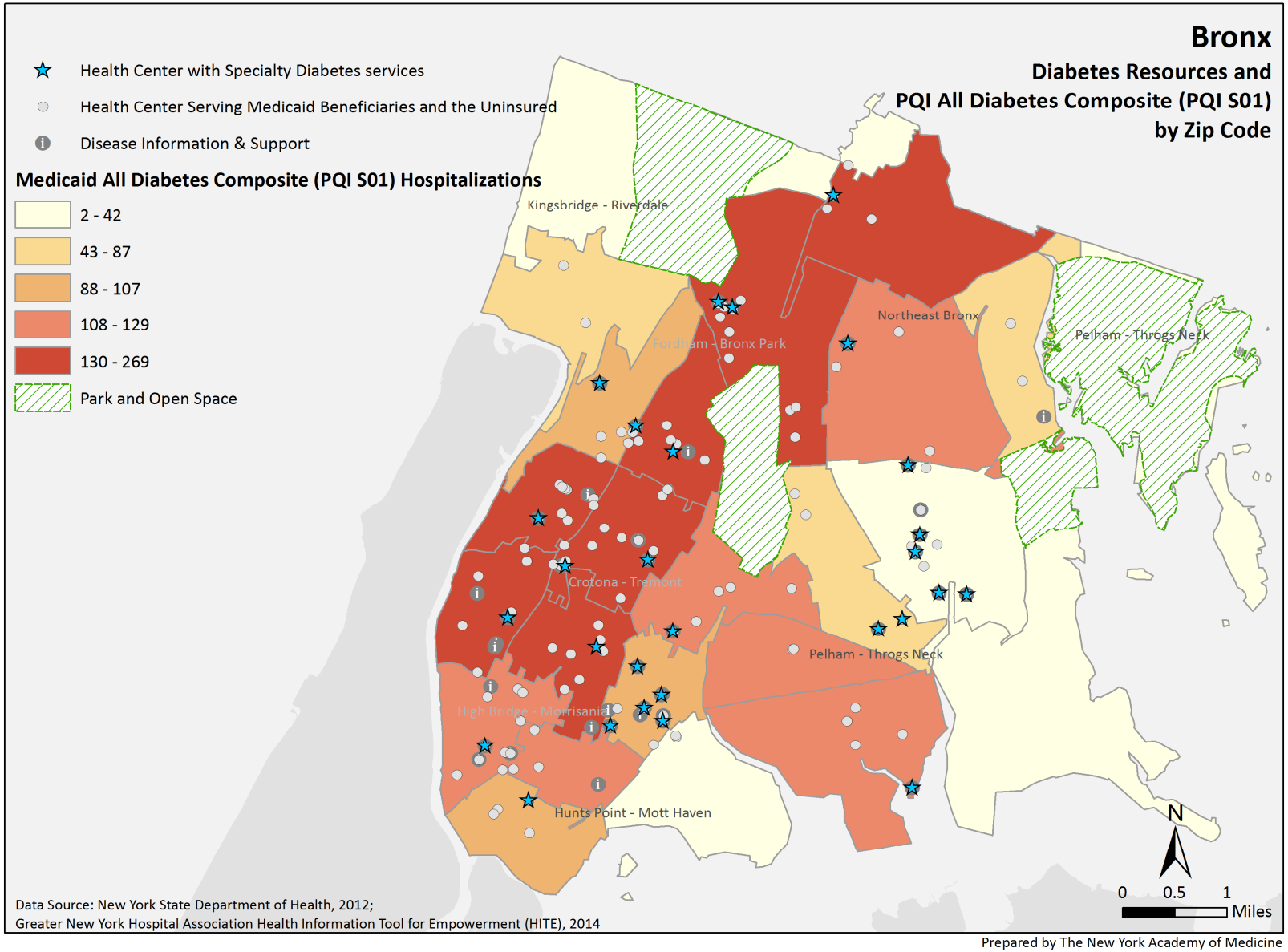
69. Healthy and Active Living Resources and Obesity Rate by UHF Neighborhood



70. Cardiovascular Disease Resources and PQI All Circulatory Composite (PQI S02) by Zip Code



71. Diabetes Resources and PQI All Diabetes Composite (PQI S01) by Zip Code



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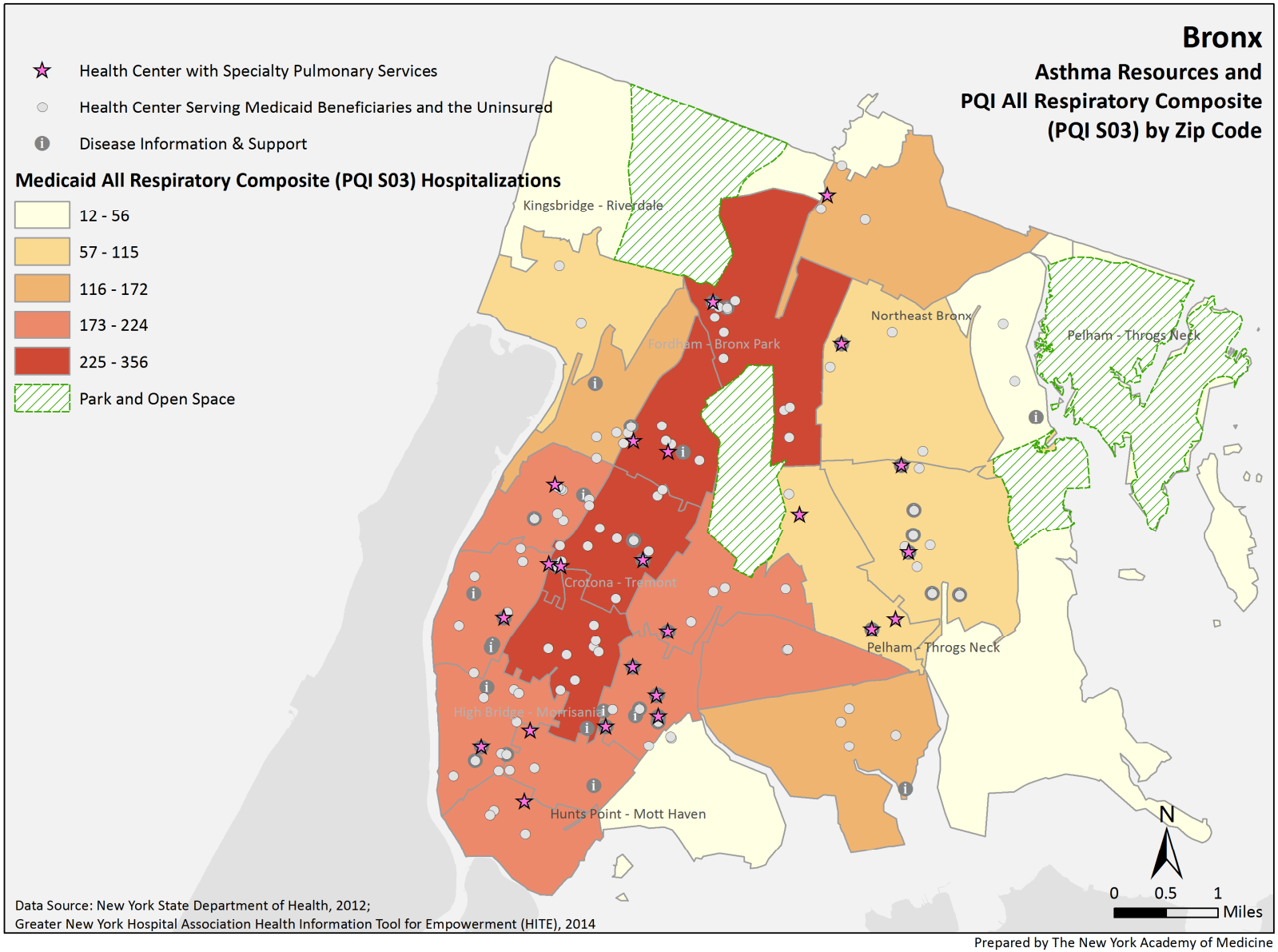
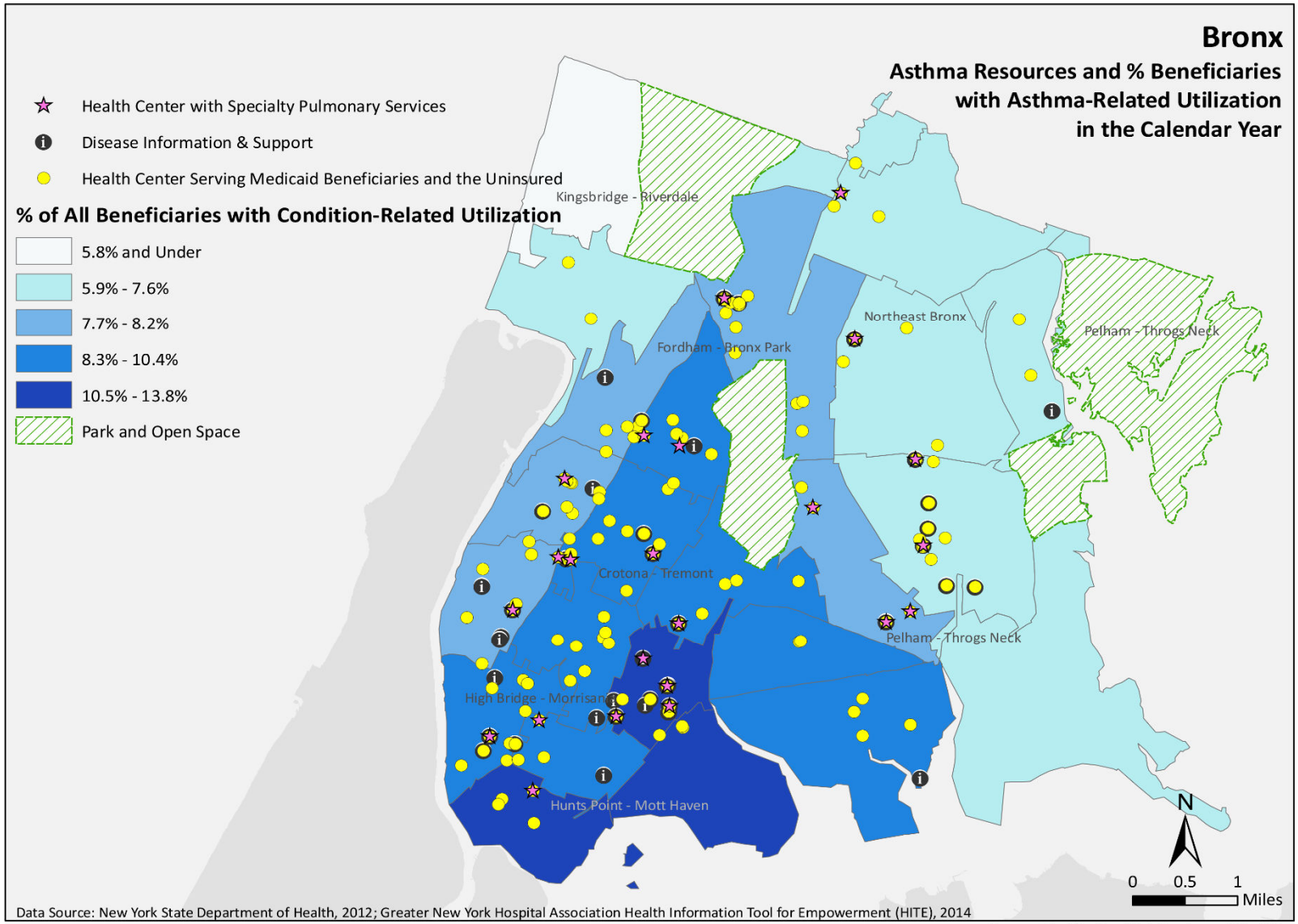
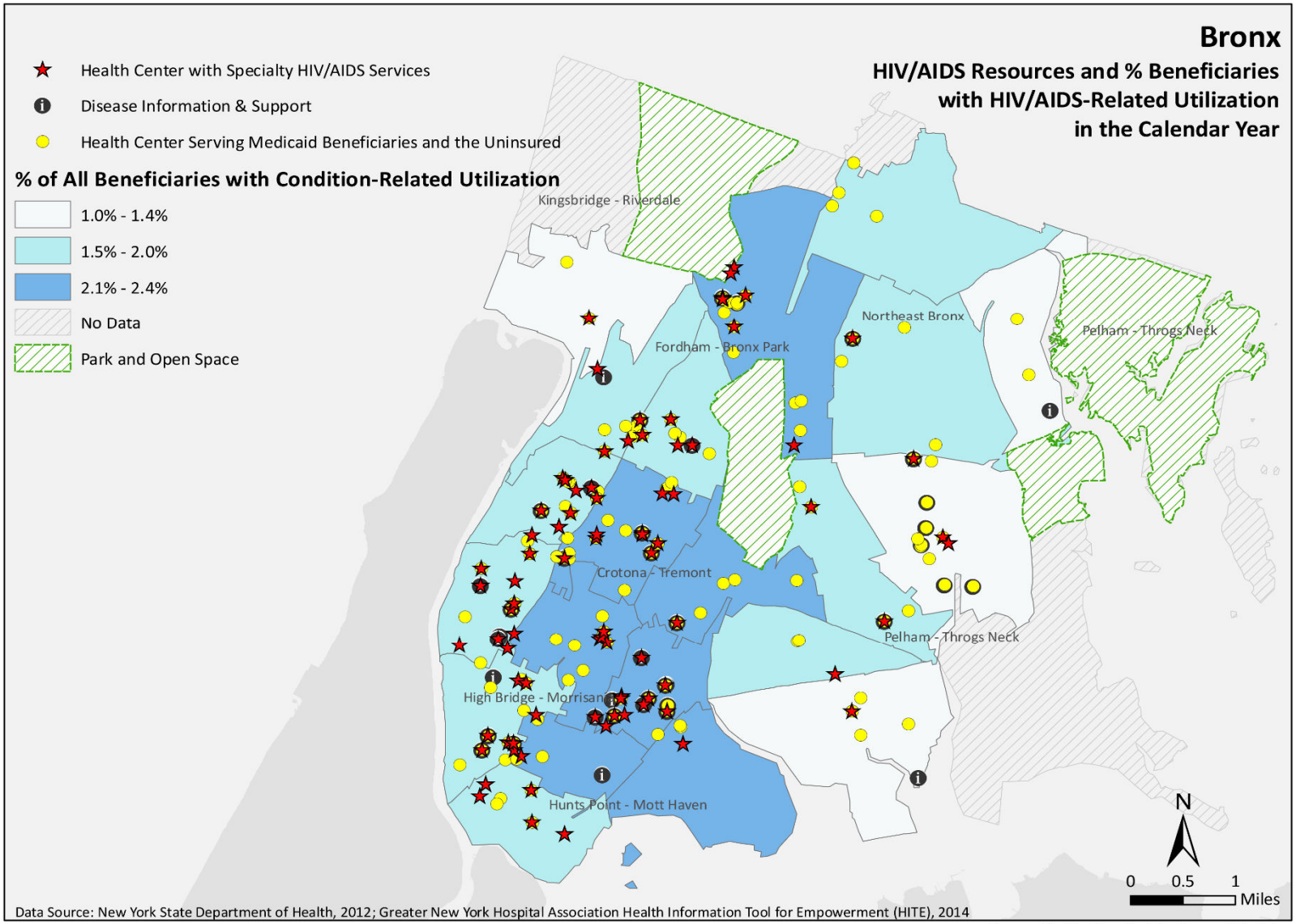
72. Asthma Resources and PQI All Respiratory Composite (PQI S03) by Zip Code



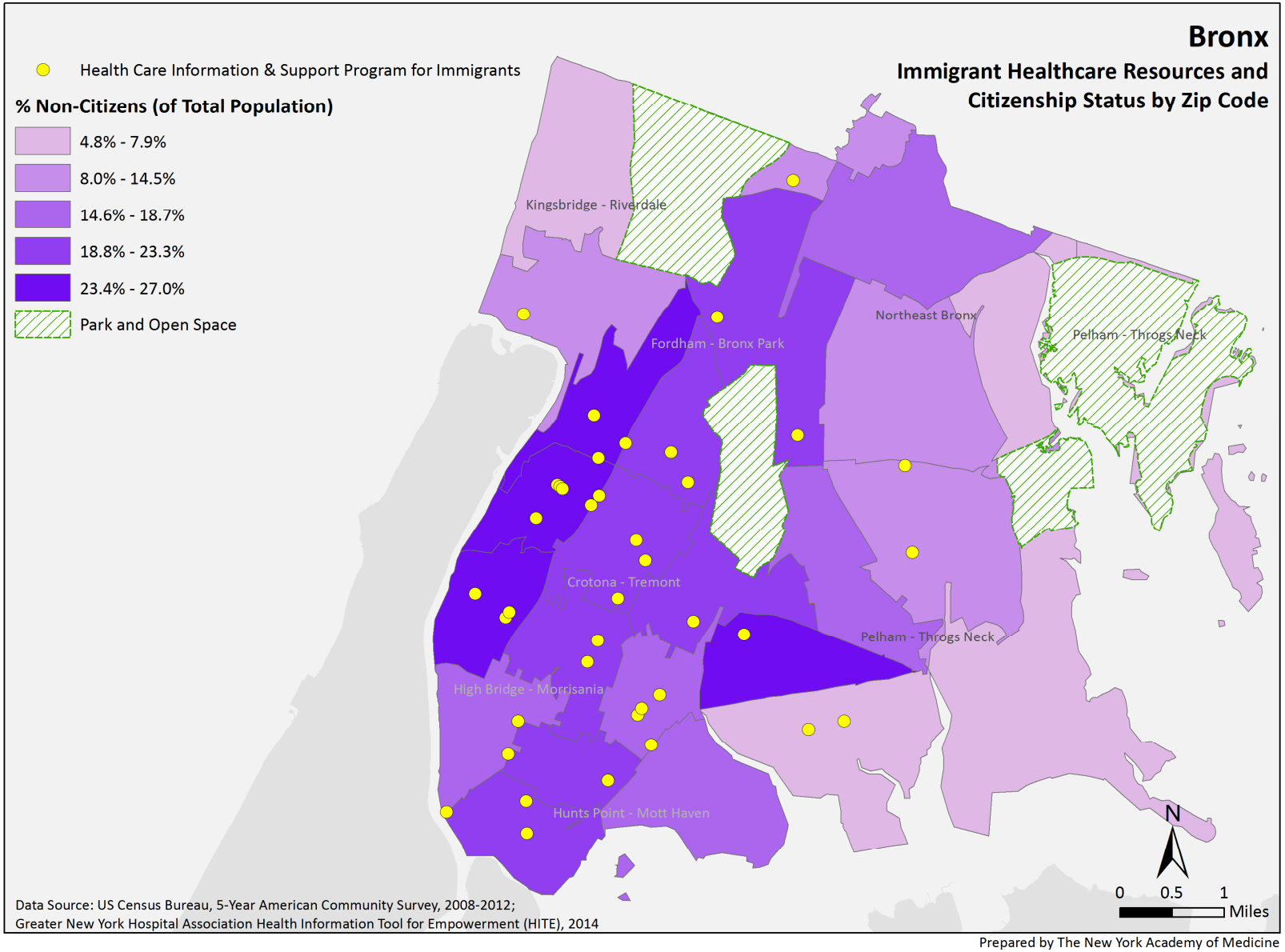
73. Asthma Resources and Percent Beneficiaries with Asthma-Related Utilization



74. HIV/AIDS Resources and Percent Beneficiaries with HIV/AIDS-Related Utilization



75. Immigrant Healthcare Resources and Citizenship Status by Zip Code



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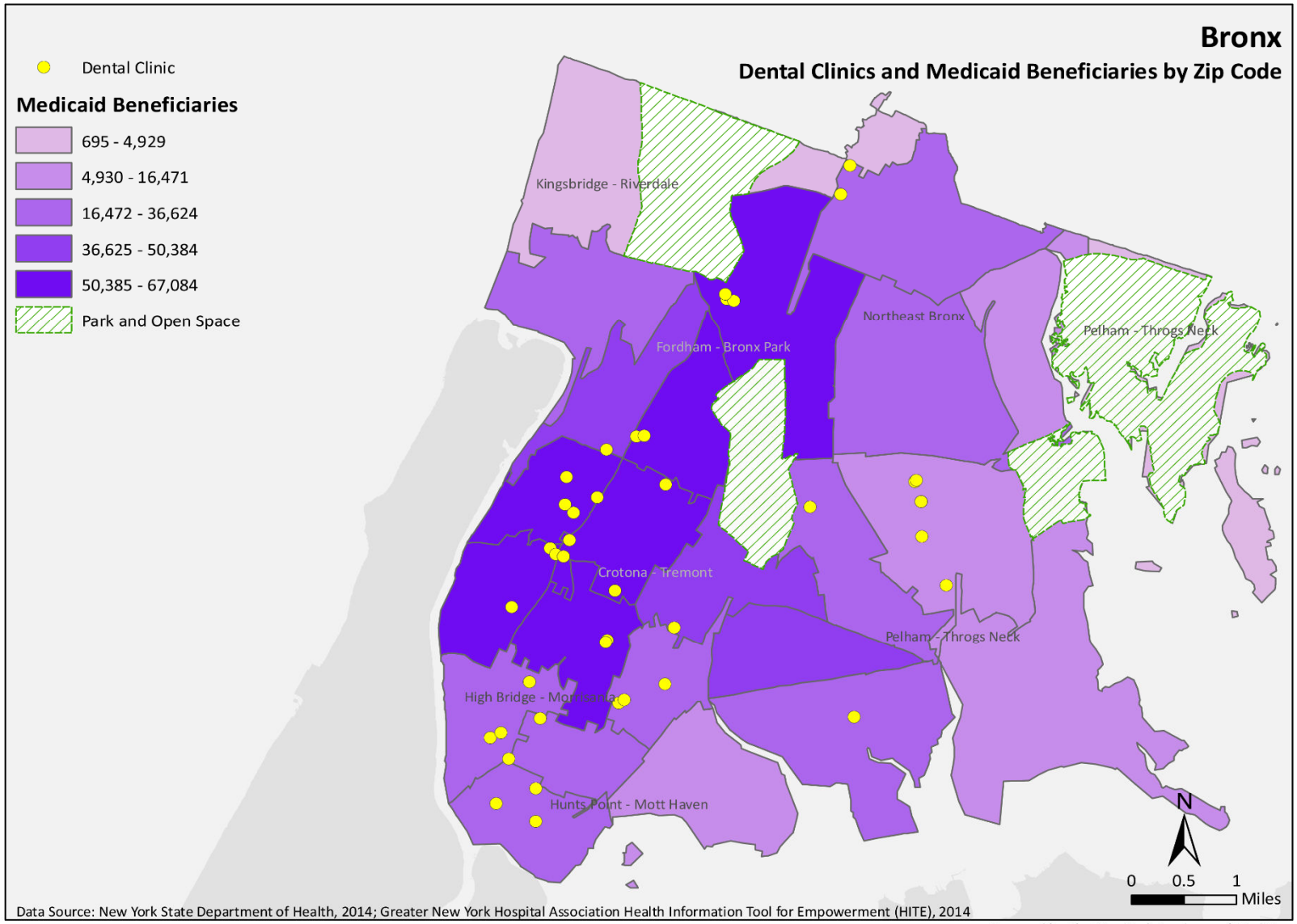
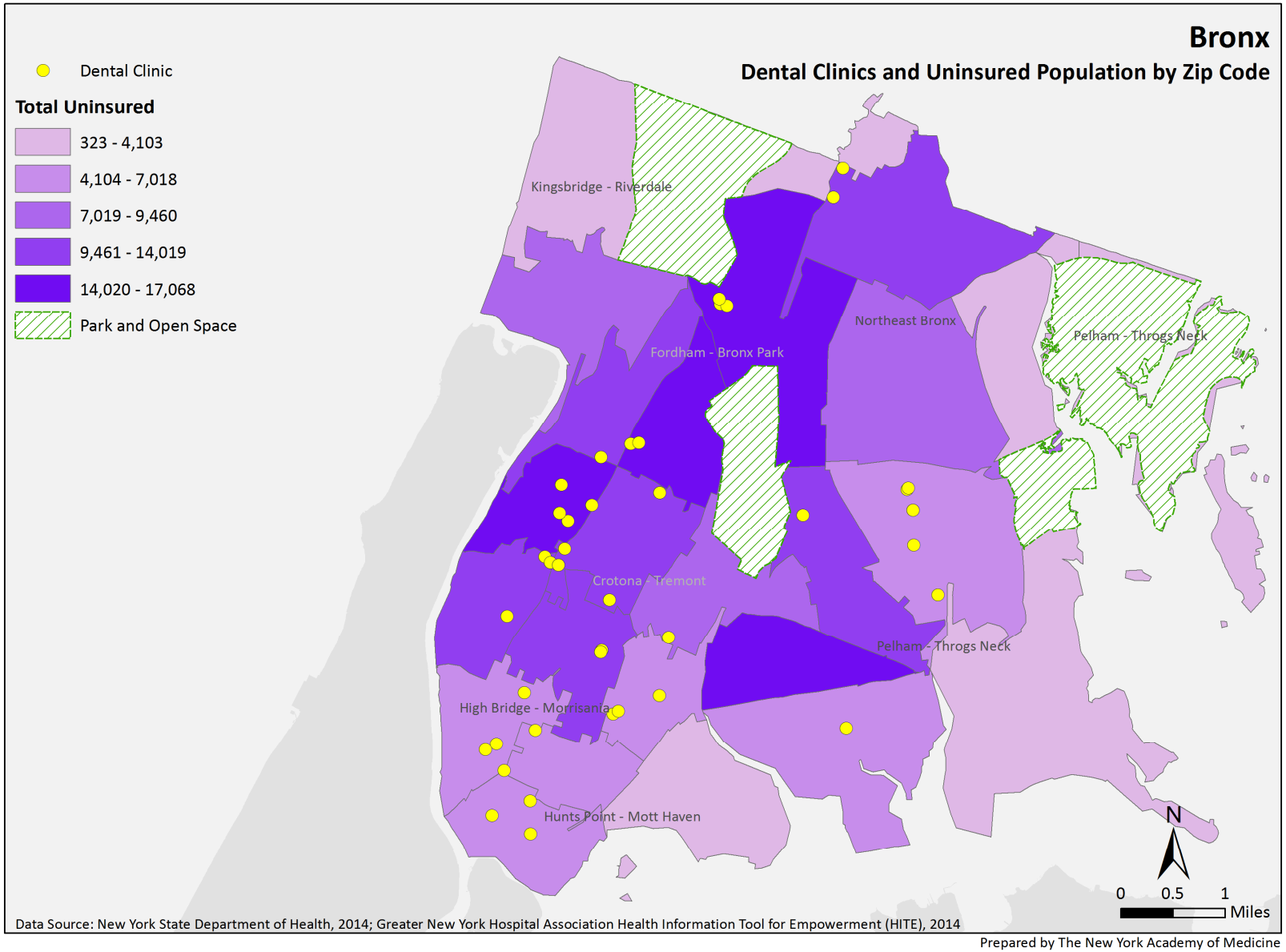
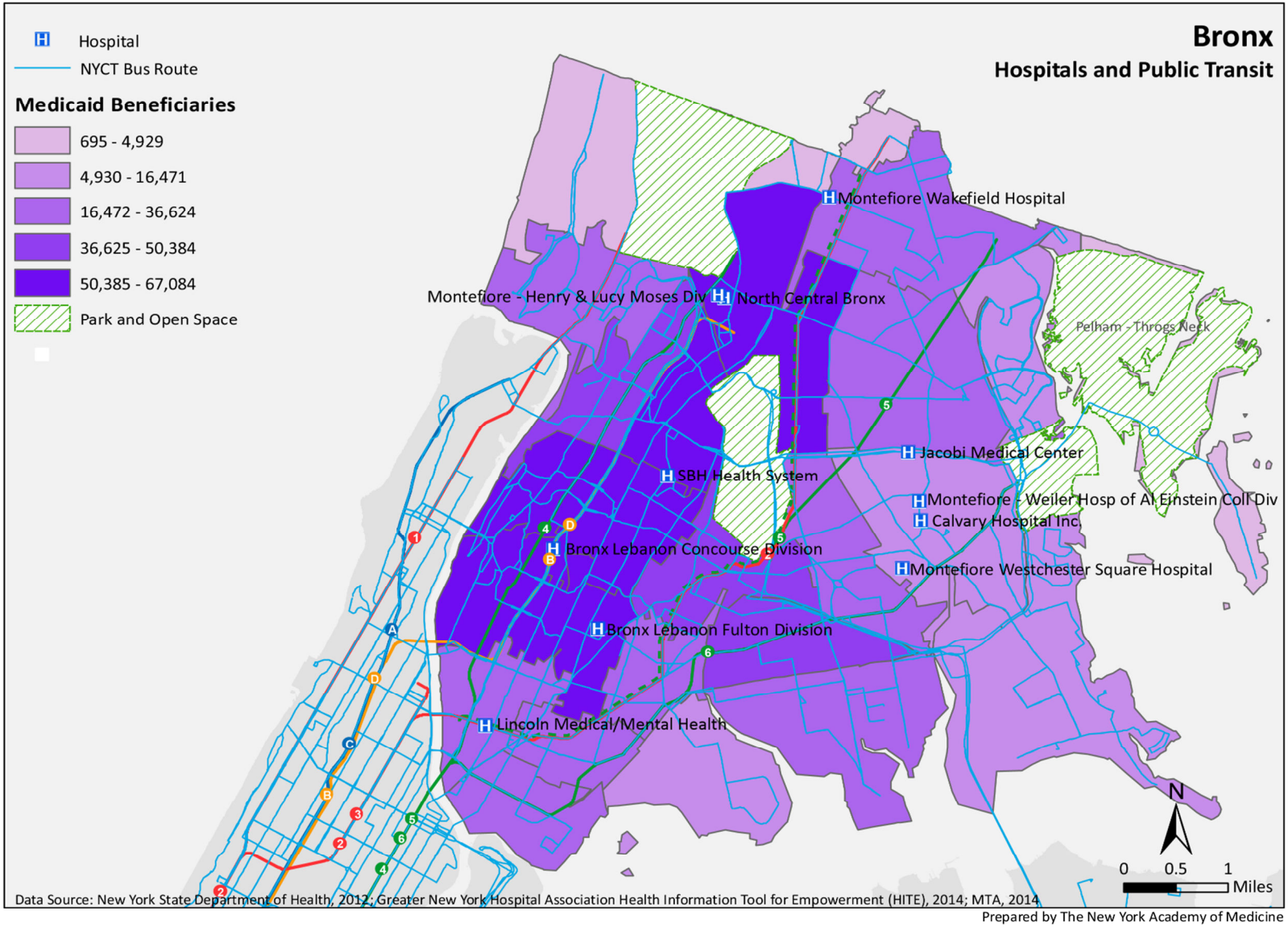
76. Dental Clinics and Medicaid Beneficiaries by Zip Code



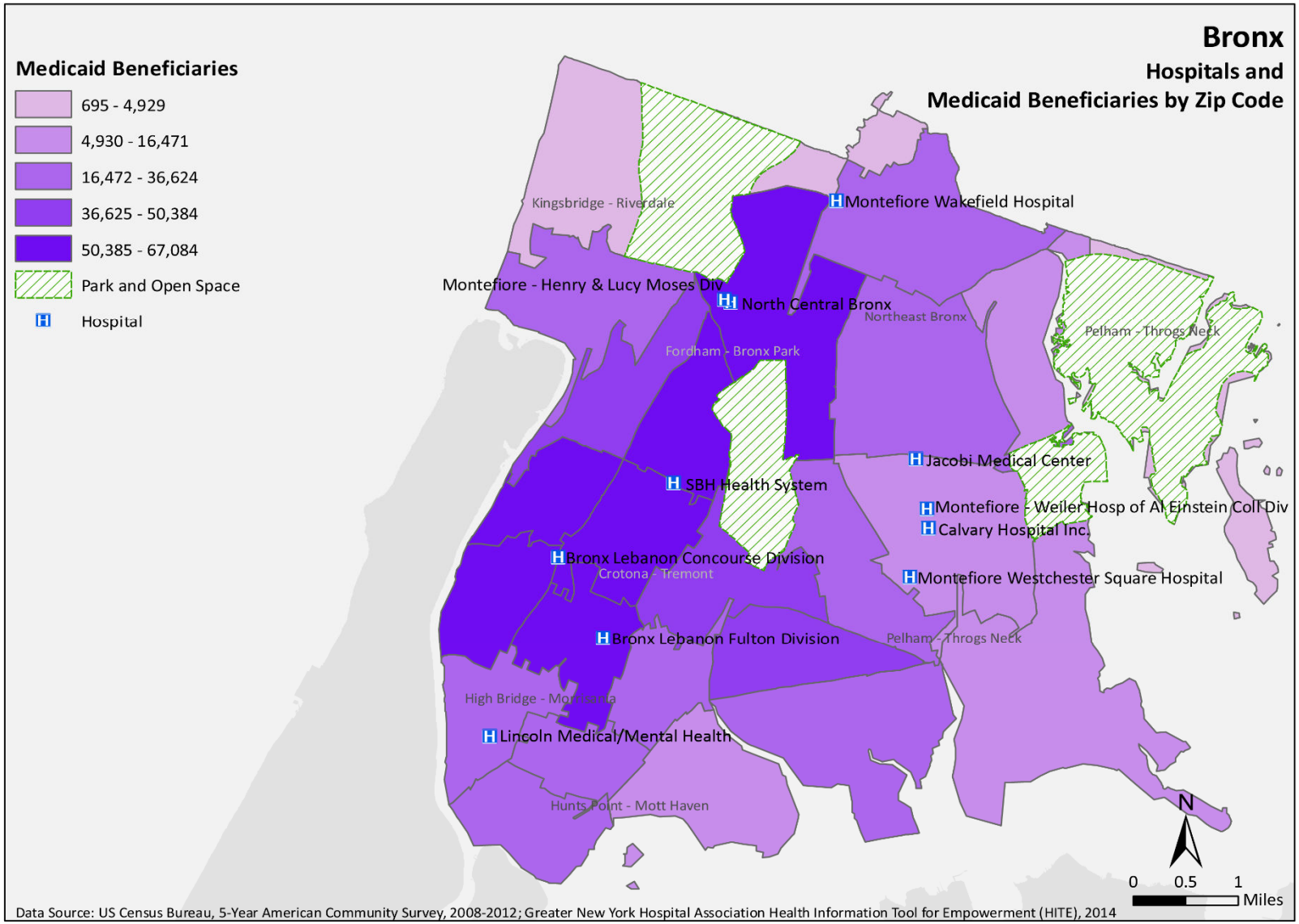
77. Dental Clinics and Uninsured Population by Zip Code



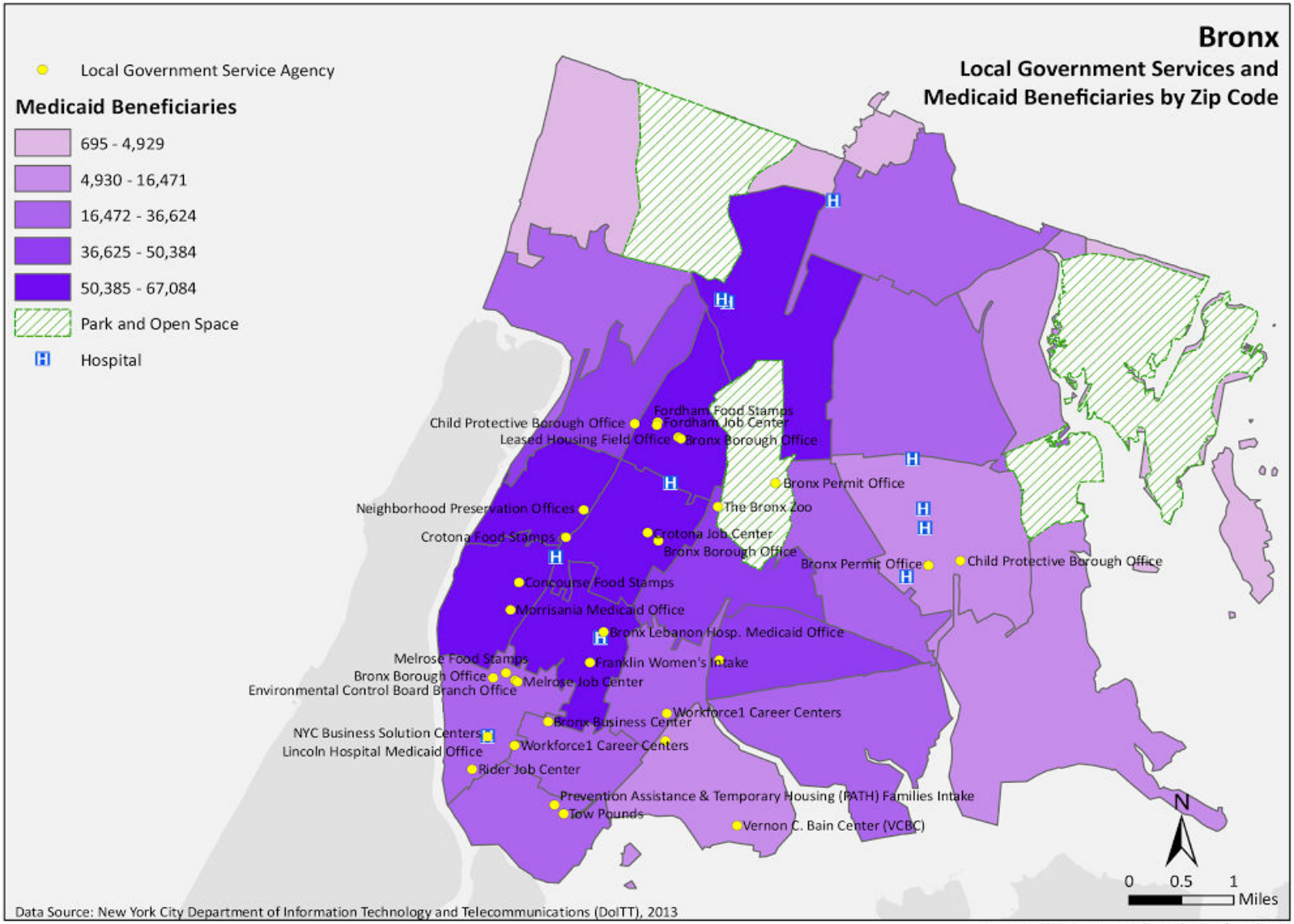
78. Hospitals and Public Transit



79. Hospitals and Medicaid Beneficiaries by Zip Code



80. Local Governmental Services and Medicaid Beneficiaries by Zip Code



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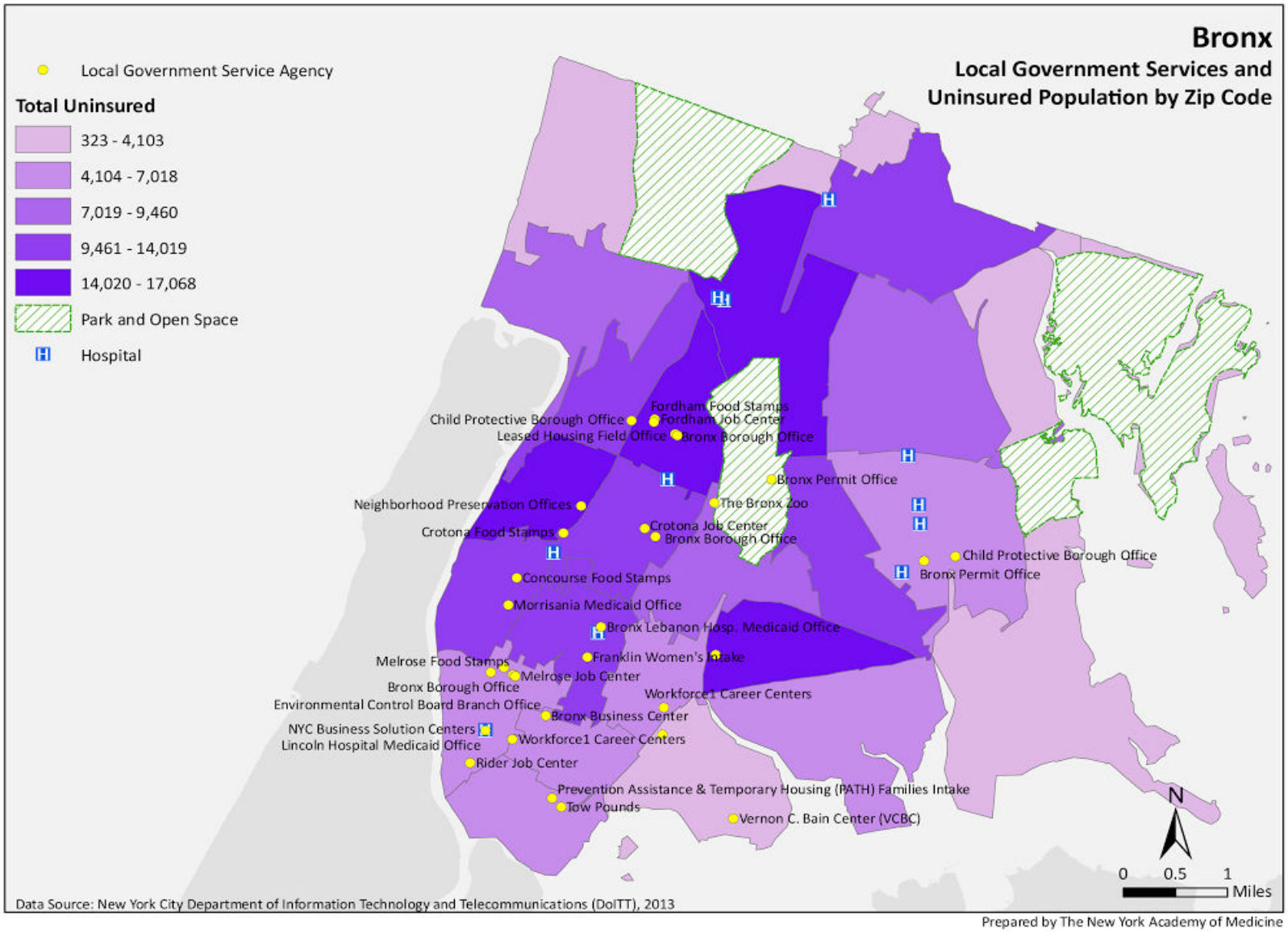
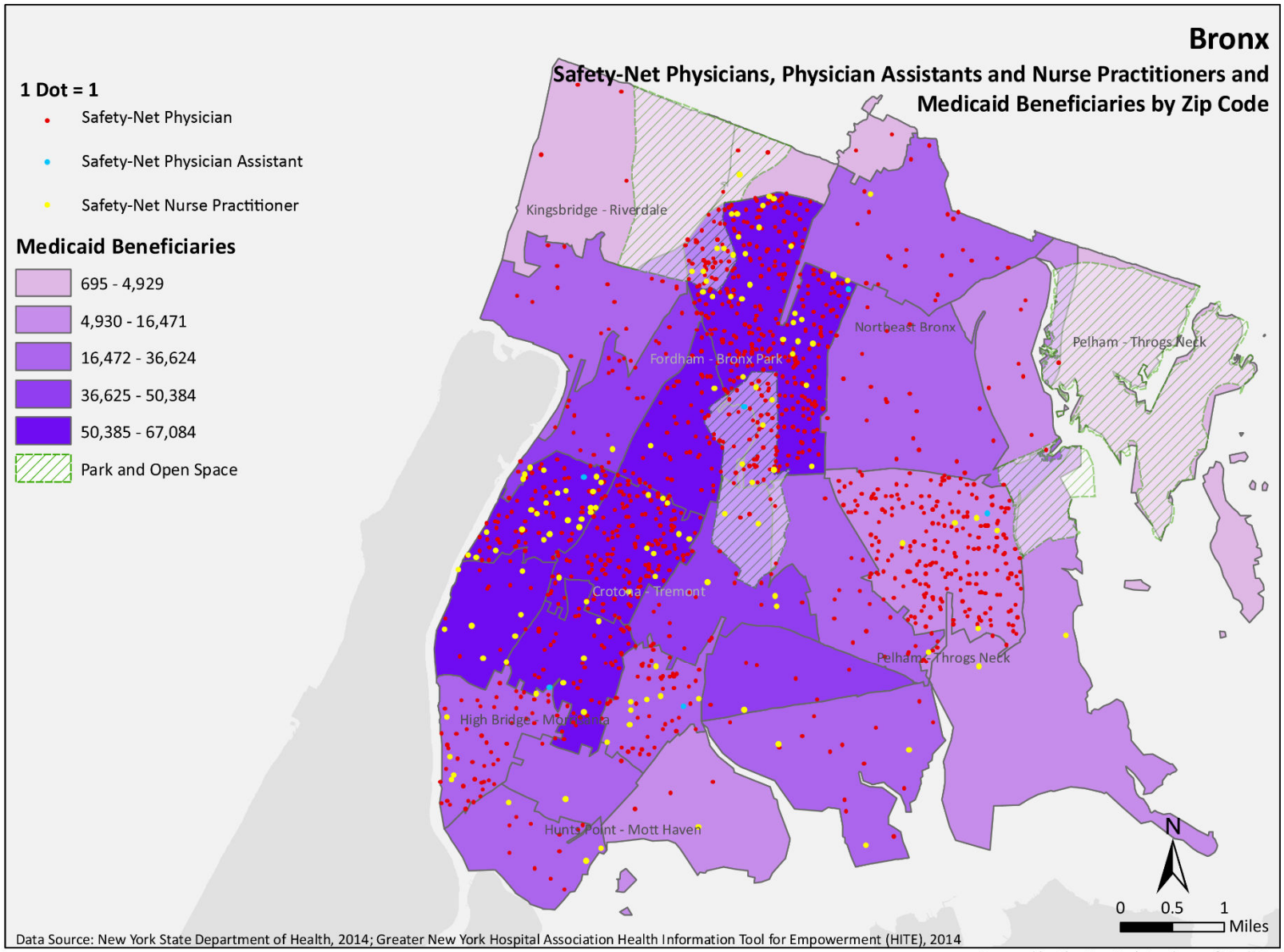
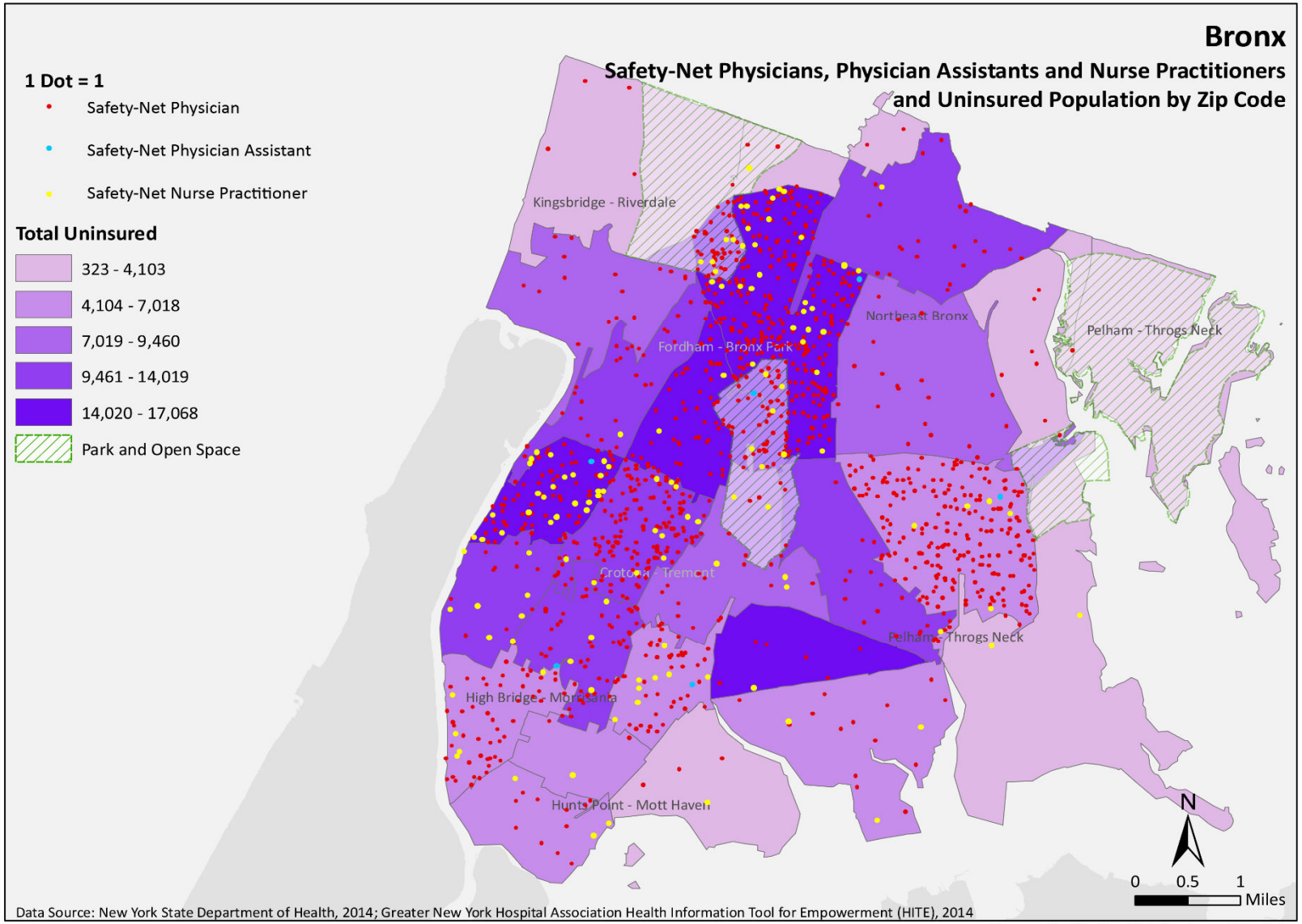


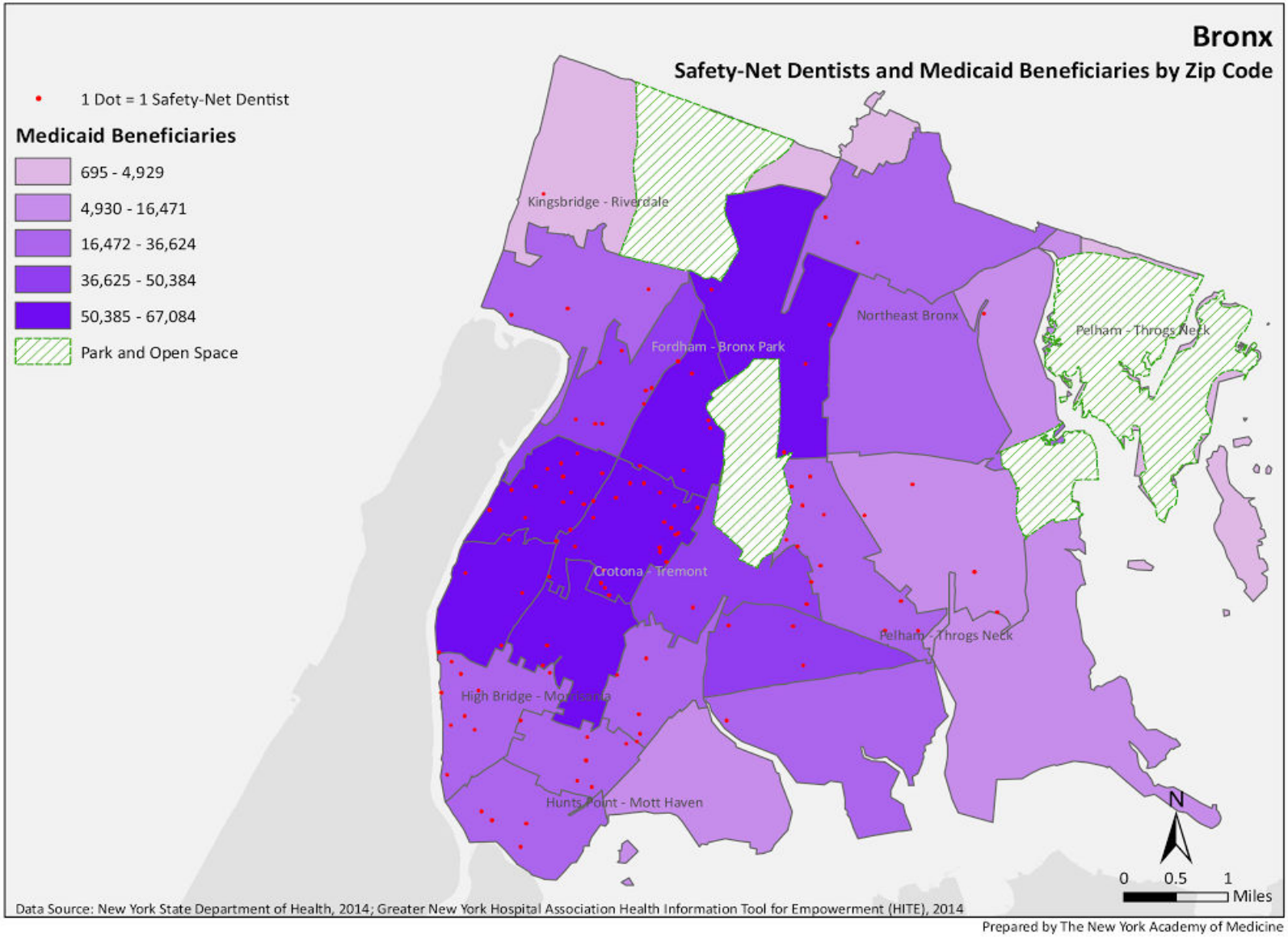
82. Safety-Net Physicians, Physician Assistants, Nurse Practitioners and Medicaid Beneficiaries by Zip Code



83. Safety-Net Physicians, Physician Assistants, Nurse Practitioners and Uninsured Population by Zip Code



84. Safety-Net Dentists and Medicaid Beneficiaries by Zip Code



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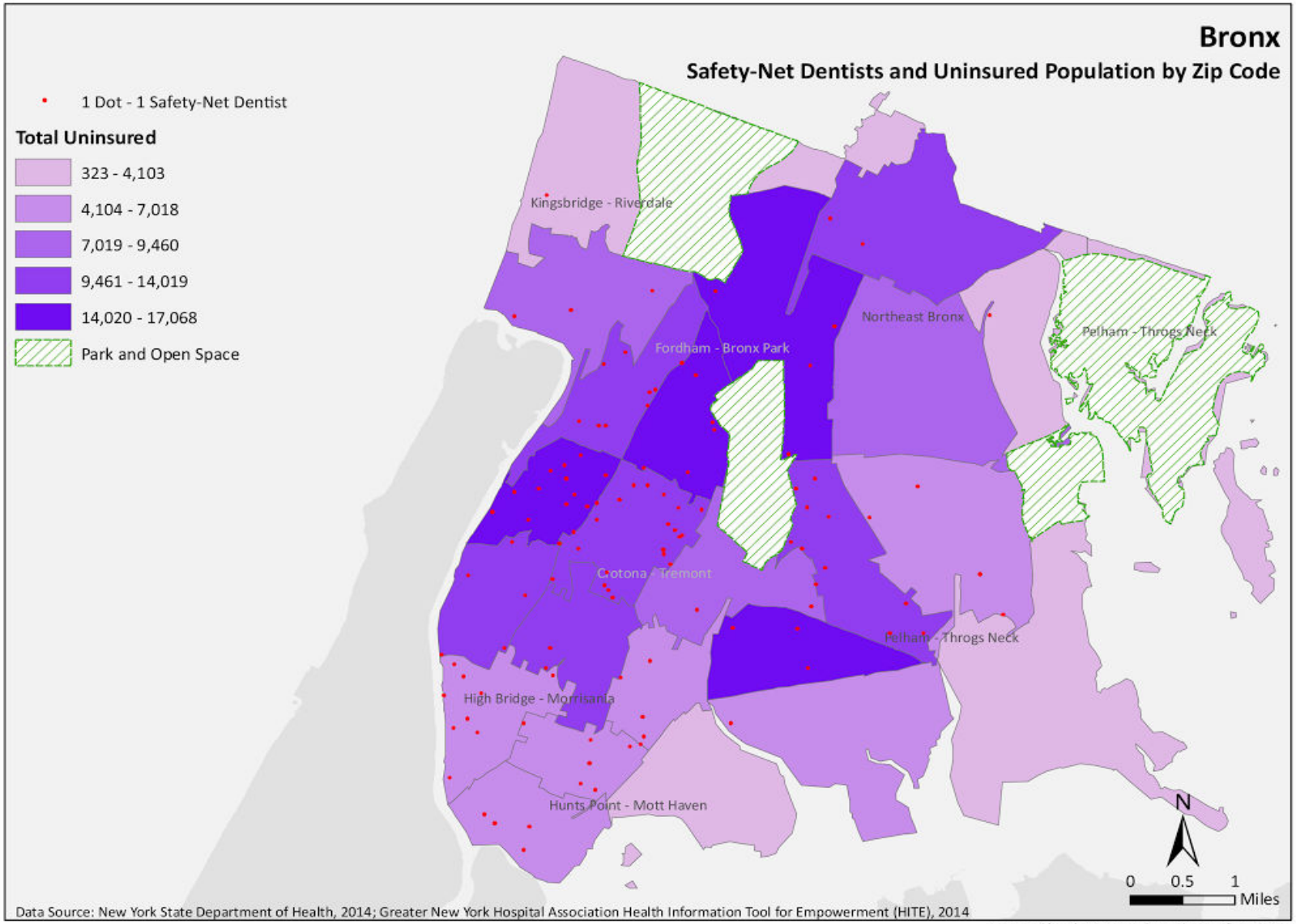

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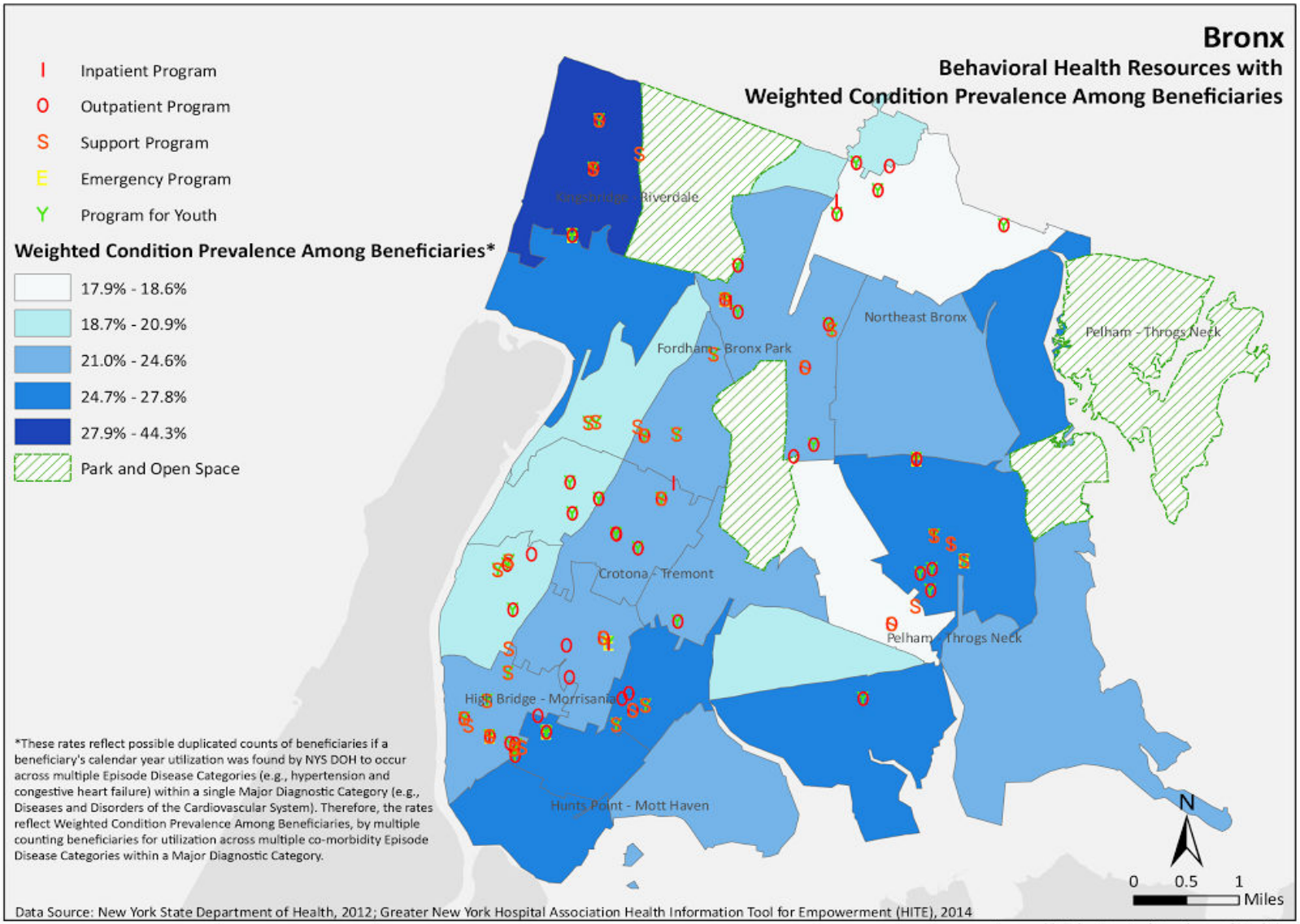
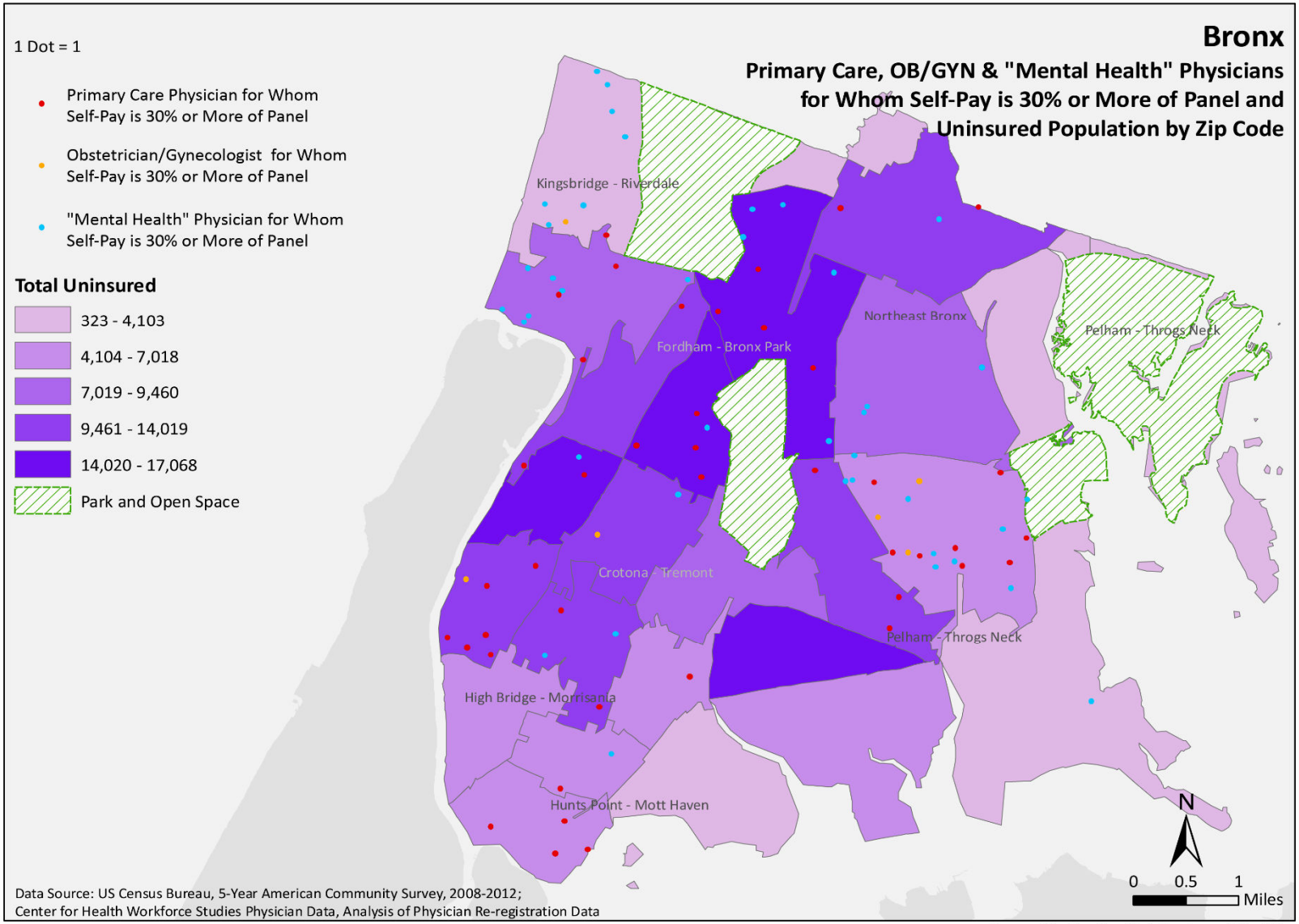
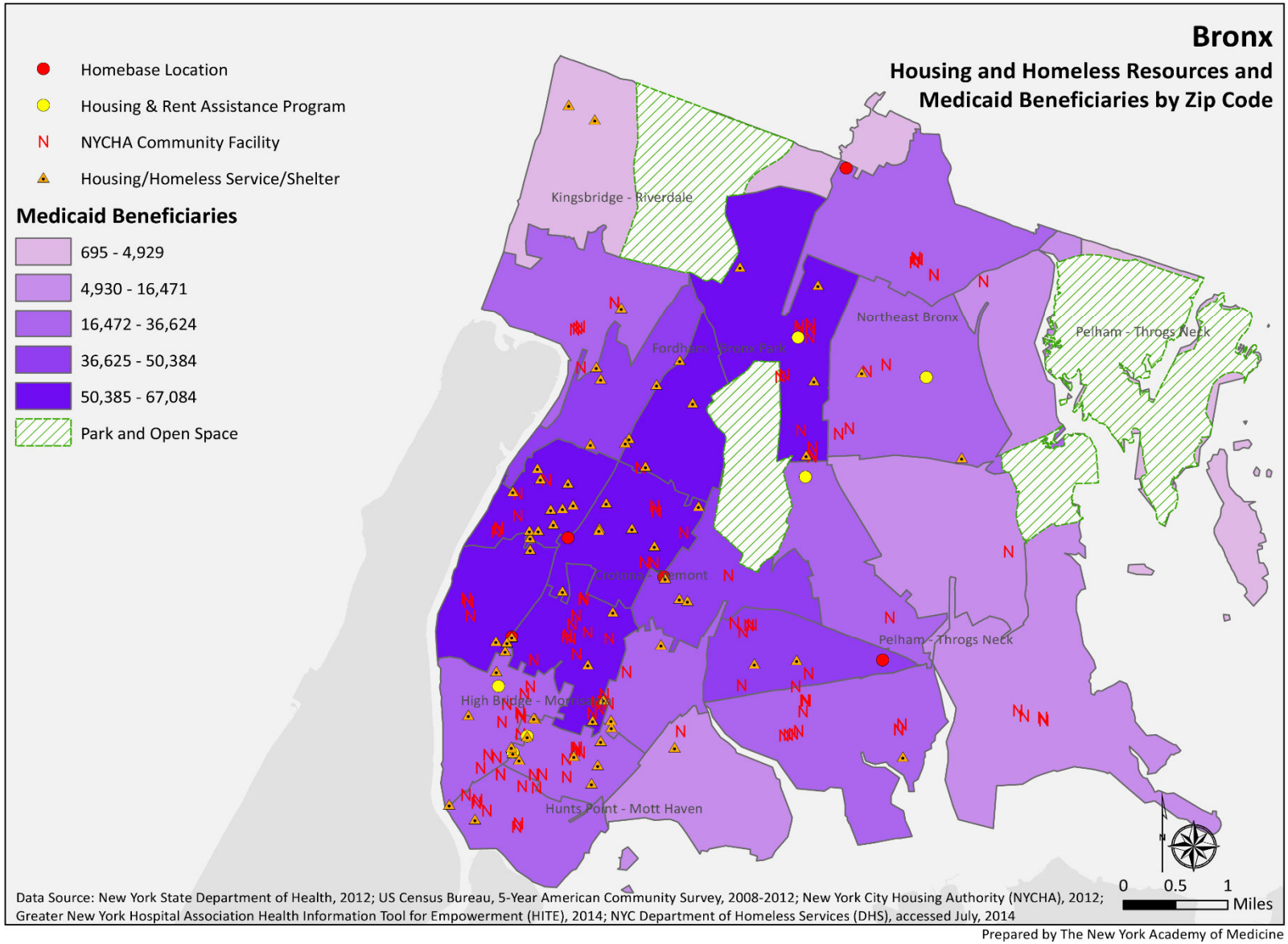


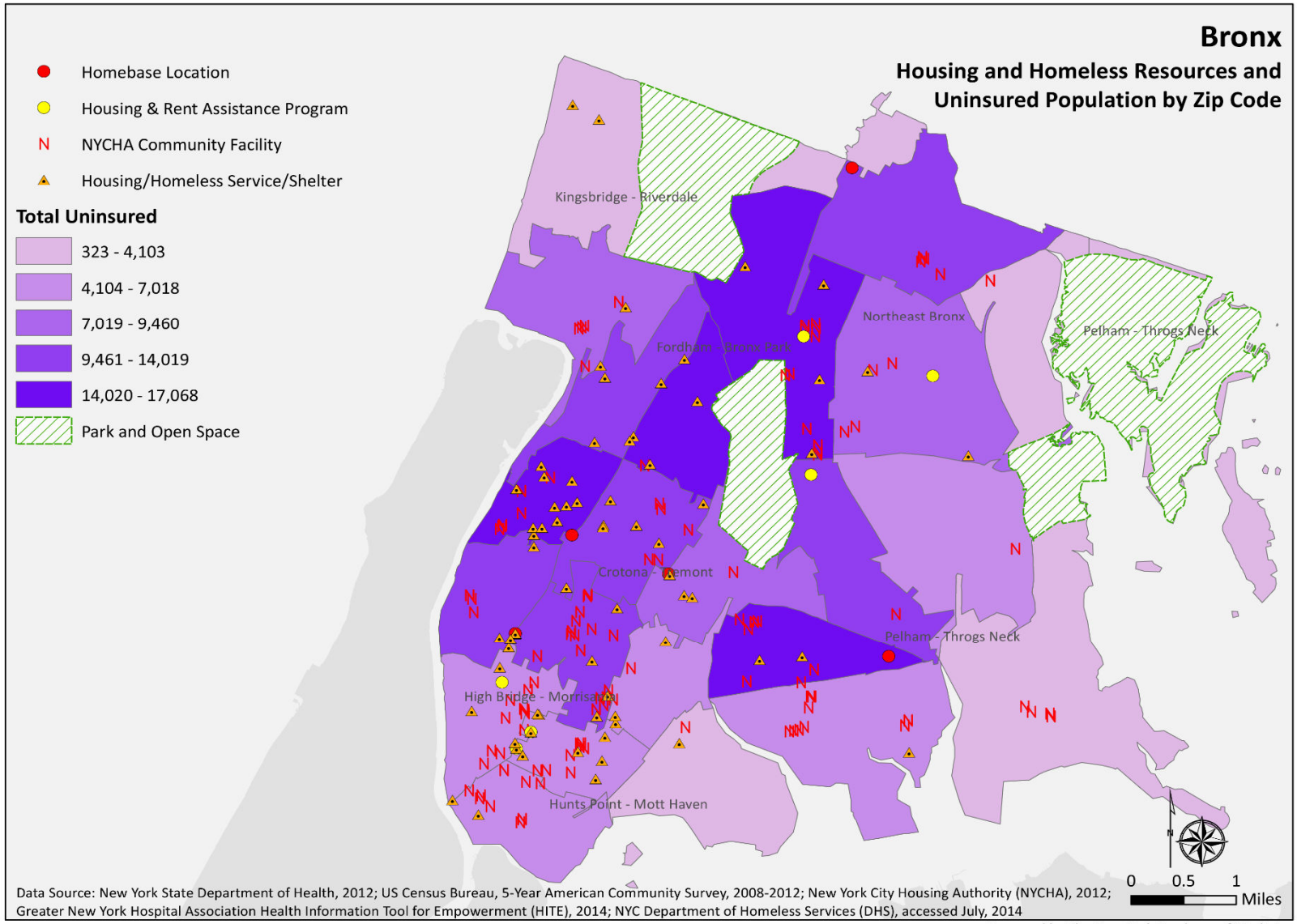
87. Primary Care, OB/GYN and "Mental Health" Physicians for Whom Self-Pay is 30% or More of Panel by Zip Code



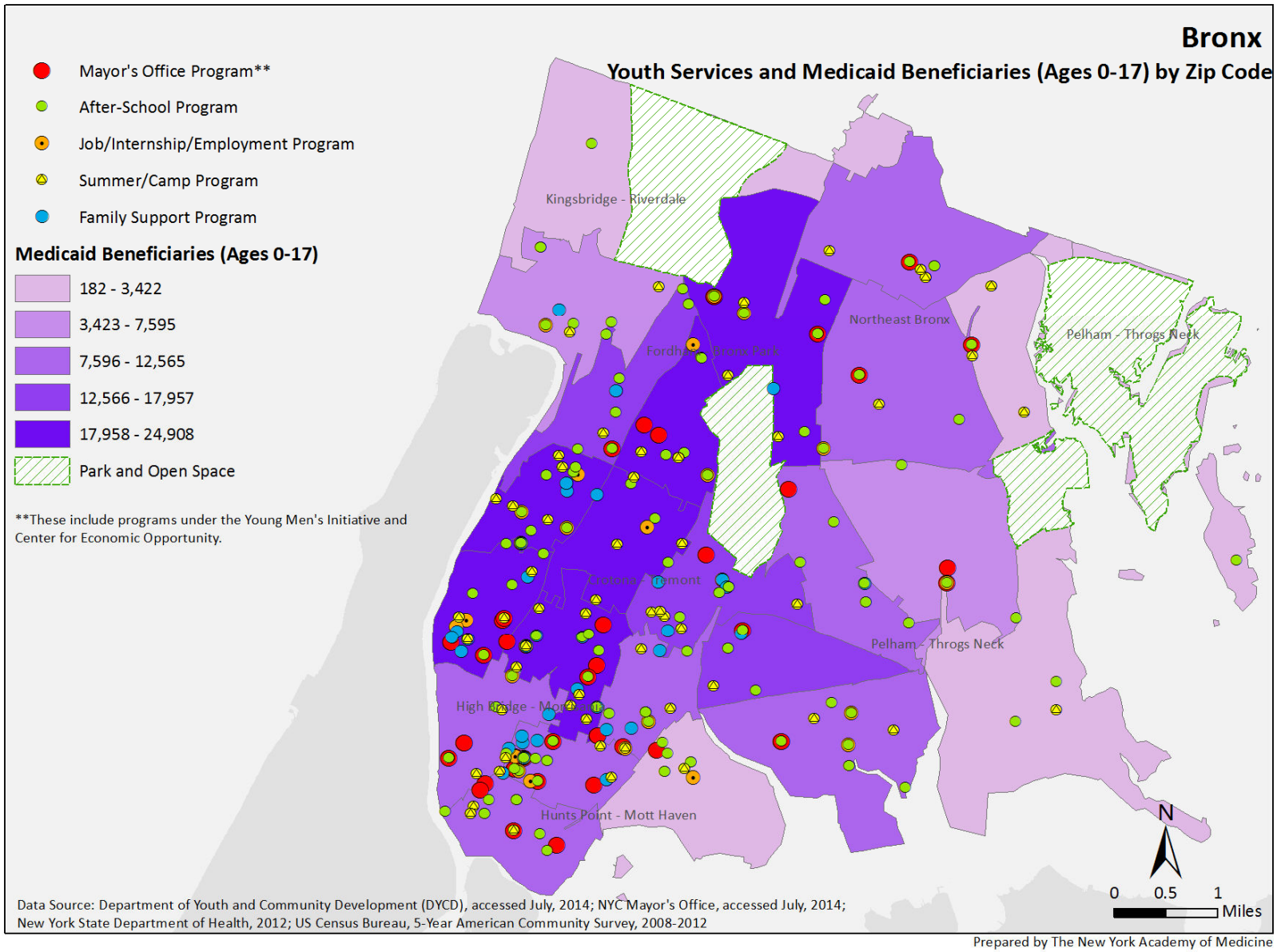
88. Housing and Homeless Resources and Medicaid Beneficiaries by Zip Code



89. Housing and Homeless Resources and Uninsured Population by Zip Code

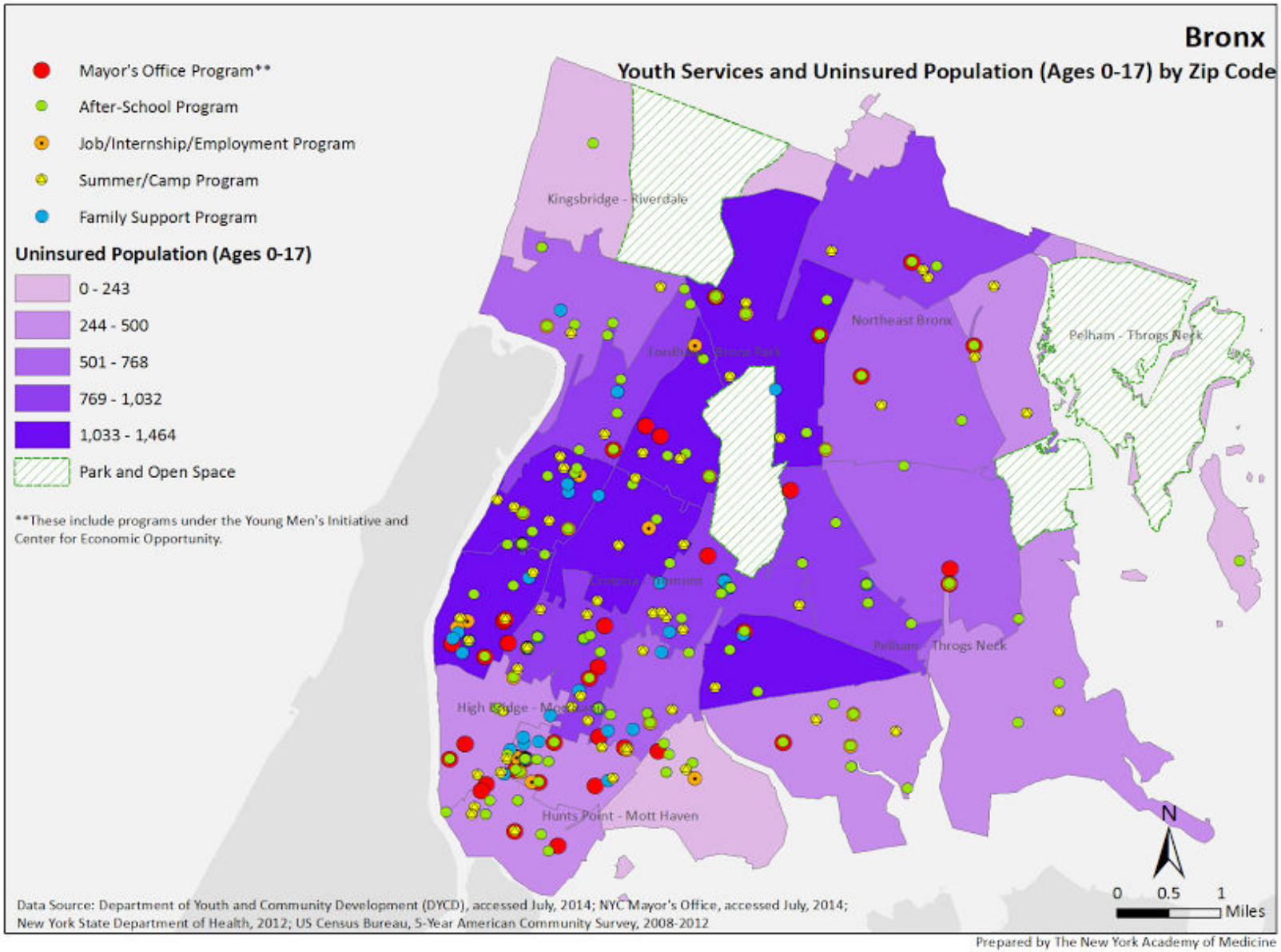


90. Youth Services and Medicaid Beneficiaries (Ages 0-17) by Zip Code

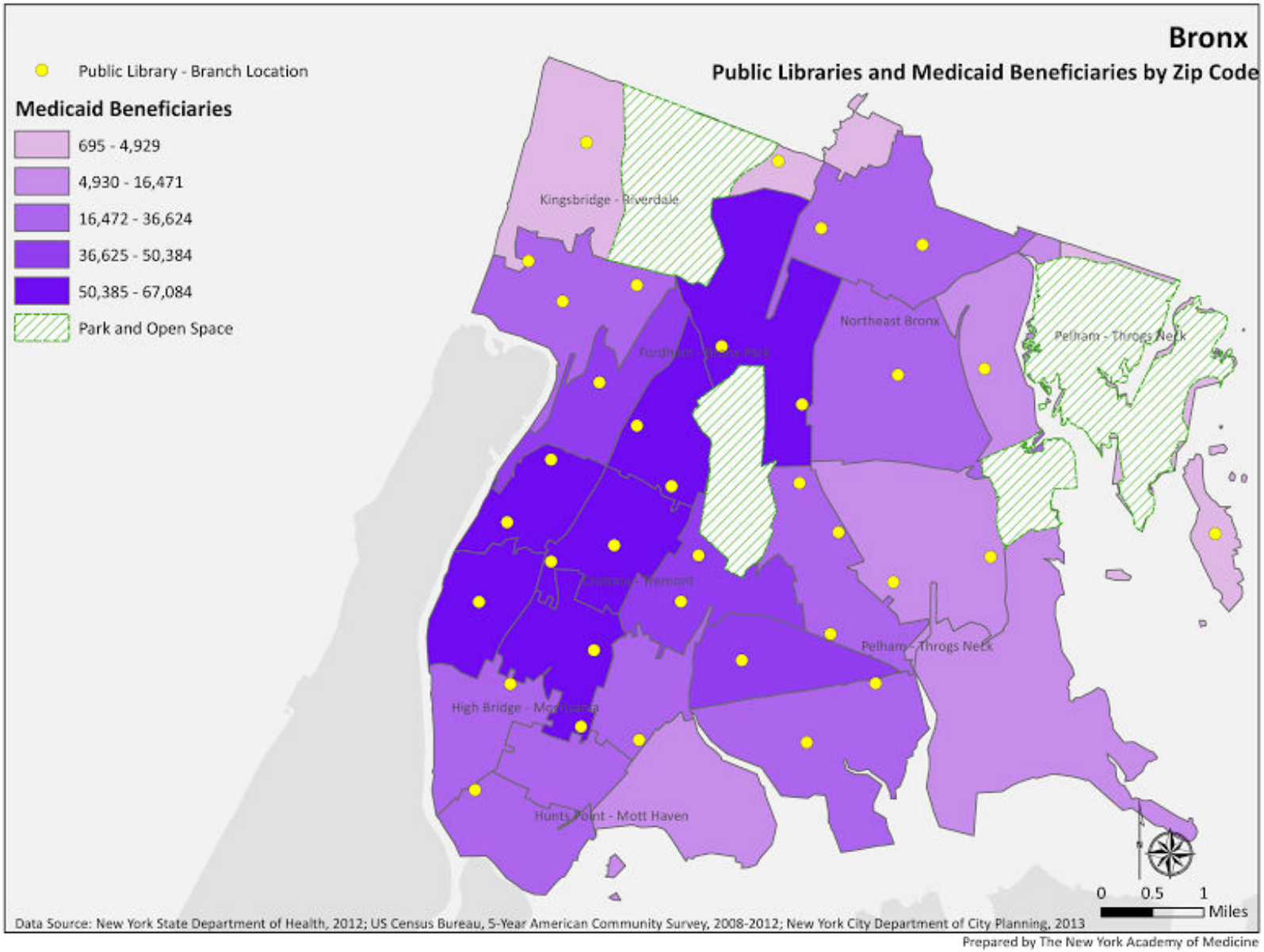


Prepared by The New York Academy of Medicine

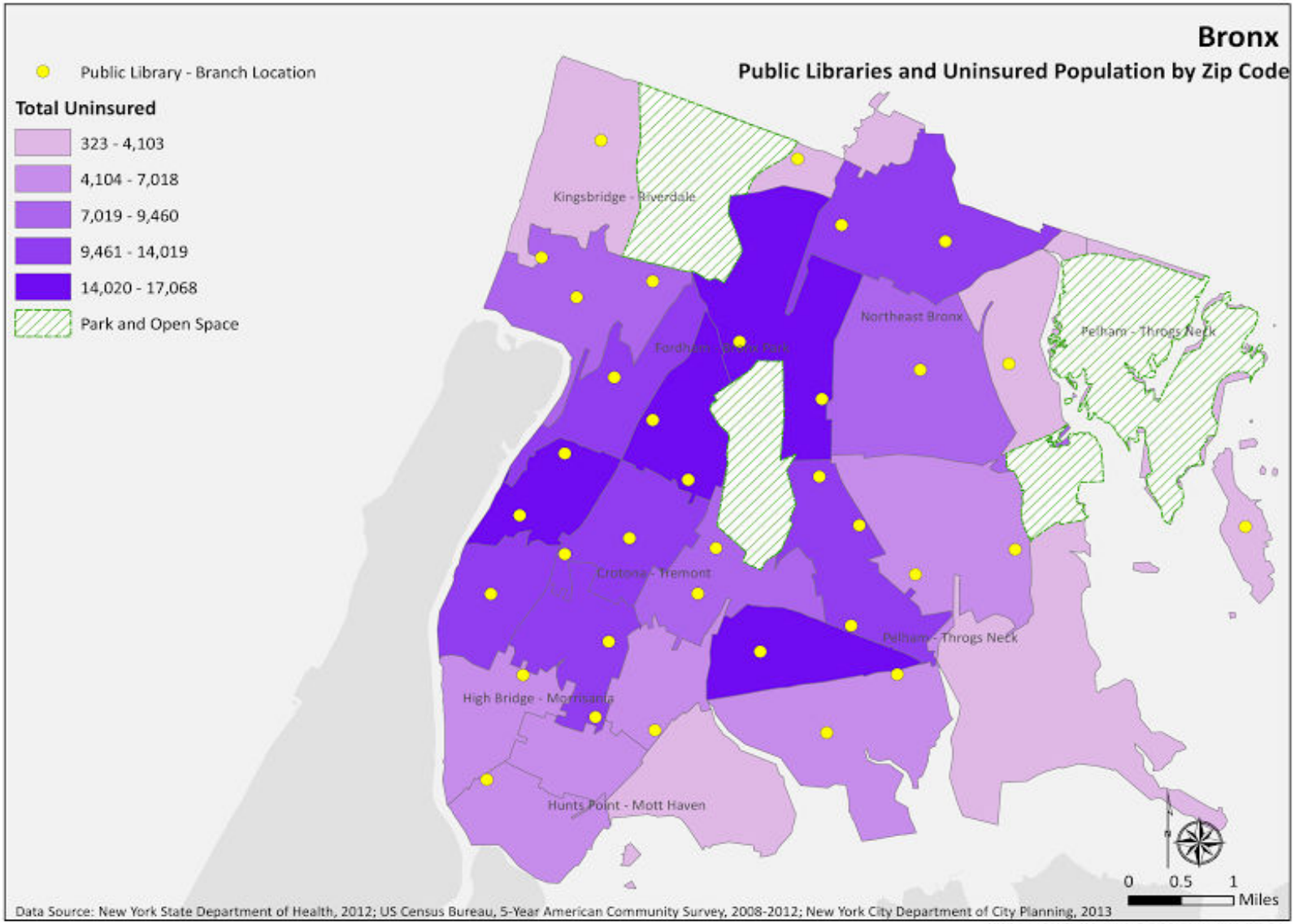
91. Youth Services and Uninsured Population (Ages 0-17) by Zip Code



92. Public Libraries and Medicaid Beneficiaries by Zip Code



93. Public Libraries and Uninsured Population by Zip Code



MANHATTAN COMMUNITY NEEDS ASSESSMENT APPENDIX B - TABLES

December 16, 2014

New York City Health and Hospitals Corporation

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Section A: Tables within Manhattan CNA

Table 1: Manhattan Hospitals located in the Service Area

Hospital Name	Hospital Type	Certified Beds	Occupancy Rate	Safety Net Payer Mix (Medicaid+SP)
Upper Manhattan Service Area				
Harlem Hospital	HHC	286	65%	68%
Metropolitan Hospital	HHC	356	65%	74%
Lincoln Hospital	HHC	347	71%	68%
St. Luke's - Roosevelt	Voluntary	1,028	65%	33%
Mount Sinai Hospital	Voluntary	1,107	78%	26%
NewYork-Presbyterian Hospital	Voluntary	2,292	83%	28%
Bronx Lebanon Hospital	Voluntary	587	78%	71%
Lower Manhattan Service Area				
Bellevue Hospital	HHC	912	74%	63%
Beth Israel Hospital	Voluntary	856	75%	39%
Lower Manhattan Hospital	Voluntary	180	63%	40%
NYU Langone Medical Center	Voluntary	987	49%	13%
Other Manhattan Hospitals				
Lenox Hill Hospital	Voluntary	653	58%	14%
Specialty Hospitals				
Memorial	Specialty			
Hospital For Special Surgery	Specialty			
New York Eye And Ear Infirmary	Specialty			

Source: New York State Department of Health: HCRA Provider List, October 2014.

Table 2: Number of Primary care Physicians with Significant Self-Pay and Medicaid Panel

	Pediatrics	OB/GYN	All other PCP	Sum
Upper Manhattan Service Area				
Physicians Self-pay≥10%	320	147	343	810
Physicians Medicaid≥30%	543	120	478	1,141
Total Physicians (does not sum)	778	274	871	1,923
Lower Manhattan Service Area				
Physicians Self-pay≥10%	181	131	573	885
Physicians Medicaid≥30%	218	89	443	750
Total Physicians (does not sum)	377	330	1,204	1,911

Source: Center for Health Workforce Studies, Analysis of Physician Re-registration Data. 2008-2013 Blended.

Table 3: Institutional Primary Care Providers by Service Area

	FQHC (incl. Ext. Clinics)	D&TC (incl. Ext. Clinics)	Hospital Based Ext. Clinics
Upper Manhattan service area	18	83	43
Lower Manhattan service area	15	30	57
Manhattan Borough	26	79	103

Source: HRSA: FQHC and FQHC Look-alike Site Directory, November 2014.

Table 4: Specialty Physicians by Borough

	Bronx	Brooklyn	**Manhattan**	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

Table 5 : Medical Specialists by Borough

	Bronx	Brooklyn	**Manhattan**	Queens
Acupuncturist	4	16	36	24
Audiologist	23	46	71	26
Chiropractor	59	101	104	121
Occupational Therapist	51	114	67	43
Physical Therapist	370	539	231	306
Speech-Language Pathologist	25	142	100	49
Optometrist	100	215	325	214
Durable Medical Equipment Supplier	36	117	59	67
Hospital and Clinic Based Labs	14	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm

Table 6: Potentially Avoidable ER Visits and Readmissions

Measure Name	NYS	NYC	Manhattan	Lower Manhattan Service Area (LMSA)	Upper Manhattan Service Area (UMSA)	Total Admissions, Manhattan
Potentially Avoidable Emergency Room Visits per 100 Recipients	36	33	42	38	44	203,340
Potentially Avoidable Readmissions	1.00	0.94	1.17	1.31	1.11	

Source: HHC analysis of Potentially Preventable Readmissions data by hospital, New York State Department of Health, 2012

Table 7: Total Population by Insurance Status

	Total Population	No health insurance		Medicaid/low income medical assistance	
		Total	%	Total	%
New York City	8,199,221	1,160,829	14.2	3,588,107	43.8
Manhattan	1,596,735	172,790	10.8	485,833	30.4
Upper Manhattan Service Area (includes 295,276 from Bronx)	1,011,230	159,401	15.8	562,215	55.6
Lower Manhattan Service Area	546,292	48,701	8.9	146,505	26.8

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 8: Total Population by Gender and Insurance Status

	Total Population	No Health Insurance Coverage			Population with Medicaid/Low Income Medical Assistance			Other Insurance		
		%	% Male	%Female	%	% Male	%Female	%	% Male	%Female
New York City	8,198,393	14.4%	57.2%	42.8%	29.3%	44.0%	56.0%	56.3%	46.9%	53.1%
Manhattan	1,593,807	11.0%	55.7%	44.3%	20.9%	43.2%	56.8%	68.1%	46.9%	53.1%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 9: Age by Insurance Status

	Total	Ages 0-19	Ages 20-39	Ages 40-64	Ages 65 and older
Medicaid/low income medical assistance	100%	31.1%	20.8%	29.9%	18.2%
No health insurance	100%	8.9%	56.8%	32.8%	1.6%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 10: Race/Ethnicity with No Health Insurance

	% White	% Black	% Asian	% Other/ Multi-Racial	% Hispanic
NYC	18.2%	21.8%	15.7%	2.5%	41.8%
Manhattan	26.2%	15.7%	13.1%	2.5%	42.5%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 11: Race/Ethnicity With Medicaid and Other Low Income Medical Support

	% White	% Black	% Asian	% Other/ Multi-Racial	% Hispanic
NYC	17.6%	25.7%	13.7%	2.3%	40.8%
Manhattan	11.1%	22.8%	10.7%	2.1%	53.3%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 12: Percent of Specific Disabilities in Persons Age 65 Or Older In Service Areas

	% Hearing difficulty	% ambulatory difficulty	% Cognitive difficulty	% Vision difficulty
Upper Manhattan	9.0	32.3	11.7	8.8
Bronx portion	10.8	40.2	16.4	13.6
Lower Manhattan	11.0	25.4	11.0	7.3

Source: US Census American Community Survey (ACS), 2008-2012

Table 13: Educational Attainment for Population with No Health Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	30%	29%	20%	21%
Manhattan	24%	19%	21%	36%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 14: Educational Attainment for Population with Medicaid/Low Income Medical Assistance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	40%	29%	19%	12%
Manhattan	42%	26%	18%	14%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 15: Educational Attainment for Populations with Other Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	11%	22%	22%	45%
Manhattan	6%	9%	13%	72%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 16: Severe Crowding Rate by Neighborhood 2005-2009

	Severe Crowding Rate - Percentage of Renter Households with 1.5 Occupants per Room or More (Severe Crowding), by PUMA, Census ACS				
Region	**2005**	**2006**	**2007**	**2008**	**2009**
New York City	3.01	3.41	3.17	4.67	4.04
Manhattan	2.14	3.01	2.44	3.16	2.83
Central Harlem	2.34	2.87	2.30	2.71	3.13
Chelsea/Clinton/Midtown	1.58	2.25	2.10	2.37	3.55
East Harlem	1.95	6.06	3.95	3.72	4.78
Greenwich Village/Financial District	1.23	3.83	2.46	3.75	1.78
Lower East Side/Chinatown	2.89	4.33	4.81	4.24	3.58
Morningside Heights/Hamilton Heights	1.57	2.69	1.59	3.61	2.85
Stuyvesant Town/Turtle Bay	1.83	2.59	1.46	3.37	2.44
Upper East Side	0.72	1.85	1.52	2.20	1.91
Upper West Side	1.89	2.01	2.07	2.66	1.43
South Bronx					
Mott Haven/Hunts Point	3.15	3.44	3.54	4.97	3.80
Morrisania/Belmont	3.31	2.65	2.89	2.70	2.74
Highbridge/South Concourse	6.03	5.02	5.63	5.05	6.39

Source: The Furman Center New York City Neighborhood Information, 2005-2009

Table 17: Serious Housing Violations per 1000 Rental Units by Neighborhood, 2008

Serious Housing Violations by Community District, 2008	Rate/1000 Rental Units
New York City	53.79
MN01: Financial District	1.45
MN02: Greenwich Village/Soho	15.02
MN03: Lower East Side/Chinatown	14.35
MN04: Clinton/Chelsea	12.73
MN05: Midtown	6.00
MN06: Stuyvesant Town/Turtle Bay	4.07
MN07: Upper West Side	11.44
MN08: Upper East Side	8.68
MN09: Morningside Heights/Hamilton	103.87
MN10: Central Harlem	43.53
MN11: East Harlem	25.31
MN12: Washington Heights/Inwood	120.73
BX01: Mott Haven/Melrose	68.57
BX03: Morrisania/Crotona	97.68
BX04: Highbridge/Concourse	146.35

Source: The Furman Center New York City Neighborhood Information, 2008

Table 18: Top Places of Birth Among Foreign Born With No Health Insurance

PUMA Name	Total	Mexico	Dominican Republic	China	Ecuador	Jamaica	Korea
New York City	724,452	131,000	74,765	60,385	56,982	32,639	23,941
Manhattan	84,642	15,272	20,571	7,705	4,846	1,209	2,951
Washington Heights, Inwood & Marble Hill	26,963	6,450	13,619	275	1,716	34	155
Hamilton Heights, Manhattanville & West Harlem	9,956	2,101	2,906	324	1,167	397	474
Central Harlem	6,896	396	1,170	84	542	452	74
East Harlem	9,856	5,090	999	515	603	54	159
Upper East Side	4,260	200	402	250	-	20	435
Upper West Side & West Side	4,856	316	325	236	284	54	390
Chelsea, Clinton & Midtown Business District	5,036	269	379	382	230	53	516
Murray Hill, Gramercy & Stuyvesant Town	3,448	313	89	423	95	-	385
Chinatown & Lower East Side	9,689	137	667	4,520	209	138	-
Battery Park City, Greenwich Village & Soho	3,682	-	15	696	-	7	363

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 19: Jail and Prison Admissions by Area 2007-2009[a]

	NYS	NYC	Manhattan	Lower Manhattan	Upper Manhattan
NYC DOC Jail admissions (2007-2012), Average	94,951	71,929	13,710	3,014	17,181
NYC DOC Jail admissions rate per 100,000 Population (2007-2012), Average	489	877	859	552	1,699
NYS Prison admissions (2008)[a]	21,141	9,640	2,393	22	93

Source: NYC Department of Corrections, 2012, as cited in http://gothamist.com/2013/05/01/these_interactive_charts_show_you_w.php and http://www.justiceatlas.org/.

[a]*The most recent data available for NYS prison admissions is from 2008; it is likely that more recent figures would be significantly lower.*

Table 20: Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%
2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%
8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 21: Leading Causes of Death, Manhattan, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	2,674	28.9%
2	Malignant Neoplasms	2,409	26.1%
3	Influenza (Flu) and Pneumonia	353	3.8%
4	Chronic Lower Respiratory Diseases	320	3.5%
5	Cerebrovascular Disease	307	3.3%
6	Diabetes Mellitus	265	2.9%
7	Essential Hypertension and Renal Diseases	206	2.2%
8	Alzheimer's Disease	200	2.2%
9	Accidents Except Drug Poisoning	159	1.7%
10	Use of or Poisoning By Psychoactive Substance	149	1.6%
	All Other Causes	2,196	23.8%
	Total	9,238	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 22: Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total Reported	%	Causes of Mortality	Total Reported	%
	Males			Females		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%
4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory Diseases	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and Renal Diseases	562	2%
8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 23: Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			**White, Non-Hispanic**			**Black, Non-Hispanic**			**Asian and Pacific Islander**		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 24: Leading Causes of Death, New York City, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			**2007**			**2012**		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 25: Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drownings	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010
Homicide and Legal Intervention	400	14,196	341	12,356	59	1,840
All Other Causes	2,324	39,249	1,357	22,315	967	16,934

Premature death is defined a death before age 65. Years of Life Lost (YLL) is calculated by subtracting the age of death from age 65.

Source: The New York State Department of Health, Vital Statistics, 2012, accessed December 2, 2014

Table 26: Ten Leading Causes of Death by Medicaid Status, New York State, 2012

	Non-Medicaid		Medicaid*	
Rank	Underlying Cause of Death	Deaths	Underlying Cause of Death	Deaths
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

*Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.

Source: MJ Sharp, LD Schoen, T Wang, TA Melnik. Leading causes of death, New York State, 2012. New York State Department of Health, Office of Quality and Patient Safety, Bureau of Vital Statistics.

Table 27: Hospital Admissions – Medicaid and Dual-Eligible Beneficiaries, 2012

	NYS	NYC	Manhattan	LMSA	UMSA
Dual beneficiaries admitted at least once	149,622	89,093	16,860	5,359	14,936
Total dual-eligible admissions	207,893	125,358	23,565	7,586	21,050
Non-dual beneficiaries admitted at least once	515,821	315,132	41,628	11,948	53,961
Total non-dual admissions	746,996	468,005	72,647	23,679	86,352
Total beneficiaries admitted	665,443	404,225	58,488	17,307	68,897
Total admissions	954,889	593,363	96,212	31,265	107,402
% beneficiaries admitted	11%	11%	12%	11.8%	12.3%

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 28: Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive Disease	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	**1,160,53**	**1,075,15**	**199,603**	**185,181**	**223,597**	**208,937**	**353,202**	**325,700**	**210,057**	**189,945**

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 29: ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC	NYC	Manhattan	Manhattan	Bronx	Bronx	Brooklyn	Brooklyn	Queens	Queens
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Compl. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 30: ED visits - Medicaid and Dual-Eligibles, 2012

	NYS	NYC	Manhattan	LMSA	UMSA
Dual Beneficiaries who used the ED at least once	138,965	67,499	15527	4,854	13,660
Total Dual Beneficiaries' ED visits	276,130	117,640	29320	9,733	24,607
Total Non-Dual Beneficiaries who used the ED at least once	1,324,449	773,479	110,705	24,202	153,623
Total Non-Dual Beneficiaries ED visits	2,607,918	1,470,587	236,845	58,815	306,441
Total Beneficiaries who used the ED	1,463,414	840,978	126,232	29,056	167,283
Total ED visits by both groups	2,884,048	1,588,227	266,165	68,548	331,048
% Beneficiaries with ED visit	25%	23%	26.0%	19.8%	29.8%
ED Visits per Beneficiaries with at least one visit	1.97	1.89	2.11	2.36	1.98

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 31: Potentially Preventable ED visits (PPVs) by Service Area, Borough, City and State, 2012

			Risk-Adjusted Expected Rate Ratios*	
Area	**Observed PPV Events**	**Risk- Adjusted Expected Rate per 100**	**to NYC**	**to NYS**
Lower MH SA	**55,217**	**47.26**	**1.40**	**1.31**
Upper MH SA	**249,414**	**39.93**	**1.18**	**1.11**
Manhattan (MH)	**203,340**	**42.12**	**1.25**	**1.17**
NYC	**1,191,549**	**33.78**	**1.00**	**0.94**
NYS	**2,111,519**	**36.08**	**1.00**	**1.00**

* Risk-Adjusted Rate accounts for demographic (age,gender, race/ethnicity) and case mix (statewide PPV rate) factors. Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 32: Potentially Preventable Admissions for Manhattan Hospitals, 2012

Facility Name	**At Risk Admissions**	**Observed PPR Chains**	**Observed / Risk Adjusted Expected PPR**	**Observed PPR Rate**	**Risk-Adjusted Expected PPR Rate**	**Risk Adjusted Expected PPR Chains**
Bellevue Hospital Center	10,626	1,171	1.27	11.02	8.68	923
Beth Israel Medical Center	191	6	1.45	3.14	2.17	4
Coler Goldwater Specialty Hospital (HHC)	82	4	1.14	4.88	4.29	4
Harlem Hospital (HHC)	6,411	624	1.21	9.73	8.04	516
Hospital For Special Surgery	405	3	0.51	0.74	1.44	6
Lenox Hill Hospital	3,702	293	0.96	7.91	8.23	305
Metropolitan Hospital	7,684	686	1.13	8.93	7.88	605
Mount Sinai Hospital	17,206	1,253	1.01	7.28	7.22	1,242
N Y Eye And Ear Infirmary	221	6	0.39	2.71	7.01	16
New York Presbyterian	30,552	1,752	0.92	5.73	6.22	1,900
NYU Hospital For Joint Diseases	392	11	0.56	2.81	4.99	20
NYU Hospitals Center	2,989	193	1.01	6.46	6.37	191
Manhattan Hospitals Total	80,461	6,002	1.03	7.46	7.24	5,824
New York City Total	345,073	23,981	0.97	6.95	7.19	24,823
New York State Total	604,308	40,687		6.73		

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 33: Chronic Diseases Prevalence and Potentially Avoidable Utilization

	Prevalence Medicaid Beneficiaries	Percent w/ Hospitalization	Percent w/ ED Visit	Observed PQI Hospitalizations per 100,000 Beneficiaries
NYS				
Respiratory	9.6%	35.3%	47.3%	486
CVD/Circulatory	26.4%	40.0%	31.3%	412
Diabetes	9.6%	32.5%	31.2%	368
Mental Health	22.8%	30.9%	45.8%	n/a
Substance Abuse	6.4%	59.6%	59.9%	n/a
NYC				
Respiratory	9.7%	35.3%	47.3%	507
CVD/Circulatory	30.2%	40.4%	28.1%	461
Diabetes	11.4%	32.3%	28.6%	388
Mental Health	19.5%	32.3%	42.3%	n/a
Substance Abuse	6.2%	65.0%	58.4%	n/a
Manhattan				
Respiratory	10.8	38.2	48.7	550
CVD/Circulatory	33.5	41.6	31.5	486
Diabetes	12.5	33.5	31.8	411
Mental Health	26.8	35.1	46.5	n/a
Substance Abuse	11.2	68.1	60.8	n/a

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 34: Total Potentially Avoidable Hospitalizations (Composite PQI 90), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	2012	2009	2012	2009	2012	2009	2012
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	**1,547**	**1,360**	1,453	1,318
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	**1,615**	**1,398**	1,874	1,641
	Observed/Expected	1.46	1.38	0.99	1.06	**0.96**	**0.97**	0.78	0.80
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	**246**	**230**	243	225
	Expected Rate Per 100,000	369	336	337	289	**250**	**227**	296	272
	Observed/Expected	1.50	1.47	1.15	1.20	**0.99**	**1.01**	0.82	0.83
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	**357**	**304**	289	269
	Expected Rate Per 100,000	493	437	458	378	**365**	**319**	426	374
	Observed/Expected	1.69	1.60	0.96	1.04	**0.98**	**0.95**	0.68	0.72
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	**425**	**350**	427	386
	Expected Rate Per 100,000	590	499	590	464	**456**	**380**	543	462
	Observed/Expected	1.40	1.31	1.04	1.08	**0.93**	**0.92**	0.79	0.83

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 35: Acute Conditions PQI Risk-adjusted Expected Hospitalization Rates and Rate Ratios, 2012*

			Risk-Adjusted Expected Rate Ratios	
Area	**Observed Cases**	**Risk-Adjusted Expected Rate/100k**	**to NYC**	**to NYS**
Lower MH SA	**572**	**481**	**0.91**	**0.91**
Upper MH SA	**2,313**	**592**	**1.13**	**1.12**
Manhattan (MH)	**2,140**	**527**	**1.00**	**0.99**
NYC	**12,328**	**525**	**1.00**	**0.99**
NYS	**20,521**	**530**	**1.00**	**1.00**

* Risk-Adjusted Rate accounts for demographic (age,gender, race/ethnicity) and case mix (statewide rate for specific PQI) factors. Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 36: Chronic Conditions PQI Risk-Adjusted Expected Hospitalization Rates and Rate Ratios, 2012

			Risk-Adjusted Expected Rate Ratios	
Area	**Observed Cases**	**Risk-Adjusted Expected Rate/100k**	**to NYC**	**to NYS**
Lower MH SA	**1,048**	**887**	**0.68**	**0.71**
Upper MH SA	**7,081**	**1,536**	**1.19**	**1.22**
Manhattan (MH)	**5,236**	**1,191**	**0.92**	**0.95**
NYC	**32,619**	**1,295**	**1.00**	**1.03**
NYS	**48,568**	**1,254**	**1.00**	**1.00**
* Risk-Adjusted Rate accounts for demographic (age,gender, race/ethnicity) and case mix (statewide rate for specific PQI) factors. Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.				

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 37: Respiratory Related Prevalence and Hospitalization Utilization

	NYS	**NYC**	**Manhattan**	**Lower Manhattan SA**	**Upper Manhattan SA UMSA**
Beneficiaries with Condition	558,700	348,955	70,576	14,838	68,204
Diagnosed Prevalence (Per 100)	9.57	9.73	10.79	10.13	12.13
% with at least one Admission	35.28	36.00	38.18	38.31	37.80
% with at least one ED Visit	47.29	44.93	48.73	42.92	52.13
Average # of Admissions	1.98	2.06	2.23	2.47	2.15
Average # of ED Visits	2.86	2.69	3.10	3.55	2.79

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 38: Respiratory Conditions Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	9,803	6.69	31.43	46.42	2.39	3.41
UMSA	50,874	9.05	29.69	53.81	1.95	2.69
Manhattan	47,526	7.55	30.20	52.03	2.09	2.98
NYC	240,241	6.70	27.57	48.34	1.90	2.63
NYS	275,170	6.43	26.78	50.26	1.86	2.79
Rate Ratio						
LM/NYC		1.00	1.14	0.96	1.25	1.29
LM/NYS		1.04	1.17	0.92	1.28	1.22
UM/NYC		1.35	1.08	1.11	1.02	1.02
UM/NYS		1.41	1.11	1.07	1.05	0.97
MANHATTAN/NYC		1.13	1.10	1.08	1.10	1.13
MANHATTAN/NYS		1.18	1.13	1.04	1.12	1.07
NYC/NYS		1.04	1.03	0.96	1.02	0.94

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 39: Respiratory Conditions PQI Risk-Adjusted Expected Hospitalization Rates (PQI S03), 2012

			Risk-Adjusted Expected Rate Ratios	
Area	**Observed Cases**	**Risk-Adjusted Expected Rate/100k**	**to NYC**	**to NYS**
Lower MH SA	**417**	**371**	**0.75**	**0.77**
Upper MH SA	**2,862**	**628**	**1.27**	**1.30**
Manhattan (MH)	**1,991**	**466**	**0.94**	**0.97**
NYC	**12,216**	**493**	**1.00**	**1.02**
NYS	**18,654**	**482**	**1.00**	**1.00**

* Risk-Adjusted Rate accounts for demographic (age,gender, race/ethnicity) and case mix (statewide rate for specific PQI) factors. Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 40: Observed and Risk-Adjusted Asthma Related Hospitalizations, 2012

Area	Observed Cases	Risk- Adjusted Expected Rate/100k	Risk-Adjusted Expected Rate Ratios	
			to NYC	to NYS
Pediatric Asthma (PDI 14)				
Lower MH SA	51	239	0.61	0.75
Upper MH SA	1,213	566	1.45	1.77
Manhattan (MH)	490	407	1.04	1.27
NYC	4,282	391	1.00	1.22
NYS	5,384	321	1.00	1.00
Young Adult Asthma Ages 18-39 (PQI 15)				
Lower MH SA	30	92	0.62	0.68
Upper MH SA	515	225	1.51	1.67
Manhattan (MH)	262	164	1.10	1.21
NYC	1,730	149	1.00	1.11
NYS	2,410	135	1.00	1.00
COPD and Asthma Ages 40 and Above (PQI 055)				
Lower MH SA	387	606	0.77	0.78
Upper MH SA	2,347	968	1.23	1.24
Manhattan (MH)	1,729	731	0.93	0.94
NYC	10,486	788	1.00	1.01
NYS	16,244	779	1.00	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 41: Cardiovascular Conditions Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	50,978	34.79	37.05	26.11	2.25	3.06
UMSA	160,194	28.49	44.56	36.39	2.22	2.54
Manhattan	271,388	33.55	41.59	31.51	2.12	2.70
NYC	1,085,013	30.24	40.44	28.09	2.03	2.37
NYS	1,543,129	26.44	40.00	31.28	1.97	2.57
Rate Ratio						
LM/NYC		1.15	0.92	0.93	1.11	1.29
LM/NYS		1.32	0.93	0.83	1.14	1.19
UM/NYC		0.94	1.10	1.30	1.09	1.07
UM/NYS		1.08	1.11	1.16	1.13	0.99
Manhattan/NYC		1.11	1.03	1.12	1.05	1.14
Manhattan /NYS		1.27	1.04	1.01	1.08	1.05
NYC/NYS		1.14	1.01	0.90	1.03	0.92

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 42: Observed and Risk-Adjusted Circulatory Related Hospitalizations (PQI SO2), 2012

			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk- Adjusted Expected Rate/100k	to NYC	to NYS
Lower MH SA	340	262	0.61	0.64
Upper MH SA	2,247	489	1.13	1.20
Manhattan (MH)	1,759	379	0.88	0.93
NYC	11,116	432	1.00	1.06
NYS	15,795	408	1.00	1.00

Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Table 43: Hypertension Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

	NYS	NYC	Manhattan	LMSA	UMSA
Beneficiaries with Condition	846,221	564,716	148,171	26,793	88,258
Diagnosed Prevalence (Per 100)	14.50	15.74	18.07	18.28	15.70
% With at Least one Admission	23.11	22.02	23.39	22.04	24.72
% With at Least One ED Visit	30.24	26.41	29.63	24.44	34.20
Average # of Admissions	1.79	1.83	1.95	2.14	1.95
Average # of ED Visits	2.39	2.15	2.42	2.81	2.27

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 44: Observed and Risk-Adjusted Hypertension Related Hospitalizations (PQI 07), 2012

			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk- Adjusted Expected Rate/100k	to NYC	to NYS
Lower MH SA	96	75	0.67	0.74
Upper MH SA	646	130	1.16	1.27
Manhattan (MH)	475	99	0.89	0.98
NYC	2,991	112	1.00	1.10
NYS	3,938	102	1.00	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 45: Diabetes Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

	NYS	NYC	Manhattan	LMSA	UMSA
Beneficiaries with Condition	562,637	409,227	105,074	17,746	66,088
Diagnosed Prevalence (Per 100)	9.64	11.41	12.48	12.11	11.75
% With at Least One Admission	32.52	32.27	33.51	29.90	36.35
% With at Least One ED Visit	31.23	28.55	31.80	27.13	36.12
Average Admissions	1.89	1.93	1.98	2.01	2.06
Average ED Visits	2.43	2.25	2.56	2.78	2.43

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Table 46: Observed and Risk-Adjusted Diabetes Related Hospitalizations (PQI S01), 2012

			Risk-Adjusted Expected Rate Ratios	
Area	Observed Cases	Risk-Adjusted Expected Rate/100k	to NYC	to NYS
Lower MH SA	291	258	0.70	0.71
Upper MH SA	1,972	420	1.14	1.15
Manhattan (MH)	1,486	348	0.94	0.95
NYC	9,289	370	1.00	1.01
NYS	14,121	365	1.00	1.00

* Risk-Adjusted Rate accounts for demographic (age,gender, race/ethnicity) and case mix (statewide rate for specific PQI) factors. Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 47: Mental Health Related Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	42,466	28.98	36.85	45.90	3.13	3.83
UMSA	136,998	24.37	33.29	48.61	2.64	3.02
Manhattan	133,250	26.77	35.05	46.52	2.79	3.37
NYC	702,585	19.58	32.34	42.33	2.43	2.98
NYS	997,306	17.09	41.21	60.98	2.24	3.19
Rate Ratio						
LM/NYC		1.48	1.14	1.08	1.29	1.28
LM/NYS		1.70	0.89	0.75	1.40	1.20
UM/NYC		1.24	1.03	1.15	1.08	1.01
UM/NYS		1.43	0.81	0.80	1.18	0.95
MANHATTAN /NYC		1.37	1.08	1.10	1.14	1.13
MANHATTAN/NYS		1.57	0.85	0.76	1.25	1.06
NYC/NYS		1.15	0.78	0.69	1.09	0.94
<1: Outperforms NYC/NYS; >1 Needs Improvement						

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 48: Average Numbers of Admissions, Medicaid Beneficiaries with a Mental Health Condition

	NYS	NYC	Manhattan	LMSA	UMSA
Average # of Admissions	2.24	2.43	2.79	3.13	2.64
Average # of ED Visits	3.19	2.98	3.37	3.83	3.02

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 49: Mental Health Readmissions Within 30 Days, Medicaid Fee For Service, 2012

Region	All Ages				
	Discharges	Readmissions within 30 Days to Any Region	Rate of Readmission within 30 Days to Any Region	Readmissions in <= 30 Days to the Same Region	Rate of Readmission within 30 days to the Same Region
Manhattan	6,040	1,392	23.0%	1,283	21.2%
New York City	21,653	5,047	23.3%	4,672	21.6%
Statewide	**41,814**	**8,754**	**20.9%**	**7,953**	**19.0%**
Hospitals					
Bellevue Hospital Center	1535	383	25.0%	364	23.7%
Beth Israel Medical Center	624	122	19.6%	115	18.4%
Harlem Hospital Center	702	188	26.8%	179	25.5%
Lenox Hill Hospital	106	32	30.2%	29	27.4%
Metropolitan Hospital Center	1173	303	25.8%	284	24.2%
Mount Sinai Hospital	810	145	17.9%	128	15.8%
NY Hospital	513	103	20.1%	82	16.0%
NYU Hospitals Center	47	14	29.8%	12	25.5%
St Lukes Roosevelt Hospital Center	530	102	19.2%	90	17.0%

Source: NYS Office of Mental Health, DSRIP Dashboard; Behavioral Health Organization Performance Metrics, 2012.

Table 50: Medication Fill post Mental Health Discharge, Medicaid Fee For Service, 2012

Event	Manhattan	New York City	New York State
30 Day MH Rx Fill (1st Psychotropic Rx)	51.0%	57.6%	63.9%
100 Day MH Rx Fill (Refill Psychotropic Rx)	85.6%	86.5%	88.2%
30 Day MH Rx Fill, w/ Psychosis (1st Antipsychotic Rx)	45.6%	54.3%	59.6%
100 Day MH Rx Fill, w/ Psychosis (Refill Antipsychotic Rx)	80.1%	83.0%	84.4%
30 Day MH Rx Fill, w/ Mood Disorder (1st Mood Stabilizer Rx)	43.4%	47.0%	55.8%
100 Day MH Rx Fill, w/ Mood Disorder (Refill Mood Stabilizer Rx)	82.5%	83.1%	84.8%

Source: NYS Office of Mental Health, DSRIP Dashboard; Behavioral Health Organization Performance Metrics, 2012.

Table 51: Substance Abuse Prevalence and Utilization, Medicaid Beneficiaries, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	21,158	14.44	70.85	61.09	4.44	5.57
UMSA	56,799	10.10	65.46	59.24	3.76	4.22
Manhattan	26,264	11.17	68.12	60.84	4.04	4.94
NYC	222,198	6.19	65.03	58.37	3.58	4.34
NYS	370,898	6.36	59.56	59.86	3.13	4.18
Rate Ratio						
LM/NYC		2.33	1.09	1.05	1.24	1.28
LM/NYS		2.27	1.19	1.02	1.42	1.33
UM/NYC		1.63	1.01	1.01	1.05	0.97
UM/NYS		1.59	1.10	0.99	1.20	1.01
MANHATTAN/NYC		1.80	1.05	1.04	1.13	1.14
MANHATTAN/NYS		1.76	1.14	1.02	1.29	1.18
NYC/NYS		0.97	1.09	0.98	1.14	1.04
<1: Outperforms NYC/NYS; >1 Needs Improvement						

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 52: Hospital Utilization among Medicaid Beneficiaries with a Substance Abuse Condition, 2012

	NYS	NYC	Manhattan	LMSA	UMSA
Average # of Admissions	3.13	3.58	4.04	4.44	3.76
Average # of ED Visits	4.18	4.34	4.94	5.57	4.22

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 53: Rates of HIV diagnoses, People With HIV/AIDS (PWHA), and deaths among PWHA by United Hospital Fund (UHF) neighborhood, New York City, 2011

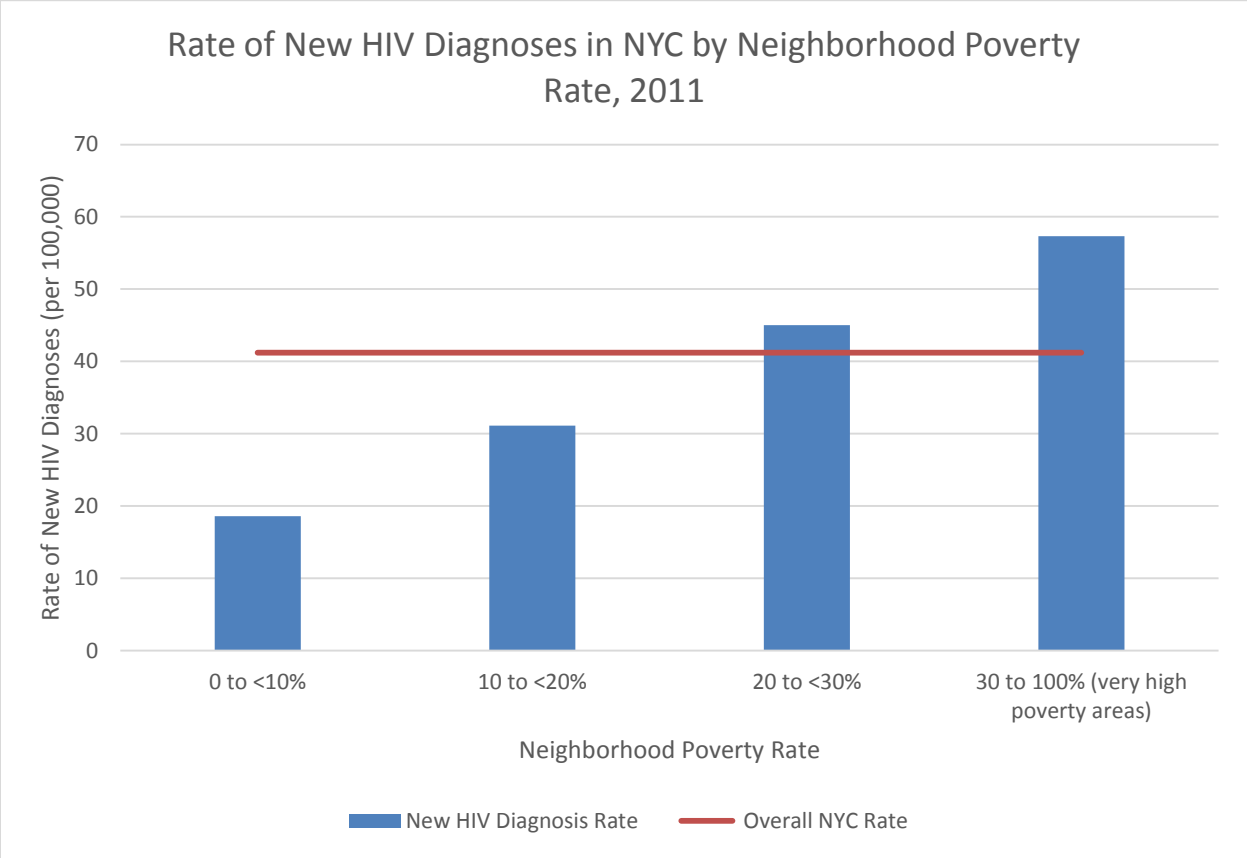
UHF Neighborhood	HIV Diagnoses per 100,000 Population	Reported PWHA as Percent of Population	Age-Adjusted Death Rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Manhattan	**54.9**	**2.2**	**12.5**	**1,577,279**
Central Harlem Morningside Heights	92.8	2.9	16.4	162,652
Chelsea Clinton	126.3	4.5	10.0	144,896
East Harlem	76.4	2.9	24.8	109,972
Gramercy Park Murray Hill	40.1	1.7	8.8	134,520
Greenwich Village SoHo	46.6	2.7	5.9	83,749
Lower Manhattan	22.6	1.0	6.3*	53,159
Union Square Lower East Side	45.3	1.7	12.6	198,781
Upper East Side	15.8	0.7	8.6	220,962
Upper West Side	30.9	1.5	11.9	220,080
Washington Heights Inwood	56.3	1.7	14.4	248,508

*Rates based on numerators ≤10 are marked with an asterisk(*) and should be interpreted with caution.

Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs

UHF Neighborhood	HIV Diagnoses per 100,000 Population	Reported PWHA as Percent of Population	Age-Adjusted Death Rate per 1,000 PWHA	Population from 2010 Census

Table 54: Rate of New HIV Diagnoses in NYC by Neighborhood Poverty Rate, 2011



Source: The New York City Department of Health and Mental Hygiene, Epiquery: NYC Interactive Health Data System-[HIV/AIDS Surveillance Data, 2009]. [1 August 2014] http://nyc.gov/health/epiquery

Table 55: Medicaid beneficiaries with HIV/AIDS-Prevalence, at least 1 admission and ED visit by Service Area, 2012

Area	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	% with at least 1 ED Visit	Average # of Admissions	Average # of ED Visits
LMSA	3,972	2710.56	22.18	29.38	2.34	2.75
UMSA	11,494	2044.41	30.82	40.83	2.42	2.51
Manhattan	6,984	2062.03	25.92	35.72	2.36	2.71
NYC	49,984	1393.05	25.12	35.44	2.22	2.43
NYS	53,901	923.63	25.33	36.43	2.20	2.49
Rate Ratio						
LM/NYC		1.95	0.88	0.83	1.05	1.13
LM/NYS		2.93	0.88	0.81	1.06	1.10
UM/NYC		1.47	1.23	1.15	1.09	1.03
UM/NYS		2.21	1.22	1.12	1.10	1.01
MANHATTAN/NYC		1.48	1.03	1.01	1.06	1.11
MANHATTAN/NYS		2.23	1.02	0.98	1.07	1.09
NYC/NYS		1.51	0.99	0.97	1.01	0.98
<1: Outperforms NYC/NYS; >1 Needs Improvement						

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 56: HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1
20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361
High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

Table 57: Chlamydia Incidence Rate, by Neighborhood

Neighborhood	Chlamydia Rate per 100,000	Absolute Totals
New York City	697.7	58,353
Manhattan	646.5	10,521
Washington Heights	899.1	2335
Central Harlem	1419.1	2028
East Harlem	1152.5	1231
Upper West Side	258.6	634
Upper East Side	120.6	298
Chelsea	672.5	947
Gramercy Park	263.4	360
Greenwich Village	587.3	554
Union Square	459.5	996
Lower Manhattan	489.7	182
Manhattan- neighborhood unknown	n/a	956

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 58: Gonorrhea Incidence Rate, by Neighborhood

Neighborhood	Gonorrhea Rate per 100,000	Absolute totals
New York City	**130.3**	**10,898**
Manhattan	**144.8**	**2,356**
Washington Heights	131.7	342
Central Harlem	347.1	496
East Harlem	244.4	261
Upper West Side	71.8	176
Upper East Side	31.2	77
Chelsea	261.3	368
Gramercy Park	66.6	91
Greenwich Village	135.7	128
Union Square	103.8	225
Lower Manhattan	96.9	36
Manhattan- neighborhood unknown	n/a	156

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 59: Selected Patients' Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

** Data is for 2011.*

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health.

Table 60: Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO		Commercial PPO		Medicaid Managed Care*	
Controlling High Blood Pressure	59%		57%		63%	
Poor HbA1c Control in Diabetics* (Lower is better)	27%		42%		33%	
Use of Appropriate Medications for People with Asthma	89%		90%		82%	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

** Data is from 2011.*

Source: 2013 Health Plan Comparison in New York State," New York State Department of Health.

Table 61:Access and Quality Measures for Children and Adolescents, Statewide Average by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83
Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

**Data is from 2011*

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health.

Table 62: Behavioral Health

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management: Effective Continuation Phase Treatment Effective Acute Phase Treatment*	 37% 50%	 47%	 48%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	73%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	80%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up care for Children Prescribed ADHD Medications: Initiation Phase* Continuous Phase	 56% 63%	 64%	 67%
Follow-up after hospitalization for Mental Illness: Within 7 Days Within 30 Days*	 65% 55%	 51%	 48%
Screening for Clinical Depression and follow-up			
Adherence to Antipsychotic Medications (at least 80% of treatment time) for People with Schizophrenia (aged 19-64 yrs.)*	64%	63%	61%
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	79%
Additional behavioral health measures for provider systems implementing the Behavioral Interventions Paradigm in Nursing Homes (BIPNH) project:			
PPR for SNF patients	[No known public source]		
Percent of Long Stay Residents who have Depressive Symptoms**	12.23%	[See source note]	[See source note]

Sources: *Health care Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management

** Source: Nursing Home Quality Initiative 2012 (this source does not provide data at the city or county level).

Table 63: Domain 3 Metrics, Cardiovascular Disease

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
Cholesterol Management for Patients with CV Conditions[a]	[No known public source]	35.9% (33.3-38.7)	32.5% (26.8-38.7)
Controlling High Blood Pressure (Provider responsible for medical record reporting)[a,b]	63%*	67.0% (63.3-70.5)	[No known public source]
Aspirin Discussion and Use [b] Discussion of Aspirin Risks and Benefits(HMO/PPO) Aspirin Use(HMO/PPO)	 49%/43% 39%/39%	[No known public source]	[No known public source]
Medical Assistance with Smoking Cessation[a]	[No known public source]	5.8% (4.3-7.8)	8.8% (5.1-14.9)
Flu Shots for Adults Ages 50 – 64[a]	[No known public source]	43% (40 – 45.9)	39% (33.4-45)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse	[No known public source]	[No known public source]	[No known public source]

Sources:
[a] NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)
[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)
[c] QARR 2011(Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 64: Domain 3 Metrics, Diabetes Mellitus

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy) [a]	51%	[See source note]	[See source note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing*	80%	82%	82%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) [a]	33%	[See source note]	[See source note]
Comprehensive diabetes care - LDL-c control (<100mg/dL): Lipids Controlled (<100 mg/dL) Monitoring Diabetes - Lipid Profile[a]	 47% 87%	[See source note]	[See source note]
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	8.8% (5.1-14.9)
Flu Shots for Adults Ages 50 – 64[b]	[See source note]	43% (40.0-45.9)	39% (33.4-45)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse)	[No known public source]	[No known public source]	[No known public source]

Sources: * Health care Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management
[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

[b] NYC DOHMH Community Health Survey, 2012 (NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)

Table 65: Risk Factors by Select Manhattan Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current or Past Smoker
NYC	24.1%	13.4%	21.6%	15.6%
UM: Washington Heights	21.7%	13.5%	22.4%	13.0%
UM: Central Harlem	30.8%	14.1%	24.9%	16.1%
UM: East Harlem	25.8%	21.4%	31.5%	18.6%
UM: Upper West Side	18.3%	14.8%	15.2%	12.6%
LM: Chelsea/Village	7.6%	20.2%	14.7%	18.4%
LM: Union Sq./Lower Manhattan	7.8%	20.6%	20.8%	22.8%

Values are not adjusted for age.

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012.

Table 66: Current Smokers, Percent by Neighborhood

Neighborhood	% Current Smoker*	Absolute #
New York City	**15.6**	**981,000**
Manhattan	**15.6**	**202,000**
Washington Heights	13.0	25,000
Central Harlem	16.1	18,000
East Harlem	18.6	13,000
Upper West Side	12.6	23,000
Upper East Side-Gramercy	12.8	38,000
Chelsea-Village	18.4	37,000
Union Square-Lower Manhattan	22.8	46,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey, 2012.

Section B: Tables Not Cited in Manhattan CNA

Table 67: Risk Factors by Insurance Status, NYC

	Current or Past Smoker	Overweight	Obese	Healthy diet
Medicaid	19.0%	34.9%	30.2%	39.6%
Uninsured	17.9%	33.6%	24.0%	32.3%

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012, age adjusted.

Table 68: Managed Care Organizations

Plan	Total New York City Enrollment, 2012	Plan Type
HealthFirst PHSP, Inc.	457,055	PHSP
MetroPlus Health Plan, Inc.	378,067	PHSP
Amerigroup, Inc.	337,758	PHSP
New York State Catholic Health Plan, Inc.	283,847	(Fidelis Care) PHSP
UnitedHealthcare of New York, Inc.	198,809	HMO
Affinity Health Plan, Inc.	150,914	PHSP
Neighborhood Health Providers, Inc.	167,245	PHSP
Health Insurance Plan of Greater New York	157,530	HIP (Emblem Health) HMO
WellCare of New York, Inc.	52,534	PHSP
Total	2,200,890	

Source: New York State Department of Health Division of Managed Care, "2012 Monthly Medicaid Managed Care Enrollment," 2012.

Table 69: Domain 2.a Metrics. Implementation of Care Coordination and Transitional Care Programs

Measure Name	NYS	NYC	Manhattan	Lower Manhattan Service Area (LMSA)	Upper Manhattan Service Area (UMSA)
Potentially Avoidable Emergency Room Visits: ED Visits for Ambulatory Sensitive Conditions, Potentially Preventable Visits (PPV), per 100 Recipients	36	33	42	38	44
Potentially Avoidable Readmissions, by hospital location, 2012*	40,687	24,388	6,002		

*Source: *HHC analysis of Potentially Preventable Readmissions data by hospital, New York State Department of Health*

Table 70: Domain 2.b Metrics

Measure Name	NYS	NYC	Manhattan
H-CAHPS – Care Transition Metrics	36	34	

Table 71: Household Type

Household Type	NYS	NYC	Manhattan
Total Households	7,130,896	3,063,393	738,131
Family Households	4,646,324	1,843,819	302,793
Family Households - Married couple	3,224,971	1,103,512	192,290
Family Households - Male Householder no spouse	351,847	170,979	23,776
Family Households - Female Householder no spouse	1,069,506	569,328	86,727
Non-family Households	2,584,572	1,219,574	435,338
Non-family Households - Living alone	2,119,199	996,487	352,802
% of Total Households - Living Alone	30%	33%	47.8%
Non-family Households - Not living alone	465,373	223,087	82,536

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 72: Incarceration

Incarceration	NYS	NYC	Manhattan	LMSA	UMSA
NYC DOC Jail admissions (2007-2012), Average	94,951	71,929	13,710	3,014	17,181
NYC DOC Jail admissions rate per 100,000 Population (2007-2012), Average	489	877	859	552	1,699
NYS Prison admissions (2008)[a]	21,141	9,640	2,393	22	93

[a]The most recent data available for NYS prison admissions is from 2008; it is likely that more recent figures would be significantly lower.

Source: NYC Department of Corrections, 2012, as cited in http://gothamist.com/2013/05/01/these_interactive_charts_show_you_w.php and http://www.justiceatlas.org/

Table 73: Moderate - Serious Psychological Distress by Neighborhood

Neighborhood	Serious Psychological Distress*	Absolute #
New York City	31.9	2,010,000
Manhattan	29	378,000
Washington Heights	41.18	81,000
Central Harlem	27.99	32,000
East Harlem	36.45	26,000
Upper West Side	23.82	43,000
Upper East Side-Gramercy	23.03	71,000
Chelsea-Village	25.92	52,000
Union Square-Lower Manhattan	32.26	66,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey, 2012.

Table 74: Select Medicaid Managed Care Clinical Improvement Measures: Mental Health

Select Medicaid Managed Care (MMC) Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
Antidepressant Medication Management:			
Effective Continuation Phase Treatment	37%		
Effective Acute Phase Treatment*	50%	47%	48%
Follow-up care for Children Prescribed ADHD Medications:		[No known	[No known
Initiation Phase*	57%	public	public
Continuous Phase	63%	source]	source]
Follow-up after hospitalization for Mental Illness:		[No known	[No known
Within 7 Days	65%	public	public
Within 30 Days*	79%	source]	source]

Sources:
**Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*
QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 75: Mental Health Outpatient Service within Thirty Days of Discharge from a Mental Health Inpatient Episode By adults, Medicaid Fee For Service, 2012

Region	Discharges	Outpatient Service, 30 days	% Outpatient Service, 30 days
Manhattan	4,915	1,686	34.3%
New York City	16,629	7,083	42.6%
Statewide	29,661	13,919	46.9%
Hospital			
Bellevue Hospital Center	1,199	281	23.4%
Beth Israel Medical Center	587	248	42.2%
Gracie Square General Hospital	11	2	18.2%
Harlem Hospital Center	534	241	45.1%
Lenox Hill Hospital	104	38	36.5%
Metropolitan Hospital Center	1,031	317	30.7%
Mount Sinai Hospital	507	224	44.2%
NY Hospital	436	155	35.6%
NYU Hospitals Center	41	14	34.1%
St Luke's Roosevelt Hospital Center	465	166	35.7%

Source: Office of Mental Health, 2012.

Table 76: Mental Health Outpatient Service Follow-up and Continuity of Care post Mental Health Discharge By Adults, Medicaid Fee For Service, 2012

Event	Manhattan	New York City	New York State
7 day MH Follow-Up (MH Only)	25.5%	31.1%	34.8%
7 day MH Follow-Up (MH and SUD)	31.4%	35.9%	39.1%
30 Day MH Follow-Up (MH Only)	34.3%	42.6%	46.9%
30 Day MH Follow-Up (MH and SUD)	41.1%	48.0%	52.1%
30 Day MH Engagement (2 or More OP)	23.8%	32.6%	36.1%
60 Day MH Engagement (4 or More OP)	18.2%	26.5%	29.5%

Source: Office of Mental Health, 2012.

Table 77: Population Health Indicators: Cardiovascular Health

Population Health Indicator	NYS	NYC	Manhattan
Cardiovascular disease mortality rate per 100,000			
Crude	281.2	256.4	224.5
Age-adjusted	242.3	249.3	203.1
Premature death (aged 35-64 years)	100	107.8	81.3
Pretransport mortality	144.2	126.7	126.8
Cardiovascular disease hospitalization rate per 10,000			
Crude	178.2	176.9	150.9
Age-adjusted	159.9	173.6	140.2
Disease of the heart mortality rate per 100,000			
Crude	230.9	218.4	182.8
Age-adjusted	198.6	212.2	165.1
Premature death (aged 35-64 years)	81.2	86.9	63.8
Pretransport mortality	124.7	117.1	114.4
Disease of the heart hospitalization rate per 10,000			
Crude	120.6	117.3	97.3
Age-adjusted	107.9	114.9	90.2
Coronary heart disease mortality rate per 100,000			
Crude	186.5	200	160.6
Age-adjusted	160.4	194.4	145.1
Premature death (aged 35-64 years)	66.5	77.4	54.8
Pretransport mortality	104	111	105.5
Coronary heart disease hospitalization rate per 10,000			
Crude	48.3	49.5	36
Age-adjusted	43	48.2	33.4
Congestive heart failure mortality rate per 100,000			
Crude	13.3	4.6	6
Age-adjusted	11.2	4.4	5.3
Premature death (aged 35-64 years)	1.5	0.9	0.6
Pretransport mortality	7.2	2.2	3.5
Congestive heart failure hospitalization rate per 10,000			
Crude	31.2	31	25.7
Age-adjusted	27.6	30.5	23.7
Cerebrovascular disease (stroke) mortality rate per 100,000			

Population Health Indicator	NYS	NYC	Manhattan
Crude	31	19.7	22
Age-adjusted	26.9	19.3	20.2
Premature death (aged 35-64 years)	10.7	10.9	7.8
Pretransport mortality	11.3	3.8	5.1
Cerebrovascular disease (stroke) hospitalization rate per 10,000			
Crude	27.9	25.2	21.9
Age-adjusted	24.9	24.7	20.3
			8.2
Hypertension hospitalization rate per 10,000 (aged 18 years and older)	7.9	11.3	N/A
Age-adjusted % of adults ever told they have high blood pressure (2008-2009)	25.7	28.8	N/A

Source: Cardiovascular Disease Indicators, Manhattan County, from County Health Assessment Indicators, 2009-2011 data http://www.health.ny.gov/statistics/chac/chai/docs/chr_58.htm

Table 78: Population Health Indicators: Sexually Transmitted Diseases

Population Health Indicator	NYS	NYC	Manhattan
HIV case rate per 100,000			
Crude	20	37.3	54.3
Age-adjusted	20	35.9	49.3
AIDS case rate per 100,000			
Crude	15.2	28.9	36.8
Age-adjusted	15.2	28.3	34.5
AIDS mortality rate per 100,000			
Crude	5.1	9.8	11.3
Age-adjusted	4.7	9.4	10.5
Early syphilis case rate per 100,000	12.4	25.7	49.8
Gonorrhea case rate per 100,000			
All ages	95.8	151.8	179.7
Aged 15-19 years	362	620.2	659.7
Chlamydia case rate per 100,000 males			
All ages	323	508.7	583.1
Aged 15-19 years	1,077.10	1,829.00	1,947.90
Aged 20-24 years	1,484.30	2,121.00	2,129.60
Chlamydia case rate per 100,000 females			
All ages	674	973.9	822.4
Aged 15-19 years	3,773.90	5,913.40	6,247.10
Aged 20-24 years	3,344.70	4,308.90	3,183.90
Pelvic inflammatory disease (PID) hospitalization rate per 10,000 females (aged 15-44 years)	3.5	4.8	3.2

Source: Manhattan County: County Health Assessment Indicators, 2009 – 2011 data, http://www.health.ny.gov/statistics/chac/chai/docs/sti_58.htm

Table 79: Obesity Rate by Neighborhood

Neighborhood	% Obese*	Absolute #
New York City	24.1	1,495,000
Manhattan	14.5	185,000
Washington Heights	21.7	42,000
Central Harlem	30.8	33,000
East Harlem	25.8	18,000
Upper West Side	18.3	33,000
Upper East Side-Gramercy	8.9	26,000
Chelsea-Village	7.6	15,000
Union Square-Lower Manhattan	7.8	16,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey, 2012.

Table 80. Percentage of People who Reported No Fruit of Vegetable Consumption (Yesterday), by Neighborhood

Neighborhood	% No Fruit/Vegetable Consumption*	Absolute #
New York City	12.5	772,000
Manhattan	8.4	107,000
Washington Heights	14.7	27,000
Central Harlem	14.0	17,000
East Harlem	15.6	8,000
Upper West Side	11.7	10,000
Upper East Side-Gramercy	5.7	20,000
Chelsea-Village	6.7	14,000
Union Square-Lower Manhattan	7.0	11,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey, 2012.

Table 81: Current Smokers, Percent by Neighborhood

Neighborhood	% Current Smoker*	Absolute #
New York City	15.6	981,000
Manhattan	15.6	202,000
Washington Heights	13.0	25,000
Central Harlem	16.1	18,000
East Harlem	18.6	13,000
Upper West Side	12.6	23,000
Upper East Side-Gramercy	12.8	38,000
Chelsea-Village	18.4	37,000
Union Square-Lower Manhattan	22.8	46,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey, 2012.

Table 82: Domain 3 Metrics, Behavioral Health

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management: Effective Continuation Phase Treatment Effective Acute Phase Treatment*	 37% 50%	 47%	 48%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	73%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	80%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up care for Children Prescribed ADHD Medications: Initiation Phase* Continuous Phase	 56% 63%	 64%	 67%
Follow-up after hospitalization for Mental Illness: Within 7 Days Within 30 Days*	 65% 55%	 51%	 48%
Screening for Clinical Depression and follow-up			
Adherence to Antipsychotic Medications (at least 80% of treatment time) for People with Schizophrenia (aged 19-64 yrs)*	64%	63%	61%
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	79%
Additional behavioral health measures for provider systems implementing the Behavioral Interventions Paradigm in Nursing Homes (BIPNH) project:			
PPR for SNF patients	[No known public source]		
Percent of Long Stay Residents who have Depressive Symptoms**	12.23%	[See source note]	[See source note]

Sources:
**Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*
*** Source: Nursing Home Quality Initiative 2012 (this source does not provide data at the city or county level).*

Table 83: Select Clinical Measures, Perinatal Care

Select Clinical Improvement Measures, 2012	NYS	NYC	Manhattan
PQI # 9 Low Birth Weight[a]	8.2%	8.6%	8.8%
Prenatal and Postpartum Care—Timeliness and Postpartum Visits:			
% mothers received postpartum checkup[b]	90.1%	89.2%	73.6%
% mothers received prenatal care - start 1st to 3rd month[a]	71.8%	70.4%	20%
% mothers received prenatal care - start 4th to 6th month[a]	20%	21.5%	4.4%
% mothers received prenatal care - start 7th to 9th month[a]	4.8%	6.2%	2.0%
% late or no prenatal[a]	3.4%	2.0%	__
Frequency of Ongoing Prenatal Care:			
Frequency of Ongoing Prenatal Care 61-80%[c]	12%		
Frequency of Ongoing Prenatal Care 41-60%[c]	6%		
Frequency of Ongoing Prenatal Care 21-40%[c]	4%		
Frequency of Ongoing Prenatal Care <21%[c]	8%		
Percentage of Children Who Had Five (5) or More Well Care Visits in the first 15 months[c]	85%	83%	82%
Childhood Immunization Status:[d]			
Childhood immunization (0Immz)[d]	1%		
Childhood immunization-3 or more IPVsd	93%		
Childhood immunization-2 or 3 rotavirus[d]	69%		
Childhood immunization-4 or more pneumococcals[d]	81%		
Childhood immunization-2 or more HepA[d]	37%		
Childhood Immunization-2 or more influenza[d]	57%		
Childhood Immunization-Varicella[d]	91%		
Childhood Immunization-MMR[d]	93%		
Childhood Immunization-4 or more DTPs[d]	83%		
Childhood Immunization-3 or more HepB[d]	92%		
Childhood Immunization-3 or more Hibs[d]	93%		
Childhood Immunization Status (Combo 3: 4-3-1-3-3-1-4)[d]	74%		
Lead Screening in Children[d]	89%		

Sources:

[a] *NY State Vital Statistics, 2012*

[b] *PRAMS 2011 (postpartum metrics)*

[c] *QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

[d] *QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 84: Select Clinical Improvement Measures, Renal Care

Select Clinical Improvement Measures, 2012	NYS
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy)[a]	51%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)[a]	33%
Comprehensive diabetes care - LDL-c control (<100mg/dL)[a]	47% 87%
Annual Monitoring for Patients on Persistent Medications – ACE/ARB[b]	92%

Sources:
[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)
[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

QUEENS COMMUNITY NEEDS ASSESSMENT
APPENDIX B - TABLES

December 16, 2014

New York City Health and Hospitals Corporation

Contents

SECTION A: TABLES WITHIN QUEENS CNA

Table 1. Queens Hospitals

Hospital Name	Hospital Type	Certified Beds	Occupancy Rate	Safety Net Payer Mix (Medicaid and Self-Pay)
Elmhurst Hospital	HHC	545	84%	66%
Queens Hospital	HHC	261	90%	67%
Flushing Hospital	Voluntary	293	84%	53%
Jamaica Hospital	Voluntary	424	75%	53%
Mt. Sinai Queens	Voluntary	192	82%	31%
Forest Hills Hospital	Voluntary	302	63%	30%
NY Queens Hospital	Voluntary	519	92%	32%
St. John's Episcopal	Voluntary	224	93%	49%
L.I. Jewish	Voluntary	983	80%	33%

Source: Hospital Institutional Cost Report 2012

Table 2. Queens Service Area Clinics (includes FQHCs, D&TCs, Hospital Based, and their Extension Sites), Medicaid Beneficiaries, and Uninsured Populations by Neighborhood

	Clinics	Medicaid Beneficiaries	Uninsured	Safety Net (Sum Medicaid and Uninsured)	Ratio of Clinics to Safety Net Population
West Queens	13	229,864	122,803	352,667	10.6
Bayside-Little Neck	1	15,741	7,311	23,052	13.7
Flushing-Clearview	7	114,149	48,068	162,217	14.6
Southwest Queens	7	118,100	46,120	164,220	15.2
Southeast Queens	3	50,703	19,418	70,121	15.4
Ridgewood-Forest Hills	9	76,645	35,403	112,048	25.4
Long Island City-Astoria	11	62,149	30,486	92,635	36.1
Fresh Meadows	6	34,868	11,065	45,933	54.2
Jamaica	32	134,200	44,132	178,332	72.5
East New York	20	117,543	26,339	143,882	75.9
Queens Service Area Total	109	953,962	391,145	1,345,107	27.9

Source: NYS Department of Health 2012

Table 3: Specialty Physicians by Borough

	Bronx	Brooklyn	Manhattan	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO, and is based on primary specialty. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

Table 4: Medical Specialists by Borough

	Bronx	Brooklyn	Manhattan	Queens
Acupuncturist	4	16	36	24
Audiologist	23	46	71	26
Chiropractor	59	101	104	121
Occupational Therapist	51	114	67	43
Physical Therapist	370	539	231	306
Speech-Language Pathologist	25	142	100	49
Optometrist	100	215	325	214
Durable Medical Equipment Supplier	36	117	59	67
Hospital and Clinic Based Labs	14	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm

Table 5: Early Intervention Program Providers

	Brooklyn	Bronx	Manhattan	Queens	Staten Island	NYC Total (Unique)
Number of Providers	71	65	65	72	50	97
Services:						
Service Coordination	39	39	39	42	27	56
Screening	34	35	34	36	29	48
Evaluation	49	49	48	53	36	69
Psychological Services	7	5	7	11	7	16
Family Education	32	21	26	31	21	41
Family Counseling	14	13	13	14	9	20
Speech Therapy	34	29	30	37	24	45
Occupational Therapy	35	30	30	37	21	48
Physical Therapy	36	30	31	37	22	49

Source: New York City Department of Health and Mental Hygiene Directory of New York City Early Intervention Providers, available at http://www.health.ny.gov/community/infants_children/early_intervention/, Accessed December 8, 2014.

Table 6: Eating Disorder Providers by Borough

	Brooklyn	Manhattan	Queens	Staten Island	Grand Total
Number of Providers	5	101	2	1	109

Source: National Eating Disorder Association (NEDA) Directory of Facilities and Treatment Providers, available at http://www.nationaleatingdisorders.org/find-treatment, Accessed December 5, 2014.

Table 7: Potentially Avoidable ER Visits, Admissions, and Re-Admissions, 2012

Measure Name	NYS	NYC	Queens	QSA
Potentially Avoidable Emergency Room Visits per 100 Medicaid beneficiaries	36	34	27	28
PQI Suite – Composite of All Measures: Adult, per 100,000 Medicaid Beneficiaries	1,784	1,822	1,482	1,579
Acute Conditions Composite (PQI 91), per 100,000 Medicaid Beneficiaries	530	525	474	503
Chronic Conditions Composite (PQI 92), per 100,000 Medicaid Beneficiaries	1,254	1,295	1,008	1,078
PDI Suite – Composite of All Measures: Pediatric, per 100,000 Recipients	323	383	235	245
Acute Conditions Composite (PDI 91), per 100,000 Medicaid Beneficiaries	75	87	79	77
Chronic Conditions Composite (PDI 92), per 100,000 Medicaid Beneficiaries	248	296	154	166

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH. Rates are risk-adjusted expected (controlling for race/ethnicity, gender, age and case mix)

Table 8: Total Population by Gender and Insurance Status

	Total Population	Uninsured			Medicaid			Other Insurance		
		%	% Male	%Female	%	% Male	%Female	%	% Male	%Female
New York City	8,198,393	14.4%	57.2%	42.8%	29.3%	44.0%	56.0%	56.3%	46.9%	53.1%
Queens	2,233,483	17.6%	56.8%	43.2%	25.4%	44.9%	55.1%	57.0%	47.4%	52.6%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012.

Table 9: Age Distribution for Uninsured Population

	Total	Under 5	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over
NYC	100%	1.5%	1.5%	2.0%	4.9%	14.6%	16.5%	13.3%	10.7%	9.3%	8.1%	6.7%	5.4%	3.9%	0.8%	0.3%	0.2%	0.1%	0.1%
NYC	100%	9.9%				55.1%				33.5%					1.5%				
Queens	100%	1.3%	1.3%	1.8%	4.5%	13.4%	15.5%	13.3%	11.0%	10.4%	8.6%	7.4%	5.7%	4.1%	0.9%	0.2%	0.2%	0.2%	0.1%
Queens	100%	8.9%				53.2%				36.3%					1.6%				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 10: Age Distribution for Medicaid Beneficiaries

	Total	Under 5	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over
NYC	100%	11.4%	10.1%	9.7%	9.3%	7.1%	5.4%	4.9%	4.7%	5.2%	5.6%	5.1%	4.5%	4.0%	3.2%	3.0%	2.5%	2.2%	2.3%
NYC	100%	40.4%				22.1%				24.4%					13.1%				
Queens	100%	16.6%	14.9%	14.2%	13.1%	9.5%	7.0%	6.7%	7.1%	7.8%	8.2%	7.5%	6.6%	5.6%	4.7%	4.2%	3.4%	3.0%	3.6%
Queens	100%	58.9%				30.2%				35.8%					18.9%				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 11: Age Distribution for Population with Other Insurance

	Total	Under 5	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over
NYC	100%	5.1%	4.5%	4.7%	5.2%	6.4%	8.9%	8.5%	7.5%	7.5%	7.3%	7.3%	6.7%	5.9%	4.7%	3.4%	2.6%	1.9%	1.8%
NYC	100%	19.5%				31.4%				34.6%					14.5%				
Queens	100%	5.0%	4.6%	4.8%	5.1%	5.6%	7.6%	7.8%	7.2%	7.4%	7.7%	7.8%	7.2%	6.1%	5.0%	3.8%	3.0%	2.3%	2.2%
Queens	100%	19.5%				28.1%				36.1%					16.3%				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 12. Educational Attainment for Population with No Health Insurance

Region	No Health Insurance Coverage			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	30%	29%	20%	21%
Queens	28%	30%	21%	21%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 13. Educational Attainment for Population With Medicaid/Low Income Medical Assistance

Region	Population with Medicaid/Low Income Medical Assistance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	40%	29%	19%	12%
Queens	35%	30%	20%	15%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 14. Educational Attainment for Population With Other Insurance

Region	Other Insurance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	11%	22%	22%	45%
Queens	13%	26%	24%	37%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 15 - Percentage of Renter Households with 1.5 Occupants per room or more

	Percent of Renter Households with 1.5 Occupants or More per Room				
Region	**2005**	**2006**	**2007**	**2008**	**2009**
New York City	3.01	3.41	3.17	4.67	4.04
Queens	3.70	4.10	3.83	5.69	4.42
Astoria	3.68	2.85	3.53	3.10	2.96
Bayside/Little Neck	2.17	2.76	0.89	2.06	0.42
Elmhurst/Corona	7.09	8.13	7.45	13.19	10.74
Flushing/Whitestone	3.98	3.98	4.11	4.78	4.25
Hillcrest/Fresh Meadows	2.24	3.46	6.50	3.77	2.21
Jackson Heights	8.57	7.20	9.33	12.52	9.68
Jamaica	5.15	4.13	3.70	5.15	3.81
Middle Village/Ridgewood	1.30	1.10	1.04	1.97	3.76
Ozone Park/Woodhaven	3.26	2.39	2.66	2.93	3.29
Queens Village	0.36	1.38	1.25	0.99	1.85
Rego Park/Forest Hills	2.45	2.74	0.98	2.25	3.77
Rockaways	2.55	6.04	1.04	9.80	2.17
South Ozone Park/Howard Beach	0.94	1.59	2.31	3.46	0.56
Sunnyside/Woodside	2.15	6.66	4.35	8.28	6.13
East New York/Starrett City	0.86	2.30	0.81	6.26	4.64

Source: The Furman Center New York City Neighborhood Information, 2005-2009

Table 16 - Serious Housing Violations by Community District, 2008

Community District	**Serious Housing Violations per 1,000 Rental Units**
New York City	53.79
QN01: Astoria	11.10
QN02: Woodside/Sunnyside	21.25
QN03: Jackson Heights	33.60
QN04: Elmhurst/Corona	16.09
QN05: Ridgewood/Maspeth	22.78
QN06: Rego Park/Forest Hills	7.68
QN07: Flushing/Whitestone	11.79
QN08: Hillcrest/Fresh Meadows	11.57
QN09: Kew Gardens/Woodhaven	26.45
QN10: South Ozone Park/Howard Beach	33.61
QN11: Bayside/Little Neck	5.95
QN12: Jamaica/Hollis	51.34
BK05: East New York/Starrett City	101.10

Source: The Furman Center New York City Neighborhood Information, 2008.

Table 17: Service Availability as Reported by Survey Respondents

	(N=605)
Accessible transportation	86.9%
Affordable housing	34.1%
Dental services	71.2%
Healthy food	76.2%
Home health care	66.4%
Job training	38.4%
Medical specialists	72.4%
Mental health services	54.6%
Pediatric and adolescent services	73.4%
Places to exercise, walk, and play	79.1%
Primary care medicine	79.8%
Social services	67.3%
Substance abuse services	39.1%
Vision services	69.4%

*Percentage reflects participants who responded very available or available

Source: CNA Survey. 2014.

Table 18. Nativity By Insurance Status By PUMA Neighborhood

Region	No Health Insurance Coverage		Population with Medicaid/Low Income Medical Assistance		Other Insurance	
	% Foreign Born	% Native	% Foreign Born	% Native	% Foreign Born	% Native
New York City	62%	38%	35%	65%	32%	68%
Queens	72%	28%	45%	55%	41%	59%
Astoria & Long Island City	60%	40%	42%	58%	37%	63%
Jackson Heights & North Corona	87%	13%	48%	52%	57%	43%
Flushing, Murray Hill & Whitestone	81%	19%	60%	40%	44%	56%

Region	No Health Insurance Coverage		Population with Medicaid/Low Income Medical Assistance		Other Insurance	
	% Foreign Born	% Native	% Foreign Born	% Native	% Foreign Born	% Native
Bayside, Douglaston & Little Neck	67%	33%	50%	50%	37%	63%
Queens Village, Cambria Heights & Rosedale	58%	42%	35%	65%	40%	60%
Briarwood, Fresh Meadows & Hillcrest	71%	29%	47%	53%	42%	58%
Elmhurst & South Corona	86%	14%	53%	47%	62%	38%
Forest Hills & Rego Park	68%	32%	58%	42%	46%	54%
Sunnyside & Woodside	77%	23%	56%	44%	50%	50%
Ridgewood, Glendale & Middle Village	60%	40%	34%	66%	31%	69%
Richmond Hill & Woodhaven	73%	27%	47%	53%	45%	55%
Jamaica, Hollis & St. Albans	63%	37%	35%	65%	39%	61%
Howard Beach & Ozone Park	68%	32%	49%	51%	39%	61%
Far Rockaway, Breezy Point & Broad Channel	52%	48%	23%	77%	23%	77%
East New York & Starrett City	58%	42%	27%	73%	32%	68%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 19: Limited English Proficiency by Insurance Status

	No Health Insurance	Medicaid	Other Insurance
NYC	40%	29%	14%
Queens	47%	31%	18%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 20: Language Spoken at Home by Insurance Status

Uninsured					Medicaid Beneficiaries				
	NYC		Queens			NYC		Queens	
	Total	Percent	Total	Percent		Total	Percent	Total	Percent
Spanish	299,759	64%	104,469	57%	Spanish	355,732	52%	63,550	36%
Chinese	36,616	8%	13,958	8%	Chinese	67,666	10%	19,737	11%
Korean	17,497	4%	11,793	6%	Russian	48,401	7%	4,773	3%
Mandarin	15,807	3%	6,376	3%	Cantonese	30,822	5%		
Russian	12,272	3%	1,182	1%	Bengali	24,008	4%	10,928	6%
Polish	7,923	2%	1,978	1%	Mandarin	21,487	3%	5,843	3%
French Creole	7,811	2%	1,067	1%	Yiddish	18,246	3%		
Bengali	7,219	2%			French Creole	16,225	2%	2,139	1%
Cantonese	7,137	2%			Korean	10,998	2%	6,293	4%
Arabic	5,771	1%			Arabic	10,446	2%		
French	5,256	1%			Urdu	8,764	1%		

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 21. Top Places of Birth Among Foreign Born With No Health Insurance

PUMA Name	No Health Insurance Coverage												
	Total	Mexico	Dominican Republic	China	Ecuador	Jamaica	Guyana	Korea	Trinidad & Tobago	Colombia	India	El Salvador	Bangladesh
New York City	**724,452**	**131,000**	**74,765**	**60,385**	**56,982**	**32,639**	**25,737**	**23,941**	**20,659**	**17,511**	**15,482**	**13,230**	**11,487**
Queens	**284,315**	**39,103**	**10,360**	**27,947**	**34,350**	**7,831**	**15,958**	**18,254**	**6,788**	**14,331**	**12,911**	**7,242**	**7,450**
Astoria & Long Island City	19,874	4,655	578	586	2,285	16	310	942	7	660	328	297	571
Jackson Heights & North Corona	47,885	15,763	2,662	1,213	13,357	168	132	378	164	3,668	1,660	1,162	990
Flushing, Murray Hill & Whitestone	38,540	1,103	342	16,093	988	16	193	8,727	-	1,721	1,160	1,751	370
Bayside, Douglaston & Little Neck	9,640	280	96	1,400	384	-	1	4,206	-	89	189	215	-
Queens Village, Cambria Heights &	13,933	106	179	124	434	2,866	2,011	63	660	283	1,875	177	368
Briarwood, Fresh Meadows & Hillcrest	13,713	602	539	1,495	264	88	1,040	1,061	391	500	932	208	967
Elmhurst & South Corona	32,748	8,529	1,310	3,076	6,817	82	52	692	59	3,087	887	312	535
Forest Hills & Rego Park	8,478	102	16	770	164	14	16	444	24	595	882	13	60
Sunnyside & Woodside	22,335	3,009	374	1,508	2,833	30	108	1,595	-	1,661	971	80	1,037
Ridgewood, Glendale & Middle Village	16,911	1,579	1,116	824	3,569	-	130	41	79	650	146	279	105
Richmond Hill & Woodhaven	18,379	1,491	1,290	491	1,758	93	2,777	14	1,094	868	2,533	252	643
Jamaica, Hollis & St. Albans	20,839	684	723	267	934	3,687	3,793	7	1,542	407	344	1,082	1,469
Howard Beach & Ozone Park	14,438	1,107	869	12	473	363	4,888	84	2,559	112	977	490	324
Far Rockaway, Breezy Point & Broad Channel	6,602	93	266	88	90	408	507	-	209	30	27	924	11

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 22. Top Places of Birth Among Foreign Born with Medicaid/Low Income Medical Assistance

PUMA Name	Population with Medicaid/Low Income Medical Assistance														
	Total	Dominican Republic	China	Jamaica	Mexico	Ecuador	Guyana	Haiti	Bangladesh	Trinidad & Tobago	Colombia	India	Korea	Pakistan	Philippines
New York	**1,280,549**	**223,746**	**152,43**	**62,456**	**54,940**	**54,338**	**54,137**	**41,369**	**40,962**	**32,125**	**29,990**	**28,705**	**24,217**	**21,156**	**16,828**
Queens	**416,706**	**27,182**	**53,61**	**15,234**	**15,64**	**27,733**	**30,35**	**9,553**	**24,542**	**9,919**	**22,062**	**20,72**	**17,843**	**9,220**	**9,131**
Astoria & Long Island	26,032	1,851	923	137	1,711	2,257	256	19	1,702	88	1,508	907	703	779	307
Jackson Heights &	45,300	6,558	3,424	344	5,142	7,925	438	294	2,840	178	5,566	1,633	397	1,648	456
Flushing, Murray Hill	58,597	1,328	24,14 6	288	742	934	155	171	709	105	2,484	2,253	8,370	744	619
Bayside, Douglaston & Little Neck	17,147	171	4,221	-	197	116	8	40	28	192	519	493	4,440	298	34
Queens Village, Cambria Heights &	25,775	502	348	5,312	84	479	2,328	4,376	674	1,102	407	4,126	92	629	712
Briarwood, Fresh Meadows & Hillcrest	28,020	1,000	4,053	292	401	600	943	653	3,707	506	1,063	2,152	1,376	1,391	1,327
Elmhurst & South Corona	37,869	3,724	6,791	146	3,045	5,128	303	350	2,484	259	3,287	1,431	674	494	1,529
Forest Hills & Rego Park	17,837	80	2,061	65	194	453	185	47	560	46	980	1,095	195	27	353
Sunnyside & Woodside	29,683	825	3,401	46	1,585	2,304	32	115	4,146	58	2,057	1,383	1,336	605	1,514
Ridgewood, Glendale & Middle	22,304	2,335	1,658	34	623	2,460	60	15	16	136	919	331	101	242	571
Richmond Hill &	32,992	3,652	1,524	51	867	2,551	6,713	146	2,717	1,214	2,019	2,954	71	1,344	770

PUMA Name	Population with Medicaid/Low Income Medical Assistance														
	Total	Dominican Republic	China	Jamaica	Mexico	Ecuador	Guyana	Haiti	Bangladesh	Trinidad & Tobago	Colombia	India	Korea	Pakistan	Philippines
Jamaica, Hollis & St. Albans	38,282	2,088	362	7,392	386	1,242	7,533	2,745	3,579	2,714	699	591	53	285	540
Howard Beach & Ozone Park	24,597	1,629	372	260	572	1,096	10,586	196	1,241	2,884	461	1,222	2	734	215
Far Rockaway, Breezy Point & Broad Channel	12,271	1,439	333	867	96	188	812	386	139	437	93	158	33	-	184

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 23: Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%
2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%
8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 24: Leading Causes of Death, Queens, 2012

Rank		Total Reported	Percent of Total%
	QUEENS		
1	Diseases of Heart	4,192	34.4%
2	Malignant Neoplasms	2,963	24.3%
3	Influenza (Flu) and Pneumonia	534	4.4%
4	Cerebrovascular Disease	449	3.7%
5	Diabetes Mellitus	399	3.3%
6	Chronic Lower Respiratory Diseases	389	3.2%
7	Accidents Except Drug Poisoning	236	1.9%
8	Essential Hypertension and Renal Diseases	203	1.7%
9	Alzheimer's Disease	161	1.3%
10	Intentional Self-Harm	143	1.2%
	All Other Causes	2,515	20.6%
	Total	12,184	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 25: Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total Reported	%	Causes of Mortality	Total Reported	%
	Males			**Females**		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%
4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory Diseases	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and Renal Diseases	562	2%
8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 26: Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			**White, Non-Hispanic**			**Black, Non-Hispanic**			**Asian and Pacific Islander**		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 27: Leading Causes of Death, New York City, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			2007			2012		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 28: Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in the Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drowning	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010
Homicide and Legal Intervention	400	14,196	341	12,356	59	1,840
All Other Causes	2,324	39,249	1,357	22,315	967	16,934

Premature death is defined a death before age 65. Years of Life Lost (YLL) is calculated by subtracting the age of death from age 65.

Source: The New York State Department of Health, Vital Statistics, 2012, accessed December 2, 2014

Table 29. Ten Leading Causes of Death by Medicaid Status, New York State, 2012

	Non-Medicaid		Medicaid*	
Rank	**Underlying Cause of Death**	**Deaths**	**Underlying Cause of Death**	**Deaths**
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

**Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.*

Source: MJ Sharp, LD Schoen, T Wang, TA Melnik. Leading causes of death, New York State, 2012. New York State Department of Health, Office of Quality and Patient Safety, Bureau of Vital Statistics.

Table 30. Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive Disease	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 31. ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Complic. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 32 - Potentially Preventable ER Visits (PPV)

	NYS	NYC	Queens	Queens service area
Observed/Risk-Adjusted Expected Rate ratio	1.00	0.94	0.85	0.87

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 33 - Potentially Preventable ED Visits (PPV), Medicaid Beneficiaries, UHF Neighborhood, 2012

UHF Neighborhood	PPV Observed Events	Observed Rate per 100 Beneficiaries	Risk-Adjusted Expected Rate per 100 Beneficiaries	Observed/ Risk Adjusted Expected Rate Ratio
East New York	47,135	39.96	35.48	1.13
*Rockaway	18,535	35.27	32.69	1.08
Southeast Queens	15,473	27.38	26.26	1.04
Jamaica	45,601	33.92	33.77	1.00
Long Island City/Astoria	21,041	29.28	32.01	0.91
Ridgewood/Forest Hills	17,730	23.12	25.31	0.91
West Queens	68,268	29.69	33.74	0.88
Southwest Queens	32,531	26.85	30.95	0.87
Fresh Meadows	7,591	21.77	29.29	0.74
Bayside/Little Neck	2,236	11.22	18.77	0.60
Flushing/Clearview	17,334	14.83	25.46	0.58

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

Table 34: Potentially Preventable Readmissions, Queens Hospitals

Facility Name	At Risk Admissions	Observed PPR Chains	Observed PPR Rate	Risk Adjusted Expected PPR Chains	Risk-Adjusted Expected PPR Rate	Observed/ Risk Adjusted Expected Ratio
St. John's Episcopal	341	31	9.09	21	6.07	1.50
Queens Hospital	6,690	469	7.01	475	7.09	0.99
Elmhurst Hospital	12,830	733	5.71	873	6.80	0.84
Jamaica Hospital	9,797	571	5.83	695	7.10	0.82
Flushing Hospital	7,532	422	5.6	564	7.49	0.75
NY Queens Hospital	11,157	443	3.97	687	6.16	0.64
Forest Hills Hospital	5,233	235	4.49	367	7.01	0.64

Facility Name	At Risk Admissions	Observed PPR Chains	Observed PPR Rate	Risk Adjusted Expected PPR Chains	Risk-Adjusted Expected PPR Rate	Observed/ Risk Adjusted Expected Ratio
Total Queens Hospitals	53,580	2,904	5.42	3,694	6.89	0.79
New York City Total	345,073	23,981	6.95	24,823	7.19	0.97
New York State Total	604,308	40,687	6.73	N/A	N/A	N/A

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 35: Chronic Diseases Prevalence and Potentially Avoidable Utilization

	Prevalence Medicaid Beneficiaries	Percent w/ Hospitalization	Percent w/ ED Visit	Observed PQI Hospitalizations per 100,000 Beneficiaries
NYS				
Respiratory	9.6%	35.3%	47.3%	486
CVD/Circulatory	26.4%	40.0%	31.3%	412
Diabetes	9.6%	32.5%	31.2%	368
Mental Health	22.8%	30.9%	45.8%	n/a
Substance Abuse	6.4%	59.6%	59.9%	n/a
NYC				
Respiratory	9.7%	35.3%	47.3%	507
CVD/Circulatory	30.2%	40.4%	28.1%	461
Diabetes	11.4%	32.3%	28.6%	388
Mental Health	19.5%	32.3%	42.3%	n/a
Substance Abuse	6.2%	65.0%	58.4%	n/a
Queens service area				
Respiratory	7.5%	30.6%	41.6%	2,155
CVD/Circulatory	28.4%	35.7%	24.9%	2,341
Diabetes	11.2%	26.5%	24.2%	1,856
Mental Health	14.2%	29.1%	39.0%	n/a
Substance Abuse	3.3%	61.2%	55.0%	n/a

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 36 - Potentially Avoidable Hospitalizations (Composite PQI), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	**2012**	**2009**	**2012**	**2009**	**2012**	**2009**	**2012**
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	1,547	1,360	**1,453**	**1,318**
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	1,615	1,398	**1,874**	**1,641**
	Observed/Expected	1.46	1.38	0.99	1.06	0.96	0.97	**0.78**	**0.80**
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	246	230	**243**	**225**
	Expected Rate Per 100,000	369	336	337	289	250	227	**296**	**272**
	Observed/Expected	1.50	1.47	1.15	1.20	0.99	1.01	**0.82**	**0.83**
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	357	304	**289**	**269**
	Expected Rate Per 100,000	493	437	458	378	365	319	**426**	**374**
	Observed/Expected	1.69	1.60	0.96	1.04	0.98	0.95	**0.68**	**0.72**
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	425	350	**427**	**386**
	Expected Rate Per 100,000	590	499	590	464	456	380	**543**	**462**
	Observed/Expected	1.40	1.31	1.04	1.08	0.93	0.92	**0.79**	**0.83**

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012.

Table 37: Hospitalizations for Major PQI Composite Indicators by Neighborhood, 2012

	PQI 90 Overall Composite		PQI 91 Acute Composite		PQI 92 Chronic Composite	
	PQI Admissions	Risk-Adjusted Expected Rate	PQI Admissions	Risk-Adjusted Expected Rate	PQI Admissions	Risk-Adjusted Expected Rate
QSA	9,204	1,579	2,852	503	6,352	1,078
Queens	8,316	1,482	2,641	474	5,675	1,008
NYC	44,913	1,822	12,328	525	32,619	1,295
NYS	69,084	1,784	20,521	530	48,568	1,254
Queens service area Neighborhoods:						
East New York	1,578	1,957	422	629	1,156	1,339
LIC /Astoria	793	1,714	237	502	556	1,212
Jamaica	1,573	1,699	417	509	1,156	1,191
Southwest Queens	1,155	1,678	331	492	824	1,186
Ridgewood / Forest Hills	814	1,521	294	498	520	1,015
West Queens	1,744	1,423	650	527	1,094	895
Flushing/Clearview	773	1,320	296	450	477	860
Southeast Queens	573	1,296	141	371	432	923
Fresh Meadows	257	1,280	78	359	179	923
*Rockaway	472	1,079	143	350	329	732
Bayside/Little Neck	121	1,027	46	333	75	687

**Outside of Queens service area.*

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Table 38 - Hospitalizations for Chronic PQI Composite Indicators by Neighborhood, 2012

	PQI S01 Diabetes Composite		PQI S02 Circulatory Composite		PQI S03 Respiratory Composite	
	Observed PQI Admissions	Risk-Adjusted Expected Rate	Observed PQI Admissions	Risk-Adjusted Expected Rate	Observed PQI Admissions	Risk-Adjusted Expected Rate
QSA	1,856	317	2,341	388	2,155	431
Queens	1,612	292	2,171	372	1,892	425
NYC	9,289	370	11,116	432	12,216	493
NYS	14,121	365	15,795	408	18,654	482
Queens service area Neighborhoods						
East New York	381	414	346	411	429	512
Jamaica	356	357	445	436	355	391
Fresh Meadows	64	351	50	243	65	337
LIC /Astoria	145	321	174	382	237	509
Southwest Queens	224	321	370	537	230	330
Ridgewood/Forest Hills	142	297	188	368	190	352
West Queens	326	272	378	310	390	313
*Rockaway	118	269	107	226	104	238
Bayside/Little Neck	21	222	31	243	23	220

	PQI S01 Diabetes Composite		PQI S02 Circulatory Composite		PQI S03 Respiratory Composite	
	Observed PQI Admissions	Risk-Adjusted Expected Rate	Observed PQI Admissions	Risk-Adjusted Expected Rate	Observed PQI Admissions	Risk-Adjusted Expected Rate
Southeast Queens	105	220	208	416	119	274
Flushing/Clearview	104	208	201	316	172	326

**Outside of Queens service area.*

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012

Table 39 - Hospital Utilization among Medicaid Beneficiaries with Asthma by UHF Neighborhood, 2012

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	375,170	6.43	26.8	1.86	50.3	2.79
NYC	240,241	6.70	27.6	1.90	48.3	2.63
Queens	47,526	5.19	22.4	1.77	43.0	2.40
Queens service area	51,118	5.36	23.0	1.77	44.8	2.42
Neighborhoods						
Long Island City/Astoria	4,215	5.33	23.29	1.82	42.64	2.42
West Queens	15,193	4.63	18.20	1.60	42.73	2.33
Flushing/Clearview	8,003	4.03	19.44	1.78	31.13	2.37
Bayside/Little Neck	952	3.32	19.21	1.61	27.53	1.91
Ridgewood/Forest Hills	7,060	5.73	22.36	1.64	37.20	2.10
Fresh Meadows	2,713	5.18	20.81	1.90	36.91	2.35
Southwest Queens	8,733	5.34	20.75	1.64	43.70	2.15
Jamaica	10,759	5.78	25.64	1.84	50.68	2.52
Southeast Queens	3,511	4.76	27.47	1.82	46.08	2.64
*Rockaway	8,148	8.63	29.76	2.04	50.78	2.71
East New York	12,412	7.88	28.89	1.90	55.88	2.65

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

Table 40 - Hospital Utilization among Medicaid Beneficiaries with Cardiovascular Conditions by UHF Neighborhood

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	1,543,129	26.44	40.00	1.97	31.28	2.57
NYC	1,085,013	30.24	40.44	2.03	28.09	2.37
Queens	271,388	29.63	35.55	1.89	23.89	2.10
QUEENS SERVICE AREA	270,776	28.38	35.68	1.92	24.88	2.16
UHF Neighborhoods:						
*Rockaway	23,924	45.43	47.75	2.10	30.06	2.50
Ridgewood/Forest Hills	27,747	36.20	35.47	1.70	20.16	1.86
Flushing/Clearview	37,374	32.02	29.01	1.78	16.65	2.00
Fresh Meadows	10,718	30.74	28.73	1.74	19.91	2.02
Bayside/Little Neck	5,924	29.74	24.71	1.57	13.23	1.53
Southwest Queens	35,914	29.66	35.50	1.85	25.90	1.94
Jamaica	38,841	28.94	41.21	2.03	30.73	2.20
Long Island City/Astoria	20,511	28.55	37.52	1.94	26.68	2.29
Southeast Queens	15,411	27.69	37.41	2.13	28.71	2.63
East New York	31,027	26.40	44.83	2.19	36.36	2.65
West Queens	54,707	23.80	32.08	1.79	21.34	1.82

*Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012

Table 41 - Hospital Utilization among Medicaid Beneficiaries with Diabetes by Neighborhood, 2012

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	562,637	9.64	32.52	1.89	31.23	2.43
NYC	409,227	11.41	32.27	1.93	28.55	2.25
Queens	105,074	11.47	26.52	1.80	23.17	1.97
Queens service area	106,517	11.17	26.46	1.83	24.23	2.00
Neighborhoods:						
Long Island City/Astoria	7,959	11.08	27.18	1.86	25.88	1.98
West Queens	22,717	9.88	24.90	1.67	20.58	1.72
Flushing/Clearview	12,964	11.11	21.37	1.67	15.78	1.85
Bayside/Little Neck	1,795	9.01	20.95	1.55	13.76	1.51
Ridgewood/Forest Hills	9,134	11.92	27.74	1.64	19.74	1.78
Fresh Meadows	3,902	11.19	21.19	1.80	18.55	2.13

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
Southwest Queens	15,534	12.83	23.59	1.70	23.92	1.86
Jamaica	16,526	12.31	28.87	1.92	29.64	2.03
Southeast Queens	6,003	10.79	25.54	2.06	27.14	2.33
*Rockaway	8,424	16.00	41.99	2.01	29.76	2.48
East New York	12,580	10.70	35.41	2.10	35.66	2.39

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.*

Table 42 - Hospital Utilization among Medicaid Beneficiaries with Mental Health Condition

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	997,306	17.09	41.21	2.24	60.98	3.19
NYC	702,585	19.58	32.34	2.43	42.33	2.98
Queens	133,250	14.55	30.20	2.17	37.60	2.74
QUEENS SERVICE AREA	135,746	14.23	29.14	2.26	39.03	2.83
UHF Neighborhoods:						
Long Island City/Astoria	10,432	14.52	27.91	1.99	39.48	2.51
West Queens	26,313	11.45	26.32	1.96	36.24	2.27
Flushing/Clearview	14,390	12.33	29.94	2.05	32.74	2.95
Bayside/Little Neck	2,400	12.05	24.88	2.05	27.17	2.22
Ridgewood/Forest Hills	15,446	20.15	25.09	1.87	29.96	2.36
Fresh Meadows	5,652	16.21	24.63	2.34	34.16	2.94
Southwest Queens	14,752	12.18	25.31	2.06	38.63	2.53
Jamaica	19,784	14.74	32.71	2.40	44.21	3.02
Southeast Queens	6,509	11.69	37.18	2.89	46.31	3.64
*Rockaway	17,488	33.21	43.37	2.26	40.19	3.02
East New York	22,969	19.54	33.58	2.72	47.60	3.33

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.'*

Table 43 - Mental Health Readmissions within 30 Days among Medicaid Fee for Service Beneficiaries

Region	All Ages

	# of Discharges	# of Readmissions in <= 30 Days to Any Region	Rate of Readmission in <= 30 Days to Any Region	# of Readmissions in <= 30 Days to the Same Region	Rate of Readmission in <= 30 days to the Same Region
Queens	4,008	1,004	25.0%	904	22.6%
New York City	21,653	5,047	23.3%	4,672	21.6%
Statewide	41,814	8,754	20.9%	7,953	19.0%
Hospitals					
Elmhurst Hospital	969	215	22.2%	201	20.7%
Flushing Hospital	168	67	39.9%	62	36.9%
Holliswood Hospital (closed 2013)	491	93	18.9%	69	14.1%
Jamaica Hospital	300	53	17.7%	51	17.0%
Long Island Jewish Med. Center	974	220	22.6%	190	19.5%
Queens Hospital	626	154	24.6%	141	22.5%
St John's Episcopal Hospital	397	191	48.1%	182	45.8%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Table 44: 7, 30, and 60 Day Mental Health Outpatient Service Follow-up, Adult Medicaid Fee for Service

Event	Queens	New York City	New York State
7 day MH Follow-Up (MH Only)	34.6%	31.1%	34.8%
7 day MH Follow-Up (MH and SUD)	37.1%	35.9%	39.1%
30 Day MH Follow-Up (MH Only)	46.4%	42.6%	46.9%
30 Day MH Follow-Up (MH and SUD)	49.2%	48.0%	52.1%
30 Day MH Engagement (2 or More OP)	38.7%	32.6%	36.1%
60 Day MH Engagement (4 or More OP)	33%	26.5%	29.5%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Table 45: 30 Day Mental Health Outpatient Service Follow-up, Adult Medicaid Fee for Service

Outpatient Service within 30 Days	Discharges	Outpatient Service, 30 days
Queens	4,915	46.4%
New York City	16,629	42.6%
Statewide	29,661	46.9%
Hospital		
Elmhurst Hospital Center	755	43.0%
Flushing Hospital Medical Center	158	44.9%
Holliswood Hospital	1	100.0%
Jamaica Hospital Medical Center	265	52.5%
Long Island Jewish Medical Center	778	47.7%
Queens Hospital	512	44.3%
St John's Episcopal Hospital	298	50.7%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Table 46: Medication Fill Rates post Mental Health Discharge, Medicaid Fee for Service

Event	Queens	New York City	New York State
30 Day MH Rx Fill (1st Psychotropic Rx)	62.6%	57.6%	63.9%
100 Day MH Rx Fill (Refill Psychotropic Rx)	89.7%	86.5%	88.2%
30 Day MH Rx Fill, w/ Psychosis (1st Antipsychotic Rx)	56.7%	54.3%	59.6%
100 Day MH Rx Fill, w/ Psychosis (Refill Antipsychotic Rx)	85.7%	83.0%	84.4%
30 Day MH Rx Fill, w/ Mood Disorder (1st Mood Stabilizer	51.3%	47.0%	55.8%
100 Day MH Rx Fill, w/ Mood Disorder (Refill Mood Stabilizer	85.5%	83.1%	84.8%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Table 47: Hospital Utilization among Medicaid Beneficiaries with Substance Use CRG Diagnosis by UHF Neighborhood

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
NYS	370,898	6.36	59.56	3.13	59.86	4.18
NYC	222,198	6.19	65.03	3.58	58.37	4.34
Queens	26,264	2.87	60.23	3.24	54.04	3.92
QUEENS SERVICE AREA	31,425	3.29	61.21	3.37	55.02	4.19
UHF Neighborhoods:						
East New York	8,911	7.58	64.31	3.76	59.35	4.89
*Rockaway	3,386	6.43	62.76	3.44	58.33	4.25
Jamaica	7,468	5.56	59.75	3.19	56.55	3.85
Southeast Queens	2,045	3.67	68.36	3.61	62.00	4.86
Fresh Meadows	1,115	3.20	71.12	5.71	53.27	4.09

	Beneficiaries with Condition	Diagnosed Prevalence (Per 100)	% with at least 1 Admission	Average # of Admissions	% with at least 1 ED Visit	Average # of ED Visits
Ridgewood/Forest Hills	2,294	2.99	53.36	2.70	46.21	3.49
Long Island City/Astoria	1,909	2.66	56.10	3.25	56.63	3.61
Southwest Queens	2,488	2.05	57.60	2.67	53.82	3.61
West Queens	3,664	1.59	60.02	2.85	47.71	3.47
Flushing/Clearview	1,617	1.39	59.43	2.86	47.62	4.57
Bayside/Little Neck	250	1.25	54.40	2.90	47.60	2.74

**Outside of Queens service area. Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012*

Table 48: Substance Use Disorder: Readmissions and Post Discharge Care, Medicaid Fee For Service

	New York City			New York State		
	Discharges	Events	%	Discharges	Events	%
Readmissions						
SUD Readmissions (immediate next service) within 30 Days to Any Region	29,304	12,519	42.9%	49,010	16,116	32.9%
SUD Readmissions (immediate next service) within 45 Days to Any Region	29,304	14,134	48.2%	49,010	18,340	37.4%
14 Day Post Discharge Care Outpatient Follow Up						
Percentage of SUD Detox/Rehab Discharges Followed by a Lower Level SUD Service or MH Outpatient Treatment within 14 Days	23,264	7,023	30.2%	41,490	15,210	36.7%
Percentage of SUD Detox or Rehabilitation Discharges Followed by Two or More Lower Level SUD Services within 14 Days of Discharge	20,170	3,557	17.6%	8,198	36,197	22.6%
30 Day Post Discharge Care Outpatient Follow Up						
Percentage of SUD Detox/Rehab Discharges Followed by a Lower Level SUD Service or MH Outpatient Treatment within 30 Days	23,264	7,576	32.6%	41,490	16,798	40.5%
Percentage of SUD Detox or Rehabilitation Discharges Followed by Two or More Lower Level SUD Services within 30 Days of Discharge	20,170	4,085	20.3%	9,553	36,197	26.4%
Post Discharge Care Medication Filled						
Percentage of SUD Detox or Rehabilitation Discharges where a Prescription for an Anti-Addiction/Mood Stabilizer/Antidepressant Medication was Filled within 30 Days	23,435	4,657	19.9%	43,601	10,902	25.0%
Percentage of SUD Detox or Rehabilitation Discharges where a Prescription for an Anti-Addiction/ Mood Stabilizer/Antidepressant Medication was Filled within 100 Days	4,675	3,743	80.1%	10,758	8,583	79.8%

Source: NYS Office of Mental Health, DSRIP Dashboard: Behavioral Health Organization Performance Metrics, 2012.

Table 49: Rates of HIV diagnoses, People With HIV/AIDS (PWHA), and deaths among PWHA by United Hospital Fund (UHF) neighborhood, New York City 2011

UHF Neighborhood	HIV Diagnoses per 100,000 Population	Reported PWHA as Percent of Population	Age-Adjusted Death Rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Queens	**22.6**	**0.7**	**12.3**	**2,235,260**
Bayside/Little Neck	8.0*	0.2	0.0*	87,972
Flushing/Clearview	6.9	0.3	16.7	259,767
Fresh Meadows	8.3*	0.3	17.2*	96,831
Jamaica	36.3	1.0	14.9	289,314
Long Island City/Astoria	29.3	1.0	8.2	204,715
Ridgewood/Forest Hills	13.8	0.4	10.6	245,746
*Rockaway	23.5	0.8	24.9	114,978
Southeast Queens	16.4	0.6	11.6	189,171
Southwest Queens	16.1	0.6	14.6	266,265
West Queens	35.8	1.0	10.7	480,501
East New York Brooklyn	46.8	1.5	18.6	187,855

**Outside of Queens service area. Rates based on numerators ≤10 are marked with an asterisk (*) and should be interpreted with caution.*

Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs Semiannual Report. October 2012

Table 50: HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1
20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361
High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

Table 51 - Selected Patients' Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

*Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. * Data is for 2011.*

Table 52 - Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO		Commercial PPO		Medicaid Managed Care	
Controlling High Blood Pressure	59%		57%		63%	
Poor HbA1c Control in Diabetics* (Lower is better)	27%		42%		33%	
Use of Appropriate Medications for People with Asthma	89%		90%		82%	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

*Source: 2013 Health Plan Comparison in New York State," New York State Department of Health. * Data is from 2011*

Table 53 - Access and Quality Measures for Children and Adolescents, New York State, by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83
Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

*Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. *Data is from 2011*

Table 54 - Domain 3 Metrics, Behavioral Health

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management: Effective Continuation Phase Treatment Effective Acute Phase Treatment*	 37% 50%	 47%	 49%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	66%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	80%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up care for Children Prescribed ADHD Medications: Initiation Phase* Continuous Phase	 56% 63%	 64%	 62%
Follow-up after hospitalization for Mental Illness: Within 7 Days Within 30 Days*	 65% 55%	 51%	 50%
Screening for Clinical Depression and follow-up			
Adherence to Antipsychotic Medications (at least 80% of treatment time) for People with Schizophrenia (aged 19-64 yrs)*	64%	63%	71%
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	74%
Additional behavioral health measures for provider systems implementing the Behavioral Interventions Paradigm in Nursing Homes (BIPNH) project:			
PPR for SNF patients	[No known public source]		
Percent of Long Stay Residents who have Depressive Symptoms**	12.23%	[See source note]	[See source note]

*Sources: *Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management. ** Source: Nursing Home Quality Initiative 2012 (this source does not provide data at the city or county level).*

Table 55 - Domain 3: Behavioral Health Metrics at uhf neighborhood level

Neighborhood/Region	Adherence to Antipsychotic Medications for Individuals With Schizophrenia	Antidepressant Medication Management-Effective Acute Phase Treatment	Diabetes Monitoring for People With Diabetes and Schizophrenia	Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	Follow-up After Hospitalization for Mental Illness within 30 Days	Follow-Up Care for Children Prescribed ADHD Medication-Initiation Phase	Initiation of Alcohol and Other Drug Dependence Treatment
Bayside/Little Neck	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	77.89
Flushing/Clearview	76.11	50.67	60.00	79.53	59.20	72.73	75.39
Fresh Meadows	64.29	51.32	N/A- Small Sample Size	87.06	66.07	N/A- Small Sample Size	72.12
Jamaica	59.75	42.57	76.47	80.07	46.78	58.77	76.78
Long Island City/Astoria	63.43	48.48	N/A- Small Sample Size	73.74	50.00	70.97	74.45
Ridgewood/Forest Hills	69.86	54.55	N/A- Small Sample Size	78.13	49.49	62.16	74.91
*Rockaway	80.90	42.31	42.25	84.31	50.31	67.61	74.70
Southeast Queens	64.52	51.35	62.86	75.45	30.60	N/A- Small Sample Size	71.96
Southwest Queens	66.83	50.69	N/A- Small Sample Size	83.69	58.47	56.60	74.04
West Queens	73.55	47.57	76.43	80.43	59.06	63.98	71.97
NYS	**63.18**	**48.87**	**68.48**	**78.83**	**55.19**	**56.54**	**78.05**

**Outside of Queens service area. Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH*

Table 56 - Select Medicaid Managed Care Clinical Improvement Measures: Mental Health

Select Medicaid Managed Care (MMC) Clinical Improvement Measures, 2012	NYS	NYC	Queens
Antidepressant Medication Management:			
Effective Continuation Phase Treatment	37%		
Effective Acute Phase Treatment*	50%	47%	49%
Follow-up care for Children Prescribed ADHD Medications:		[No known	[No known
Initiation Phase*	57%	public	public
Continuous Phase	63%	source]	source]
Follow-up after hospitalization for Mental Illness:		[No known	[No known
Within 7 Days	65%	public	public
Within 30 Days*	79%	source]	source]

*Sources: *Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management. QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 57 - Domain 3 Metrics, Diabetes Mellitus

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy) [a]	51%	[See source note]	[See source note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing*	80%	82%	85%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) [a]	33%	[See source note]	[See source note]
Comprehensive diabetes care - LDL-c control (<100mg/dL):		[See source	[See source
Lipids Controlled (<100 mg/dL)	47%	note]	note]
Monitoring Diabetes - Lipid Profile[a]	87%		
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	4.6% (2.5-8.3)
Flu Shots for Adults Ages 50 – 64[b]	[See source note]	43% (40.0-45.9)	43% (37.4-48.8)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse)	[No known public source]		

*Sources: * Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*

[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

[b] NYC DOHMH Community Health Survey, 2012 (NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)

Table 58. Domain 3: Diabetes Metrics at UHF Neighborhood Level

Neighborhood/Region	Comprehensive Diabetes Care HbA1C testing
Bayside/Little Neck	87.94
Flushing/Clearview	88.01
Fresh Meadows	86.83
Jamaica	84.87
Long Island City/Astoria	84.01
Ridgewood/Forest Hills	84.55
Rockaway	72.59
Southeast Queens	82.04
Southwest Queens	85.48
West Queens	87.34
NYS	80.28

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH

Table 59. Domain 3 Metrics, Cardiovascular Disease

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Cholesterol Management for Patients with CV Conditions[a]	[No known public source]	35.9% (33.3-38.7)	33.1% (28.9-37.5)
Controlling High Blood Pressure (Provider responsible for medical record reporting)[a,b]	63%*	67.0% (63.3-70.5)	[No known public source]
Aspirin Discussion and Use [b] Discussion of Aspirin Risks and Benefits(HMO/PPO) Aspirin Use(HMO/PPO)	 49%/43% 39%/39%	[No known public source]	[No known public source]
Medical Assistance with Smoking Cessation[a]	[No known public source]	5.8% (4.3-7.8)	4.6% (2.5-8.3)
Flu Shots for Adults Ages 50 – 64[a]	[No known public source]	43% (40 – 45.9)	43% (37.4-48.8)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse	[No known public source]	[No known public source]	[No known public source]

Source:
[a] NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)
[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)
[c] QARR 2011(Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 60. Select Clinical Improvement Measures, Asthma

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Asthma Medication Ratio			
Medical Management for People with Asthma:			
50% Covered (Ages 5-11)	48%		
50% Covered(Ages 12-18)	49%		
50% Covered(Ages 19-50)	63%		
50% Covered (Ages 51-64)	77%		
50% Covered (Ages 5-64)	57%		
75% Covered (Ages 5-11)	25%		
75% Covered(Ages 12-18)	25%		
75% Covered(Ages 19-50)	38%		
75% Covered (Ages 51-64)	53%		
75% Covered (Ages 5-64)	34%		

Source: QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 61. Select Clinical Improvement Measures, HIV/AIDS

Select Clinical Improvement Measures	NYS	NYC	Queens
HIV/AIDS Comprehensive Care : Engaged in Care[a]	89%	89%	88%
HIV/AIDS Comprehensive Care : Viral Load Monitoring[a]	66%	67%	66%
HIV/AIDS Comprehensive Care : Syphilis Screening[a]	68%	71%	68%
Cervical Cancer Screening[a]	67%	69%	71%
Chlamydia Screening, Women Ages 16-24[a]	66%	70%	69%
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	4.6% (2.5-8.3)
Viral Load Suppression [c]	62.2%	61.2%	59%

[a] *Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management.*
[b] *Source: HIV Ambulatory Care Performance, 2011*
[c] *2011 eHIVQUAL Submissions from NYS HIV Ambulatory Care Programs. Reports updated October 21, 2013*

Table 62. Domain 3: HIV/AIDS Metrics at UHF Neighborhood Level

Neighborhood/Region	Cervical Cancer Screening	Chlamydia Screening in Women	Comprehensive Care for People Living with HIV/AIDS: Engaged in Care	Comprehensive Care for People Living with HIV/AIDS: Syphilis screening	Comprehensive Care for People Living with HIV/AIDS: Viral Load Monitoring
Bayside/Little Neck	67.51	65.89	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size
Flushing/Clearview	75.27	68.47	94.87	62.16	48.72
Fresh Meadows	71.94	61.55	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size
Jamaica	69.63	66.27	87.39	71.32	69.04
Long Island City/Astoria	64.58	70.90	89.21	71.85	77.70
Ridgewood/Forest Hills	68.76	70.96	90.24	74.53	67.07
Rockaway	66.08	63.02	87.79	65.71	57.14
Southeast Queens	67.66	67.46	82.56	62.77	57.95
Southwest Queens	70.01	66.78	90.43	70.00	70.81
West Queens	72.60	73.80	89.40	66.12	67.51
NYS	66.80	65.58	89.34	69.27	66.44

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH

Table 63. Select Clinical Measures, Perinatal Care

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
PQI # 9 Low Birth Weight[a]	8.2%	8.6%	8.1%
Prenatal and Postpartum Care—Timeliness and Postpartum Visits:			
% mothers received postpartum checkup[b]	90.1%	89.2%	
% mothers received prenatal care - start 1st to 3rd month[a]	71.8%	70.4%	70.3%
% mothers received prenatal care - start 4th to 6th month[a]	20%	21.5%	21.0%
% mothers received prenatal care - start 7th to 9th month[a]	4.8%	6.2%	6.5%
% late or no prenatal[a]	3.4%	2.0%	2.2%
Frequency of Ongoing Prenatal Care:			
Frequency of Ongoing Prenatal Care 61-80%[c]	12%		
Frequency of Ongoing Prenatal Care 41-60%[c]	6%		
Frequency of Ongoing Prenatal Care 21-40%[c]	4%		
Frequency of Ongoing Prenatal Care <21%[c]	8%		
Percentage of Children Who Had Five (5) or More Well Care Visits in the first 15 months[c]	85%	83%	87%
Childhood Immunization Status:[d]			
Childhood immunization (0lmmz)[d]	1%		
Childhood immunization-3 or more IPVsd	93%		
Childhood immunization-2 or 3 rotavirus[d]	69%		
Childhood immunization-4 or more pneumococcals[d]	81%		
Childhood immunization-2 or more HepA[d]	37%		
Childhood Immunization-2 or more influenza[d]	57%		
Childhood Immunization-Varicella[d]	91%		

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Childhood Immunization-MMR[d]	93%		
Childhood Immunization-4 or more DTPs[d]	83%		
Childhood Immunization-3 or more HepB[d]	92%		
Childhood Immunization-3 or more Hibs[d]	93%		
Childhood Immunization Status (Combo 3: 4-3-1-3-3-1-4)[d]	74%		
Lead Screening in Children[d]	89%		

Sources:
[a] *NY State Vital Statistics, 2012*
[b] *PRAMS 2011 (postpartum metrics)*
[c] *QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*
[d] *QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 64. Domain 3: Perinatal Care Metrics At UHF Neighborhood Level

Neighborhood/Region	Cervical Cancer Screening	Chlamydia Screening in Women	Comprehensive Care for People Living with HIV/AIDS: Engaged in Care	Comprehensive Care for People Living with HIV/AIDS: Syphilis screening	Comprehensive Care for People Living with HIV/AIDS: Viral Load Monitoring
Bayside/Little Neck	67.51	65.89	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size
Flushing/Clearview	75.27	68.47	94.87	62.16	48.72
Fresh Meadows	71.94	61.55	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size
Jamaica	69.63	66.27	87.39	71.32	69.04
Long Island City/Astoria	64.58	70.90	89.21	71.85	77.70
Ridgewood/Forest Hills	68.76	70.96	90.24	74.53	67.07
Rockaway	66.08	63.02	87.79	65.71	57.14
Southeast Queens	67.66	67.46	82.56	62.77	57.95
Southwest Queens	70.01	66.78	90.43	70.00	70.81
West Queens	72.60	73.80	89.40	66.12	67.51
NYS	66.80	65.58	89.34	69.27	66.44

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH

Table 65. Select Clinical Improvement Measures, Renal Care

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy)[a]	51%		
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)[a]	33%		
Comprehensive diabetes care - LDL-c control (<100mg/dL)[a]	47% 87%		
Annual Monitoring for Patients on Persistent Medications – ACE/ARB[b]	92%		

Sources:
[a] *QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*
[b] *QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 66. Domain 3: Other Clinical Improvement Process Metrics

Neighborhood/Region	Breast Cancer Screening	Colorectal Cancer Screening
Bayside/Little Neck	69.03	63.21
Flushing/Clearview	75.12	69.71
Fresh Meadows	70.89	59.88
Jamaica	64.14	44.73
Long Island	66.25	47.05
Ridgewood/Forest	65.26	51.05
Rockaway	57.09	41.44
Southeast Queens	64.50	46.13
Southwest Queens	70.61	48.53
West Queens	74.31	59.14
NYS	63.40	49.31

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH

Table 67 - Risk Factors by Select Queens Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current Smoker
NYC	24.1%	19.7%	22.2%	15.6%
Long Island City-Astoria	23.8%	22.6%	17.7%	16.0%
West Queens	23.6%	23.6%	24.6%	16.0%
Flushing-Clearview	17.6%	18.2%	29.8%	16.3%
Bayside/Little Neck/Fresh Meadows	14.2%	7.5%	21.8%	13.2%
Ridgewood-Forest Hills	17.0%	13.5%	27.3%	17.3%
Southwest Queens	25.5%	21.7%	21.9%	17.3%
Jamaica	26.7%	13.0%	20.7%	11.9%
Southeast Queens	25.8%	13.9%	21.8%	9.0%
East New York/New Lots	37.0%	18.4%	25.6%	10.1%

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012. Values are not adjusted for age. Values in red font should be interpreted with caution. Value's relative standard error (a measure of estimate precision) is greater than 30% or the sample size less than 50 or the 95% confidence interval half width is greater than ten, make the estimate potentially unreliable.

Table 68 – Environmental Risk Factors in Select Queens Neighborhoods

	NYC	Queens	Flushing - Clearview	Jamaica	Long Island City Astoria	Southeast Queens	Southwest Queens	West Queens
Indoor Air Quality								
Homes with cockroaches (2011)	24%	19.7%	16.7%	20.4%	22.2%	7.9%	18%	27.9%
Adults reporting second-hand smoke at home (2011)	4.9%	5%	n/a	2.6%	4.9%	5.7%	n/a	4.7%
Adults reporting mold in the home (2012)	9.5%	8.6%	5.4%	11.6%	6.9%	8.9%	8.6%	10.8%
Adults reporting mice in the home (2012)	15.5%	12.6%	10.9%	16%	12.2%	9.9%	14.8%	16.3%
Home Safety and Maintenance								
Homes with cracks or holes (2011)	15.7%	9.4%	4.6%	9.6%	15.6%	6.7%	7.3%	11.8%
Homes with leaks (2011)	20.6%	15.2%	8.6%	18.3%	16.5%	13.5%	12.3%	18.7%
Households rating neighborhood structures good or excellent (2011)	75.2%	81.9%	88.9%	67.4%	83.7%	86.4%	81.7%	78.7%

Sources: New York Community Health Survey (CHS), New York City Housing and Vacancy Survey (HVS), 2011, 2012.

SECTION B – TABLES NOT IN QUEENS CNA

Table 69 - Correlation Matrix of Clinical Risk Group Conditions Among the Health Home Population

Chronic Episode Diagnostic Categories
Health Home Eligibles Adults 21+ Years
With a Predictive Risk Score 75% or Higher (n=27,752)

Percent of Adult Recipients with Co-Occurring Condition

Condition	Total	Severe Mental Illness	Mental Illness	Substance Abuse	Hyper-tension	Hyper-lipidemia	Diabetes	Asthma	Congestive Heart Failure	Angina & Ischemic Heart Disease	HIV	Obesity	Osteo-arthritis	COPD & Bronch-iectasis	Epilepsy	CVD	Kidney Disease
Severe Mental Illness	43.5	100.0	74.7	77.2	33.8	28.1	23.2	34.1	6.8	8.5	9.6	14.8	23.2	13.9	20.1	31.9	10.9
Mental Illness	46.2	70.4	100.0	70.9	42.0	33.7	28.0	35.8	11.0	12.6	8.7	16.9	29.9	17.8	19.4	41.0	16.4
Substance Abuse	54.4	61.9	60.3	100.0	35.4	25.9	21.4	32.8	7.5	9.4	11.2	10.7	23.1	14.5	16.4	34.4	11.2
Hypertension	37.6	39.1	51.6	51.1	100.0	47.4	41.4	30.7	28.2	22.1	5.6	17.8	29.3	22.6	13.9	62.2	30.8
Hyperlipidemia	29.8	41.0	52.2	47.1	59.8	100.0	54.9	37.7	27.8	33.4	5.6	23.6	30.9	25.1	15.0	70.4	31.5
Diabetes	27.8	36.3	46.5	41.8	56.0	58.8	100.0	35.4	25.7	25.3	5.4	24.3	28.1	22.8	13.2	64.9	34.3
Asthma	28.3	52.4	58.5	62.9	40.8	39.7	34.8	100.0	15.3	17.4	12.3	22.0	34.3	33.0	16.7	47.7	18.4
Congestive Heart Failure	13.4	22.1	37.9	30.6	79.5	61.9	53.5	32.3	100.0	41.2	4.1	21.1	26.1	33.9	8.9	100.0	50.3
Angina & Ischemic HD	12.2	30.5	47.8	41.8	68.2	81.5	57.6	40.3	45.1	100.0	4.6	24.1	33.8	31.5	11.7	100.0	41.9
HIV	8.3	50.2	48.4	73.5	25.2	20.0	18.1	41.9	6.7	6.8	100.0	4.9	26.6	16.4	13.2	31.1	17.9
Obesity	12.7	50.5	61.4	45.8	52.6	55.4	53.1	49.0	22.2	23.1	3.2	100.0	39.3	25.7	16.5	60.1	27.2
Osteoarthritis	22.1	45.7	62.7	56.8	49.9	41.8	35.5	44.0	15.8	18.7	10.0	22.7	100.0	25.5	15.1	52.0	24.9
COPD & Bronchiectasis	15.5	38.8	53.0	50.6	54.7	48.1	40.7	60.1	29.2	24.8	8.7	21.0	36.1	100.0	14.0	67.2	27.0
Epilepsy	13.5	65.1	66.6	66.3	38.8	33.2	27.2	35.1	8.9	10.6	8.1	15.6	24.8	16.2	100.0	41.1	16.3
CVD	41.9	33.2	45.3	44.6	55.9	50.2	43.1	32.3	32.0	29.2	6.2	18.3	27.4	25.0	13.2	100.0	35.4
Kidney Disease	18.8	25.2	40.4	32.4	61.5	49.9	50.6	27.6	35.8	27.2	7.9	18.3	29.1	22.3	11.7	78.6	100.0
Total	**100.0**	**43.5**	**46.2**	**54.4**	**37.6**	**29.8**	**27.8**	**28.3**	**13.4**	**12.2**	**8.3**	**12.7**	**22.1**	**15.5**	**13.5**	**41.9**	**18.8**

Note: Diagnosis History During Period of July 1, 2010 through June 30, 2011.

Source: Health Homes: Improving Health Outcomes for Women of Reproductive Age, Public Health Committee of the Public Health and Health Planning Council, as provided by SDOH, 2014

Table 70. Percentage of Renter Households Considered Severe Crowding

	Severe Crowding Rate - Percentage of Renter Households with 1.5 Occupants per Room or More (Severe Crowding), by PUMA, Census ACS				
Region	2005	2006	2007	2008	2009
New York City	**3.01**	**3.41**	**3.17**	**4.67**	**4.04**
Queens	**3.70**	**4.10**	**3.83**	**5.69**	**4.42**
Astoria	3.68	2.85	3.53	3.10	2.96
Bayside/Little Neck	2.17	2.76	0.89	2.06	0.42
Elmhurst/Corona	7.09	8.13	7.45	13.19	10.74
Flushing/Whitestone	3.98	3.98	4.11	4.78	4.25
Hillcrest/Fresh Meadows	2.24	3.46	6.50	3.77	2.21

	Severe Crowding Rate - Percentage of Renter Households with 1.5 Occupants per Room or More (Severe Crowding), by PUMA, Census ACS				
Region	2005	2006	2007	2008	2009
Jackson Heights	8.57	7.20	9.33	12.52	9.68
Jamaica	5.15	4.13	3.70	5.15	3.81
Middle Village/Ridgewood	1.30	1.10	1.04	1.97	3.76
Ozone Park/Woodhaven	3.26	2.39	2.66	2.93	3.29
Queens Village	0.36	1.38	1.25	0.99	1.85
Rego Park/Forest Hills	2.45	2.74	0.98	2.25	3.77
Rockaways	2.55	6.04	1.04	9.80	2.17
South Ozone Park/Howard Beach	0.94	1.59	2.31	3.46	0.56
Sunnyside/Woodside	2.15	6.66	4.35	8.28	6.13
East New York/Starrett City	0.86	2.30	0.81	6.26	4.64

Source: The Furman Center New York City Neighborhood Information, 2005-2009

Table 71. Serious Housing Violations by Community District

Serious Housing Violations by Community District, 2008	Rate/1000 Rental Units
New York City	53.79
QN01: Astoria	11.10
QN02: Woodside/Sunnyside	21.25
QN03: Jackson Heights	33.60
QN04: Elmhurst/Corona	16.09
QN05: Ridgewood/Maspeth	22.78
QN06: Rego Park/Forest Hills	7.68
QN07: Flushing/Whitestone	11.79

QN08: Hillcrest/Fresh Meadows	11.57
QN09: Kew Gardens/Woodhaven	26.45
QN10: South Ozone Park/Howard Beach	33.61
QN11: Bayside/Little Neck	5.95
QN12: Jamaica/Hollis	51.34
BK05: East New York/Starrett City	101.10

Source: The Furman Center New York City Neighborhood Information, 2008

Table 72. Domain 2.a Metrics. Implementation of Care Coordination and Transitional Care Programs

Measure Name	**NYS**	**NYC**	**Queens**	**QSA**
Potentially Avoidable Emergency Room Visits: ED Visits for Ambulatory Sensitive Conditions, Potentially Preventable Visits (PPV), per 100 Recipients, 2012	36 2,111,519	34 1,191,549	27 247,384	28 270,336
Potentially Avoidable Readmissions, by hospital location, 2012*	40,687	24,388	2,873	
PQI Suite – Composite of All Measures: Adult, per 100,000 Recipients, 2012	1,784	1,822	1,482	1,579
Acute Conditions Composite (PQI 91)	*530*	*525*	*474*	*503*
Chronic Conditions Composite (PQI 92)	*1,254*	*1,295*	*1,008*	*1,078*
PDI Suite – Composite of All Measures: Pediatric, per 100,000 Recipients,2012	323	383	235	245
Acute Conditions Composite (PDI 91)	*75*	*87*	*79*	*77*
Chronic Conditions Composite (PDI 92)	*248*	*296*	*154*	*166*

Data Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH. Rates are risk-adjusted expected (controlling for race/ethnicity,

gender, age and case mix)

**HHC analysis of Potentially Preventable Readmissions data by hospital, New York State Department of Health*

Table 73. Domain 3 Metrics, Behavioral Health

Select Clinical Improvement Measures, 2012	**NYS**	**NYC**	**Queens**
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management:			
Effective Continuation Phase Treatment	37%		
Effective Acute Phase Treatment*	50%	47%	49%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	66%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	80%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up care for Children Prescribed ADHD Medications:			
Initiation Phase*	56%	64%	62%
Continuous Phase	63%		
Follow-up after hospitalization for Mental Illness:			
Within 7 Days	65%		
Within 30 Days*	55%	51%	50%
Screening for Clinical Depression and follow-up			
Adherence to Antipsychotic Medications (at least 80% of treatment time) for People with Schizophrenia (aged 19-64 yrs)*	64%	63%	71%
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	74%

Select Clinical Improvement Measures, 2012	NYS	NYC	Queens
Additional behavioral health measures for provider systems implementing the Behavioral Interventions Paradigm in Nursing Homes (BIPNH) project:			
PPR for SNF patients	[No known public source]		
Percent of Long Stay Residents who have Depressive Symptoms**	12.23%	[See source note]	[See source note]

Sources:
**Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*
*** Source: Nursing Home Quality Initiative 2012 (this source does not provide data at the city or county level).*

Table 74. Domain 3: Behavioral Health Metrics at UHF neighborhood level

Neighborhood/Region	Adherence to Antipsychotic Medications for Individuals With Schizophrenia	Antidepressant Medication Management-Effective Acute Phase Treatment	Diabetes Monitoring for People With Diabetes and Schizophrenia	Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications	Follow-up After Hospitalization for Mental Illness within 30 Days	Follow-Up Care for Children Prescribed ADHD Medication-Initiation Phase	Initiation of Alcohol and Other Drug Dependence Treatment
Bayside/Little Neck	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	N/A- Small Sample Size	77.89
Flushing/Clearview	76.11	50.67	60.00	79.53	59.20	72.73	75.39
Fresh Meadows	64.29	51.32	N/A- Small Sample Size	87.06	66.07	N/A- Small Sample Size	72.12
Jamaica	59.75	42.57	76.47	80.07	46.78	58.77	76.78
Long Island City/Astoria	63.43	48.48	N/A- Small Sample Size	73.74	50.00	70.97	74.45
Ridgewood/Forest Hills	69.86	54.55	N/A- Small Sample Size	78.13	49.49	62.16	74.91
Rockaway	80.90	42.31	42.25	84.31	50.31	67.61	74.70
Southeast Queens	64.52	51.35	62.86	75.45	30.60	N/A- Small Sample Size	71.96
Southwest Queens	66.83	50.69	N/A- Small Sample Size	83.69	58.47	56.60	74.04
West Queens	73.55	47.57	76.43	80.43	59.06	63.98	71.97
NYS	**63.18**	**48.87**	**68.48**	**78.83**	**55.19**	**56.54**	**78.05**

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH

Table 76. Select Medicaid Managed Care Clinical Improvement Measures: Mental Health

Select Medicaid Managed Care (MMC) Clinical Improvement Measures, 2012	NYS	NYC	Queens
Antidepressant Medication Management:			
Effective Continuation Phase Treatment	37%		
Effective Acute Phase Treatment*	50%	47%	49%
Follow-up care for Children Prescribed ADHD Medications:		[No known public source]	[No known public source]
Initiation Phase*	57%		
Continuous Phase	63%		
Follow-up after hospitalization for Mental Illness:		[No known public source]	[No known public source]
Within 7 Days	65%		
Within 30 Days*	79%		

Sources:
**Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*
QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 77. Managed Care Organizations

Plan	Total New York City Enrollment, 2012	Plan Type
HealthFirst PHSP, Inc.	457,055	PHSP
MetroPlus Health Plan, Inc.	378,067	PHSP
Amerigroup, Inc.	337,758	PHSP
New York State Catholic Health Plan, Inc.	283,847	(Fidelis Care) PHSP
UnitedHealthcare of New York, Inc.	198,809	HMO
Affinity Health Plan, Inc.	150,914	PHSP
Neighborhood Health Providers, Inc.	167,245	PHSP
Health Insurance Plan of Greater New York	157,530	HIP (Emblem Health) HMO
WellCare of New York, Inc.	52,534	PHSP
Total	**2,200,890**	

Source: New York State Department of Health Division of Managed Care, "2012 Monthly Medicaid Managed Care Enrollment," 2012

Table 78. Household Type

Household Type	NYS	NYC	Queens
Total Households	7,130,896	3,063,393	776,311
Family Households	4,646,324	1,843,819	525,813
Family Households - Married couple	3,224,971	1,103,512	348,463
Family Households - Male Householder no spouse	351,847	170,979	51,753
Family Households - Female Householder no spouse	1,069,506	569,328	125,597
Non-family Households	2,584,572	1,219,574	250,498
Non-family Households - Living alone	2,119,199	996,487	203,488
% of Total Households - Living Alone	30%	33%	26.2%
Non-family Households - Not living alone	465,373	223,087	47,010

Source: US Census American Community Survey, 5-year table, 2008-2012

Table 79. Insurance Status

Insurance Status	NYS	NYC	Queens	QSA
Total Medicaid (MA) Beneficiaries	5,835,794	3,588,107	915,815	953,962
Total Population	19,398,125	8,199,221	2,235,008	2,166,613
Total Uninsured	2,161,817	1,160,829	390,647	391,145
% Total Uninsured	11%	14%	17.5%	18.1%
MA Beneficiaries, % of Population	30%	44%	41.0%	44.0%
Dual Eligible Beneficiaries	853,866	467,749	109,085	106,060
Older Adult 65+ Population	2,640,634	1,002,872	279,471	259,040
Non Dual Beneficiaries	4,981,928	3,120,358	806,730	847,902
Older Adult 65+ Uninsured	26,086	17,769	6,488	6,805
Older Adult 65+ % Uninsured	1%	1.8%	1.7%	1.7%
Dual Eligible Benefic/ 65+ Pop	32%	47%	39.0%	40.9%
Child 0-17 Beneficiaries	1,979,039	1,180,983	288,970	307,518

Insurance Status	NYS	NYC	Queens	QSA
Total Child 0-17 Population	4,316,920	1,774,909	462,002	464,230
Child 0-17 Uninsured	197,779	80,534	25,028	25,156
% Child 0-17 Uninsured	4.6%	4.5%	5.4%	5.4%
Child 0-17 Beneficiaries/Pop	46%	67%	62.5%	66.2%
Adult 18+ Beneficiaries	3,856,755	2,407,124	517,760	540,384
Total Adult 18+ Population	15,081,205	6,424,312	1,478,520	1,443,343
Adult 18+ Uninsured	1,964,038	1,080,295	359,131	359,184
% Adult 18+ Uninsured	13%	17%	24.3%	24.9%
Adult 18+ Beneficiaries/Pop	26%	37%	35.0%	37.4%

Source: US Census American Community Survey, 5-year table, 2008-2012

Table 80. Incarceration

Incarceration	NYS	NYC	Queens	QSA
NYC DOC Jail admissions (2007-2012), Average	94,951	71,929	11,687	13,465
NYC DOC Jail admissions rate per 100,000 Population (2007-2012), Average	489	877	523	621
NYS Prison admissions (2008)[a]	21,141	9,640	44	41

[a]*The most recent data available for NYS prison admissions is from 2008; it is likely that more recent figures would be significantly lower.*

Source: NYC Department of Corrections, 2012, as cited in http://gothamist.com/2013/05/01/these_interactive_charts_show_you_w.php and http://www.justiceatlas.org/

Table 81. Mental Health Readmissions Within 30/90 Days By Adults, Medicaid Fee For Service, 2012

Region	All Ages				
	# of Discharges	# of Readmissions in <= 30 Days to Any Region	Rate of Readmission in <= 30 Days to Any Region	# of Readmissions in <= 90 Days to Any Region	Rate of Readmission in <= 90 Days to Any Region
Queens	3,016	829	27.5%	1,226	39.6%
New York City	18,300	4,440	24.3%	6,777	36.1%
Statewide	32,242	7,212	22.4%	11,152	33.6%
Hospitals					
Elmhurst Hospital Center	797	193	24.2%	306	36.9%
Flushing Hospital Medical Center	164	66	40.2%	82	49.4%
Holliswood Hospital	1	0	0.0%	0	0.0%
Jamaica Hospital Medical Center	281	51	18.1%	80	27.8%
Long Island Jewish Medical Center	807	195	24.2%	325	39.3%
Queens Hospital	580	139	24.0%	212	35.6%
St Johns Episcopal Hospital	386	185	47.9%	221	56.7%

OMH, 2012

Table 82. Admissions Visits – Medicaid and Dual-Eligible Beneficiaries

Admissions – Medicaid and Dual-Eligibles	NYS	NYC	Queens	QSA
Dual Beneficiaries Admitted	149,622	89,093	19,326	18,339
Total Dual Admissions	207,893	125,358	26,832	25,335
Non Dual Beneficiaries Admitted	515,821	315,132	73,179	77,741
Total Non-Dual Admissions	746,996	468,005	100,780	107,581
Total Beneficiaries Admitted	665,443	404,225	92,505	96,080
Total Admissions	954,889	593,363	127,612	132,916
% Beneficiaries Admitted	11%	11%	10.1%	10.1%
Admissions per Beneficiary	0.16	0.17	0.14	0.14

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH

Table 83. ER Visits – Medicaid and Dual-Eligibles

ER Visits – Medicaid and Dual-Eligibles	NYS	NYC	Queens	QSA
Dual Beneficiaries ER	138,965	67,499	13,274	13,319
Dual Beneficiaries ER Visits	276,130	117,640	22,075	22,138
Non Dual Beneficiaries ER	1,324,449	773,479	177,128	191,894
Non Dual Beneficiaries ER Visits	2,607,918	1,470,587	314,951	343,610
Total Beneficiaries ER	1,463,414	840,978	190,402	205,213
Total ER Visits	2,884,048	1,588,227	337,026	365,748
% Beneficiaries with ER	25%	23%	20.8%	21.5%
ER Visits per Benefic. w/ ER visit	1.97	1.89	1.77	1.78

Source: Medicaid 2012 data, from Office of Quality and Patient Safety, 2014. Created by Office of Health Systems Management, NYSDOH

Table 84. Population Health Indicators: Cardiovascular Health

Population Health Indicator	NYS	NYC	Queens
Cardiovascular disease mortality rate per 100,000			
Crude	281.2	256.4	268.8
Age-adjusted	242.3	249.3	242.9
Premature death (aged 35-64 years)	100	107.8	95.2
Pretransport mortality	144.2	126.7	130.7
Cardiovascular disease hospitalization rate per 10,000			
Crude	178.2	176.9	171.2
Age-adjusted	159.9	173.6	158.5
Disease of the heart mortality rate per 100,000			
Crude	230.9	218.4	232.3
Age-adjusted	198.6	212.2	209.7
Premature death (aged 35-64 years)	81.2	86.9	78.5
Pretransport mortality	124.7	117.1	121.1
Disease of the heart hospitalization rate per 10,000			
Crude	120.6	117.3	117.4
Age-adjusted	107.9	114.9	108.5
Coronary heart disease mortality rate per 100,000			

Population Health Indicator	NYS	NYC	Queens
Crude	186.5	200	213.9
Age-adjusted	160.4	194.4	192.9
Premature death (aged 35-64 years)	66.5	77.4	71.1
Pretransport mortality	104	111	114.1
Coronary heart disease hospitalization rate per 10,000			
Crude	48.3	49.5	52.4
Age-adjusted	43	48.2	48.1
Congestive heart failure mortality rate per 100,000			
Crude	13.3	4.6	5.1
Age-adjusted	11.2	4.4	4.5
Premature death (aged 35-64 years)	1.5	0.9	0.8
Pretransport mortality	7.2	2.2	2.4
Congestive heart failure hospitalization rate per 10,000			
Crude	31.2	31	27.9
Age-adjusted	27.6	30.5	25.8
Cerebrovascular disease (stroke) mortality rate per 100,000			
Crude	31	19.7	20.3
Age-adjusted	26.9	19.3	18.6
Premature death (aged 35-64 years)	10.7	10.9	9.8
Pretransport mortality	11.3	3.8	4.4
Cerebrovascular disease (stroke) hospitalization rate per 10,000			
Crude	27.9	25.2	24.9
Age-adjusted	24.9	24.7	23.1
Hypertension hospitalization rate per 10,000 (aged 18 years and older)	7.9	11.3	9
Age-adjusted % of adults ever told they have high blood pressure (2008-2009)	25.7	28.8	29.7

Source: Cardiovascular Disease Indicators, Queens County, from County Health Assessment Indicators, 2009-2011 data http://www.health.ny.gov/statistics/chac/chai/docs/chr_58.htm

Table 85. Population Health Indicators: Sexually Transmitted Diseases

Population Health Indicator	NYS	NYC	Queens
HIV case rate per 100,000			
Crude	20	37.3	24.4
Age-adjusted	20	35.9	23.4
AIDS case rate per 100,000			
Crude	15.2	28.9	17.3
Age-adjusted	15.2	28.3	16.6
AIDS mortality rate per 100,000			
Crude	5.1	9.8	3.9
Age-adjusted	4.7	9.4	3.7
Early syphilis case rate per 100,000	12.4	25.7	13.7
Gonorrhea case rate per 100,000			
All ages	95.8	151.8	91.2
Aged 15-19 years	362	620.2	388.5
Chlamydia case rate per 100,000 males			
All ages	323	508.7	364.5
Aged 15-19 years	1,077.10	1,829.00	1,536.70
Aged 20-24 years	1,484.30	2,121.00	1,653.70
Chlamydia case rate per 100,000 females			
All ages	674	973.9	666.2
Aged 15-19 years	3,773.90	5,913.40	3,754.50
Aged 20-24 years	3,344.70	4,308.90	3,348.50
Pelvic inflammatory disease (PID) hospitalization rate per 10,000 females (aged 15-44 years)	3.5	4.8	3.1

Source: Queens County: County Health Assessment Indicators, 2009 – 2011 data, http://www.health.ny.gov/statistics/chac/chai/docs/sti_58.htm

Table 86. Fertility and Infant Mortality

Fertility and Infant Mortality	NYS	NYC	Queens	QSA
Births in past year per 1000 women age 15-50	50	52	38	
Births in past year per 1000 women age 15-19	17	21	15	
Births in past year per 1000 women age 20-34	84	76	41	
Births in past year per 1000 women age 35-50	30	33	39	
Births % Medicaid or self-pay	50%	60%	56.6%	59.4%
Births % Late or No prenatal care	5.5%	7%	7.5%	7.7%
Births % Low Birth Weight	8.1%	8.5%	8.1%	8.3%
Infant Mortality per 1000	4.8	4.4	4.45	4.62

Table 87. Population Health Indicators: Overweight/Obesity/Healthy Eating/Exercise

Population Health Indicator	NYS	NYC	Queens
% of pregnant women in WIC who were pre-pregnancy overweight but not obese (BMI 25-less than 30)	26.6	26.7	27.3
% of pregnant women in WIC who were pre-pregnancy obese (BMI 30 or higher)	24.2	21.4	18
% obese (95th percentile or higher) children in WIC (aged 2-4 years)	14.4	13.8	15.5
% of children in WIC viewing TV 2 hours or less per day (aged 2-4 years) (2009-2011)	79.1	77.9	85.8
% of WIC mothers breastfeeding at least 6 months (2009-2011)	38.3	46.2	46.1
Age-adjusted % of adults overweight or obese (BMI 25 or higher) (2008-2009)	59.3	57.9	56.4
Age-adjusted % of adults obese (BMI 30 or higher) (2008-2009)	23.1	22.6	20.6
Age-adjusted % of adults who participated in leisure time physical activity in last 30 days (2008-2009)	76.3	72.7	71.9
Age-adjusted % of adults eating 5 or more fruits or vegetables per day (2008-2009)	27.1	9.4	6.8
Age-adjusted % of adults with physician diagnosed diabetes (2008-2009)	9	9.7	11
			N/A
Age-adjusted mortality rate per 100,000	**658.1**	**604**	
Cardiovascular disease mortality (2009-2011)	242.3	249.3	242.9

Population Health Indicator	NYS	NYC	Queens
Cerebrovascular disease (stroke) mortality (2009-2011)	26.9	19.3	18.6
Diabetes mortality (2009-2011)	17	20.1	15.8
Age-adjusted hospitalization rate per 10,000	**1,230.4**	**1,340.4**	
Cardiovascular disease hospitalizations (2009-2011)	159.9	173.6	158.5
Cerebrovascular disease (stroke) hospitalizations (2009-2011)	24.9	24.7	23.1
Diabetes hospitalizations (primary diagnosis) (2009-2011)	18.8	25.6	18.6

Source: Queens County: County Health Assessment Indicators, 2010 – 2012 data
http://www.health.ny.gov/statistics/chac/chai/docs/obs_60.htm

Table 88. Tobacco Usage and Cessation

Measure	NYS	NYC	Queens
Percentage of cigarette smoking among adults[a]	16.2	15.6	14.9
Medical Assistance with Smoking Cessation[b]	[No known public source]	5.8% (4.3-7.8)	4.6% (2.5-8.3)
Age-adjusted % of adults living in homes where smoking is prohibited (2008-2009)[c]	80.9	79.6	79.2

Sources:
[a] State data obtained from 2012 Behavioral Risk Factor Surveillance System (BRFSS) as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard. City and county data retrieved from: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [Community Health Survey 2012]. [1 August 2014]. http://nyc.gov/health/epiquery
[b] NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)
[c]Source: County Health Assessment Indicators, http://www.health.ny.gov/statistics/chac/chai/docs/sub_58.htm
Source: NYC DOHMH Community Health Survey, 2012

Table 89. Chlamydia Incidence Rate, by Neighborhood

Neighborhood	Chlamydia Rate per 100,000	Absolute #
New York City	**697.7**	**58,353**
Queens	**466.5**	**10,757**
Astoria	319.8	712
West Queens	517.2	2646
Flushing	168.7	466
Bayside	123.5	111
Forest Hills	209.1	496
Fresh Meadows	219.6	208
Southwest Queens	375.4	1033
Jamaica	890	2573
Southeast Queens	688.6	1375
Rockaway	685	751
Queens- neighborhood unknown	n/a	386

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 90. Gonorrhea Incidence Rate, by Neighborhood

Neighborhood	Gonorrhea Rate per 100,000	Absolute #
New York City	**130.3**	**10,898**
Queens	**78.4**	**1,808**
Astoria	159	71.4
West Queens	300	58.6
Flushing	52	18.8
Bayside	6	6.7
Forest Hills	68	28.7
Fresh Meadows	24	25.3
Southwest Queens	155	56.3
Jamaica	583	201.7
Southeast Queens	260	130.2
Rockaway	139	126.8
Queens- neighborhood unknown	n/a	62

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 91. HIV Diagnosis Rate, 2011, by Neighborhood

Neighborhood	HIV Rate per 100,000	Absolute #
New York City	**41.2**	**3,404**
Queens total	**22.4**	**505**
Long Island City - Astoria	34.9	60
West Queens	6.9	172
Flushing - Clearview	8	18
Bayside - Little Neck	13.9	7
Ridgewood - Forest Hills	8.2	34
Fresh Meadows	16.1	8
Southwest Queenss	36.1	43
Jamaica	15.8	105
Southeast Queens	23.5	31
Rockaway	34.9	27

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [HIV/AIDS Surveillance Data, 2011]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 92. Moderate - Serious Psychological Distress by Neighborhood

Neighborhood	Moderate-Serious Psychological Distress*	Absolute #
New York City	**31.9**	**2,010,000**
Queens	**30**	**525,000**
LIC, Astoria	35.73	60,000
West Queens	33.07	117,000
Flushing	26.16	53,000
Bayside Little Neck-Fresh Meadows	22.05	32,000
Ridgewood	26.89	52,000
SouthWest Queens	38.48	78,000
Jamaica	29.92	65,000
SouthEast Queens	20.77	32,000
Rockaway	24.76	19,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

Table 93. Moderate - Serious Psychological Distress by Selected Characteristics

		Low Risk NSPD			Moderate NSPD			Serious NSPD		
Variable	**Level**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**
Insurance Status	**Private (Includes Employer sponsored, Medicare, VA, Tricare)**	65.1	74.0	2,773,510	49.5	21.7	813,758	47.9	4.3	161,303
	Medicaid	17.2	58.7	732,926	25.5	33.6	419,889	28.6	7.7	96,196
	Uninsured	17.7	60.7	756,418	24.9	32.9	409,807	23.5	6.3	79,035
Received counseling or meds for mental health problem IN LAST 30 DAYS	**Yes**	3.2	27.3	139,075	14.5	47.4	241,178	37.2	25.3	129,018
	No	96.8	71.7	4,148,820	85.5	24.5	1,420,106	62.8	3.8	217,765
Received counseling or meds for mental health problem IN LAST 12 MONTHS	**Yes**	4.5	30.4	193,593	16.9	44.0	280,476	46.9	25.6	162,870
	No	95.5	72.4	4,092,314	83.1	24.4	1,376,701	53.1	3.3	184,328
Ever told had bipolar disorder, mania, psychosis, schizophrenia, or schizoaffective disorder	**Yes**	0.7	18.1	28,429	4.0	41.7	65,468	18.6	40.2	63,247
	No	99.3	69.5	4,249,292	96.0	26.0	1,587,134	81.4	4.5	277,242
Nativity	**US born**	52.0	69.7	2,221,143	48.7	25.2	804,458	46.1	5.0	160,466
	Foreign born	48.0	66.4	2,053,326	51.4	27.5	849,106	53.9	6.1	187,787
Employment status	**Employed**	61.2	71.7	2,616,879	53.8	24.5	893,202	41.0	3.8	140,170
	Unemployed	8.0	53.7	342,360	14.5	37.8	241,227	15.8	8.5	54,124
	Not in labor force	30.8	66.2	1,319,476	31.6	26.3	524,622	43.2	7.4	147,890
Household poverty level	**<200%**	41.4	60.7	1,669,905	53.6	31.5	867,938	62.7	7.8	215,341
	200-399%	15.6	71.3	630,467	13.9	25.4	224,899	8.5	3.3	29,142

		Low Risk NSPD			Moderate NSPD			Serious NSPD		
Variable	**Level**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**
	400+%	33.2	76.6	1,338,416	22.5	20.8	363,824	13.2	2.6	45,260
	Don't know	9.7	64.5	391,770	10.0	26.6	161,424	15.7	8.9	53,938
Binge Drinking: During the past 30 days, had 5 or more drinks on one occasion?	**Yes**	12.2	62.3	522,941	15.5	30.4	255,237	18.0	7.4	61,864
	No	87.8	69.2	3,747,969	84.5	25.6	1,387,019	82.0	5.2	281,708
Heavy alcohol drinking (all adults)	**Yes**	4.9	56.8	206,850	7.1	31.9	116,101	12.0	11.3	41,331
	No	95.1	69.0	4,042,704	92.9	25.9	1,516,970	88.0	5.2	302,835
Smoking status	**Never**	68.5	71.2	2,923,208	62.6	25.3	1,036,982	42.1	3.5	145,561
	Current	11.9	51.7	506,575	21.0	35.5	348,095	36.4	12.8	125,968
	Former	19.6	70.8	835,356	16.3	22.9	270,646	21.5	6.3	74,223
Borough of residence	**Bronx**	14.3	61.8	613,673	18.5	31.0	307,723	20.3	7.1	70,836
	Brooklyn	29.7	67.1	1,275,508	30.7	26.8	509,516	32.9	6.0	114,490
	Manhattan	21.5	71.0	924,776	18.8	24.0	312,927	18.6	5.0	64,816
	Queens	28.7	70.2	1,234,372	26.7	25.2	443,855	23.2	4.6	80,699
	Staten Island	5.8	70.3	248,835	5.3	24.8	87,651	5.0	5.0	17,534

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

Table 94. Obesity Rate by Neighborhood

Neighborhood	% Obese*	Absolute #
New York City	**24.1**	**1,495,000**
Queens	**22.2**	**385,065**
LIC, Astoria	23.8	39,000
West Queens	23.3	80,000
Flushing	17.2	35,000
Bayside Little Neck-Fresh Meadows	14.2	21,000
Ridgewood	17.0	32,000
SouthWest Queens	25.5	51,000
Jamaica	26.7	56,000
SouthEast Queens	25.8	39,000
Rockaway	35.2	27,000
East New York	37.0	48,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

Table 95. Percentage of People who Reported Binge Drinking (Last 30 Days), by Neighborhood

Neighborhood	% Binge Drink*	Absolute #
New York City	**19.6**	**1,225,000**
Queens	**18.0**	**310,000**
LIC, Astoria	22.6	37,000
West Queens	23.6	82,000
Flushing	18.2	37,000
Bayside Little Neck-Fresh Meadows	7.5	11,000
Ridgewood	13.5	25,000
SouthWest Queens	21.7	44,000
Jamaica	13.0	28,000
SouthEast Queens	13.9	21,000
Rockaway	15.2	12,000
East New York	18.4	24,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

Table 96. Percentage of People who Reported No Fruit of Vegetable Consumption (Yesterday), by Neighborhood

Neighborhood	% No Fruit/Vegetable Consumption*	Absolute #
New York City	**12.5**	**772,000**
Queens	**9.8**	**169,000**
LIC, Astoria	7.7	13,000
West Queens	10.2	35,000
Flushing	12.4	25,000
Bayside Little Neck-Fresh Meadows	3.3	5,000
Ridgewood	12.2	23,000
SouthWest Queens	8.5	17,000
Jamaica	11.6	25,000
SouthEast Queens	8.9	13,000
Rockaway	14.2	11,000
East New York	23.0	29,000

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

Table 97. Percentage of People who Reported Inactive Physical Activity, on Average (Per Week), by Neighborhood

Neighborhood	% Inactive*	Absolute #
New York City	**21.6**	**1,322,000**
Queens	**22.3**	**410,000**
LIC, Astoria	19.0	31,000
West Queens	21.2	71,000
Flushing	21.2	42,000
Bayside Little Neck-Fresh Meadows	30.4	42,000
Ridgewood	23.2	44,000
SouthWest Queens	17.5	35,000
Jamaica	21.7	46,000
SouthEast Queens	23.4	35,000
Rockaway	24.8	19,000
East New York	18.3	23,465

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

Table 98. Current Smokers, Percent by Neighborhood

Neighborhood	% Current Smoker*	Absolute #
New York City	**15.6**	**981,000**
Queens	**14.9**	**261,000**
LIC, Astoria	16.0	27,000
West Queens	15.9	56,000
Flushing	16.3	33,000
Bayside Little Neck-Fresh Meadows	13.2	19,000
Ridgewood	17.3	33,000
SouthWest Queens	11.9	24,000
Jamaica	13.8	30,000
SouthEast Queens	9.0	14,000
Rockaway	18.6	14,000
East New York	16.7	21,165

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

Table 99. Tobacco Usage and Selected Characteristics

		Current Smoker			Former Smoker			Never Smoker		
Variable	**Level**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**
Insurance Status	**Private (Includes Employer sponsored, Medicare, VA, Tricare)**	52.1	13.5	503,539	73.7	23.3	865,999	57.8	63.2	2,348,005
	Medicaid	24.4	19.0	236,390	12.0	11.4	141,147	21.3	69.6	864,989
	Uninsured	23.5	18.3	227,056	14.2	13.5	167,129	20.9	68.3	847,989
Have one or more personal care providers?	**Yes**	75.4	14.5	738,168	86.6	20.1	1,021,059	81.5	65.4	3,324,119
	No	24.6	20.9	240,846	13.4	13.7	157,483	18.5	65.4	754,190
Nativity	**US born**	60.2	18.7	590,339	62.0	23.2	731,677	45.0	58.1	1,834,756
	Foreign born	39.8	12.7	390,299	38.0	14.6	448,396	55.0	72.8	2,240,219
Employment status	**Employed**	60.7	16.3	590,444	56.9	18.5	669,959	57.9	65.2	2,365,593
	Unemployed	13.2	20.4	128,985	6.9	12.9	81,648	10.3	66.7	422,844
	Not in labor force	26.1	12.8	254,056	36.2	21.5	425,691	31.8	65.7	1,300,734
Age group in years	**18 - 24**	10.3	12.5	100,566	3.3	4.8	39,030	16.3	82.7	65,513

		Current Smoker			Former Smoker			Never Smoker		
Variable	**Level**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**
	25 - 44	49.5	19.2	485,281	29.5	13.8	347,566	41.3	67.0	1,688,328
	45 - 64	32.2	16.0	315,881	41.0	24.6	483,987	28.6	59.4	1,168,360
	65+	8.0	8.2	78,372	26.2	32.4	309,576	13.9	59.5	568,944
Household poverty level	**<200%**	50.8	17.4	477,866	37.0	14.8	404,664	47.3	67.8	1,857,669
	200-399%	12.3	13.1	115,765	14.7	18.2	160,650	15.4	68.6	604,653
	400+%	29.6	16.0	278,203	42.9	27.1	469,754	25.1	56.9	985,554
	Don't know	7.2	11.3	68,054	5.4	9.8	58,948	12.1	78.9	475,619
Binge Drinking: During the past 30 days, had 5 or more drinks on one occasion?	**Yes**	26.3	30.8	253,957	17.1	24.0	198,165	9.1	45.1	371,918
	No	73.7	13.2	711,152	82.9	17.9	962,987	90.9	69.0	3,720,478
Heavy alcohol drinking (all adults)	**Yes**	11.8	32.4	113,060	8.0	26.7	93,196	3.5	40.9	142,471
	No	88.2	14.5	844,353	92.0	18.3	1,069,327	96.5	67.2	3,925,932
Ever been told you have diabetes?	**Yes**	8.8	13.0	85,934	14.6	25.9	171,676	9.9	61.2	405,547

		Current Smoker			Former Smoker			Never Smoker		
Variable	**Level**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**
	No	91.2	16.0	893,135	85.4	18.0	1,005,921	90.1	66.0	3,689,938
Ever told by a doctor, nurse or other hlth prof you have hypertension?	**Yes**	28.1	16.0	275,254	37.4	25.7	440,577	24.5	58.3	1,001,805
	No	71.9	15.6	705,384	62.6	16.2	736,185	75.5	68.2	3,089,764
Ever told by doctor, nurse, other hlth prof you have high cholesterol	**Yes**	27.7	14.9	268,824	39.5	25.7	463,052	26.2	59.3	1,067,230
	No	72.3	15.9	701,500	60.5	16.1	710,560	73.8	68.0	3,003,364
Ever told by doctor, nurse or other hlth prof that you had asthma?	**Yes**	16.2	20.2	159,008	12.8	19.1	150,647	11.7	60.7	478,031
	No	83.8	15.0	821,436	87.2	18.7	1,024,686	88.3	66.2	3,622,541
Borough of residence	**Bronx**	15.9	15.8	155,852	12.2	14.7	144,218	16.6	69.5	683,565
	Brooklyn	31.0	16.1	303,667	27.4	17.1	323,625	30.7	66.8	1,259,779
	Manhattan	20.6	15.6	201,636	23.5	21.4	276,900	19.8	63.0	813,543
	Queens	26.6	14.9		29.2	19.6		28.0	65.5	1,148,313

		Current Smoker			Former Smoker			Never Smoker		
Variable	**Level**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**	**Col. %**	**Row %**	**Weighted Population**
				261,316			344,386			
	Staten Island	5.9	16.6	58,166	7.7	26.0	91,096	4.9	57.3	200,551

Source: New York City Department of Health and Mental Hygiene. NYC Community Health Survey,2012

BROOKLYN COMMUNITY NEEDS ASSESSMENT APPENDIX B - TABLES

December 16, 2014

Original Version Prepared by The New York Academy of Medicine

Final Version Amended by New York City Health and Hospitals Corporation for Submission

CONTENTS

SECTION A: TABLES WITHIN THE CNA REPORT

Table 1: Specialty Physicians by Borough

	Bronx	Brooklyn	Manhattan	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO, and is based on primary specialty. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

Table 2: Medical Specialists by Borough

	Bronx	Brooklyn	Manhattan	Queens
Acupuncturist	4	16	36	24
Audiologist	23	46	71	26
Chiropractor	59	101	104	121
Occupational Therapist	51	114	67	43
Physical Therapist	370	539	231	306
Speech-Language Pathologist	25	142	100	49
Optometrist	100	215	325	214
Durable Medical Equipment Supplier	36	117	59	67
Hospital and Clinic Based Labs	14	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm

Table 3: Early Intervention Program Providers

	Brooklyn	Bronx	Manhattan	Queens	Staten Island	NYC Total (Unique)
Number of Providers	71	65	65	72	50	97
Services:						
Service Coordination	39	39	39	42	27	56
Screening	34	35	34	36	29	48
Evaluation	49	49	48	53	36	69
Psychological Services	7	5	7	11	7	16
Family Education	32	21	26	31	21	41
Family Counseling	14	13	13	14	9	20
Speech Therapy	34	29	30	37	24	45
Occupational Therapy	35	30	30	37	21	48
Physical Therapy	36	30	31	37	22	49

Table 4: Eating Disorder Providers by Borough

	Brooklyn	Manhattan	Queens	Staten Island	Grand Total
Number of Providers	5	101	2	1	109

Table 5 - Total Population by Age Group with No Health Insurance Coverage

	No Health Insurance Coverage																		
	Total	**Under 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	1.5	1.5	2.0	4.9	14.6	16.5	13.3	10.7	9.3	8.1	6.7	5.4	3.9	0.8	0.3	0.2	0.1	0.1
NYC Subtotal		9.9				55.1				33.5					1.5				
Brooklyn (%)	100	1.6	1.6	1.9	4.9	15.1	17.4	13.2	10.1	8.8	7.7	6.6	5.4	4.2	0.8	0.4	0.2	0.1	0.1
Brooklyn Subtotal		10				55.8				32.6					1.6				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 6 - Total Population by Age Group with Medicaid/Low Income Medical Assistance

	Population with Medicaid/Low Income Medical Assistance																
	Total	**Under 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-7**
NYC	100	11.4	10.1	9.7	9.3	7.1	5.4	4.9	4.7	5.2	5.6	5.1	4.5	4.0	3.2	3.0	2.5
		40.4				22.1				24.4					13.1		
Brooklyn (%)	100	12.4	10.4	9.6	8.9	7.3	6.1	5.1	4.7	4.6	5.2	4.8	4.0	3.7	2.9	3.0	2.6
		41.3				23.3				22.4					13		

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 7 - Total Population by Age Group with Other Insurance

	Other Insurance																		
	Total	**Under 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC (%)	100	5.1	4.5	4.7	5.2	6.4	8.9	8.5	7.5	7.5	7.3	7.3	6.7	5.9	4.7	3.4	2.6	1.9	1.8
		19.5				31.4				34.6					14.5				
Brooklyn (%)	100	5.3	5.0	5.2	5.5	6.3	8.5	8.7	7.6	7.5	7.1	7.2	6.7	6.1	4.4	3.2	2.2	1.8	1.6
		21.1				31.1				34.5					13.3				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 8 - Top Places of Birth Among Foreign Born With No Health Insurance

	Total	Mexico	China	Jamaica	Trinidad & Tobago	Ecuador	Dominican Republic	Haiti	Guyana
New York City	**724,452**	**131,000**	**60,385**	**32,639**	**20,659**	**56,982**	**74,765**	**14,315**	**25,737**
Brooklyn	**207,094**	**36,015**	**22,783**	**12,698**	**11,659**	**11,208**	**10,663**	**9,696**	**7,025**
Greenpoint & Williamsburg	8,148	1,459	223	16	-	487	1,020	-	21
Bushwick	20,387	7,955	328	188	311	5,003	2,380	177	368
Bedford-Stuyvesant	6,747	798	165	350	646	419	779	-	438
Brooklyn Heights & Fort Greene	4,591	891	259	522	211	54	168	46	96
Park Slope, Carroll Gardens & Red Hook	3,172	896	-	61	189	122	262	52	-
Crown Heights North & Prospect Heights	9,326	773	92	1,158	1,353	-	304	493	600
Brownsville & Ocean Hill	7,788	310	71	945	1,022	66	569	190	628
East New York & Starrett City	11,696	904	44	744	989	958	2,608	122	1,771
Canarsie & Flatlands	10,761	670	129	1,761	1,217	57	69	2,618	526
East Flatbush, Farragut & Rugby	15,012	514	41	3,894	2,445	66	111	2,032	1,178
Crown Heights South, Prospect Lefferts & Wingate	11,454	344	179	1,861	1,922	70	135	1,958	847
Sunset Park & Windsor Terrace	25,893	9,277	8,278	91	134	2,049	1,216	53	16
Bay Ridge & Dyker Heights	8,638	1,182	1,956	-	16	170	118	-	15
Borough Park, Kensington & Ocean Parkway	13,185	2,854	1,820	-	-	402	162	216	174
Flatbush & Midwood	16,995	3,341	798	1,018	1,146	172	488	1,673	290
Sheepshead Bay, Gerritsen Beach & Homecrest	7,894	530	995	-	13	170	19	-	57
Bensonhurst & Bath Beach	18,364	2,217	6,357	89	-	943	225	-	-
Brighton Beach & Coney Island	7,043	1,100	1,048	-	45	-	30	66	-

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 9 - Top Places of Birth among Foreign Born with Medicaid/Low Income Medical Assistance

	Total	China	Dominican Republic	Haiti	Jamaica	Ukraine	Russia	Mexico	Trinidad & Tobago	Guyana	Ecuador
New York City	**1,280,549**	**152,430**	**223,746**	**41,369**	**62,456**	**28,136**	**29,432**	**54,940**	**32,125**	**54,137**	**54,338**
Brooklyn	**424,938**	**66,817**	**33,967**	**27,781**	**26,724**	**22,585**	**19,910**	**17,790**	**17,537**	**16,245**	**10,775**
Greenpoint & Williamsburg	15,281	1,696	3,165	-	17	102	144	1,176	62	34	640
Bushwick	23,394	1,304	8,920	195	767	14	47	2,800	460	530	4,291
Bedford-Stuyvesant	12,610	235	3,068	390	911	16	57	327	982	943	141
Brooklyn Heights & Fort Greene	8,911	1,058	903	685	295	92	27	408	353	87	64
Park Slope, Carroll Gardens & Red Hook	6,384	301	438	128	144	138	57	751	81	100	279
Crown Heights North & Prospect Heights	15,457	440	1,060	1,314	2,094	52	155	393	1,927	1,403	140
Brownsville & Ocean Hill	14,133	260	2,240	909	2,094	-	-	292	1,144	1,719	184
East New York & Starrett City	24,472	553	7,257	213	1,925	782	498	309	1,657	2,647	1,176
Canarsie & Flatlands	31,543	732	601	8,107	5,925	449	521	527	2,890	1,720	169
East Flatbush, Farragut & Rugby	28,321	-	514	6,066	6,765	-	-	145	3,368	3,632	122
Crown Heights South, Prospect Lefferts & Wingate	21,014	583	430	3,749	3,184	157	121	202	2,419	1,596	-
Sunset Park & Windsor Terrace	36,550	20,149	3,270	141	130	380	403	4,078	87	140	1,356
Bay Ridge & Dyker Heights	23,914	8,988	120	47	32	661	850	787	57	20	170
Borough Park, Kensington & Ocean Parkway	28,443	4,228	307	538	189	1,092	2,247	1,255	32	506	455
Flatbush & Midwood	33,431	979	720	4,657	2,206	2,169	2,253	1,583	1,865	1,002	584
Sheepshead Bay, Gerritsen Beach & Homecrest	28,082	3,875	104	152	46	5,150	4,627	289	27	66	236
Bensonhurst & Bath Beach	46,286	18,483	522	18	-	3,647	3,035	1,395	50	64	696
Brighton Beach & Coney Island	26,712	2,953	328	472	-	7,684	4,868	1,073	76	36	72

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 10 – Nativity by Insurance Status

Region	No Health Insurance Coverage		Population with Medicaid/Low Income Medical Assistance		Other Insurance	
	% Foreign Born	% Native	% Foreign Born	% Native	% Foreign Born	% Native
New York City	62%	38%	35%	65%	32%	68%
Brooklyn	60%	40%	34%	66%	34%	66%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 11– Limited English Proficiency by Insurance Status

	% Low English Proficiency		
Region	**No Health Insurance Coverage**	**Population with Medicaid/Low Income**	**Other Insurance**
New York City	40%	29%	14%
Brooklyn	37%	29%	15%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 12 – Languages Spoken At Home Among Populations With LEP, by Insurance Status

LANGUAGES SPOKEN AT HOME AMONG POPULATIONS WITH LOW ENGLISH PROFICIENCY WITH NO HEALTH INSURANCE					LANGUAGES SPOKEN AT HOME AMONG POPULATIONS WITH LOW ENGLISH PROFICIENCY WITH MEDICAID/LOW INCOME MEDICAL				
	New York City	**Percent**	**Brooklyn**	**Percent**		**New York**	**Percent**	**Brooklyn**	**Percent**
LEP Language	**470,669**	**100%**	**128,331**	**100**	**LEP Language**	**686,792**	**100.0%**	240,637	100%
Spanish	299,759	64%	67,513	53%	Spanish	355,732	52%	73,505	30.5%
Chinese	36,616	8%	6,440	5%	Chinese	67,666	10%	23,307	9.7%
Korean	17,497	4%			Russian	48,401	7%	34,510	14.3%
Mandarin	15,807	3%	4,094	3%	Cantonese	30,822	5%	18,062	7.5%
Russian	12,272	3%	7,498	6%	Bengali	24,008	4%	2,410	1.0%
Polish	7,923	2%	1,820	1%	Mandarin	21,487	3%	9,333	3.9%
French Creole	7,811	2%	4,426	3%	Yiddish	18,246	3%	15,755	6.5%
Bengali	7,219	2%			French Creole	16,225	2%	10,344	4.3%
Cantonese	7,137	2%	2,645	2%	Korean	10,998	2%		
Arabic	5,771	1%			Arabic	10,446	2%	2,207	0.9%
French	5,256	1%			Urdu	8,764	1%	1,826	0.8%
Panjabi	4,073	1%			French	5,641	0.8%		

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 13 - Educational Attainment for Population with No Health Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	30%	29%	20%	21%
Brooklyn	31%	29%	20%	20%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 14 - Educational Attainment for Population with Medicaid/Low Income Medical Assistance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	40%	29%	19%	12%
Brooklyn	38%	31%	19%	12%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 15 - Educational Attainment for Populations with Other Insurance

	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	11%	22%	22%	45%
Brooklyn	12%	26%	22%	40%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 16 - Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%
2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%
8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 17 - Leading Causes of Death, Brooklyn, 2012

Rank	Top 10 Leading Causes of Mortality	Total Reported	Percent of Total
1	Diseases of Heart	5,024	33.4%
2	Malignant Neoplasms	3,720	24.7%
3	Influenza (Flu) and Pneumonia	734	4.9%
4	Diabetes Mellitus	639	4.2%
5	Chronic Lower Respiratory Diseases	447	3.0%
6	Cerebrovascular Disease	445	3.0%
7	Essential Hypertension and Renal Diseases	310	2.1%
8	Accidents Except Drug Poisoning	262	1.7%
9	Human Immunodeficiency Virus Disease	213	1.4%
10	Use of or Poisoning By Psychoactive Substance	200	1.3%
	All Other Causes	3,056	20.3%
	Total	15,050	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 18 - Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total Reported	Percent of Total	Causes of Mortality	Total Reported	Percent of Total
	Males			Females		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%

4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and	562	2%
8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 19 - Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			White, Non-Hispanic			Black, Non-Hispanic			Asian and Pacific Islander		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 20 - Leading Causes of Death, New York City, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			2007			2012		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 21 - Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in the Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drownings	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010

Table 22 - Ten Leading Causes of Death by Medicaid Status, New York State, 2012

	Non-Medicaid		Medicaid*	
Rank	**Underlying Cause of Death**	**Deaths**	**Underlying Cause of Death**	**Deaths**
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

*Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.

Source: MJ Sharp, LD Schoen, T Wang, TA Melnik. Leading causes of death, New York State, 2012. New York State Department of Health, Office of Quality and Patient Safety, Bureau of Vital Statistics.

Table 23 - Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**	**2010**	**2013**
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive Disease	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 24 - Potentially Avoidable Inpatient Discharges (Composite PQI), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	**2012**	**2009**	**2012**	**2009**	**2012**	**2009**	**2012**
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	1,547	1,360	1,453	1,318
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	1,615	1,398	1,874	1,641
	Observed/Expected	1.46	1.38	0.99	1.06	0.96	0.97	0.78	0.80
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	246	230	243	225
	Expected Rate Per 100,000	369	336	337	289	250	227	296	272
	Observed/Expected	1.50	1.47	1.15	1.20	0.99	1.01	0.82	0.83
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	357	304	289	269
	Expected Rate Per 100,000	493	437	458	378	365	319	426	374
	Observed/Expected	1.69	1.60	0.96	1.04	0.98	0.95	0.68	0.72
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	425	350	427	386
	Expected Rate Per 100,000	590	499	590	464	456	380	543	462
	Observed/Expected	1.40	1.31	1.04	1.08	0.93	0.92	0.79	0.83

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 25- ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC 2010	NYC 2013	Manhattan 2010	Manhattan 2013	Bronx 2010	Bronx 2013	Brooklyn 2010	Brooklyn 2013	Queens 2010	Queens 2013
Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Compl. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 26. Potentially Preventable Admissions (PQI) for Diabetes, Circulatory and Respiratory conditions

	PQI S01 Diabetes composite		PQI S02 Circulatory Composite		PQI S03 Respiratory Composite	
	PQI admissions	**O/E ratio**	**PQI admissions**	**O/E ratio**	**PQI admissions**	**O/E ratio**
Brooklyn	3,072	1.00	3,694	1.04	3,686	0.94
NYC	9,289	1.01	11,116	1.06	12,216	1.02
NYS	14,121	1.00	15,795	1.00	18,654	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 27. All PQI Indicators

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
Adult Overall Conditions Composite (PQI 90)	14,175	44,943	69,084	0.97	1.02	1.00
Adult Chronic Conditions Composite (PQI 92)	10,451	32,619	48,568	0.99	1.03	1.00
Adult All Diabetes Composite (PQI S01)	3,072	9,289	14,121	1.00	1.01	1.00
Adult Diabetes Short-term Complications (PQI 01)	838	2,533	4,506	0.87	0.91	1.00
Adult Diabetes Long Term Complications (PQI 03)	1,732	5,357	7,572	1.05	1.07	1.00
Adult Uncontrolled Diabetes (PQI 14)	428	1,178	1,679	1.15	1.04	1.00
Lower Extremity Amputation among Adults with Diabetes (PQI 16)	148	432	699	0.96	0.97	1.00
Adult All Circulatory Conditions Composite (PQI S02)	3,694	11,116	15,795	1.04	1.06	1.00
Adult Hypertension (PQI 07)	862	2,991	3,938	0.95	1.10	1.00
Adult Heart Failure (PQI 08)	2,598	7,426	10,902	1.07	1.04	1.00
Adult Angina Without Procedure (PQI 13)	234	699	955	1.13	1.09	1.00
All Adult Respiratory Conditions Composite (PQI S03)	3,686	12,216	18,653	0.94	1.02	1.00

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
COPD and Asthma in Older Adults (PQI 05)	3,236	10,486	16,244	0.95	1.01	1.00
Asthma in Younger Adults (PQI 15)	450	1,730	2,410	0.88	1.11	1.00
Adult Acute Conditions Composite (PQI 91)	3,727	12,328	20,521	0.90	0.99	1.00
Adult Dehydration (PQI 10)	732	2,403	3,958	0.89	0.98	1.00
Adult Bacterial Pneumonia (PQI 11)	1,620	5,353	9,347	0.86	0.96	1.00
Adult Urinary Tract Infection (PQI 12)	1,375	4,572	7,216	0.96	1.04	1.00
Pediatric Overall Conditions Composite (PDI 90): ages 6-17 years	926	2,909	3,774	1.13	1.19	1.00
Pediatric Chronic Conditions Composite (PDI 92): ages 6-17 years	708	2,255	2,903	1.11	1.19	1.00
Pediatric Asthma (PDI 14): ages 2-17 years	1,278	4,282	5,384	1.08	1.73	1.00
Pediatric Diabetes Short-term Complications (PDI 15): ages 6-17 years	74	234	380	1.16	1.04	1.00
Pediatric Acute Conditions Composite (PDI 91): 6 - 17 years	218	654	871	1.21	1.16	1.00
Pediatric Gastroenteritis (PDI 16): ages 3 months - 17 years	558	1,758	2,333	1.31	1.18	1.00

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
Pediatric UTI (PDI 18): ages 3 months - 17 years	134	602	929	0.80	1.04	1.00

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 28 - Emergency Department Potentially Preventable Visits

PPV	NYS	NYC	Brooklyn	# of Admissions, Brooklyn
Emergency Dept. Visits for Ambulatory Sensitive Conditions (PPV), per 100 Beneficiaries	36	34	29	690,782

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 29 - Potentially Preventable Readmissions by borough, city and state, 2012

				Risk-Adjusted Expected Rate Ratios	
Area	Observed Potentially Preventable Readmissions	Observed Rate per 100 Admissions	Risk- Adjusted Expected Rate per 100 Admissions	to NYC	to NYS
Kings	**7,082**	**6.47**	**7.01**	**0.98**	**1.04**
NYC	**23,981**	**6.95**	**7.19**	**1.00**	**1.07**
NYS	**40,687**	**6.73**	**6.73**	**-**	**1.00**

* Risk-Adjusted Expected Rate accounts for demographic (age,gender, race/ethnicity) and case mix (statewide PPV rate) factors. Rate ratio less than 1 signifies outperformance by area, relative to NYC/NYS after controlling for these factors.

Source: New York State Department of Health Office of Quality and Patient Safety, Bureau of Health Informatics Medicaid Claims Extract, 2012.

Table 30 - Potentially Preventable Readmissions, Brooklyn Hospitals, 2012

Facility Name	At Risk Admissions	Observed PPR Chains	Observed / Expected PPR	Observed PPR Rate	Expected PPR Rate	Expected PPR Chains
Beth Israel Med Ctr Kingshwy Division	2,367	119	0.94	5.03	5.33	126
Brookdale Hospital Medical Center	8,084	533	0.95	6.59	6.95	562
Brooklyn Hospital Center	7,281	480	1.15	6.59	5.74	418
Coney Island Hospital	6,995	427	0.93	6.1	6.56	459
Interfaith Medical Center	5,179	709	1.17	13.69	11.73	607
Kings County Hospital Center	13,680	1,075	1.08	7.86	7.29	997
Kingsbrook Jewish Medical Center	3,627	299	1.12	8.24	7.35	267
Lutheran Medical Center	1,610*	103	1.11	6.4	5.78	93
Maimonides Medical Center	17,816	681	0.87	3.82	4.37	779
New York Methodist Hospital	11,125	575	1.00	5.17	5.15	573
Ny Community Hosp Of Brooklyn	3,060	138	0.79	4.51	5.71	175
University Hosp Of Brooklyn	11,362	795	1.13	7	6.2	704
Woodhull Med & Mntl Hlth Ctr	8,209	647	1.11	7.88	7.1	583
Wyckoff Heights Medical Ctr	8,986	500	1.11	5.56	5.03	452
Brooklyn Hospitals Total	**109,381**	**7,081**	**1.04**			**6,795**

**Lutheran Medical Center is working with the New York State Department of Health to revise this number, and expects the figure to be closer to 15,000. Source: New York State Department of Health, 2012 data*

Table 31 - Rates of HIV diagnoses, People With HIV/AIDS (PWHA), and deaths among PWHA by United Hospital Fund (UHF) neighborhood, New York City 2011

UHF Neighborhood	HIV diagnoses per 100,000 population	Reported PWHA as percent of population	Age-adjusted death rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Brooklyn	**39.2**	**1.1**	**17.7**	**2,504,700**
Bedford Stuyvesant/Crown Heights	77.1	2.2	20.1	318,898
Bensonhurst/Bay Ridge	13.5	0.3	22.2	199,271
Borough Park	8.7	0.3	14.8	331,983
Canarsie/Flatlands	38.5	0.7	12.9	195,027
Coney Island/Sheepshead Bay	9.1	0.4	21.1	285,502
Downtown/Heights/Park Slope	37.9	1.4	16.6	224,199
East Flatbush/Flatbush	60.7	1.6	13.5	296,583
East New York	46.8	1.5	18.6	187,855
Greenpoint	29.9	0.8	22.7	127,051
Sunset Park	23.5	0.7	10.2*	127,863
Williamsburg/Bushwick	73.2	1.8	20.0	210,468

Rates based on numerators 10 are marked with an asterisk(*) and should be interpreted with caution.

Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs Semiannual Report. October 2012

Table 32 - HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1
20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361
High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

Table 33 - Selected Patients' Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. * Data is for 2011.

Table 34 - Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO		Commercial PPO		Medicaid Managed Care	
Controlling High Blood Pressure	59%		57%		63%	
Poor HbA1c Control in Diabetics* (Lower is better)	27%		42%		33%	
Use of Appropriate Medications for People with Asthma	89%		90%		82%	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

Source: 2013 Health Plan Comparison in New York State," New York State Department of Health. * Data is from 2011

Table 35 - Access and Quality Measures for Children and Adolescents, Statewide Average by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83

Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health. *Data is from 2011

Table 36 - Risk Factors by Brooklyn Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current Smoker
NYC	24.1%	19.7%	22.2%	15.6%
Greenpoint	24.2%	23.4%	29.6%	17.3%
Downtown Brooklyn/Heights/Slope	13.6%	18.9%	14.4%	16.9%
Bedford Stuyvesant/Crown Heights	27.4%	13.7%	20.2%	16.8%
Sunset Park	23.4%	16.8%	28.2%	12.0%
Borough Park	24.4%	10.0%	18.3%	12.4%
Flatbush	27.4%	14.1%	24.4%	12.1%
Canarsie and Flatlands	31.7%	17.6%	20.8%	14.8%
Bay Ridge/Bensonhurst	22.7%	16.3%	32.4%	16.7%
Coney Island	33.3%	19.3%	30.2%	21.4%
Williamsburg/Bushwick	29.1%	21.6%	25.5%	18.2%

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012. Values are not adjusted for age. Values in red font should be interpreted with caution. Value's relative standard error (a measure of estimate precision) is greater than 30% or the sample size less than 50 or the 95% confidence interval half width is greater than ten, make the estimate potentially unreliable.

Table 37 – Environmental Risk Factors in Select Neighborhoods in Brooklyn

	NYC	Brooklyn	Bedford-Stuyvesant - Crown Heights	Bensonhurst - Bay Ridge	Coney Island - Sheepshead Bay	Downtown-Heights-Slope	East Flatbush - Flatbush	East New York
Indoor Air Quality								
Homes with cockroaches (2011)	24%	26.6%	29.5%	17.5%	25.7%	18.5%	33%	39%
Adults reporting second-hand smoke at home (2011)	4.9%	4.3%	8.7%	n/a	3.2%	n/a	1.7%	7.3%
Adults reporting mold in the home (2012)	9.5%	10.5%	9.4%	13%	10%	7.6%	11.8%	10.9%
Adults reporting mice in the home (2012)	15.5%	17.9%	21%	n/a	9%	9.8%	32.7%	32.9%
Home Safety and Maintenance								
Homes with cracks or holes (2011)	15.7%	17.9%	22.1%	11.3%	10.6%	21.4%	24.9%	22.5%
Homes with leaks (2011)	20.6%	22.7%	25.9%	16.5%	15.8%	27.6%	29.9%	20.4%
Households rating neighborhood structures good or excellent (2011)	75.2%	71.9%	59.7%	84.9%	83.5%	82.9%	64.8%	51.6%

Data Sources: New York Community Health Survey (CHS), New York City Housing and Vacancy Survey (HVS), 2011, 2012.

Table 38: Leading Causes of Death in 2012 by Age Group, NYC

Rank	Causes of Mortality	#	%	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%	Causes of Mortality	#	%
	Less than 1			**1-14 Years**			**15-24 Years**			**25-34 Years**		
1	Congenital Malformations, Deformations, and Chromosomal Abnormalities	125	21%	Malignant Neoplasms	39	18%	Assault	139	25%	Use of or poisoning by psychoactive substance	147	27%
2	Short Gestation/Low Birth Weight	119	20%	Accidents Except Drug Poisoning	31	14%	Accidents Except Drug Poisoning	85	15%	Assault	131	24%
3	Cardiovascular Disorders in the Perinatal Period	75	13%	Congenital Malformations, Deformations, and Chromosomal Abnormalities	26	12%	Intentional Self-Harm	65	12%	Malignant Neoplasms	125	23%
4	External Causes	55	9%	Assault	19	9%	Malignant Neoplasms	51	9%	Accidents Except Drug Poisoning	100	18%
5	Newborn Affected by Complications of Placenta	22	4%	Chronic Lower Respiratory Diseases	13	6%	Use of or poisoning by psychoactive substance	48	9%	Intentional Self-Harm	94	17%
6	Respiratory Distress of New Born	15	3%	Diseases of Heart	12	6%	Diseases of Heart	19	3%	Diseases of Heart	62	11%
7	Bacterial Sepsis of Newborn	10	2%	Intentional Self-Harm	6	3%	Congenital Malformations, Deformations, and Chromosomal	16	3%	Human Immunodeficiency Virus Disease	34	6%
8	Other Respiratory Conditions in Perinatal Period	10	2%	Cerebrovascular Disease	5	2%	Chronic Lower Respiratory Diseases	15	3%	Diabetes Mellitus	17	3%
9	Necrotizing Entercolitis of Newborn	9	2%	Influenza (Flu) and Pneumonia	5	2%	Human Immunodeficiency Virus Disease	11	2%	Pregnancy, Childbirth and the Puerperium	16	3%
10	Neonatal Hemorrhage	9	2%	Insitu or Benign / Uncertain Neoplasms	4	2%	Legal Intervention	7	1%	Congenital Malformations, Deformations, and	13	2%
	All other causes	134	23%	All other causes	57	26%	All other causes	98	18%	All other causes	196	35%

			100%			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 39: Leading Causes of Death in 2012 by Age Group, NYC

Rank	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%
	35-44 Years			45-54 Years			55-64 Years			65-74 Years		
1	Malignant Neoplasms	342	22%	Malignant Neoplasms	1,234	30%	Malignant Neoplasms	2,604	36%	Malignant Neoplasms	3,340	38%
2	Diseases of Heart	209	13%	Diseases of Heart	807	20%	Diseases of Heart	1,753	24%	Diseases of Heart	2,551	29%
3	Use Of Or Poisoning By Psychoactive Substance	170	11%	Use Of Or Poisoning By Psychoactive Substance	275	7%	Diabetes Mellitus	288	4%	Diabetes Mellitus	382	4%
4	Accidents Except Drug Poisoning	94	6%	Human Immunodeficiency Virus Disease	217	5%	Chronic Liver Disease and Cirrhosis	185	3%	Chronic Lower Respiratory Diseases	332	4%
5	Human Immunodeficiency Virus Disease	90	6%	Diabetes Mellitus	143	4%	Viral Hepatitis	183	3%	Influenza (Flu) and Pneumonia	297	3%
6	Intentional Self-Harm	83	5%	Accidents Except Drug Poisoning	127	3%	Influenza (Flu) and Pneumonia	177	2%	Cerebrovascular Disease	248	3%
7	Assault	59	4%	Intentional Self-Harm	125	3%	Cerebrovascular Disease	173	2%	Essential Hypertension and Renal Diseases	170	2%
8	Diabetes Mellitus	46	3%	Chronic Liver Disease and Cirrhosis	118	3%	Chronic Lower Respiratory Diseases	169	2%	Accidents Except Drug Poisoning	118	1%
9	Chronic Liver Disease and Cirrhosis	45	3%	Cerebrovascular Disease	116	3%	Human Immunodeficiency Virus Disease	169	2%	Chronic Liver Disease and Cirrhosis	113	1%
10	Cerebrovascular Disease	38	2%	Mental and Behavioral Disorders due to Use of Alcohol	87	2%	Use Of Or Poisoning By Psychoactive Substance	148	2%	Nephritis, Nephrotic Syndrome and Nephrisis	86	1%

	All other causes	382	25%	All other causes	811	20%	All other causes	1,361	19%	All other causes	1,238	14%
			100%			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 40: Leading Causes of Death in 2012 by Age Group, NYC

Rank	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%
	75-84 Years			**85+ Years**		
1	Diseases of Heart	4,108	34%	Diseases of Heart	7,202	44%
2	Malignant Neoplasms	3,424	28%	Malignant Neoplasms	2,240	14%
3	Influenza (Flu) and Pneumonia	604	5%	Influenza (Flu) and Pneumonia	1,052	6%
4	Chronic Lower Respiratory Diseases	511	4%	Cerebrovascular Disease	620	4%
5	Diabetes Mellitus	487	4%	Chronic Lower Respiratory Diseases	522	3%
6	Cerebrovascular Disease	429	4%	Alzheimer's Disease	489	3%
7	Essential Hypertension and Renal Diseases	238	2%	Diabetes Mellitus	448	3%
8	Accidents Except Drug Poisoning	153	1%	Essential Hypertension and Renal Diseases	394	2%
9	Alzheimer's Disease	153	1%	Accidents Except Drug Poisoning	171	1%
10	Nephritis, Nephrotic Syndrome and Nephrisis	120	1%	Nephritis, Nephrotic Syndrome and Nephrisis	154	1%
	All other causes	1,850	15%	All other causes	3,003	18%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

SECTION B: ADDITIONAL TABLES

Table 41. Hospitals in Brooklyn

Provider Name	Address	Zip Code
Beth Israel Medical Center Act	3201 Kings Highway	11234
Brookdale Hospital Medical Center	Linden Boulevard at Brookdale Plaza	11212
Brooklyn Hospital Center - Downtown Campus	121 Dekalb Avenue	11201
Coney Island Hospital	2601 Ocean Parkway	11235
Interfaith Medical Center	1545 Atlantic Avenue	11213
Kings County Hospital Center	451 Clarkson Avenue	11203
Kingsbrook Jewish Medical Center	585 Schenectady Avenue	11203
Lutheran Medical Center	150 55th Street	11220
Maimonides Medical Center	4802 Tenth Avenue	11219
New York Community Hospital Of Brooklyn	2525 Kings Highway	11229
New York Methodist Hospital	506 Sixth Street	11215
University Hospital Of Brooklyn	445 Lenox Road	11203
Woodhull Med & Mental Health Center	760 Broadway	11206
Wyckoff Heights Medical Center	374 Stockholm Street	11237

Table 42. Federally Qualified Health Centers (FQHCs) in Brooklyn

Facility Name	Address	Zip Code
Bedford-Stuyvesant Family Health Center	1456 Fulton Street	11216
Betances Health Unit	280 Henry St	10002-4816
BMS Family Health Center At Genesis	360 Snediker Avenue	11207
BMS Institute For Specialty And Integrative Services (ISIS at Bristol)	259 Bristol Street	11212
BMS at Ashford	650 Ashford St	11207-7315
Brooklyn Plaza Medical Center	650 Fulton Street	11217
Brownsville Multi-Service (BMS) Family Health Center - Main Site	592 Rockaway Avenue	11212
Caribbean House Health Center	1167 Nostrand Ave	11225-5417
CHN - C A B S Clinic	94-98 Manhattan Ave	11206
CHN - Dr. Betty Shabazz Center	999 Blake Ave	11208
Ezra Medical Center	1312 38th Street	11218
HELP/PSI, Inc. Brooklyn Health Center	803 Sterling Pl	11216
ICL - Healthcare Choices Brooklyn	6209 16th Avenue	11204
Lutheran Family Health Centers Brooklyn-Chinese	5008 7th Avenue	11220
Lutheran Family Health Centers Caribbean-American	3414 Church Avenue	11203
Lutheran Family Physician's Health Center	5616 Sixth Avenue	11220
Lutheran Family Health Centers Family Support Center	6025 5th Ave. Room 205	11220
Lutheran Family Health Centers Park Ridge	6317 4th Ave	11220
Lutheran Park Slope Family Health Center	220 13th Street	11215
Lutheran Family Health Centers Shore Road	9000 Shore Road	11209
Lutheran Family Health Centers Sunset Terrace	514 49th Street	11220
Mental Health Center	514 49 St	11220

Facility Name	Address	Zip Code
ODA Primary Health Care Center	517 Park Ave	11205
ODA Primary Health Care Network	14-16 Heyward Street	11249
Sunset Park Family Health Center Of Lutheran Medical Center	150 55th Street	11220

Source: HRSA, 2014; NYC Dept. of City Planning, 2013; GNYHA HITE Data, 2014; NYS DOH, 2014.

Please note that, in most cases, only the main address for the FQHC was available via these sources, though an FQHC may have multiple sites.

Table 43. Urgent Care Centers in Brooklyn

Urgent Care Center Name	Address	Zip Code
Atlantic Urgent Care	1545 Atlantic Avenue	11213
Brookdale Urgent Care	1235 Linden Blvd	11212
Brooklyn Heights Center	195 Montague St	11201
Brooklyn Hospital Center	121 DeKalb Avenue	11201
City MD - Boerum Hill	457 Atlantic Avenue	11217
City MD - Park Slope - Premier Care	418-420 5th Avenue	11215
CityMD - Bay Ridge	8712 4th Avenue	11209
Kings Highway Center	3245 Nostrand Avenue	11229
Kingsbrook Jewish Medical Center - Mental Health Unit	585 Schnectady Avenue	11203
Methodist Medical Center/After Hours Pediatric Center	263 Seventh Avenue	11215
Mount Sinai Doctors Brooklyn Heights	300 Cadman Plaza West	11201
ODA Primary Health Care Center	14-16 Heyward Street	11211
PM Pediatrics	240 Atlantic Avenue	11201
Preferred Health Partners - Lindenwood Center	2832 Linden Boulevard	11208
PremierCare	418-420 5th Avenue	11215
Quality First Urgent Care	6010 Bay Parkway Ste 902	11204
Quick Docs	255 E 98th Street	11212
Sunset Park Family Health Center of Lutheran Medical Center	150 55th Street	11220
Sunshine Medical	9408 Flatlands Avenue	11236
Suny Downstate at Bay Ridge	699 92nd Street	11228
Tong Li Health Care	3088 Nostrand Street	11228

Source: American Academy of Urgent Care Medicine (AAUCM) & City MD websites; GNYHA HITE Data, 2014.

Table 44. Managed Care Organizations that service Brooklyn (and other counties)

Plan	Total New York City Enrollment, 2012	Plan Type
HealthFirst PHSP, Inc.	455,627	PHSP
MetroPlus Health Plan, Inc.	373,072	PHSP
New York State Catholic Health Plan, Inc.	338,708	(Fidelis Care) PHSP
AMERIGROUP New York,LLC	335,116	PHSP
UnitedHealthcare of New York, Inc.	198,234	HMO
Affinity Health Plan, Inc.	169,489	PHSP
Neighborhood Health Providers, Inc.	165,848	PHSP
Health Insurance Plan of Greater New York	164,798	HIP (Emblem Health) HMO
WellCare of New York, Inc.	55,195	PHSP
Total	**2,256,087**	

Source: United Hospital Fund, "Medicaid Managed Care Enrollment by Region," 2012.

Table 45. Nursing Homes in Brooklyn

Nursing Home Name	Address	Zip Code
Atlantis Rehabilitation and Residential Health Care Facility	140 St Edwards Street	11201
Atrium Center for Rehabilitation and Nursing	630 E 104th Street	11236
Bensonhurst Center for Rehabilitation and Healthcare	1740 84th Street	11214
Bishop Henry B. Hucles Episcopal Nursing Home	835 Herkimer Street	11233
Boro Park Center for Rehabilitation and Healthcare	4915 10th Ave	11219
Brooklyn Center for Rehabilitation and Residential Health Care	1455 Coney Island Avenue	11230
Brooklyn United Methodist Church Home	1485 Dumont Avenue	11208
Brooklyn-Queens Nursing Home	2749 Linden Blvd	11208
Buena Vida Continuing Care & Rehab Center	48 Cedar Street	11221
Bushwick Center for Rehabilitation and Health Care	50 Sheffield Avenue	11207
Cabs Nursing Home Company Inc	270 Nostrand Avenue	11205
Caton Park Nursing Home	1312 Caton Avenue	11226
Center for Nursing & Rehabilitation Inc	520 Prospect Place	11238
Cobble Hill Health Center, Inc	380 Henry Street	11201
Concord Nursing Home Inc	300 Madison Street	11216
Crown Heights Center for Nursing and Rehabilitation	810-20 St Marks Avenue	11213
Crown Nursing & Rehab Center	3457 Nostrand Avenue	11229
Ditmas Park Care Center	2107 Ditmas Avenue	11226
Dr Susan Smith Mckinney Nursing and Rehabilitation Center	594 Albany Avenue	11203
Four Seasons Nursing and Rehabilitation Center	1555 Rockaway Parkway	11236
Hamilton Park Nursing and Rehabilitation Center	691 92 Street	11228
Haym Solomon Home for the Aged	2340 Cropsey Avenue	11214
Hopkins Center for Rehabilitation and Healthcare	155 Dean Street	11217

Nursing Home Name	Address	Zip Code
Keser Nursing and Rehabilitation Center, Inc.	40 Heyward Street	11249
Linden Center for Nursing and Rehabilitation	2237 Linden Boulevard	11207
Lutheran Augustana Center for Extended Care & Rehabilitation, Inc	5434 Second Avenue	11204
Menorah Home & Hospital for Aged & Infirm	1516 Oriental Blvd	11235
New Carlton Rehab and Nursing Center, LLC	405 Carlton Ave	11238
Norwegian Christian Home and Health Center	1270-67th Street	11219
NY Congregational Nursing Center, Inc	135 Linden Boulevard	11226
Oxford Nursing Home	144 So Oxford St	11217
Palm Gardens Center for Nursing and Rehabilitation	615 Avenue C	11218
Rutland Nursing Home Co Inc	585 Schenectady Ave	11203
Saints Joachim & Anne Nursing and Rehabilitation Center	2720 Surf Avenue	11224
Schulman and Schachne Institute for Nursing and Rehabilitation	555 Rockaway Parkway	11212
Sea-Crest Health Care Center	3035 West 24th St	11224
Sephardic Nursing & Rehabilitation Center	2266 Cropsey Avenue	11214
Sheepshead Nursing & Rehabilitation Center	2840 Knapp St	11235
Shorefront Jewish Geriatric Center	3015 W 29 St	11224
Shoreview Nursing Home	2865 Brighton 3rd Street	11235
Spring Creek Rehabilitation & Nursing Care Center	660 Louisiana Avenue	11239
The Heritage Rehabilitation and Health Care Center	5606 15th Ave	11219

Source: NYS DOH Nursing Home Profiles, 2014.

Table 46. Behavioral Health Residential Treatment Capacity and Utilizations in Brooklyn

	Residential Treatment				Assertive Community Treatment (ACT)
	Congregate Treatment	Apartment Treatment	Support Programs	Supported Housing	
# of Beds or Slots	635	499	521	3,647	884
Beds or Slots /10,000 Adult Population	3.3	2.6	2.7	18.7	4.6
% Occupancy Rate	90%	92.6%	92.7%	79.2%	95%
Median LOS (days)	526	622	639	1,385	NA
% LOS >2 years	41.50%	44.50%	47.10%	65.40%	NA

Source: OMH, 2011. Note that the data are for all payer categories, not only Medicaid.

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Table 47. NYS DOH Designated Safety Net Pharmacies in Brooklyn

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
27309	Red Hook Pharmacy Corp. DBA Nates Pharmacy	15,751	15,751	100.00%	By Appeal
028134	7th Ave Chemist, Inc.	25,142	25,974	96.80%	By Appeal
025393	Spencer Drugs LTD	59,419	61,423	96.74%	By Appeal
031042	Old Family Pharmacy	56,384	60,740	92.83%	By Appeal
14498	MERMAID PHARMACY INC	10,090	11,040	91.39%	By Definition
31505	Vijan Pharma, Inc. D/B/A Sure Drugs	36,882	40,500	91.07%	By Appeal
17895	RSVMDRUGS	18,000	21,800	82.57%	By Definition
30735	Park Plaza Pharma, Inc.	53,827	65,404	82.30%	By Appeal
13710	FRISCIA PHARMACY INC	9,200	11,200	82.14%	By Definition
27044	RSA DRUG CORP	20,000	25,000	80.00%	By Definition
18486	MEDINA PHARMACY INC	3,200	4,000	80.00%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
27442	HEALTHONE PHARMACY INC	48,000	60,000	80.00%	By Definition
30800	VVS Pharmacy	41,396	57,006	72.62%	By Appeal
024830	AVS Rx., Inc. D/B/A Rubin Chemists	41,058	56,641	72.49%	By Appeal
16318	East 16th Street Pharmacy Inc.	59,119	82,530	71.63%	By Appeal
27245	ROCKAWAY RX INC	25,000	35,000	71.43%	By Definition
26818	ABC Pharmacy, Inc.	75,600	108,000	70.00%	By Appeal
29302	MCDONALD PHARMACY INC	34,681	49,649	69.85%	By Definition
030756	Jojan Pharma, Inc.	139,248	199,351	69.85%	By Appeal
026138	Thriftway Flatbush Avenue Drug Corp.	44,508	64,927	68.55%	By Appeal
030682	MRR Pharma, Inc. Dba Scarpa Pharmacy	30,871	46,239	66.76%	By Appeal
25110	JMK PHARMACY CORP	20,000	30,000	66.67%	By Definition
026603	Thriftway Church Avenue Drug Corp.	28,576	43,097	66.31%	By Appeal

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
24286	LIBERTY AVE PHARMACYINC	34,448	53,388	64.52%	By Definition
28501	902 FOSTER CARE INC	39,535	61,403	64.39%	By Definition
22491	AROOBA CORP	14,623	23,162	63.13%	By Definition
23659	AMERICAN PHARMACY INC	50,043	79,653	62.83%	By Definition
24705	OWAIS INC	37,962	67,680	56.09%	By Definition
19736	NOHA PHARMACY INC	15,793	28,390	55.63%	By Definition
30625	Nostrand Pharmacy LLC, D/B/A Vanderveer Pharmacy	10,766	19,521	55.15%	By Appeal
055218	Life Pharma II Inc D/B/A Life Pharmacy	28,219	51,243	55.07%	By Appeal
29610	CARE MAX PHARMACY INC	18,030	32,835	54.91%	By Definition
28484	MARCY PHARMACY INC	18,090	32,966	54.87%	By Definition
21381	AM PHARMACY INC	56,565	103,656	54.57%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
23777	MANIPAL DRUGS INC	17,037	31,412	54.24%	By Definition
24640	ROSE PHARMACY INC	16,815	32,018	52.52%	By Definition
26762	B AND M FAMILY PHARMACY CORP	17,698	34,000	52.05%	By Definition
27438	5TH AVENUE PHARMACY INC	7,554	14,528	52.00%	By Definition
27140	HEALTHSTAR PHARMACYINC	72,261	140,683	51.36%	By Definition
18388	ALBANY PHARMACY INC	8,847	17,232	51.34%	By Definition
23796	NEW RONSON DRUG INC	26,840	52,514	51.11%	By Definition
28573	NOOR PHARMACY INC	19,125	37,447	51.07%	By Definition
030836	Balaji II Pharmacy, Inc.	20,366	39,925	51.01%	By Appeal
25629	18TH AVE PHARMACY CORP	33,135	64,962	51.01%	By Definition
26227	PHARMACIA POPULAR INC	18,711	36,834	50.80%	By Definition
25838	ST MARY PHARMACY INC	28,244	56,121	50.33%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
17270	DESHI PHARMACY INC	5,093	10,141	50.22%	By Definition
24581	MILLENNIUM PHARMACY INC	28,430	56,721	50.12%	By Definition
18328	MB DRUGS INC	5,000	10,000	50.00%	By Definition
25366	VVVRXINC DBA BROOKLYN CENTER PHARMACY	22,540	45,317	49.74%	By Definition
29275	1413 RX CORP	25,225	50,829	49.63%	By Definition
28413	GATES AND GARVEY PHARMACYINC	23,262	46,946	49.55%	By Definition
30140	AFAM PHARMACY ASSOCIATES	15,195	32,756	46.39%	By Definition
27218	475 NEW LOTS AVENUE PHARMACY INC	44,350	96,105	46.15%	By Definition
16591	1746 PHARMACY CORP	36,123	78,377	46.09%	By Definition
29427	IRVING PHARMACY CORP	10,577	23,125	45.74%	By Definition
27289	MANNINGS 8TH AVE INC	45,759	100,155	45.69%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
27318	PITKIN CARE PHARMACY	20,194	44,576	45.30%	By Definition
27651	BED STUY PHARMACY INC	24,643	54,622	45.12%	By Definition
23618	BROWNSVILLE PHARMACY INC	12,990	28,850	45.03%	By Definition
18312	SIMS PHARMACY INC	23,321	51,973	44.87%	By Definition
30278	FAIR CARE PHARMACY INC	5,260	11,744	44.79%	By Definition
28599	SMARTHEALTH PHARMACY LLC	8,919	20,152	44.26%	By Definition
27180	HEALTH PLUS PHARMACY INC	35,859	81,960	43.75%	By Definition
27629	GS PHARMACY LLC	22,894	52,327	43.75%	By Definition
28392	2818 FULTON STREET PHARMACY INC	33,666	77,197	43.61%	By Definition
16655	OM PHARMACY INC	16,446	37,879	43.42%	By Definition
20056	A N PHARMACY INC	19,100	44,000	43.41%	By Definition
18542	1491 DEKALB AVE PHARMACY INC	15,334	35,467	43.23%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
20041	VLS ALLEON DRUGS INC	18,701	43,438	43.05%	By Definition
28147	J AND R PHARMACY INC	8,550	19,895	42.98%	By Definition
26670	WELLNESS PHARMACY INC	13,326	31,229	42.67%	By Definition
22451	M AND F PHARMACY INC	14,272	33,490	42.62%	By Definition
20951	DKY ENTERPRISES INC	38,564	90,607	42.56%	By Definition
27358	RUEL PHARMACY CORP	27,355	64,628	42.33%	By Definition
27440	SRI PHARMACY INC	14,416	34,222	42.12%	By Definition
27295	LINDENWOOD RX CENTER INC	25,675	61,300	41.88%	By Definition
29251	GOOD DAY PHARMACY LLC	4,526	10,814	41.85%	By Definition
18181	IDEAL PHARMACY	20,000	48,000	41.67%	By Definition
29303	NEW LOTS CARE PHARMACY INC	5,162	12,446	41.48%	By Definition
18984	QASIM PHARMACY INC	11,573	28,000	41.33%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
27315	EL PHARMACY CORP	12,578	30,797	40.84%	By Definition
18238	SBC RX INC	9,480	23,268	40.74%	By Definition
23120	KINGS DRUG AND SURGICAL CORP	44,745	109,991	40.68%	By Definition
22891	3921 9TH AVE PHARMACY INC	10,123	24,908	40.64%	By Definition
25215	J AND J 26 MGT LLC	14,110	34,784	40.56%	By Definition
26357	NEW YORK DRUGS AND SURGICALS INC	4,729	11,756	40.23%	By Definition
16582	THEJUS CORPORATION	32,353	80,879	40.00%	By Definition
25635	JANUS PHARMACY INC	32,000	80,000	40.00%	By Definition
29328	MEDICINE PLAZA INC	10,000	25,000	40.00%	By Definition
25469	WOODHULL PRESCRIPTION CENTER INC	54,271	135,679	40.00%	By Definition
28914	GSV PHARMACY INC	15,911	39,875	39.90%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
17579	PAKAM PHARMACY INC	13,172	33,787	38.99%	By Definition
26748	QUICKAID PHARMACY INC	29,500	75,900	38.87%	By Definition
29877	870 SOUTHERN DRUG CORP	6,156	15,886	38.75%	By Definition
18601	DNG PHARMACY CORP	14,614	37,796	38.67%	By Definition
28574	SURF PHARMACY CORP	15,461	40,002	38.65%	By Definition
19679	AAUSADH INC	18,149	47,125	38.51%	By Definition
28463	21 AVE PHARMACY AND MEDICAL SUPPLY INC	13,368	35,081	38.11%	By Definition
17632	272 DRUG CORP	12,149	32,205	37.72%	By Definition
26255	BAY PARK PHARMACY CORP	34,749	92,299	37.65%	By Definition
24292	S AND N RX INC	9,868	26,232	37.62%	By Definition
25828	HAVEN PHARMACY	15,000	40,000	37.50%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
28130	QUICK STOP PHARMACY INC	8,038	21,567	37.27%	By Definition
25147	DITMAS PHARMACY CORP	28,168	75,972	37.08%	By Definition
29305	MAURICE PHARMACY INC	10,000	27,000	37.04%	By Definition
30019	SUNSET RX PHARMACY INC	32,399	88,015	36.81%	By Definition
24946	KINGSWAY PHARMACY GRP	26,571	72,267	36.77%	By Definition
19683	JAY AKAY RX CORP	10,859	29,547	36.75%	By Definition
25829	VENKAT PHARM INC	32,751	89,188	36.72%	By Definition
17695	STJ RX INC	23,928	65,560	36.50%	By Definition
30409	GOLD STREET PHARMA INC	18,158	50,088	36.25%	By Definition
28533	YI RUI INTERNATIONAL CORP	16,825	46,498	36.18%	By Definition
23475	JOYMA PHARMACY INC	12,730	35,292	36.07%	By Definition
17511	HOSP RX INC	22,332	62,016	36.01%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
30795	A AND H PHARMACY INC	9,104	25,479	35.73%	By Definition
27341	TRADITIONAL PHARMACY INC	8,820	24,846	35.50%	By Definition
29857	CHURCH AVE PHARMACY INC	8,778	24,749	35.47%	By Definition
28463	21 AVE PHARMACY AND MEDICAL SUPPLY IN	13,368	35,081	38.11%	By Definition
17632	272 DRUG CORP	12,149	32,205	37.72%	By Definition
26255	BAY PARK PHARMACY CORP	34,749	92,299	37.65%	By Definition
24292	S AND N RX INC	9,868	26,232	37.62%	By Definition
25828	HAVEN PHARMACY	15,000	40,000	37.50%	By Definition
28130	QUICK STOP PHARMACY INC	8,038	21,567	37.27%	By Definition
25147	DITMAS PHARMACY CORP	28,168	75,972	37.08%	By Definition
29305	MAURICE PHARMACY INC	10,000	27,000	37.04%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
30019	SUNSET RX PHARMACY INC	32,399	88,015	36.81%	By Definition
24946	KINGSWAY PHARMACY GRP	26,571	72,267	36.77%	By Definition
19683	JAY AKAY RX CORP	10,859	29,547	36.75%	By Definition
25829	VENKAT PHARM INC	32,751	89,188	36.72%	By Definition
17695	STJ RX INC	23,928	65,560	36.50%	By Definition
30409	GOLD STREET PHARMA INC	18,158	50,088	36.25%	By Definition
28533	YI RUI INTERNATIONAL CORP	16,825	46,498	36.18%	By Definition
23475	JOYMA PHARMACY INC	12,730	35,292	36.07%	By Definition
17511	HOSP RX INC	22,332	62,016	36.01%	By Definition
30795	A AND H PHARMACY INC	9,104	25,479	35.73%	By Definition
27341	TRADITIONAL PHARMACY INC	8,820	24,846	35.50%	By Definition
29857	CHURCH AVE PHARMACY INC	8,778	24,749	35.47%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number Of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
23440	LINCOLN PLACE PHARMACY INC	40,521	114,863	35.28%	By Definition
24885	BRANAC INC	41,592	118,473	35.11%	By Definition

Source: NYS DOH, 2014

Table 48. Domain 2.a Metrics

Measure Name	NYS	NYC	Brooklyn
Potentially Avoidable Services			
Potentially Avoidable Emergency Room Visits: ED Visits for Ambulatory Sensitive Conditions, Potentially Preventable Visits (PPV), per 100 Recipients, 2012	36	34	29
Potentially Avoidable Readmissions, by hospital location, 2012*	40,687	24,388	7,081
PQI Suite – Composite of All Measures, Adult	69,084	44,943	14,175
Acute Conditions Composite (PQI 91)	20,521	12,328	3727
Chronic Conditions Composite (PQI 92)	48,568	32,619	10451
PDI Suite – Composite of All Measures: Pediatric	3,774	2,909	926
Acute Conditions Composite (PDI 91)	871	654	218
Chronic Conditions Composite (PDI 92)	2,903	2,255	708

Source: New York State Department of Health, 2012 data
**NYAM analysis of Potentially Preventable Readmissions data by hospital, New York State Department of Health*

Table 48. Domain 2.b Metrics

Measure Name	Data Year	NYS	NYC	Brooklyn
Getting Care Quickly				[No known public source]
Q4. Usually or always got care right away as soon as you needed[a]	2013	81.1%	76%	
Q7. Usually or always got an appt. for check-up or routine care as soon as you needed[a]	2013	74.8%	68.9%	
Getting Needed Care				
Q19. Usually or always got care, tests or treatment you thought you needed[a]	2013	81.4%	76.9%	
Q39. Usually or always got an appointment to see a	2013	75.1%	71.4%	

Measure Name	Data Year	NYS	NYC	Brooklyn
specialist as soon as you needed[a]				
Usual Source of Care				
Q8. Never went to doctor's office or clinic in last 6 months[a]	2013	23.9%	24.4%	
Q8. Went to doctor's office or clinic 1-3 times in last 6 months[a]	2013	52.5%	53.7%	
Q26. Have a personal doctor[a]	2013	85.5%	84.1%	
Patient Loyalty				
Q35. Got care from a doctor or other health provider other than personal doctor[a]	2013	57.9%	52.7%	
Access/Availability of Care				
Adult Access to Preventive/Ambulatory Care (20-44)[b]	2012	95%	[No known public source]	[No known public source]
Adult Access to Preventive/Ambulatory Care (45-64)[b]	2012	96%	[No known public source]	
Adult Access to Preventive/Ambulatory Care (65+)[b]	2012	97%	[No known public source]	
Annual Dental Visit (Ages 19-21)[b]	2012	44%	[See source note**]	
Annual Dental Visit (Ages 2-18)[b]	2012	57%	[See source	

Measure Name	Data Year	NYS	NYC	Brooklyn
			note**]	
Children's Access to PCPs/Ambulatory Care (12-24 months)[b]	2012	97%	[No known public source]	
Children's Access to PCPs/Ambulatory Care (25 mos-6 years) [b]	2012	93%	[No known public source]	
Children's Access to PCPs/Ambulatory Care (7-11 years) [b]	2012	96%	[No known public source]	
Children's Access to PCPs/Ambulatory Care (12-19 years) [b]	2012	93%	[No known public source]	
Use of Services				
Well-Child Visits & Preventive Care Visits in the First 15 Months of Life (5+ visits) [b]	2012	83%	[See source note**]	[No known public source]
Well-Child & Preventive Care Visits in the 3rd, 4th, 5th & 6th Year [b]	2012	82%		
Adolescent Well-Care Visits [b]	2012	59%		

Source: New York State Department of Health, 2012 data

Data is not yet available from the New York State Department of Health for the other Domain 2 metrics relating to Provider Reimbursement, System Integration, Primary Care, and Medicaid Spending for Projects Defined Population on a PMPM Basis, which will be used for Domain 2 metrics.

Table 49. Domain 2.b Metrics

Measure Name	NYS	NYC	Brooklyn
Summary of HCAHPS Survey Results, October 2012 to September 2013 Discharges			
Patients who reported that their nurses "Always" communicated well	75%	[No known public source]	[No known public source]
Patients who reported that their doctors "Always" communicated well	77%		
Patients who reported that they "Always" received help as soon as they wanted	61%		
Patients who reported that their pain was "Always" well controlled	67%		
Patients who reported that staff "Always" explained about medicines before giving it to them	59%		
Patients who reported that their room and bathroom were "Always" clean	69%		
Patients who reported that the area around their room was "Always" quiet at night	51%		
Patients who reported that YES, they were given information about what to do during their recovery at home	83%		
Patients who gave their hospital a rating of 9 or 10 on a scale from 0 (lowest) to 10 (highest)	63%		
Patients who reported YES, they would definitely recommend the hospital	65%		

Source: Hospital Consumer Assessment of healthcare Providers and Systems. Centers for Medicare & Medicaid Services. (July, 2014). Summary of HCAHPS Survey Results. Baltimore, MD. http://www.hcahpsonline.org

As noted above, Data is not yet available from the New York State Department of Health for the other Domain 2 metrics relating to Provider Reimbursement, System Integration, Primary Care, and Medicaid Spending for Projects Defined Population on a PMPM Basis, which will be used for Domain 2 metrics.

Table 50. Total Population, by Gender

Total Population, by Gender	NYS	NYC	Brooklyn
Male	9,391,875	3,897,434	1,186,163
Female	10,006,250	4,301,787	1,326,577
Total Population	**19,398,125**	**8,199,221**	**2,512,740**

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 51. Total Population, by Age

Age	NYS	NYC	Brooklyn
Children, aged 0-17	4,316,920	1,774,909	596,667
Adults, aged 18-64	12,440,571	5,421,440	1,625,373
Older Adults, aged 65+	2,640,634	1,002,872	290,700
Total Population	**19,398,125**	**8,199,221**	**2,512,740**
Children, % of Total Population	22.3%	21.6%	23.7%
Adults Aged 18-64, % of Total Population	64.1%	66.1%	64.7%
Older Adults, % of Total Population	13.6%	12.2%	11.6%

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 52. Total Population, by Race/Ethnicity

Race/Ethnicity	NYS (A)	NYC (B)	Brooklyn (C)	% of Brooklyn Total Population (D)	Brooklyn as a % of that race or ethnicity in NYC (C/B)	Brooklyn as a % of that race or ethnicity in NYS (C/A)
White	12,808,268	3,646,181	1,119,881	44.6%	30.7%	8.7%
Black or African American	3,037,255	2,059,279	859,622	34.2%	41.7%	28.3%
American Indian and Alaska Native	69,500	30,743	8,247	0.3%	26.8%	11.9%
Asian	1,445,539	1,053,649	266,557	10.6%	25.3%	18.4%
Native Hawaiian and other Pacific Islander	6,477	3,866	1,372	0.1%	35.5%	21.2%
Other race	1,557,020	1,169,421	209,788	8.3%	17.9%	13.5%
2 or more races	474,066	236,082	47,273	1.9%	20.0%	10.0%
Total of Race Categories Above	**19,398,125**	**8,199,221**	**2,512,740**	**100.0%**	**30.6%**	**13.0%**
Hispanic or Latino (of any race)	**3,425,845**	**2,343,458**	**497,620**	**19.8%**	**21.2%**	**14.5%**
Mexican	447,323	308,952	93,124	**3.7%**	30.1%	20.8%
Puerto Rican	1,117,995	761,655	181,136	**7.2%**	23.8%	16.2%
Cuban	72,378	40,426	7,764	**0.3%**	19.2%	10.7%
Other Hispanic or Latino	1,788,149	1,232,425	215,596	**8.6%**	17.5%	12.1%

NYC Black/African American as % of Total NYC Population: 25.1% (2,059,279/8,199,221)
NYS Black/African American as % of Total NYS Population: 15.7% (3,037,255/19,398,125)
Source: US Census American Community Survey, 5-year, 2008-2012

Table 53. Income

Income	NYS	NYC	Brooklyn
% HH Below Poverty	14%	19%	22%
Median HH income (USD)	57,683	51,865	45,215

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 54. Unemployment

Unemployed	NYS	NYC	Brooklyn
% Unemployed	8.7%	10.2%	10.3%

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 55. Immigration and Citizenship Status

Immigration and Citizenship Status	NYS	NYC	Brooklyn
Migrated from abroad < 1 yr ago	148,931	93,367	22,668
Not a US citizen	2,038,877	1,455,533	422,231
% Not a US citizen	11%	18%	17%

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 56. Language

Language	NYS	NYC	Brooklyn
Total - Speak English less than "very well"	2,439,417	1,783,994	566,247
% Total - Speak English less than "very well"	13%	22%	23%
Spanish -Speak English less than "very well"	1,230,302	889,091	192,725
Other -Speak English less than "very well"	1,209,115	894,903	373,522

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 57. Household Type

Household Type	NYS	NYC	Brooklyn
Total Households	7,130,896	3,063,393	911,985
Family Households	4,646,324	1,843,819	582,628
Family Households - Married couple	3,224,971	1,103,512	345,278
Family Households - Male Householder no wife	351,847	170,979	52,441
Family Households - Female Householder no husband	1,069,506	569,328	184,909
Non-family Households	2,584,572	1,219,574	329,367
Non-family Households - Living alone	2,119,199	996,487	259,168
% of Total Households - Living Alone	30%	33%	28.7%
Non-family Households - Not living alone	465,373	223,087	

Data Source: US Census American Community Survey, 5-year, 2008-2012.

Table 58. Incarceration

Incarceration	NYS	NYC	Brooklyn
NYC DOC Jail admissions (2012)	Not Applicable	84,754	21,693
NYC DOC Jail admissions rate per 100,000 Population (2012)	Not Applicable	1,034	863
NYS Prison admissions (2008)[a]	21,141	9,640	3,077

[a]*The most recent data available for NYS prison admissions is from 2008; it is likely that more recent figures would be significantly lower.*

Source: NYC Department of Corrections, 2012, as cited in http://gothamist.com/2013/05/01/these_interactive_charts_show_you_w.php and http://www.justiceatlas.org/

Table 59. Medicaid Beneficiaries

	NYS	NYC	Brooklyn
Total Population	**19,398,125**	**8,199,221**	**2,488,747**
Total Medicaid (MA) Beneficiaries	5,835,794	3,588,107	1,229,547
MA Beneficiaries/ Total Population	30.1%	43.8%	49.4%
Brooklyn MA pop. / NYC MA pop.			34.3%
Brooklyn MA pop. / NYS MA pop.			21.1%

Source: NYS DOH, 2012

Table 60. Uninsured Population by Age

Uninsured	NYS	NYC	Brooklyn
Total Uninsured	2,161,817	1,160,829	344,064
Uninsured/ Total Population	11.1%	14.0%	13.8%
Brooklyn Uninsured/ NYC Uninsured			29.6%
Brooklyn Uninsured/ NYS Uninsured			15.9%
Older Adult 65+ Uninsured	26,086	17,769	5,138
% Older Adult 65+ Uninsured	1%	2%	1.8%
Child 0-17 Uninsured	197,779	80,534	24,605
% Child 0-17 Uninsured	4.5%	4.5%	4.1%
Adult 18+ Uninsured	1,964,038	1,080,295	319,459
% Adult 18+ Uninsured	13%	17%	16.9%

Source: US Census American Community Survey, 5-year, 2008-2012.

Table 61. Uninsured and Foreign Born

Country/Region of Origin	Number Uninsured in Brooklyn	Percent of the Total Foreign Born Uninsured Population in Brooklyn
Latin America	75,577	36.5%
Caribbean	48,893	23.6%
China, Hong Kong, and Taiwan	24,494	11.8%
Russia	6,051	2.9%
Poland	5,665	2.7%
South Asia	5,532	2.7%
Arab countries	2,220	1.1%
Sub-Total of Above Groups	**168,432**	**81.3%**
Other Countries	38,662	18.7%
Total Foreign Born Uninsured in Bklyn	**207,094**	**100.0%**

Source: US Census American Community Survey, 5-year, 2008-2012.

Table 62. Dual Eligible Beneficiaries

	NYS	NYC	Brooklyn
Total Older Adult 65+ Population	2,640,634	1,002,872	290,700
Dual Eligible Beneficiaries	853,866	467,749	151,208
Dual Eligible/ Older Adult pop.	32.3%	46.6%	52.0%
Brooklyn Duals/ NYC Duals			32.3%
Brooklyn Duals/ NYS Duals			17.7%

Source: NYS DOH, 2012

Table 63. Insurance Status

Insurance Status	NYS	NYC	Brooklyn
Child 0-17 Beneficiaries	1,979,039	1,180,983	424,555
Total Child 0-17 Population	4,316,920	1,774,909	593,572
Child 0-17 Beneficiaries/Pop	46%	67%	71.5%
Adult 18+ Beneficiaries	3,856,755	2,407,124	804,992
Total Adult 18+ Population	15,081,205	6,424,312	1,895,175
Adult 18+ Beneficiaries/Pop	26%	37%	42.5%

Source: NYS DOH, 2012

Table 64. Disability and Difficulty Status

Disability /Difficulty	**NYS**	**NYC**	**Brooklyn**
% Disabled HH member	23%	21%	21%
Impairments, by Age:			
Hearing			
age 0-17 with Hearing Difficulty	22,395	8,324	2,639
% age 0-17 with Hearing Difficulty	0.5%	0.5%	0.4%
age 18-64 with Hearing Difficulty	182,116	60,231	14,725
% age 18-64 with Hearing Difficulty	1.5%	1.1%	0.9%
age 65+ with Hearing Difficulty	310,580	105,560	34,829
% age 65+ with Hearing Difficulty	11.8%	10.5%	12.0%
Vision			
age 0-17 with Vision Difficulty	23,724	10,606	2,681
% age 0-17 with Vision Difficulty	0.5%	0.6%	0.4%

Disability /Difficulty	**NYS**	**NYC**	**Brooklyn**
age 18-64 with Vision Difficulty	166,396	79,038	23,515
% age 18-64 with Vision Difficulty	1.3%	1.5%	1.4%
age 65+ with Vision Difficulty	168,818	82,840	29,744
% age 65+ with Vision Difficulty	6.4%	8.3%	10.2%
Cognitive			
age 0-17 with Cognitive Difficulty	112,555	36,208	8,613
% age 0-17 with Cognitive Difficulty	2.6%	2.0%	1.4%
age 18-64 with Cognitive Difficulty	413,409	165,152	43,427
% age 18-64 with Cognitive Difficulty	3.3%	3.0%	2.7%
age 65+ with Cognitive Difficulty	844,970	337,659	105,862
% age 65+ with Cognitive Difficulty	32.0%	33.7%	36.4%
Ambulatory			
age 0-17 with Ambulatory Difficulty	20,920	9,268	2,129
% age 0-17 with Ambulatory Difficulty	0.5%	0.5%	0.4%
age 18-64 with Ambulatory Difficulty	547,468	233,975	63,197
% age 18-64 with Ambulatory Difficulty	4.4%	4.3%	3.9%
age 65+ with Ambulatory Difficulty	1,052,010	426,311	132,228
% age 65+ with Ambulatory Difficulty	39.8%	42.5%	45.5%

Source: US Census American Community Survey, 5-year, 2008-2012.

Table 65. Top 10 Leading Causes of Death, Brooklyn, 2012

Top 10 Leading Causes of Mortality, 2012 (ICD-10 Code)	Total Reported	Rate per 100,000 Population	Age-Adjusted Rate per 100,000 Population
Diseases of Heart (I00-I09, I11, I13, I20-I51)	5,024	195.8	195.4
Malignant Neoplasms (Cancer: C00-C97)	3,720	145	147.8
Influenza (Flu) and Pneumonia (J09-J18)	734	28.6	28.4
Diabetes Mellitus (E10-E14)	639	24.9	25.3
Chronic Lower Respiratory Diseases (J40-J47)	447	17.4	17.8
Cerebrovascular Disease (Stroke: I60-I69)	445	17.3	17.4
Essential Hypertension and Renal Diseases (I10, I12)	310	12.1	12.1
Accidents Except Drug Poisoning (V01-X39, X43, X45-X59, Y85-Y86)	262	10.2	10.2
Human Immunodeficiency Virus Disease (HIV: B20-B24)	213	8.3	8.1
Mental and Behavioral Disorders due to Accidental Poisoning and Other Psychoactive Substance Use (F11-F16, F18-F19, X40-X42, X44)	200	7.8	7.5
All Other/Censored Causes	3,056	119.1	118.8

Source: New York City Vital Statistics, "Top Ten Leading Causes of Mortality 2012,"Brooklyn, accessed via the EpiQuery interactive tool, August, 2014

Table 66. Top 5 Leading Causes of Premature Death, NYS, NYC and Brooklyn

	Brooklyn				NYC			NYS		
	Cause	# of Deaths	% of NYC	Age-adjusted Premature Death Rate, per 100,000	Cause	# of Deaths	Age-adjusted Premature Death Rate, per 100,000	Cause	# of Deaths	Age-adjusted Premature Death Rate, per 100,000
#1 Cause	**Cancer**	6,716	31.8%	267	**Cancer**	21,129	248	**Cancer**	56,790	275
#2 Cause	**Heart Disease**	5,106	32.3%	201	**Heart Disease**	15,794	184	**Heart Disease**	37,255	180
#3 Cause	**Unintentional Injury**	1,062	29.9%	45	**Unintentional Injury**	3,555	45	**Unintentional Injury**	10,809	60
#4 Cause	**Diabetes**	883	34.2%	38	**Diabetes**	2,581	30	**Chronic Lower Resp. Dis.**	6,888	32
#5 Cause	**AIDS**	692	33.3%	29	**AIDS**	2,075	26	**Diabetes**	5,415	26
Total (All Causes)		***21,595***	***31.7%***			***68,214***			***174,783***	

Source: Vital Statistics Data as of March, 2014, New York State Department of Health - Bureau of Biometrics and Health Statistics.

Table 67. Self-reported Health Status by Neighborhood

Neighborhood	% Self-Reported Fair or Poor Health Status	# Self-Reported Fair or Poor Health Status
New York City	**21.3%**	**1,318,000**
Brooklyn	**25%**	**461,000**
Greenpoint	23.7%	17,000
Downtown Brooklyn/Heights/Slope	16.6%	22,000
Bedford Stuyvesant/Crown Heights	16.4%	34,000
East New York/New Lots	26.2%	33,000
Sunset Park	40.9%	36,000
Borough Park	18.1%	40,000
Flatbush	17.8%	43,000
Canarsie and Flatlands	22.4%	35,000
Bay Ridge/Bensonhurst	25.9%	41,000
Coney Island	42%	102,000
Williamsburg/Bushwick	31.4%	42,000

Source: NYC DOHMH Community Health Survey, 2012

Table 69. Medicaid Beneficiary Mental Health Utilization of Care, Brooklyn Providers

Medicaid Beneficiary Utilization through Brooklyn (Kings County) Providers			
Service type	**Individuals**	**Medicaid Paid ($)**	**Expenditure Rate ($/Individual)**
Inpatient	6,060	$134,739,473	$22,234
Outpatient Mental Health Clinic	29,755	$56,146,367	$1,887
Residential	832	$18,811,885	$22,610
Assertive Community Treatment (ACT)	765	$7,897,808	$10,324
Targeted Case Management	1,831	$6,960,232	$3,801
Continuing Day Treatment	706	$3,813,914	$5,402

Medicaid Beneficiary Utilization through Brooklyn (Kings County) Providers			
Service type	**Individuals**	**Medicaid Paid ($)**	**Expenditure Rate ($/Individual)**
Prepaid Mental Health Plan Recovery Services	287	$3,761,793	$13,107
Comprehensive Psychiatric Emergency Program	1,572	$1,106,910	$704
Partial Hospitalization	373	$764,984	$2,051
Intensive Psychiatric Rehab	24	$129,340	$5,389

Source: NYS OMH, 2012

Table 70. Brooklyn Hospital Behavioral Health Readmissions within 30 Days

	Hospital Name	**Discharges**	**Readmitted Within 30 Days**	
			# Readmissions	**Percent**
Adults (age 18 +)				
General Hospital	Brookdale Hospital Medical Center	979	214	21.9%
General Hospital	Interfaith Medical Center, Inc.	1,773	503	28.4%
General Hospital	Kingsbrook Jewish Medical Center	424	62	14.6%
General Hospital	Lutheran Medical Center	687	170	24.7%
General Hospital	Maimonides Medical Center	937	170	18.1%
General Hospital	NYC-HHC Coney Island Hospital	785	163	20.8%
General Hospital	NYC-HHC Kings County Hospital Center	2,097	452	21.6%

	Hospital Name	Discharges	Readmitted Within 30 Days	
			# Readmissions	Percent
Adults (age 18 +)				
General Hospital	NYC-HHC Woodhull Medical & Mental Health Cent	1,901	435	22.9%
General Hospital	New York Methodist Hospital	445	85	19.1%
General Hospital	University Hospital of Brooklyn	694	188	27.1%
State Psychiatric Center	Kingsboro Psychiatric Center	204	21	10.3%
ADULT TOTAL		**10,926**	**2,463**	**22.5%**
Children (age 0 - 17)				
General Hospital	Brookdale Hospital Medical Center	223	31	13.9%
General Hospital	NYC-HHC Kings County Hospital Center	510	76	14.9%
General Hospital	NYC-HHC Woodhull Medical & Mental Health Cent	39	3	7.7%
CHILDREN TOTAL		**772**	**110**	**14.2%**
ADULT AND CHILDREN TOTAL		**11,698**	**2,573**	**22.0%**

Source: NYS OMH, 2012.

Table 71. Serious Psychological Distress by Neighborhood

Neighborhood	% Reporting Serious Psychological Distress	# Reporting Serious Psychological Distress
New York City	**5.5***	**348,000**
Brooklyn	**6.1***	**114,000**
Bay Ridge/Bensonhurst	9.8*	14,000*
Bedford Stuyvesant/Crown Heights	2.1*	5,000*
Borough Park	7.3*	17,000*
Canarsie and Flatlands	5.0*	7,000*
Coney Island	12.0*	24,000*
Downtown Brooklyn/Heights/Slope	3.4*	4,000*
East New York/New Lots	2.1*	3,000*
Flatbush	6.2*	14,000*
Greenpoint	8.5*	10,000*
Sunset Park	1.6*	1,000*
Williamsburg/Bushwick	9.6*	13,000*

Source: NYC DOHMH Community Health Survey, 2012

Table 72. Chronic Medical Condition Co-Morbidity of Behavioral Health Clients, by Age Group

		Age			
Chronic Medical Condition	**Total Clients**	**Below 18**	**18-64**	**65+**	**Unknown**
Total Clients Served	23,994	4,631	17,178	2,181	4
No Chronic Medical Condition	10,853	3,935	6,688	227	3
At Least One Chronic Medical Condition	13,141	696	10,490	1,954	1
Unknown if Chronic Medical Condition is Present	998	180	745	73	0
% of Clients Served with at least One Chronic Medical Condition	54.8%	15.0%	61.1%	89.6%	Not Applicable

Source: NYS OMH, Patient Characteristic Survey (PCS), 2013.

Table 73. Chronic Hepatitis C

Location	Reported Cases	Crude Rate (per 100,000)	Age-Adjusted Rate (per 100,000)*
NYC	7,582	90.9	85.5
Brooklyn	1,988	77.5	not available

*adjusted to the Year 2000 Standard Population

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [Communicable Disease Surveillance Data]. [9/10/14]. http://nyc.gov/health/epiquery

Table 74. Gonorrhea Rate by Neighborhood

Neighborhood	Gonorrhea Rate per 100,000	Absolute #
New York City	**130.3**	**10,898**
Brooklyn	**137.4**	**3,514**
Greenpoint	58.8	80
Downtown Brooklyn/Heights/Slope	105.5	238
Bedford Stuyvesant/Crown Heights	329.4	1,034
East New York/New Lots	269.6	483
Sunset Park	25	32
Borough Park	20.8	72
Flatbush	197	612
Canarsie and Flatlands	135	269
Bay Ridge/Bensonhurst	13.4	28
Coney Island	36.3	111
Williamsburg/Bushwick	189.5	384
Brooklyn- neighborhood unknown	*n/a*	*171*

Source: NYC DOHMH, Sexually Transmitted Disease Surveillance, 2009

Table 75. Chlamydia Rate by Neighborhood

Neighborhood	Chlamydia Rate per 100,000	Absolute #
New York City	**697.7**	**58,353**

Neighborhood	Chlamydia Rate per 100,000	Absolute #
Brooklyn	**731.3**	**18,696**
Greenpoint	313.2	426
Downtown Brooklyn/Heights/Slope	445.3	1,005
Bedford Stuyvesant/Crown Heights	1,372.8	4,309
East New York/New Lots	1,317.2	2,360
Sunset Park	459.4	588
Borough Park	169.8	588
Flatbush	1,159.6	3,602
Canarsie and Flatlands	856.4	1,706
Bay Ridge/Bensonhurst	164.4	344
Coney Island	277.2	848
Williamsburg/Bushwick	1,038.6	2,105
Brooklyn- neighborhood unknown	*n/a*	*815*

Source: NYC DOHMH, Sexually Transmitted Disease Surveillance, 2009

Table 76. All PQI Indicators, 2012

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
Adult Overall Conditions Composite (PQI 90)	14,175	44,943	69,084	0.97	1.02	1.00
Adult Chronic Conditions Composite (PQI 92)	10,451	32,619	48,568	0.99	1.03	1.00
Adult All Diabetes Composite (PQI S01)	3,072	9,289	14,121	1.00	1.01	1.00
Adult Diabetes Short-term Complications (PQI 01)	838	2,533	4,506	0.87	0.91	1.00
Adult Diabetes Long Term Complications (PQI 03)	1,732	5,357	7,572	1.05	1.07	1.00
Adult Uncontrolled Diabetes (PQI 14)	428	1,178	1,679	1.15	1.04	1.00
Lower Extremity Amputation among Adults with Diabetes (PQI 16)	148	432	699	0.96	0.97	1.00
Adult All Circulatory Conditions Composite (PQI S02)	3,694	11,116	15,795	1.04	1.06	1.00
Adult Hypertension (PQI 07)	862	2,991	3,938	0.95	1.10	1.00
Adult Heart Failure (PQI 08)	2,598	7,426	10,902	1.07	1.04	1.00

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
Adult Angina Without Procedure (PQI 13)	234	699	955	1.13	1.09	1.00
All Adult Respiratory Conditions Composite (PQI S03)	3,686	12,216	18,653	0.94	1.02	1.00
COPD and Asthma in Older Adults (PQI 05)	3,236	10,486	16,244	0.95	1.01	1.00
Asthma in Younger Adults (PQI 15)	450	1,730	2,410	0.88	1.11	1.00
Adult Acute Conditions Composite (PQI 91)	3,727	12,328	20,521	0.90	0.99	1.00
Adult Dehydration (PQI 10)	732	2,403	3,958	0.89	0.98	1.00
Adult Bacterial Pneumonia (PQI 11)	1,620	5,353	9,347	0.86	0.96	1.00
Adult Urinary Tract Infection (PQI 12)	1,375	4,572	7,216	0.96	1.04	1.00
Pediatric Overall Conditions Composite (PDI 90): ages 6-17 years	926	2,909	3,774	1.13	1.19	1.00
Pediatric Chronic Conditions Composite (PDI 92): ages 6-17 years	708	2,255	2,903	1.11	1.19	1.00

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Brooklyn**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Brooklyn**	**NYC**	**NYS**
Pediatric Asthma (PDI 14): ages 2-17 years	1,278	4,282	5,384	1.08	1.73	1.00
Pediatric Diabetes Short-term Complications (PDI 15): ages 6-17 years	74	234	380	1.16	1.04	1.00
Pediatric Acute Conditions Composite (PDI 91): 6 - 17 years	218	654	871	1.21	1.16	1.00
Pediatric Gastroenteritis (PDI 16): ages 3 months - 17 years	558	1,758	2,333	1.31	1.18	1.00
Pediatric UTI (PDI 18): ages 3 months - 17 years	134	602	929	0.80	1.04	1.00

Source: NYS DOH, 2012

Table 77. Potentially Preventable Readmission data for Brooklyn hospitals

Facility Name	At Risk Admissions	Observed PPR Chains	Observed / Expected PPR	Observed PPR Rate	Expected PPR Rate	Expected PPR Chains
BETH ISRAEL MED CTR KINGSHWY DIVISION	2,367	119	0.94	5.03	5.33	126
BROOKDALE HOSPITAL MEDICAL CENTER	8,084	533	0.95	6.59	6.95	562
BROOKLYN HOSPITAL CENTER	7,281	480	1.15	6.59	5.74	418
CONEY ISLAND HOSPITAL	6,995	427	0.93	6.1	6.56	459
INTERFAITH MEDICAL CENTER	5,179	709	1.17	13.69	11.73	607
KINGS COUNTY HOSPITAL CENTER	13,680	1,075	1.08	7.86	7.29	997
KINGSBROOK JEWISH MED CENTER	3,627	299	1.12	8.24	7.35	267
LUTHERAN MEDICAL CENTER	1,610*	103	1.11	6.4	5.78	93
MAIMONIDES MEDICAL CENTER	17,816	681	0.87	3.82	4.37	779
NEW YORK METHODIST HOSPITAL	11,125	575	1.00	5.17	5.15	573
NY COMMUNITY HOSP OF BROOKLYN	3,060	138	0.79	4.51	5.71	175
UNIVERSITY HOSP OF BROOKLYN	11,362	795	1.13	7	6.2	704
WOODHULL MED & MNTL HLTH CTR	8,209	647	1.11	7.88	7.1	583
WYCKOFF HEIGHTS	8,986	500	1.11	5.56	5.03	452

Facility Name	At Risk Admissions	Observed PPR Chains	Observed / Expected PPR	Observed PPR Rate	Expected PPR Rate	Expected PPR Chains
MEDICAL CTR						
BROOKLYN HOSPITALS TOTAL	**109,381**	**7,081**	**1.04**			**6,795**

**This number is under review by the New York State Department of Health as of September, 2014 and may be revised.*
Source: New York State Department of Health, 2012

Table 78. Domain 3 Metrics, Behavioral Health

Select Clinical Improvement Measures, 2012	NYS	NYC	Brooklyn
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management: Effective Continuation Phase Treatment Effective Acute Phase Treatment*	 37% 50%	 47%	 47%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	71%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	78%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up care for Children Prescribed ADHD Medications: Initiation Phase* Continuous Phase	 56% 63%	 64%	 66%
Follow-up after hospitalization for Mental Illness: Within 7 Days Within 30 Days*	 65% 55%	 51%	 50%
Screening for Clinical Depression and follow-up			
Adherence to Antipsychotic Medications (at least 80% of treatment time) for People with Schizophrenia (aged 19-64 yrs)*	64%	63%	60%

Select Clinical Improvement Measures, 2012	NYS	NYC	Brooklyn
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	75%
PPR for SNF patients	[No known public source]	[No known public source]	[No known public source]
Percent of Long Stay Residents who have Depressive Symptoms	[No known public source]	[No known public source]	[No known public source]

**Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*

Source: QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 79. Domain 3 Metrics, Cardiovascular Disease

Select Clinical Improvement Measures, 2012	NYS	NYC	Brooklyn
PQI # 7 Hypertension, # of Discharges, 2012	3,938	2,991	862
Angina Without Procedure (PQI 13), # of Discharges, 2012	955	699	234
Cholesterol Management for Patients with CV Conditions[a]	[See source note]	35.9% (33.3-38.7)	37.8% (33.2-42.6)
Controlling High Blood Pressure (Provider responsible for medical record reporting)[a,b]	63%	67.0% (63.3-70.5)	64.8% (59.0-70.2)
Aspirin Discussion and Use: Discussion of Aspirin Risks and Benefits(HMO/PPO) Aspirin Use(HMO/PPO)[c]	49%/43% 39%/39%	[See source note]	[See source note]
Medical Assistance with Smoking Cessation [b]	[See source note]	5.8% (4.3-7.8)	5.1% (2.4-10.8)
Flu Shots for Adults Ages 50 – 64 [b]	[See source note]	43% (40.0-45.9)	39.8% (34.4-45.4)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse	[No known public source]	[No known public source]	[No known public source]

Sources:

[a] NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)

[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

[c] QARR 2011(Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 80. Domain 3.b. Metrics, Cardiovascular Disease

Adult Hospitalizations, 2012	NYS	NYC	Brooklyn
Angina Without Procedure (PQI 13)	955	699	234
Hypertension (PQI 07)	3,938	2,991	862
All Circulatory Conditions (PQI 07, PQI 08)	15,795	11,116	3,694
Adult Heart Failure (PQI 08)	10,902	7,426	2,598

Source: NYS DOH, 2012 data

Table 81. Domain 3 Metrics: Diabetes Mellitus

Potentially Avoidable Hospitalizations, 2012	NYS	NYC	Brooklyn
Diabetes Long Term Complications (PQI 03)	7,572	5,357	1,732
All Diabetes Composite (PQI 01, PQI 03, PQI 16)	14,121	9,289	3,072
Adult Diabetes Short-term Complications (PQI 01)	4,506	2,533	838
Adult Uncontrolled Diabetes (PQI 14)	1,679	1,178	428
Lower Extremity Amputation among Adults with Diabetes (PQI 16)	699	432	148
Pediatric Diabetes Short-term Complications (PDI 15)	380	234	74

Source: NYS DOH, 2012 data

Table 82. Select Clinical Improvement Measures, Diabetes

Select Clinical Improvement Measures, 2012	NYS	NYC	Brooklyn
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy)[a]	51%	[See source note]	[See source note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing*	80%	82%	82%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)[a]	33%	[See source note]	[See source note]
Comprehensive diabetes care - LDL-c control (<100mg/dL): Lipids Controlled (<100 mg/dL) Monitoring Diabetes - Lipid Profile[a]	 47% 87%	[See source note]	[See source note]
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	5.1% (2.4-10.8)
Flu Shots for Adults Ages 50 – 64[b]	[See source note]	43% (40.0-45.9)	39.8% (34.4-45.4)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse)	[No known public source]	[No known public source]	[No known public source]

*Sources: * Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*

[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

[b] NYC DOHMH Community Health Survey, 2012 (NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)

Table 83. Domain 3 Metrics, Asthma

Potentially Avoidable Hospitalizations, 2012	NYS	NYC	Brooklyn
All Adult Respiratory Conditions Composite (PQI 05, PQI 15)	18,653	12,216	3,686
Asthma in Younger Adults (PQI 15)	2,410	1,730	450
COPD and Asthma in Older Adults (PQI 05)	16,244	10,486	3,236
Pediatric Asthma (PDI 14)	5,384	4,282	1,278

Source: NYS DOH, 2012 data

Table 84. Select Clinical Improvement Measures, Asthma

Select Clinical Improvement Measures, 2012	NYS	NYC	Brooklyn
Asthma Medication Ratio			
Medical Management for People with Asthma:			
50% Covered (Ages 5-11)	48%		
50% Covered(Ages 12-18)	49%		
50% Covered(Ages 19-50)	63%		
50% Covered (Ages 51-64)	77%		
50% Covered (Ages 5-64)	57%		
75% Covered (Ages 5-11)	25%		
75% Covered(Ages 12-18)	25%		
75% Covered(Ages 19-50)	38%		
75% Covered (Ages 51-64)	53%		
75% Covered (Ages 5-64)	34%		

Source: QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 85. Select Clinical Improvement Measures, HIV/AIDS

Select Clinical Improvement Measures	NYS	NYC	Brooklyn
HIV/AIDS Comprehensive Care : Engaged in Care*	89%	89%	89%
HIV/AIDS Comprehensive Care : Viral Load Monitoring*	66%	67%	66%
HIV/AIDS Comprehensive Care : Syphilis Screening*	68%	71%	74%
Cervical Cancer Screening*	67%	69%	70%
Chlamydia Screening, Women Ages 16-24*	66%	70%	70%
Medical Assistance with Smoking Cessation	[See source note]	5.8% (4.3-7.8)	5.1% (2.4-10.8)
Viral Load Suppression**	62.2%	61.2%	58.3%

**Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management.*

*** Source: HIV Ambulatory Care Performance, 2011*

Table 86. Select Clinical Measures, Perinatal Care

Measure	NYS	NYC	Brooklyn
Prenatal and Postpartum Care—Timeliness and Postpartum Visits:[a, b]			
% mothers received postpartum checkup	90.1%	89.2%	
% mothers received prenatal care - start 1st to 3rd month	71.8%	70.4%	72.2%
% mothers received prenatal care - start 1st to 3rd month	27.9%	30.5%	28.8%
% mothers received prenatal care - start 7th to 9th month	23.9%	28.7%	25.4%
% late or no prenatal (Note: zip code level avl.)	5.4%	6.9%	6.1%
Frequency of Ongoing Prenatal Care:[c]			
Frequency of Ongoing Prenatal Care 61-80%	12%	[See source note]	[See source note]
Frequency of Ongoing Prenatal Care 41-60%	6%		
Frequency of Ongoing Prenatal Care 21-40%	4%		
Frequency of Ongoing Prenatal Care <21%	8%		
Percentage of Children Who Had Five (5) or More Well Care Visits in the first 15 months*	85%	83%	79%
Childhood Immunization Status:[c]			
Childhood immunization (0lmmz)	1%	[See source	[See source
Childhood immunization-3 or more IPVs	93%		
Childhood immunization-2 or 3 rotavirus	69%		
Childhood immunization-4 or more pneumococcals	81%		

Measure	NYS	NYC	Brooklyn
Childhood immunization-2 or more HepA	37%	note]	note]
Childhood Immunization-2 or more influenza	57%		
Childhood Immunization-Varicella	91%		
Childhood Immunization-MMR	93%		
Childhood Immunization-4 or more DTPs	83%		
Childhood Immunization-3 or more HepB	92%		
Childhood Immunization-3 or more Hibs	93%		
Childhood Immunization Status (Combo 3: 4-3-1-3-3-1-4)	74%		
Lead Screening in Children[c]	89%	[See source note]	[See source note]
PC-01 Early Elective Deliveries[b]	34.3%	32.7%	33.8%

Sources:

** Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*

[a] *State Vital Statistics 2012,* [b] *PRAMS 2011,* [c] *QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 87. Select Clinical Improvement Measures, Palliative Care

Select Clinical Improvement Measures	NYS	NYC	Brooklyn
Risk-Adjusted percentage of members who remained stable or demonstrated improvement in pain	[No known public source]	[No known public source]	[No known public source]
Risk-Adjusted percentage of members who had severe or more intense daily pain	[No known public source]	[No known public source]	[No known public source]
Risk-adjusted percentage of members whose pain was not controlled.	[No known public source]	[No known public source]	[No known public source]
Advanced Directives – Talked about Appointing for Health Decisions	[No known public source]	[No known public source]	[No known public source]
Depressive feelings - percentage of members who experienced some depression feeling	[No known public source]	[No known public source]	[No known public source]

Source: Not applicable

Table 88. Select Clinical Improvement Measures, Renal Care

Select Clinical Improvement Measures, 2012	NYS	NYC	Brooklyn
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy)[a]	51%	[See source note]	[See source note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)[a]	33%	[See source note]	[See source note]
Comprehensive diabetes care - LDL-c control (<100mg/dL)[a]	47% 87%	[See source note]	[See source note]
Annual Monitoring for Patients on Persistent Medications – ACE/ARB[b]	92%	[See source note]	[See source note]

Sources:

[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 89. Domain 4 Metrics. Premature Death, Preventable Hospitalizations, Insurance and Health Care Provider Status

Measure		Data year(s)	NYS	NYC	Brooklyn
Percentage of premature death (before age 65 years)[a]		2012	23.9	27.6	29.5
	Ratio of Black non-Hispanics to White non-Hispanics [a]	2010-2012	2.04	2.1	2.08
	Ratio of Hispanics to White non-Hispanics [a]	2010-2012	2.03	2.04	2.01
Age-adjusted preventable hospitalizations rate per 10,000 - Aged 18+ years [b]		2012	135.6	158.5	172
	Ratio of Black non-Hispanics to White non-Hispanics [b]	2010-2012	2.06	2.27	2.12
	Ratio of Hispanics to White non-Hispanics [b]	2010-2012	1.51	1.58	1.63
Percentage of adults with health insurance - Aged 18-64 years [a]		2012	89.1	86.2	86.5
Age-adjusted percentage of adults who have a regular health care provider - Aged 18+ years [d]		2012	81.5	81.7	83.9

Sources:
[a] *Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.*
[b] *SPARCS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.*
[c] *US Census Bureau, American Community Survey, 2012*
[d] *State data retrieved from the 2012 Behavioral Risk Factor Surveillance System as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard; city and county data retrieved from the NYC DOHMH Community Health Survey, 2012.*

Table 90. Domain 4 Metrics. Promote Mental Health and Prevent Substance Abuse

Measure	Data Year(s)	NYS	NYC	Brooklyn
Age-adjusted percentage of adults with poor mental health for 14 or more days in the last month [a]	2008-2009	10.2	9.2	7.4
Age-adjusted percentage of adult binge drinking during the past month [b]	2012	17.7	19.6	16.4
Age-adjusted suicide death rate per 100,000 [a]	2010-2012	7.8	5.7	4.6

Sources:
[a] 2008-2009 BRFSS and Expanded BRFSS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.
[b] State data retrieved from the 2012 Behavioral Risk Factor Surveillance System as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard; city and county data retrieved from the NYC DOHMH Community Health Survey, 2012.
[e] Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.

Table 91. Domain 4 Metrics: Prevent Chronic Diseases

Measure	Data Year(s)	NYS	NYC	Brooklyn
Percentage of adults who are obese [a]	2012	23.6	24.2	27
Percentage of children and adolescents who are obese [b]	2010-2011	17.6 (excludes NYC)	21.7	21.7
Percentage of cigarette smoking among adults [c]	2012	16.2	15.5	16.0
Breast Cancer Screening (percentage of women aged 50-74 years)*	2012	63	67	65
Percentage of adults who receive a colorectal cancer screening based on the most recent guidelines - Aged 50-75 years*	2012	49	52	50
Asthma emergency department visit rate per 10,000 [e]	2012	88.6	139.6	143.9
Asthma emergency department visit rate per 10,000 - Aged 0-4 years [e]	2012	225.1	348.4	297.3
Age-adjusted heart attack hospitalization rate per 10,000 [e]	2012	15.1	13.5	15.9
Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 6-17 years [e]	2010-2012	3	3.4	3.7
Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 18+ years [e]	2010-2012	6.1	7	7.7

** Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*

Sources:

[a] State data obtained from 2012 Behavioral Risk Factor Surveillance System (BRFSS) as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard. City and county data retrieved from the NYC DOHMH Community Health Survey, 2012.

[b] State data excludes NYC and was obtained from the 2010-12 Student Weight Status Category Reporting System as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard (includes children in grades K-12). City and county-level data obtained from "FitnessGram" (2010-2011) as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard (includes children in grades K-8).

[c] State data obtained from 2012 Behavioral Risk Factor Surveillance System (BRFSS) as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard. City and county data retrieved from: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [Community Health Survey, 2012]. [1 August 2014]. http://nyc.gov/health/epiquery

[d] State data obtained from the 2012 BRFSS and reports the "Percentage of adults who received colorectal cancer screening according to most recent guidelines." Those complying with recent guidelines included individuals who used a blood stool test at home in the past year; and/or, sigmoidoscopy in the past 5 years and blood stool test in the past 3 years; and/or, had a colonoscopy in the past 10 years. However, the NYC DOHMH Community Health Survey (2012) only reports the percentage of respondents who received a "colon cancer screening in last 10 years."

[e] SPARCS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.

Table 92. Domain 4 Metrics. Prevent HIV/STDs

Measure		Data Year(s)	NYS	NYC	Brooklyn
Newly diagnosed HIV case rate per 100,000 [a]		2010-2012	18.3	33.5	33.2
	Difference in rates (Black and White) of new HIV diagnoses [a]	2010-2012	46.7	49.1	55.3
	Difference in rates (Hispanic and White) of new HIV diagnoses [a]	2010-2012	24.2	21.6	22.9
Gonorrhea case rate per 100,000 women - Aged 15-44 years [b]		2012	235.8	283.1	314.5
Gonorrhea case rate per 100,000 men - Aged 15-44 years [b]		2012	284.1	444.9	422
Chlamydia case rate per 100,000 women - Aged 15-44 years [b]		2012	1,625.1	2,047.6	2139.3
Primary and secondary syphilis case rate per 100,000 males [b]		2012	12.4	24.3	21.2
Primary and secondary syphilis case rate per 100,000 females [b]		2012	0.5	0.7	0.7

Sources:
[a] *Bureau of HIV/AIDS Epidemiology data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard*
[b] *NYS STD Surveillance System data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.*

Table 93. Domain 4 Metrics. Promote Healthy Women, Infants, and Children

Measure		Data Year(s)	NYS	NYC	Brooklyn
Percentage of preterm births [a]		2012	10.8	10.8	10.9
	Ratio of Black non-Hispanics to White non-Hispanics [a]	2010-2012	1.62	1.8	2.12
	Ratio of Hispanics to White non-Hispanics [a]	2010-2012	1.25	1.39	1.6

Source: Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.

Table 93. Domain 4 Metrics. Promote Healthy Women, Infants, and Children

Measure		Data Year(s)	NYS	NYC	Brooklyn
Percentage of preterm births [a]		2012	10.8	10.8	10.9
	Ratio of Black non-Hispanics to White non-Hispanics [a]	2010-2012	1.62	1.8	2.12
	Ratio of Hispanics to White non-Hispanics [a]	2010-2012	1.25	1.39	1.6

Source: Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.

BRONX COMMUNITY NEEDS ASSESSMENT
APPENDIX B - TABLES

December 16, 2014

Original Version Prepared by The New York Academy of Medicine

Final Version Amended by New York City Health and Hospitals Corporation for Submission

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SECTION A: TABLES WITHIN THE BRONX CNA

Table 1 - Specialty Physicians by Borough

	Bronx	Brooklyn	Manhattan	Queens
Cardio Pulmonary	326	493	1044	361
Endocrine / Diabetes	70	71	223	56
Ear, Nose, Throat	57	67	190	73
Eye	110	196	531	206
Infectious Disease	95	74	199	49
Nephrology	102	112	204	67
Oncology	103	120	325	103

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Specialty physicians are defined as having a Specialist designation, Provider Type of MD or DO, and is based on primary specialty. Specialty and service code are as follows: Cardiopulmonary (62, 928, 68, 929, 151, 940, 157, 942, 243, 650, 651, 652, 653, 925 and 927); Endocrine/Diabetes (63, 516, 902, 156, 903, 944, 961); Ear Nose and Throat (120, 121, 935); Eye (100, 958, 101, 919); Infectious Disease (66, 966186, 980, 249, 308, 303, 430-432); Nephrology (67, 954, 154, 941); Oncology (241, 242, 244, 245, 933, 934).

Table 2 - Medical Specialists by Borough

	Bronx	Brooklyn	Manhattan	Queens
Acupuncturist	**4**	16	36	24
Audiologist	**23**	46	71	26
Chiropractor	**59**	101	104	121
Occupational Therapist	**51**	114	67	43
Physical Therapist	**370**	539	231	306
Speech-Language Pathologist	**25**	142	100	49
Optometrist	**100**	215	325	214
Durable Medical Equipment Supplier	**36**	117	59	67
Hospital and Clinic Based Labs	**14**	20	47	10

Source and notes: New York State Dept. of Health Provider Network Data System (PNDS). 2014. Based on Provider Type codes. Duplicates within were deleted only if within same specialty. Hospital and Clinic Based Laboratories NYSDOH HCRA providers, as of 9/01/2014. http://www.health.ny.gov/regulations/hcra/provider.htm

Table 3 - Early Intervention Program Providers

	Brooklyn	Bronx	Manhattan	Queens	Staten Island	NYC Total (Unique)
Number of Providers	71	65	65	72	50	97
Services:						
Service Coordination	39	39	39	42	27	56
Screening	34	35	34	36	29	48
Evaluation	49	49	48	53	36	69
Psychological Services	7	5	7	11	7	16
Family Education	32	21	26	31	21	41
Family Counseling	14	13	13	14	9	20
Speech Therapy	34	29	30	37	24	45
Occupational Therapy	35	30	30	37	21	48
Physical Therapy	36	30	31	37	22	49

Source: New York City Department of Health and Mental Hygiene Directory of New York City Early Intervention Providers, available at http://www.health.ny.gov/community/infants_children/early_intervention/, Accessed December 8, 2014.

Table 4 - Eating Disorder Providers by Borough

	Brooklyn	Manhattan	Queens	Staten Island	Grand Total
Number of Providers	5	101	2	1	109

Source: National Eating Disorder Association (NEDA) Directory of Facilities and Treatment Providers, available at http://www.nationaleatingdisorders.org/find-treatment, Accessed December 5, 2014

Table 5 - Total Population by Age Group with No Health Insurance Coverage

	No Health Insurance Coverage																		
Region	**Total**	**< 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	1.5	1.5	2.0	4.9	14.6	16.5	13.3	10.7	9.3	8.1	6.7	5.4	3.9	0.8	0.3	0.2	0.1	0.1
		9.9				55.1				33.5					1.5				
Bronx (%)	100	2.0	2.0	2.6	5.7	15.6	16.2	12.8	11.0	8.9	8.3	6.2	4.7	2.8	0.5	0.2	0.1	0.1	0.1
		12.3				55.7				30.9					1.1				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 6 - Total Population by Age Group with Medicaid/Low Income Medical Assistance

	Population with Medicaid/Low Income Medical Assistance																		
Region	**Total**	**< 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	11.4	10.1	9.7	9.3	7.1	5.4	4.9	4.7	5.2	5.6	5.1	4.5	4.0	3.2	3.0	2.5	2.2	2.3
		40.4				22.1				24.4					13.1				
Bronx (%)	100	12.1	11.1	10.6	10.4	7.2	5.2	4.9	4.6	5.5	5.5	5.0	4.1	3.5	2.9	2.4	2.0	1.6	1.4
		44.2				21.9				23.6					10.3				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 7 - Total Population by Age Group with Other Insurance

	Other Insurance																		
Region	**Total**	**< 5**	**5 to 9**	**10 to 14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85 and over**
NYC	100	5.1	4.5	4.7	5.2	6.4	8.9	8.5	7.5	7.5	7.3	7.3	6.7	5.9	4.7	3.4	2.6	1.9	1.8
		19.5				31.4				34.6					14.5				
Bronx (%)	100	5.1	5.0	5.6	6.7	6.4	6.7	6.9	6.8	7.7	8.1	7.7	6.9	5.7	4.7	3.6	2.6	1.8	1.9
		22.5				26.9				36					14.6				

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 8 - Nativity by Insurance Status

Region	No Health Insurance Coverage		Population with Medicaid/Low Income Medical Assistance		Other Insurance	
	% Foreign Born	% Native	% Foreign Born	% Native	% Foreign Born	% Native
New York City	62%	38%	35%	65%	32%	68%
Bronx	58%	42%	28%	72%	30%	70%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 9 - Top Places of Birth among Foreign Born With No Health Insurance

PUMA Name	No Health Insurance Coverage										
	Total	Mexico	Dominican Republic	China	Ecuador	Jamaica	Guyana	Korea	Trinidad & Tobago	Colombia	India
New York City	724,452	131,000	74,765	60,385	56,982	32,639	25,737	23,941	20,659	17,511	15,482
Bronx	131,665	35,802	32,721	10,767	5,985	4,850	4,309	2,593	2,319	2,297	2,137
Riverdale, Fieldston & Kingsbridge	7,743	989	2,735	180	142	290	131	38	124	98	-
Wakefield, Williamsbridge & Woodlawn	12,287	845	840	6,500	88	458	11	313	-	341	181
Co-op City, Pelham Bay & Schuylerville	3,681	253	686	570	306	261	55	-	-	158	-
Pelham Parkway, Morris Park & Laconia	12,205	3,707	1,006	1,137	364	239	393	63	249	237	182
Belmont, Crotona Park East & East Tremont	13,353	3,850	3,304	446	398	773	620	450	612	177	411
Bedford Park, Fordham North & Norwood	15,787	5,434	4,530	340	964	412	745	54	387	228	-
Morris Heights, Fordham South & Mount Hope	17,700	4,473	7,085	469	723	831	655	648	248	98	368
Concourse, Highbridge & Mount Eden	15,790	3,967	6,099	321	346	1,078	267	515	267	91	652
Castle Hill, Clason Point & Parkchester	16,912	5,465	3,145	646	2,058	367	155	245	175	781	198
Hunts Point, Longwood & Melrose	16,207	6,819	3,291	158	596	141	1,277	267	257	88	145

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 10 - Top Places of Birth among Foreign Born with Medicaid/Low Income Medical Assistance

PUMA Name	Population with Medicaid/Low Income Medical Assistance										
	Total	Dominican Republic	Jamaica	Mexico	Ecuador	Ghana	Bangladesh	Honduras	Guyana	Albania	Nigeria
New York City	1,280,549	223,746	62,456	54,940	54,338	9,474	40,962	13,617	54,137	6,605	7,721
Bronx	222,960	96,328	18,517	12,646	9,611	7,756	6,603	6,167	6,126	2,807	2,547
Riverdale, Fieldston & Kingsbridge	14,336	7,028	311	544	326	398	17	49	243	155	204
Wakefield, Williamsbridge & Woodlawn	20,984	2,354	8,718	626	253	752	187	135	1,460	32	914
Co-op City, Pelham Bay & Schuylerville	8,107	1,090	1,365	181	285	155	86	196	290	169	215
Pelham Parkway, Morris Park & Laconia	18,662	3,441	2,965	1,290	372	399	999	310	561	1,512	71
Belmont, Crotona Park East & East Tremont	25,053	13,125	679	1,299	1,036	694	11	1,255	352	230	326
Bedford Park, Fordham North & Norwood	26,328	13,163	1,107	1,274	1,198	477	1,585	180	639	322	103
Morris Heights, Fordham South & Mount Hope	30,304	19,276	880	1,523	1,217	1,412	104	720	465	152	66
Concourse, Highbridge & Mount Eden	30,233	17,932	694	1,734	917	1,569	520	560	343	-	261
Castle Hill, Clason Point & Parkchester	24,893	7,487	1,367	1,731	1,991	841	3,034	623	1,679	235	271
Hunts Point, Longwood & Melrose	24,060	11,432	431	2,444	2,016	1,059	60	2,139	94	-	116

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 11 - Limited English Proficiency by Insurance Status

Region	% Low English Proficiency		
	No Health Insurance Coverage	Population with	Other Insurance
New York City	40%	29%	14%
Bronx	41%	26%	14%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 12 - Educational Attainment for Population with No Health Insurance

Region	No Health Insurance Coverage			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	30%	29%	20%	21%
Bronx	39%	30%	20%	11%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 13 - Educational Attainment for Population with Medicaid/Low Income Medical Assistance

Region	Population with Medicaid/Low Income Medical Assistance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	40%	29%	19%	12%
Bronx	47%	26%	20%	7%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 14 - Educational Attainment for Populations with Other Insurance

Region	Other Insurance			
	% Less than HS diploma	% HS diploma or equivalent	% Some college/ Associate's	% Bachelor's degree or higher
New York City	11%	22%	22%	45%
Bronx	18%	26%	28%	27%

Source: US Census American Community Survey-Public Use Microdata Sample (PUMS), New York City Department of City Planning, Population Division, 2008-2012

Table 15 - Leading Causes of Death, NYC, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	16,730	31.9%
2	Malignant Neoplasms	13,399	25.5%
3	Influenza (Flu) and Pneumonia	2,244	4.3%
4	Diabetes Mellitus	1,813	3.5%
5	Chronic Lower Respiratory Diseases	1,651	3.1%
6	Cerebrovascular Disease	1,646	3.1%
7	Accidents Except Drug Poisoning	1,032	2.0%
8	Essential Hypertension and Renal Diseases	980	1.9%
9	Use of or Poisoning By Psychoactive Substance	812	1.5%
10	Alzheimer's Disease	696	1.3%
	All Other Causes	11,452	21.8%
	Total	52,455	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 16 - Leading Causes of Death, Bronx, 2012

Rank		Total Reported	Percent of Total
1	Diseases of Heart	2,650	30.6%
2	Malignant Neoplasms	2,028	23.4%
3	Influenza (Flu) and Pneumonia	405	4.7%
4	Diabetes Mellitus	321	3.7%
5	Chronic Lower Respiratory Diseases	281	3.2%
6	Cerebrovascular Disease	242	2.8%
7	Use of or poisoning by psychoactive substance	192	2.2%
8	Human Immunodeficiency Virus Disease	173	2.0%
9	Essential Hypertension and Renal Diseases	165	1.9%
10	Accidents Except Drug Poisoning	156	1.8%
	All Other Causes	2,036	23.5%
	Total	8,649	100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 17 - Leading Causes of Death by Sex, NYC, 2012

Rank	Causes of Mortality	Total Reported	%	Causes of Mortality	Total Reported	%
	Males			**Females**		
1	Diseases of Heart	7,954	31%	Diseases of Heart	8,776	33%
2	Malignant Neoplasms	6,578	26%	Malignant Neoplasms	6,821	25%
3	Influenza (Flu) and Pneumonia	1,078	4%	Influenza (Flu) and Pneumonia	1,166	4%
4	Diabetes Mellitus	883	3%	Cerebrovascular Disease	975	4%
5	Chronic Lower Respiratory Diseases	734	3%	Diabetes Mellitus	930	3%
6	Accidents Except Drug Poisoning	699	3%	Chronic Lower Respiratory Diseases	917	3%
7	Cerebrovascular Disease	671	3%	Essential Hypertension and Renal Diseases	562	2%
8	Use of or Poisoning By Psychoactive Substance	592	2%	Alzheimer's Disease	488	2%
9	Essential Hypertension and Renal Diseases	418	2%	Accidents Except Drug Poisoning	333	1%
10	Human Immunodeficiency Virus Disease	402	2%	Septicemia	242	1%
	All other causes	5,658	22%	All other causes	5,578	21%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 18 - Leading Causes of Death by Race, NYC, 2012

Rank	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%	Causes of Mortality	Total	%
	Hispanic			**White, Non-Hispanic**			**Black, Non-Hispanic**			**Asian and Pacific Islander**		
1	Diseases of Heart	2,514	27%	Diseases of Heart	8,875	36%	Diseases of Heart	4,209	30%	Malignant Neoplasms	1,086	32%
2	Malignant Neoplasms	2,251	24%	Malignant Neoplasms	6,440	26%	Malignant Neoplasms	3,475	25%	Diseases of Heart	872	25%
3	Influenza (Flu) and Pneumonia	414	4%	Influenza (Flu) and Pneumonia	1,117	4%	Diabetes Mellitus	717	5%	Cerebrovascular Disease	172	5%
4	Diabetes Mellitus	394	4%	Chronic Lower Respiratory Diseases	859	3%	Influenza (Flu) and Pneumonia	537	4%	Influenza (Flu) and Pneumonia	150	4%
5	Cerebrovascular Disease	298	3%	Cerebrovascular Disease	701	3%	Cerebrovascular Disease	441	3%	Diabetes Mellitus	133	4%
6	Chronic Lower Respiratory Diseases	290	3%	Diabetes Mellitus	532	2%	Chronic Lower Respiratory Diseases	388	3%	Chronic Lower Respiratory Diseases	94	3%
7	Accidents Except Drug Poisoning	251	3%	Accidents Except Drug Poisoning	463	2%	Human Immunodeficiency Virus Disease	359	3%	Accidents Except Drug Poisoning	90	3%
8	Use Of Or Poisoning By Psychoactive Substance	222	2%	Use Of Or Poisoning By Psychoactive Substance	363	1%	Essential Hypertension and Renal Diseases	357	3%	Essential Hypertension and Renal Diseases	78	2%
9	Chronic Liver Disease and Cirrhosis	197	2%	Essential Hypertension and Renal Diseases	352	1%	Assault	261	2%	Intentional Self-Harm	75	2%
10	Essential Hypertension and Renal Diseases	182	2%	Alzheimer's Disease	337	1%	Accidents Except Drug Poisoning	209	2%	Nephritis, Nephrotic Syndrome and Nephrisis	39	1%
	All other causes	2,407	26%	All other causes	4,865	20%	All other causes	2,911	21%	All other causes	657	19%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 19 - Leading Causes of Death, NYC, 2002, 2007, 2012

Rank	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%	Causes of Mortality	Deaths	%
	2002			2007			2012		
1	Diseases of Heart	24,504	41%	Diseases of Heart	21,424	40%	Diseases of Heart	16,730	32%
2	Malignant Neoplasms	13,731	23%	Malignant Neoplasms	13,234	24%	Malignant Neoplasms	13,399	26%
3	Influenza (Flu) and Pneumonia	2,508	4%	Influenza (Flu) and Pneumonia	2,245	4%	Influenza (Flu) and Pneumonia	2,244	4%
4	Cerebrovascular Disease	1,853	3%	Cerebrovascular Disease	1,563	3%	Diabetes Mellitus	1,813	3%
5	Human Immunodeficiency Virus Disease	1,713	3%	Diabetes Mellitus	1,559	3%	Chronic Lower Respiratory Diseases	1,651	3%
6	Diabetes Mellitus	1,704	3%	Chronic Lower Respiratory Diseases	1,427	3%	Cerebrovascular Disease	1,646	3%
7	Chronic Lower Respiratory Diseases	1,700	3%	Human Immunodeficiency Virus Disease	1,113	2%	Accidents Except Drug Poisoning	1,032	2%
8	Accidents Except Drug Poisoning	1,176	2%	Accidents Except Drug Poisoning	1,027	2%	Essential Hypertension and Renal Diseases	980	2%
9	Use of or Poisoning by Psychoactive Substance	904	2%	Use of or Poisoning by Psychoactive Substance	848	2%	Use of or Poisoning by Psychoactive Substance	812	2%
10	Essential Hypertension and Renal Diseases	723	1%	Essential Hypertension and Renal Diseases	791	1%	Alzheimer's Disease	696	1%
	All other causes	9,135	15%	All other causes	8,842	16%	All other causes	11,452	22%
			100%			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014

Table 20 - Leading Causes of Premature Death (<65) and Years of Life Lost (YLL), New York City - 2012

Cause of Death	Total		Male		Female	
	Deaths	YLL	Deaths	YLL	Deaths	YLL
Total	14,047	224,047	8,559	139,257	5,488	84,790
Acquired Immune Deficiency Syndrome (AIDS)	499	8,111	326	5,090	173	3,021
Malignant Neoplasms	3,993	43,370	1,959	20,341	2,034	23,029
Buccal Cavity and Pharynx	86	1,035	60	687	26	348
Digestive Organs and Peritoneum	1,226	11,921	756	7,271	470	4,650
Respiratory System	844	7,263	487	4,027	357	3,236
Trachea, Bronchus and Lung	786	6,609	447	3,610	339	2,999
Breast	448	5,694	1	9	447	5,685
Genital Organs	409	4,338	81	685	328	3,653
Urinary Organs	124	1,270	91	871	33	399
Other and Unspecified Sites	514	6,791	278	3,552	236	3,239
Lymphatic and Hematopoietic Tissues	342	5,058	205	3,239	137	1,819
Diabetes Mellitus	476	5,182	306	3,458	170	1,724
Diseases of the Circulatory System	3,386	36,272	2,256	24,359	1,130	11,913
Diseases of the Heart	2,718	27,754	1,854	19,363	864	8,391
Hypertension with Heart Disease	586	6,552	378	4,320	208	2,232
Acute Myocardial Infarction	338	3,066	242	2,322	96	744
Other Ischemic Heart Diseases+	1,493	13,254	1,061	9,791	432	3,463
Other Diseases of the Heart	301	4,882	173	2,930	128	1,952
Hypertension with or without Renal Disease	169	1,782	98	1,039	71	743
Cerebrovascular Disease	355	4,701	211	2,683	144	2,018
Other Diseases of the Circulatory System	144	2,035	93	1,274	51	761
Pneumonia	278	3,366	165	2,021	113	1,345
Chronic Lower Respiratory Disease (CLRD)	278	3,719	156	2,179	122	1,540
Cirrhosis of Liver	328	3,920	230	2,764	98	1,156
Congenital Anomalies	198	9,589	110	5,049	88	4,540
Certain Conditions Originating in the Perinatal Period	302	19,581	170	11,048	132	8,533
Accidents (Total)	1,152	27,472	877	21,267	275	6,205
Motor Vehicle	222	6,497	163	4,809	59	1,688
Drownings	15	582	14	522	1	60
Falls	110	2,015	92	1,807	18	208
Poisonings	659	14,340	496	11,047	163	3,293
Suicide	433	10,020	306	7,010	127	3,010
Homicide and Legal Intervention	400	14,196	341	12,356	59	1,840
All Other Causes	2,324	39,249	1,357	22,315	967	16,934

Premature death is defined a death before age 65. Years of Life Lost (YLL) is calculated by subtracting the age of death from age 65.

Source: The New York State Department of Health, Vital Statistics, 2012, accessed December 2, 2014

Table 21 - Ten Leading Causes of Death by Medicaid Status, New York State, 2012

	Non-Medicaid		Medicaid*	
Rank	Underlying Cause of Death	Deaths	Underlying Cause of Death	Deaths
1	Diseases of the Heart	25,887	Diseases of the Heart	17,350
2	Malignant Neoplasms	24,753	Malignant Neoplasms	10,845
3	Chronic Lower Respiratory Disease	4,211	Chronic Lower Respiratory Disease	2,775
4	Cerebrovascular Disease	3,666	Cerebrovascular Disease	2,357
5	Accidents	3,457	Pneumonia	2,168
6	Pneumonia	2,157	Accidents	1,959
7	Septicemia	1,331	Alzheimer's	1,423
8	Nephritis, Nephrotic Syndrome, &Nephrosis	1,311	Septicemia	977
9	Alzheimer's	1,200	Hypertension	947
10	Suicide	1,196	Nephritis, Nephrotic Syndrome, & Nephrosis	873

**Determined on the basis of Medicaid enrollment sometime during the year of death. Differences in causes of mortality between Medicaid and non-Medicaid decedents may be due, in part, to differences in age, sex, or race/ethnicity.*

Source: MJ Sharp, LD Schoen, T Wang, TA Melnik. Leading causes of death, New York State, 2012. New York State Department of Health, Office of Quality and Patient Safety, Bureau of Vital Statistics.

Table 22 - Inpatient Discharges by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Complications Pregnancy	11%	11%	11%	10%	11%	11%	13%	13%	12%	13%
Newborns	10%	10%	10%	10%	9%	9%	11%	12%	11%	12%
Heart Disease	9%	8%	8%	8%	7%	7%	9%	8%	9%	8%
Digestive Disease	8%	8%	7%	8%	8%	8%	8%	8%	9%	8%
Respiratory Disease	7%	7%	7%	7%	9%	10%	7%	7%	7%	7%
Psychoses	5%	5%	7%	7%	5%	6%	5%	5%	5%	5%
Symptoms And Signs	6%	5%	6%	5%	7%	6%	6%	5%	7%	5%
Infectious/ Parasitic Dis	4%	5%	3%	4%	5%	5%	4%	4%	4%	4%
Musculoskeletal Dis	4%	5%	4%	4%	3%	3%	3%	3%	3%	3%
Malignant Neoplasms	4%	4%	4%	4%	3%	3%	3%	3%	4%	3%
Endo/Nutr/ Metab Dis	4%	4%	4%	4%	5%	5%	4%	4%	3%	4%
Other Injury	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%
Urinary Disease	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other Circulatory Dis	2%	2%	3%	3%	3%	3%	2%	2%	2%	2%
Nervous System Dis	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Supplementary	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Alcohol/Drug	3%	2%	4%	3%	3%	2%	2%	2%	1%	2%
Fractures	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Skin Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Cerebrovascular Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
All Other Diagnoses	7%	7%	6%	6%	7%	7%	7%	7%	6%	7%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	**1,160,535**	**1,075,159**	**199,603**	**185,181**	**223,597**	**208,937**	**353,202**	**325,700**	**210,057**	**189,945**

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 23 - Potentially Avoidable Inpatient Discharges (Composite PQI), 2009 and 2012

		Bronx		Brooklyn		Manhattan		Queens	
		2009	2012	2009	2012	2009	2012	2009	2012
Overall (PQI 90)	Observed Rate Per 100,000	2,982	2,482	1,991	1,731	1,547	1,360	1,453	1,318
	Expected Rate Per 100,000	2,048	1,796	2,002	1,633	1,615	1,398	1,874	1,641
	Observed/Expected	1.46	1.38	0.99	1.06	0.96	0.97	0.78	0.80
Diabetes (PQI S01)	Observed Rate Per 100,000	553	495	387	347	246	230	243	225
	Expected Rate Per 100,000	369	336	337	289	250	227	296	272
	Observed/Expected	1.50	1.47	1.15	1.20	0.99	1.01	0.82	0.83
Respiratory Conditions (PQI S03)	Observed Rate Per 100,000	831	701	442	393	357	304	289	269
	Expected Rate Per 100,000	493	437	458	378	365	319	426	374
	Observed/Expected	1.69	1.60	0.96	1.04	0.98	0.95	0.68	0.72
Circulatory Conditions (PQI S02)	Observed Rate Per 100,000	825	653	611	503	425	350	427	386
	Expected Rate Per 100,000	590	499	590	464	456	380	543	462
	Observed/Expected	1.40	1.31	1.04	1.08	0.93	0.92	0.79	0.83

Source: New York State Department of Health Office of Quality and Patient Safety Bureau of Health Informatics Medicaid Claims Extract, 2012

Table 24 - ED visits by top 20 primary diagnoses, 2010 and 2013

	NYC		Manhattan		Bronx		Brooklyn		Queens	
	2010	2013	2010	2013	2010	2013	2010	2013	2010	2013
Symptoms And Signs	21%	20%	20%	23%	27%	19%	18%	17%	19%	23%
Respiratory Disease	11%	11%	11%	9%	10%	13%	12%	12%	11%	10%
Other Injury	11%	11%	11%	10%	10%	10%	12%	12%	13%	12%
Musculoskeletal Dis.	8%	9%	9%	9%	9%	9%	8%	9%	7%	8%
Digestive Disease	6%	6%	5%	5%	5%	5%	6%	6%	7%	6%
Infectious/Parasitic Dis	5%	5%	5%	4%	4%	6%	4%	4%	6%	4%
Compl. Pregnancy	4%	4%	4%	3%	4%	5%	6%	6%	4%	4%
Other Supplementary	4%	4%	4%	4%	5%	5%	4%	3%	4%	3%
Open Wounds	4%	4%	4%	4%	3%	3%	4%	4%	4%	4%
Skin Disease	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%
Alcohol/Drug	3%	3%	3%	4%	2%	2%	3%	3%	2%	2%
Urinary Disease	2%	3%	3%	3%	2%	2%	3%	3%	3%	3%
Ear Disease	3%	2%	2%	2%	3%	3%	2%	2%	3%	2%
Fractures	2%	2%	2%	2%	1%	1%	2%	2%	2%	2%
Female Reproductive	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Mental Dis.	2%	2%	2%	2%	2%	2%	1%	2%	1%	2%
Psychoses	1%	2%	2%	2%	1%	2%	1%	2%	1%	2%
Eye Disease	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Other Circulatory Dis.	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
Nervous System Dis.	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
All Other diagnoses	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: New York Statewide Planning and Research Cooperative System (SPARCS), 2010 and 2013.

Table 25 - Rates of HIV Diagnoses, People With HIV/AIDS (PWHA), and Deaths among PWHA by United Hospital Fund (UHF) Neighborhood, New York City 2011

UHF Neighborhood	HIV diagnoses per 100,000 population	Reported PWHA as percent of population	Age-adjusted death rate per 1,000 PWHA	Population from 2010 Census
NYC Total	**41.6**	**1.4**	**14.7**	**8,175,133**
Bronx	**47.9**	**1.7**	**18.6**	**1,382,480**
Crotona/Tremont	50.0	2.3	19.8	206,116
Fordham/Bronx Park	47.9	1.7	17.9	252,655
High Bridge/Morrisania	69.8	2.4	21.5	207,631
Hunts Point/Mott Haven	71.7	2.4	20.3	136,591
Kingsbridge /Riverdale	22.0	0.6	8.3*	90,892
Northeast Bronx	38.3	1.0	15.1	190,668
Pelham/Throgs Neck	34.2	1.3	16.2	297,927

Rates based on numerators ≤10 are marked with an asterisk (*) and should be interpreted with caution.

Source: New York City Department of Health and Mental Hygiene HIV Epidemiology and Field Services Programs Semiannual Report. October 2012

Table 26 - HIV/AIDS Diagnoses and Deaths and Persons Diagnosed with HIV/AIDS, NYC, 2012

	HIV diagnoses			AIDS diagnoses	PLWHA as of 12/31/2012	Deaths
	Total	Without AIDS	Concurrent with AIDS diagnosis			
Total	3,141	2,529	612	1,889	114,926	1,578
Male	2,494	2,018	476	1,392	82,426	1,085
Female	647	511	136	497	32,500	493
Race/Ethnicity						
Black	1,394	1,091	303	987	51,154	829
Hispanic	1,019	830	189	586	37,290	509
White	611	517	94	262	23,715	211
Asian/Pacific Islander	107	83	24	49	2,047	22
Native American	3	1	2	5	251	5
Multiracial	7	7	0	0	70	2
Unknown	0	0	0	0	399	0
Age group (years)						
0-12	6	6	0	1	192	2
13-19	141	135	6	32	1,081	1
20-29	1,073	959	114	360	8,907	45
30-39	762	630	132	424	16,515	109
40-49	643	455	188	536	35,004	369
50-59	360	249	111	378	35,540	596
60+	156	95	61	158	17,687	456
Borough of residence						
Bronx	584	465	119	452	26,613	477
Brooklyn	860	675	185	548	28,544	499
Manhattan	808	656	152	418	31,067	328
Queens	501	396	105	271	17,071	143
Staten Island	44	40	4	38	2,228	45
Outside NYC	324	277	47	132	9,196	62
Unknown	20	20	0	30	207	24
Area-based poverty level						
Low (<10% below FPL)	259	211	48	132	12,237	101
Medium (10 to <20% below FPL)	883	701	182	522	31,544	361
High (20 to <30% below FPL)	862	688	174	509	29,292	441
Very high (>30% below FPL)	773	618	155	552	30,969	588
not available	364	311	53	174	10,884	87
Transmission risk						
Men who have sex with men	1,719	1,447	272	755	41,641	283
Injection drug use history	139	110	29	171	19,529	577
Heterosexual	616	462	154	455	22,767	309
Perinatal	6	6	0	27	2,496	15
Other	0	0	0	1	226	0
Unknown	661	504	157	480	28,267	394

Source: New York City Department of Health and Mental Hygiene. HIV Surveillance Annual Report, 2012

Table 27 - Selected Patients' Satisfaction Ratings for Adult Services-Statewide Averages By Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Satisfaction with Provider Communication	94%	95%	87%
Satisfaction with Personal Doctor	83%	84%	73%
Satisfaction with Specialist	83%	83%	69%
Received Needed Care	87%	87%	75%
Got Care Quickly	87%	86%	76%

** Data is for 2011*

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health..

Table 28 - Selected Quality of Care Measures for Adults – Statewide Averages by payer

	Commercial HMO		Commercial PPO		Medicaid Managed Care*	
Controlling High Blood Pressure	59%		57%		63%	
Poor HbA1c Control in Diabetics* (Lower is better)	27%		42%		33%	
Use of Appropriate Medications for People with Asthma	89%		90%		82%	
Behavioral Health: Follow-up after Hospitalization for Mental Illness	64%	78%	58%	71%	65%	79%

** Data is from 2011*

Source: 2013 Health Plan Comparison in New York State," New York State Department of Health.

Table 29 - Access and Quality Measures for Children and Adolescents, Statewide Average by Payer

	Commercial HMO	Commercial PPO	Medicaid Managed Care*
Well-Child and Preventive Care Visits in the First 15 Months*	91	90	83
Well-Child and Preventive Care Visits Years 3-6*	84	79	82
Adolescent Well-Care Visits*	61	53	59
Appropriate Treatment—no antibiotic--for Upper Respiratory Infection	89	89	93

**Data is from 2011*

Source: 2013 Health Plan Comparison in New York State, New York State Department of Health.

Table 30 - Risk Factors by Select Bronx Neighborhoods

	Obesity (BMI≥30)	Binge Drink (within past 30 days)	Lack of or low Physical Activity (within past 30 days)	Current Smoker
NYC	24.1%	19.7%	22.2%	15.6%
Kingsbridge and Riverdale	18.4%	16.9%	22.4%	6.4%
The Northeast Bronx	26.6%	18.3%	20.2%	16.3%
Fordham/Bronx Park	37.3%	21.5%	16.9%	8.4%
Pelham/Throgs Neck	32.8%	14.7 %	26.0%	22.3%
The South Bronx	30.1%	20.6%	27.2%	17.3%

Values are not adjusted for age.

Source: NYC Dept. of Health and Mental Hygiene, NYC Community Health Survey, 2012.

Table 31 - Environmental Risk Factors in Selected Neighborhoods in the Bronx

	NYC	Bronx	Crotona-Tremont	Fordham - Bronx Pk	Highbridge-Morrisania	Hunts Point-Mott Haven	Kingsbridge-Riverdale	Northeast Bronx	Pelham-Throgs Neck
Indoor Air Quality									
Homes with cockroaches (2011)	24%	37.7%	44.9%	38.8%	48.9%	47.9%	32.8%	23.5%	29.6%
Adults reporting second-hand smoke at home (2011)	4.9%	6.7%	9.4%	6.6%	9.4%	9.4%	1.5%	n/a	7.1%
Adults reporting mold in the home (2012)	9.5%	12.9%	11.8%	18.7%	11.8%	11.8%	9.5%	8.9%	14.4%
Adults reporting mice in the home (2012)	15.5%	23.4%	30.9%	30.2%	30.9%	30.9%	15.2%	15.8%	13.6%
Home Safety and Maintenance									
Homes with cracks or holes (2011)	15.7%	24.7%	29%	26.1%	29.3%	33%	19.5%	18.2%	20%
Homes with leaks (2011)	20.6%	28.1%	30.3%	31.6%	29.3%	30.6%	27.4%	22.3%	26%
Households rating neighborhood structures good or excellent (2011)	75.2%	58.8%	43.3%	58.6%	50.6%	48.7%	74.3%	70.8%	66.2%

Sources: New York Community Health Survey (CHS), New York City Housing and Vacancy Survey (HVS), 2011, 2012.

SECTION B: OTHER TABLES

Table 32 - Top 10 Leading Causes of Death in 2012 by Age Group, NYC

Rank	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%
	Less than 1			**1-14 Years**			**15-24 Years**			**25-34 Years**		
1	Congenital Malformations, Deformations, and Chromosomal Abnormalities	125	21%	Malignant Neoplasms	39	18%	Assault	139	25%	Use of or poisoning by psychoactive substance	147	27%
2	Short Gestation/Low Birth Weight	119	20%	Accidents Except Drug Poisoning	31	14%	Accidents Except Drug Poisoning	85	15%	Assault	131	24%
3	Cardiovascular Disorders in the Perinatal Period	75	13%	Congenital Malformations, Deformations, and Chromosomal Abnormalities	26	12%	Intentional Self-Harm	65	12%	Malignant Neoplasms	125	23%
4	External Causes	55	9%	Assault	19	9%	Malignant Neoplasms	51	9%	Accidents Except Drug Poisoning	100	18%
5	Newborn Affected by Complications of Placenta	22	4%	Chronic Lower Respiratory Diseases	13	6%	Use of or poisoning by psychoactive substance	48	9%	Intentional Self-Harm	94	17%
6	Respiratory Distress of New Born	15	3%	Diseases of Heart	12	6%	Diseases of Heart	19	3%	Diseases of Heart	62	11%
7	Bacterial Sepsis of Newborn	10	2%	Intentional Self-Harm	6	3%	Congenital Malformations, Deformations, and Chromosomal Abnormalities	16	3%	Human Immunodeficiency Virus Disease	34	6%
8	Other Respiratory Conditions in Perinatal Period	10	2%	Cerebrovascular Disease	5	2%	Chronic Lower Respiratory Diseases	15	3%	Diabetes Mellitus	17	3%
9	Necrotizing Entercolitis of Newborn	9	2%	Influenza (Flu) and Pneumonia	5	2%	Human Immunodeficiency Virus Disease	11	2%	Pregnancy, Childbirth and the Puerperium	16	3%
10	Neonatal Hemorrhage	9	2%	Insitu or Benign / Uncertain Neoplasms	4	2%	Legal Intervention	7	1%	Congenital Malformations, Deformations, and Chromosomal Abnormalities	13	2%
	All other causes	134	23%	All other causes	57	26%	All other causes	98	18%	All other causes	196	35%
			100%			100%			100%			100%

Rank	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%
	35-44 Years			**45-54 Years**			**55-64 Years**			**65-74 Years**		
1	Malignant Neoplasms	342	22%	Malignant Neoplasms	1,234	30%	Malignant Neoplasms	2,604	36%	Malignant Neoplasms	3,340	38%
2	Diseases of Heart	209	13%	Diseases of Heart	807	20%	Diseases of Heart	1,753	24%	Diseases of Heart	2,551	29%
3	Use Of Or Poisoning By Psychoactive Substance	170	11%	Use Of Or Poisoning By Psychoactive Substance	275	7%	Diabetes Mellitus	288	4%	Diabetes Mellitus	382	4%
4	Accidents Except Drug Poisoning	94	6%	Human Immunodeficiency Virus Disease	217	5%	Chronic Liver Disease and Cirrhosis	185	3%	Chronic Lower Respiratory Diseases	332	4%
5	Human Immunodeficiency Virus Disease	90	6%	Diabetes Mellitus	143	4%	Viral Hepatitis	183	3%	Influenza (Flu) and Pneumonia	297	3%
6	Intentional Self-Harm	83	5%	Accidents Except Drug Poisoning	127	3%	Influenza (Flu) and Pneumonia	177	2%	Cerebrovascular Disease	248	3%
7	Assault	59	4%	Intentional Self-Harm	125	3%	Cerebrovascular Disease	173	2%	Essential Hypertension and Renal Diseases	170	2%
8	Diabetes Mellitus	46	3%	Chronic Liver Disease and Cirrhosis	118	3%	Chronic Lower Respiratory Diseases	169	2%	Accidents Except Drug Poisoning	118	1%
9	Chronic Liver Disease and Cirrhosis	45	3%	Cerebrovascular Disease	116	3%	Human Immunodeficiency Virus Disease	169	2%	Chronic Liver Disease and Cirrhosis	113	1%
10	Cerebrovascular Disease	38	2%	Mental and Behavioral Disorders due to Use of Alcohol	87	2%	Use Of Or Poisoning By Psychoactive Substance	148	2%	Nephritis, Nephrotic Syndrome and Nephrisis	86	1%
	All other causes	382	25%	All other causes	811	20%	All other causes	1,361	19%	All other causes	1,238	14%
			100%			100%			100%			100%

Rank	Causes of Mortality	# Rep.	%	Causes of Mortality	# Rep.	%
	75-84 Years			85+ Years		
1	Diseases of Heart	4,108	34%	Diseases of Heart	7,202	44%
2	Malignant Neoplasms	3,424	28%	Malignant Neoplasms	2,240	14%
3	Influenza (Flu) and Pneumonia	604	5%	Influenza (Flu) and Pneumonia	1,052	6%
4	Chronic Lower Respiratory Diseases	511	4%	Cerebrovascular Disease	620	4%
5	Diabetes Mellitus	487	4%	Chronic Lower Respiratory Diseases	522	3%
6	Cerebrovascular Disease	429	4%	Alzheimer's Disease	489	3%
7	Essential Hypertension and Renal Diseases	238	2%	Diabetes Mellitus	448	3%
8	Accidents Except Drug Poisoning	153	1%	Essential Hypertension and Renal Diseases	394	2%
9	Alzheimer's Disease	153	1%	Accidents Except Drug Poisoning	171	1%
10	Nephritis, Nephrotic Syndrome and Nephrisis	120	1%	Nephritis, Nephrotic Syndrome and Nephrisis	154	1%
	All other causes	1,850	15%	All other causes	3,003	18%
			100%			100%

Source: The New York City Department of Health and Mental Hygiene, Vital Statistics, 2012, accessed December 1, 2014.

Table 35. Federally Qualified Health Centers (FQHCs) in the Bronx

Facility Name	Address	Zip Code
Access Community Health Center	1500 Pelham Pkwy S	10461
Bella Vista Community Health Center	882-886 Hunts Point Ave	10474
Bronxcare - Fulton Family Practice Center	1276 Fulton Avenue	10456
Bronxcare - Mid Bronx Desperados Family Practice Center	1690 Bryant Avenue	10460
Bronxcare - Ogden Family Medical & Dental Center	1067 Ogden Avenue	10451
Bronxcare - Poe Medical And Dental Center	2432 Grand Concourse	10458
Bronxcare - Tiffany Medical & Pediatric Practice	853 Tiffany Street	10459
Bronxcare At Third Avenue	2739-45 Third Avenue	10451
Bronxcare Dental	1770 Grand Concourse	10453
Burnside Medical Center	165 E Burnside Ave	10453
Community Healthcare Network - Bronx Health Center	975 Westchester Avenue	10459
Community Healthcare Network (CHN) - Tremont Health Center	4215 Third Avenue	10457
Comprehensive Community Development Co	731 White Plains Rd	10473-2631
Delaney Sisters Health Center	2727-33 White Plains Rd	10467
Diallo Medical Center	1760 Westchester Ave	10472
Help/Psi Bronx Health Center	1543 Inwood Ave	10452
HELP/PSI Harm Reduction Health Center At Citiwide	226 E 144th St	10451
Highbridge Clinic	1381 Dr Martin L King Jr Blvd	10452
Institute For Family Health - Mt. Hope Family Practice	130 West Tremont Avenue	10453
Institute For Family Health - Stevenson Family Health Center	731 White Plains Road	10473
Institute For Family Health - Urban Horizons Family Health Center	50 East 168th Street	10452
Institute For Family Health - Walton Family Health Center And Center For Counseling	1894 Walton Avenue	10453
Inwood Clinic	1543 Inwood Ave	10452
Jessica Guzman Medical Center	616 Castle Hill Ave	10473
Martin Luther King Jr Health Center	3674 3rd Ave	10456
Morris Heights Health Center - Burnside	85 West Burnside Avenue	10453
Peninsula Community Health Center	1967 Turnbull Ave Ste 2	10473
River Avenue Health Center	880 River Ave Ste 4	10452
St Lawrence Community Health Center	1764-1766 Lawrence Ave	10472
Starhill Clinic	1600 Macombs Rd	10452-2016
Susan's Place (Care For The Homeless)	1921 Jerome Avenue	10453
Union Community Health Center - Grand Concourse	2021 Grand Concourse	10453
Union Community Health Center - Main Facility	260 East 188th Street	10458
Union Community Health Center, Inc	1 Fordham Plz	10458-5871
Urban Health Plan - Adolescent Health And Wellness Center/Club TIA	960 Southern Boulevard	10459
Urban Health Plan - Bella Vista Health Center	890 Hunts Point Boulevard	10474
Urban Health Plan - El Nuevo San Juan Health Center	1065 Southern Boulevard	10459
Urban Health Plan - Plaza Del Castillo Health Center	1515 Southern Boulevard	10460
Urban Health Plan - St. Lawrence Community Health Center	1764 Westchester Avenue	10472

Source: HRSA, 2014; NYC Dept. of City Planning, 2013; GNYHA HITE Data, 2014; NYS DOH, 2014.

Please note that, in some cases, only the main address for the FQHC was available via these sources, though an FQHC may have multiple sites.

Table 36 - Urgent Care Centers in the Bronx

Urgent Care Center Name	Address	Zip Code
Montefiore Medical Center - Wakefield Ambulatory Care Center	4234 Bronx Boulevard	10466
Montefiore Medical Group - Bronx East	2300 Westchester Avenue	10462
Montefiore Medical Group - Grand Concourse Site	2532 Grand Concourse	10458
Morris Heights Health Center - Burnside	85 West Burnside Avenue	10453
Urban Health Plan - Adolescent Health and Wellness Center/Club TIA	960 Southern Boulevard	10459
MedCare Plus	1643 Westchester Ave	10472
ProHEALTH Urgent Care	1049 Morris Park Ave	10461
Riverdale Urgent Care	5665 Riverdale Ave	10471
Throggs Neck Walk-In Medical Care	3231 East Tremont Ave	10461
Urgent Care of Eastchester Road	2304 Eastchester Rd	10469

Source: American Academy of Urgent Care Medicine (AAUCM) & City MD websites; GNYHA HITE Data, 2014.

Table 37 Managed Care Organizations that service Bronx (and other counties)

Plan	Total New York City Enrollment, 2012	Plan Type
HealthFirst PHSP, Inc.	455,627	PHSP
MetroPlus Health Plan, Inc.	373,072	PHSP
New York State Catholic Health Plan, Inc.	338,708	(Fidelis Care) PHSP
AMERIGROUP New York,LLC	335,116	PHSP
UnitedHealthcare of New York, Inc.	198,234	HMO
Affinity Health Plan, Inc.	169,489	PHSP
Neighborhood Health Providers, Inc.	165,848	PHSP
Health Insurance Plan of Greater New York	164,798	HIP (Emblem Health) HMO
WellCare of New York, Inc.	55,195	PHSP
Total	**2,256,087**	

Source: United Hospital Fund, "Medicaid Managed Care Enrollment by Region," 2012

Table 38 Nursing Homes in the Bronx

Nursing Home Name	Address	Zip Code
Bainbridge Nursing & Rehabilitation Center	3518 Bainbridge Avenue	10467
Bay Park Center for Nursing and Rehabilitation, LLC	801 Co-Op City Blvd	10475
Beth Abraham Health Services	612 Allerton Avenue	10467
Bronx Center for Rehabilitation & Health Care	1010 Underhill Ave	10472
Bronx Lebanon Special Care Center	1265 Fulton Avenue	10456
Bronx Park Rehabilitation & Nursing Center	3845 Carpenter Ave	10467
Casa Promesa	308 East 175 Street	10457
Concourse Rehabilitation and Nursing Center, Inc	1072 Grand Concourse	10456
Daughters of Jacob Nursing Home Company Inc	1160 Teller Ave	10456
East Haven Nursing & Rehabilitation Center	2323-27 Eastchester Road	10469
Eastchester Rehabilitation and Health Care Center	2700 Eastchester Road	10469
Fieldston Lodge Care Center	666 Kappock Street	10463
Gold Crest Care Center	2316 Bruner Avenue	10469
Grand Manor Nursing & Rehabilitation Center	700 White Plains Road	10473
Hebrew Home for the Aged at Riverdale	5901 Palisade Avenue	10471
Help/psi, Inc.	1401 University Avenue	10452
Highbridge-Woodycrest Center Inc	936 Woodycrest Avenue	10452
Hudson Pointe at Riverdale Center for Nursing &	3220 Henry Hudson	10463
Jeanne Jugan Residence	2999 Schurz Avenue	10465
Jewish Home Lifecare, Harry & Jeanette Weinberg	100 West Kingsbridge Road	10468
Kings Harbor Multicare Center	2000 E Gunhill Road	10469
Kingsbridge Heights Rehabilitation and Care Center	3400 Cannon Place	10463
Laconia Nursing Home	1050 East 230th Street	10466
Manhattanville Health Care Center	311 W 231st Street	10463
Methodist Home for Nursing and Rehabilitation	4499 Manhattan College	10471
Morningside House Nursing Home Company Inc	1000 Pelham Parkway	10461
Morris Park Nursing Home	1235 Pelham Parkway	10469
Mosholu Parkway Nursing & Rehabilitation Center	3356 Perry Avenue	10467
Palisade Nursing Home Company Inc	5901 Palisade Avenue	10471
Park Gardens Rehabilitation & Nursing Center LLC	6585 Broadway	10471
Pelham Parkway Nursing Care and Rehabilitation	2401 Laconia Ave	10469
Providence Rest, Inc.	3304 Waterbury Avenue	10465
Rebekah Rehab and Extended Care Center	1072 Havemeyer Avenue	10462
Regeis Care Center	3200 Baychester Ave	10475
Riverdale Nursing Home	641 West 230th St	10463
Schervier Nursing Care Center	2975 Independence Ave	10463
Split Rock Rehabilitation and Health Care Center	3525 Baychester Ave	10466
St Barnabas Rehabilitation & Continuing Care Center	2175 Quarry Rd	10457
St Patricks Home	66 Van Cortlandt Park	10463
St Vincent Depaul Residence	900 Intervale Avenue	10459
Terrace Health Care Center	2678 Kingsbridge Terrace	10463

Nursing Home Name	Address	Zip Code
Throgs Neck Extended Care Facility	707 Throgs Neck	10465
University Nursing Home	2505 Grand Ave	10468
Wayne Center for Nursing & Rehabilitation	3530 Wayne Avenue	10467
Williamsbridge Manor Nursing Home	1540 Tomlinson Avenue	10461
Workmen's Circle Multicare Center	3155 Grace Avenue	10469

Source: NYS DOH Nursing Home Profiles, 2014

Table 39 Behavioral Health Residential Treatment Capacity and Utilization in the Bronx

	Residential Treatment				Assertive Community Treatment (ACT)
	Congregate Treatment	Apartment Treatment	Support Programs	Supported Housing	
# of Beds or Slots	470	280	630	2,904	531
Beds or Slots /10,000 Adult Population	4.5	2.7	6.1	3.4	NA
% Occupancy Rate	84.8%	91.8%	95.5%	88.2%	98%
Median LOS (days)	296	448	749	1,340	NA
% LOS >2 years	23.5%	30.0%	53.2%	69.0%	NA

Source: OMH, 2011. Note that the data are for all payer categories, not only Medicaid.

Table 40 - NYS DOH Designated Safety Net Pharmacies Serving the Bronx

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
030818	Family Pharmacy Solutions, Inc.	20,346	20,346	100.00%	By Appeal
29738	STAR PHARMA INC DBA STARHILL PHARMACY	60,240	60,240	100.00%	By Appeal
17330	EJEROME PHARMACY INC	56,000	60,400	92.72%	By Definition
020988	Mt. Carmel Pharmacy, Inc.	204,969	226,226	90.60%	By Appeal
24530	Stand Pharmacy, Inc.	42,173	55,000	76.68%	By Appeal
29963	LAURUS CORP	19,600	26,900	72.86%	By Definition
18453	NVR PHARMACY INC	23,229	33,185	70.00%	By Definition
30215	VSAS PROPERTIES LLC	6,997	10,025	69.80%	By Definition
29615	DDMH PHARMACY INC	35,000	52,000	67.31%	By Definition
18997	UPGRADE PHARMACY INC	25,191	37,813	66.62%	By Definition
30565	NEO PHARMACY INC	17,000	27,000	62.96%	By Definition
24771	75 BURNSIDE DRUG AND SURGICAL INC	52,529	83,504	62.91%	By Definition
24632	PROSPECT AVE PHARMACY	32,915	52,327	62.90%	By Definition
25605	WASHINGTON PHARMACY	35,847	63,775	56.21%	By Definition
24709	PARKCHESTER NATURAL HEALTH CENTER INC	6,500	11,600	56.03%	By Definition
29986	MY PHARMACY INC	2,932	5,274	55.59%	By Definition
28758	PHARMART DRUGS INC	29,500	53,075	55.58%	By Definition
25837	SEM AND SAM	34,355	61,864	55.53%	By Definition
15469	Pilgrim	73,633	132,942	55.39%	By Appeal

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
	Pharmacy, Inc.				
28752	ROCKAWAY FAMILY PHARMACY CORP	46,913	84,743	55.36%	By Definition
29530	872 HPA DRUG CORP	19,460	35,220	55.25%	By Definition
28262	POLSAK CORPORATION	17,971	32,692	54.97%	By Definition
028058	Hispaniola Pharmaceutical Group, Inc.	43,021	80,919	53.17%	By Appeal
26372	JAFFRI ENTERPRISES	15,581	29,535	52.75%	By Definition
27296	904 PROSPECT PHARMACY INC	38,864	73,753	52.69%	By Definition
17811	WHITE PLAINS RD PHARMACY INC	23,682	44,978	52.65%	By Definition
24634	WORLD PHARMACY INC	1,647	3,146	52.35%	By Definition
17697	YNFK DRUG INC	8,434	16,128	52.29%	By Definition
26401	GCC PHARMACY CORP	31,185	60,120	51.87%	By Definition
26434	UNITED PHARMACY LLC	29,000	56,000	51.79%	By Definition
30123	TOTALCARE PHARMACY MANAGEMENT INC	10,139	19,644	51.61%	By Definition
16055	RB WILLIAMSON INC	60,667	118,000	51.41%	By Definition
30439	SCRIPTRX INC	29,722	57,886	51.35%	By Definition
28981	LEROYS PHARMACY CORP	19,125	37,288	51.29%	By Definition
26868	MERCEDES DRUG CORP	13,963	27,600	50.59%	By Definition
28814	SPECIALTY CARE PHARMACY INC	12,882	25,552	50.41%	By Definition
31173	RHESAK CORP	27,612	55,084	50.13%	By Definition
16178	Sedgwick Pharmacy, Inc.	44,010	87,962	50.03%	By Appeal
24699	NY DRUGS INC	104,364	208,727	50.00%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
26892	DRUG RITE II PHARMACY CORP	38,500	77,010	49.99%	By Definition
29326	BRONX CHEMISTS CORP	46,426	100,123	46.37%	By Definition
25499	BCP PHARMACY INC	39,518	85,344	46.30%	By Definition
24414	VENKATESWARA PHARMACY INC	31,300	68,330	45.81%	By Definition
17412	MELBOURNE CHEMISTS INC	42,645	93,289	45.71%	By Definition
23055	EAST TREMONT PHARMACY INC	31,823	70,064	45.42%	By Definition
26305	FRIENDLY PHARMACY INC	15,644	34,516	45.32%	By Definition
011440	Bronx Prescription Center South, Inc.	46,127	102,093	45.18%	By Appeal
25587	MANVIHAR PHARMACY INC	19,008	42,133	45.11%	By Definition
26988	MEGA PHARMACY LLC	20,400	45,511	44.82%	By Definition
28595	FAMILY DRUG STORE CORP	11,531	25,812	44.67%	By Definition
29917	BLONDELL RX CORP	7,046	15,957	44.16%	By Definition
24775	NAYOSHA PHARMACY	25,128	57,036	44.06%	By Definition
28951	MAR DRUG CORP	20,078	46,126	43.53%	By Definition
26825	BRUCKNER PLAZA PHARMACY INC	19,200	44,173	43.47%	By Definition
27162	PSK RX INC	16,805	38,782	43.33%	By Definition
18886	FIRO INC	18,904	43,678	43.28%	By Definition
26098	CAREMARK SRX INC	32,415	74,898	43.28%	By Definition
18005	K AND G PHARMACY INC	17,517	40,550	43.20%	By Definition
23572	TEJ PHARMACY INC	15,555	36,056	43.14%	By Definition
27195	DRUGS R US PHARMACY	18,512	42,982	43.07%	By Definition

Pharmacy License Number	Pharmacy Name	Number of NY Medicaid Prescriptions (Sum)	Total Number of Prescriptions (Sum)	Percent Medicaid Prescriptions (Overall >= 35%)	Methodology
25190	ARKAYEM LLC	15,226	35,369	43.05%	By Definition
26707	FELICITY PHARMACY	32,000	76,000	42.11%	By Definition
29894	TRUPTISUDHIR PHARMACY CORP	14,979	36,131	41.46%	By Definition
24368	CONCOURSE DRUGS INC	20,221	48,942	41.32%	By Definition
30382	RXMASTERS INC	3,751	9,162	40.94%	By Definition
26691	BARRETTO PHARMACY INC	6,026	14,922	40.38%	By Definition
18771	WILLEN PHARMACY INC	3,482	8,631	40.34%	By Definition
29543	AMBAR PHARMACY INC	10,433	26,887	38.80%	By Definition
26513	LOUIS PHARMACY INC	18,446	48,953	37.68%	By Definition
29593	PARKARE PHARMACY INC	5,212	14,045	37.11%	By Definition
30621	ARYA PHARMACY CORP	7,914	21,843	36.23%	By Definition
168	AMATO PHARMACY INC	16,371	45,256	36.17%	By Definition
24192	WEBSTER DRUGS INC	37,000	104,000	35.58%	By Definition

Source: NYS DOH, 2014

Table 41 - Domain 2.a Metrics

Measure Name	Data Year	NYS	NYC	Bronx
Potentially Avoidable Emergency Room Visits: ED Visits for Ambulatory Sensitive Conditions, Potentially Preventable Visits (PPV), per 100 Recipients**	2012	36	34	38
Potentially Avoidable Readmissions, by hospital location, 2012**	2012	40,687	24,388	6,825
PQI Suite – Composite of All Measures: Adult, per 100,000 Recipients	2012	1,848	1,885	2,459
Acute Conditions Composite (PQI 91)***	2012	555	547	706
Chronic Conditions Composite (PQI 92)***	2012	1,294	1,336	1,749
PDI Suite – Composite of All Measures: Pediatric, per 100,000 Recipients	2012	323	381	507
Acute Conditions Composite (PDI 91)	2012	75	87	84
Chronic Conditions Composite (PDI 92)	2012	248	294	422
Getting Care Quickly				
Q4. Usually or always got care right away as soon as you needed[a]	2013	81.1%	76%	
Q7. Usually or always got an appt. for check-up or routine care as soon as you needed[a]	2013	74.8%	68.9%	
Getting Needed Care				
Q19. Usually or always got care, tests or treatment you thought you needed[a]	2013	81.4%	76.9%	
Q39. Usually or always got an appointment to see a specialist as soon as you needed[a]	2013	75.1%	71.4%	
Usual Source of Care				
Q8. Never went to doctor's office or clinic in last 6 months[a]	2013	23.9%	24.4%	

[No known public source]

Measure Name	Data Year	NYS	NYC	Bronx
Q8. Went to doctor's office or clinic 1-3 times in last 6 months[a]	2013	52.5%	53.7%	
Q26. Have a personal doctor[a]	2013	85.5%	84.1%	
Patient Loyalty				
Q35. Got care from a doctor or other health provider other than personal doctor[a]	2013	57.9%	52.7%	
Access/Availability of Care				
Adult Access to Preventive/Ambulatory Care (20-44)[b]	2012	95%	[No known public source]	[No known public source]
Adult Access to Preventive/Ambulatory Care (45-64) [b]	2012	96%	[No known public source]	
Adult Access to Preventive/Ambulatory Care (65+) [b]	2012	97%	[No known public source]	
Annual Dental Visit (Ages 19-21) [b]	2012	44%	[See source note]	
Annual Dental Visit (Ages 2-18) [b]	2012	57%	[See source note]	
Children's Access to PCPs/Ambulatory Care (12-24 months)[b]	2012	97%	[No known public source]	
Children's Access to PCPs/Ambulatory Care (25 mos-6 years) [b]	2012	93%	[No known public source]	
Children's Access to PCPs/Ambulatory Care (7-11 years) [b]	2012	96%	[No known public	

Measure Name	Data Year	NYS	NYC	Bronx
			source]	
Children's Access to PCPs/Ambulatory Care (12-19 years) [b]	2012	93%	[No known public source]	
Use of Services				
Well-Child Visits & Preventive Care Visits in the First 15 Months of Life (5+ visits) [b]	2012	83%	[See source note]	[No known public source]
Well-Child & Preventive Care Visits in the 3rd, 4th, 5th & 6th Year [b]	2012	82%		
Adolescent Well-Care Visits [b]	2012	59%		

Sources:

**NYAM analysis of Potentially Preventable Readmissions data by hospital, New York State Department of Health*

[a] NYS DOH, 2014 "Medicaid Managed Care Program CAHPS 5.0 Adult Medicaid Survey, Continuous Quality Improvement Report," available at: http://www.health.ny.gov/health_care/managed_care/medicaid_satisfaction_report_2013/

As per NYS DOH Attachment J, CAHPS measures were requested for the following areas: getting care quickly, getting needed care, access to information after hours, wait time, usual source of care and patient loyalty. Questions 4, 7, 8, 19, 26, 35 and 39 of the CAHPS 5.0 survey seem to most closely align to these requests.

[b] NYS DOH, "2013 Statewide Executive Summary of Managed Care in New York State," available at: http://www.health.ny.gov/health_care/managed_care/qarrfull/qarr_2013/docs/executive_summary.pdf

***NYAM analysis of Potentially Preventable Readmissions data by hospital, New York State Department of Health . Data is available for this measure by health plan at the following link: http://www.health.ny.gov/health_care/managed_care/reports/eqarr/2013/statewide/medicaid/*

**** See Appendix B. Table 52 for all PQI and composites. For example, the Adult Acute Conditions Composite (PQI 91) is comprised of Adult Dehydration (PQI 10), Adult Bacterial Pneumonia (PQI 11), and Adult Urinary Tract Infection (PQI 12).*

Data is not yet available from the New York State Department of Health for the other Domain 2 metrics relating to Provider Reimbursement, System Integration, Primary Care, and Medicaid Spending for Projects Defined Population on a PMPM Basis.

Table 42 - Domain 2.b Metrics

Measure Name	NYS	NYC	Bronx
Summary of HCAHPS Survey Results, October 2012 to September 2013 Discharges			
Patients who reported that their nurses "Always" communicated well	75%	[No known public source]	[No known public source]
Patients who reported that their doctors "Always" communicated well	77%		
Patients who reported that they "Always" received help as soon as they wanted	61%		

Measure Name	NYS	NYC	Bronx
Patients who reported that their pain was "Always" well controlled	67%		
Patients who reported that staff "Always" explained about medicines before giving it to them	59%		
Patients who reported that their room and bathroom were "Always" clean	69%		
Patients who reported that the area around their room was "Always" quiet at night	51%		
Patients who reported that YES, they were given information about what to do during their recovery at home	83%		
Patients who gave their hospital a rating of 9 or 10 on a scale from 0 (lowest) to 10 (highest)	63%		
Patients who reported YES, they would definitely recommend the hospital	65%		

Source: Hospital Consumer Assessment of healthcare Providers and Systems. Centers for Medicare & Medicaid Services. (July, 2014). Summary of HCAHPS Survey Results. Baltimore, MD. *http://www.hcahpsonline.org*

Table 43. Total Population, by Gender

Total Population, by Gender	NYS	NYC	Bronx
Total Population	**19,398,125**	**8,199,221**	**1,386,364**
Male	9,391,875	3,897,434	650,728
Female	10,006,250	4,301,787	735,636

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 44 - Total Population, by Age

Age	NYS	NYC	Bronx
Child (0-17)	4,316,920	1,774,909	369,168
All Adults (18+)	15,081,205	6,424,312	1,017,196
Older Adults (65+)	2,640,634	1,002,872	147,030

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 45 - Total Population, by Race/Ethnicity

Race/Ethnicity	NYS (A)	NYC (B)	Bronx (C)	% of Bronx Total Population (D)	Bronx as a % of that race or ethnicity in NYC (C/B)	Bronx as a % of that race or ethnicity in NYS (C/A)
White	12,808,268	3,646,181	312,055	22.5%	8.6%	2.4%
Black or African American	3,037,255	2,059,279	481,739	34.7%	23.4%	15.9%
American Indian and Alaska Native	69,500	30,743	7,196	0.5%	23.4%	10.4%
Asian	1,445,539	1,053,649	49,489	3.6%	4.7%	3.4%
Native Hawaiian and other Pacific Islander	6,477	3,866	308	0.0%	8.0%	4.8%
Other race	1,557,020	1,169,421	488,156	35.2%	41.7%	31.4%
2 or more races	474,066	236,082	47,421	3.4%	20.1%	10.0%
Total of Race Categories Above	**19,398,125**	**8,199,221**	**1,386,364**	**100.0%**	**16.9%**	**7.1%**
Hispanic or Latino (of any race)	**3,425,845**	**2,343,458**	**741,954**	**53.5%**	**31.7%**	**21.7%**
Mexican	447,323	308,952	70,786	**5.1%**	22.9%	15.8%
Puerto Rican	1,117,995	761,655	311,547	**22.5%**	40.9%	27.9%
Cuban	72,378	40,426	7,913	**0.6%**	19.6%	10.9%
Other Hispanic or Latino	1,788,149	1,232,425	351,708	**25.4%**	28.5%	19.7%

NYC Black/African American as % of Total NYC Population: 25.1%
NYC Hispanic/Latino Population as % of Total NYC Population: 28.6%
NYS Black/African American as % of Total NYS Population: 15.7%
NYS Hispanic/Latino Population as % of Total NYS Population: 17.7%
Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 46 - Income

Income	NYS	NYC	Bronx
% HH Below Poverty	14%	19%	29%
Median HH income (USD)	57,683	51,865	34,300

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 47 - Educational Attainment

Educational Attainment	NYS	NYC	Bronx
% age 25+ High School+	85%	79%	69%
% age 25+ Bachelor's degree+	33%	34%	18%

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 48 - Unemployment

Unemployed	NYS	NYC	Bronx
% Unemployed	8.7%	10.2%	14.2%

Source: US Census American Community Survey, 5-year, 2008-2012.

Table 49 - Immigration and Citizenship Status

Immigration and Citizenship Status	NYS	NYC	Bronx
Migrated from abroad < 1 yr ago	148,931	93,367	14,421
Not a US citizen	2,038,877	1,455,533	258,099
% Not a US citizen	10.5%	17.8%	18.6%

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 50 - Language

Language	NYS	NYC	Bronx
Total - Speak English less than "very well"	2,439,417	1,783,994	324,281
% Total - Speak English less than "very well"	12.6%	21.8%	23.4%
Spanish -Speak English less than "very well"	1,230,302	889,091	267,764

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 51 - Languages Spoken at Home

Language	Total Speakers	% of Total Pop.
Speak only English	553,446	43.2%
Spanish or Spanish Creole	594,250	46.4%
African languages	37,854	3.0%
French (incl. Patois, Cajun)	12,439	1.0%
Other Indic languages (i.e., other than Hindi, Urdu, Gujarati)	12,373	1.0%
Other Indo-European languages	11,250	0.9%
Italian	10,104	0.8%
Chinese	6,970	0.5%
French Creole	4,600	0.4%
Tagalog	4,329	0.3%
Arabic	4,206	0.3%
Russian	3,312	0.3%
Vietnamese	2,961	0.2%
Urdu	2,446	0.2%
Korean	2,412	0.2%
Greek	2,143	0.2%

Language	Total Speakers	% of Total Pop.
Other Asian languages	1,995	0.2%
Serbo-Croatian	1,463	0.1%
German	1,420	0.1%
Other Slavic languages	1,226	0.1%
Hindi	1,172	0.1%
Polish	1,090	0.1%
Mon-Khmer, Cambodian	1,005	0.1%
Japanese	734	0.1%

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 52 - Household Type

Household Type	NYS	NYC	Bronx
Total Households	7,130,896	3,063,393	473,281
Family Households	4,646,324	1,843,819	310,803
Family Households - Married couple	3,224,971	1,103,512	126,677
Family Households - Male Householder no wife	351,847	170,979	35,203
Family Households - Female Householder no husband	1,069,506	569,328	148,923
Non-family Households	2,584,572	1,219,574	162,478
Non-family Households - Living alone	2,119,199	996,487	141,774
% of Total Households - Living Alone	30%	33%	30%
Non-family Households - Not living alone	465,373	223,087	20,704

Source: US Census American Community Survey, 5-year table, 2008-2012.

Table 53 - Incarceration

Incarceration	NYS	NYC	Bronx
NYC DOC Jail admissions (2012)	NA	84,754	16,362
NYC DOC Jail admissions rate per 100,000 Population (2012)	NA	1,034	1,180
NYS Prison admissions (2008)[a]	21,141	9,640	2,848

[a]*The most recent data available for NYS prison admissions is from 2008; it is likely that more recent figures would be significantly lower.*

Source: NYC Department of Corrections, 2012, as cited in http://gothamist.com/2013/05/01/these_interactive_charts_show_you_w.php and http://www.justiceatlas.org/

Table 54 - Medicaid Beneficiaries

	NYS	NYC	Bronx
Total Population	**19,398,125**	**8,199,221**	**1,386,364**
Total Medicaid Beneficiaries	5,835,794	3,588,107	821,339
Medicaid Beneficiaries / Total Population	30.1%	43.8%	59.2%
Bronx Medicaid pop. / NYC Medicaid pop.			22.9%
Bronx Medicaid pop. / NYS Medicaid pop.			14.1%

Source: NYS DOH, 2012

Table 55 - Uninsured Population by Age

Uninsured	NYS	NYC	Bronx
Total Uninsured	2,161,817	1,160,829	217,009
Uninsured / Total Population	11.1%	14.2%	15.7%
Bronx Uninsured / NYC Uninsured			18.6%
Bronx Uninsured / NYS Uninsured			10.0%
Older Adult 65+ Uninsured	26,086	17,769	2,874
% Older Adult 65+ Uninsured	1.0%	1.8%	2.0%
Child 0-17 Uninsured	197,779	80,534	17,757
% Child 0-17 Uninsured	4.5%	4.5%	4.8%
Adult 18+ Uninsured	1,964,038	1,080,295	199,252
% Adult 18+ Uninsured	13.0%	16.8%	19.6%

Source: US Census American Community Survey, 5-year, 2008-2012.

Table 56 - Uninsured and Foreign Born

Country/Region of Origin	Number Uninsured in the Bronx	Percent of the Total Foreign Born Uninsured Population in the Bronx
Latin America	86,572	65.8%
Caribbean	16,070	12.2%
Africa	13,699	10.4%
Balkans and eastern Europe	3,349	2.5%
South Asia	2,766	2.1%
Sub-Total of Above Groups	**122,456**	**93.0%**
Other Countries	9,209	7.0%
Total Foreign Born Uninsured in the Bronx	**131,665**	**100.0%**

Source: US Census American Community Survey, 5 year, 2008-2012

Table 57 - Dual Eligible Beneficiaries

	NYS	NYC	Bronx
Total Older Adult 65+ Population	2,640,634	1,002,872	147,030
Dual Eligible Beneficiaries	853,866	467,749	93,324
Dual Eligible/ Older Adult 65+ pop.	32.3%	46.6%	63.5%
Bronx Duals/ NYC Duals			20.0%
Bronx Duals/ NYS Duals			10.9%

Source: NYS DOH, 2012

Table 58 - Insurance Status

Insurance Status	NYS	NYC	Bronx
Child 0-17 Beneficiaries	1,979,039	1,180,983	298,329
Total Child 0-17 Population	4,316,920	1,774,909	369,168
Child 0-17 Beneficiaries/Pop	45.8%	66.5%	80.8%
Adult 18+ Beneficiaries	3,856,755	2,407,124	523,010
Total Adult 18+ Population	15,081,205	6,424,312	1,017,196
Adult 18+ Beneficiaries/Pop	25.6%	37.5%	51.4%

Source: NYS DOH, 2012

Table 59 - Disability and Difficulty Status

Disability /Difficulty	NYS	NYC	Bronx
% Disabled HH member	22.5%	21.2%	29.1%
Impairments, by Age:			
Hearing			
age 0-17 with Hearing Difficulty	22,395	8,324	2,172
% age 0-17 with Hearing Difficulty	0.5%	0.5%	0.6%
age 18-64 with Hearing Difficulty	182,116	60,231	14,705
% age 18-64 with Hearing Difficulty	1.5%	1.1%	1.7%
age 65+ with Hearing Difficulty	310,580	105,560	15,164
% age 65+ with Hearing Difficulty	11.8%	10.5%	10.3%
Vision			
age 0-17 with Vision Difficulty	23,724	10,606	3,208
% age 0-17 with Vision Difficulty	0.5%	0.6%	0.9%
age 18-64 with Vision Difficulty	166,396	79,038	19,538
% age 18-64 with Vision Difficulty	1.3%	1.5%	2.2%

Disability /Difficulty	NYS	NYC	Bronx
age 65+ with Vision Difficulty	168,818	82,840	14,900
% age 65+ with Vision Difficulty	6.4%	8.3%	10.1%
Cognitive			
age 0-17 with Cognitive Difficulty	112,555	36,208	13,236
% age 0-17 with Cognitive Difficulty	2.6%	2.0%	3.6%
age 18-64 with Cognitive Difficulty	413,409	165,152	47,532
% age 18-64 with Cognitive Difficulty	3.3%	3.0%	5.5%
age 65+ with Cognitive Difficulty	844,970	337,659	48,999
% age 65+ with Cognitive Difficulty	32.0%	33.7%	33.3%
Ambulatory			
age 0-17 with Ambulatory Difficulty	20,920	9,268	2,788
% age 0-17 with Ambulatory Difficulty	0.5%	0.5%	0.8%
age 18-64 with Ambulatory Difficulty	547,468	233,975	60,771
% age 18-64 with Ambulatory Difficulty	4.4%	4.3%	7.0%
age 65+ with Ambulatory Difficulty	1,052,010	426,311	64,949
% age 65+ with Ambulatory Difficulty	39.8%	42.5%	44.2%

Source: US Census American Community Survey, 5-year, 2008-2012.

Table 60 - Self-Reported Health Status by Neighborhood

Neighborhood	% Self-Report Fair or Poor Health Status	Absolute #
New York City	**21.3**	**1,318,000**
Bronx	**24.0**	**231,000**
Kingsbridge/Riverdale	12.0	9,000
Northeast Bronx	14.7	23,000
Fordham/Bronx Park	21.8	35,000
Pelham/Throgs Neck	25.6	53,000
The South Bronx	29.2	97,000

Source: NYC DOHMH Community Health Survey, 2012

Table 62 - Medicaid Beneficiary Behavioral Health Utilization of Care, Bronx Providers

Medicaid Beneficiary Utilization through Bronx County Providers			
Service type	**Individuals**	**Medicaid Paid ($)**	**Expenditure Rate ($/Individual)**
Inpatient	3,602	$82,985,990	$23,039
Outpatient Mental Health Clinic	20,225	$34,739,429	$1,718
Residential	547	$11,466,603	$20,963
Assertive Community Treatment (ACT)	643	$6,157,004	$9,575
Targeted Case Management	856	$3,294,941	$3,849
Continuing Day Treatment	772	$3,584,256	$4,643
Prepaid Mental Health Plan Recovery Services	461	$5,908,821	$12,817
Comprehensive Psychiatric Emergency Program	1,468	$846,041	$576
Partial Hospitalization	132	$350,699	$2,657
Intensive Psychiatric Rehab	0	$0	$0

Source: NYS OMH, 2012

Table 63 - Bronx Hospital Behavioral Health Readmissions within 30 Days

	Hospital Name	Discharges	Readmitted Within 30 Days	
			# Readmissions	Percent
Adults (age 18 +)				
General Hospital	Bronx-Lebanon Hospital Center	1806	350	19.4%
General Hospital	Montefiore Medical Center	803	102	12.7%
General Hospital	NYC-HHC Jacobi Medical Center	1148	198	17.2%
General Hospital	NYC-HHC Lincoln Medical & Mental Health Ctr.	490	95	19.4%
General Hospital	NYC-HHC North Central Bronx Hospital	707	119	16.8%
General Hospital	St. Barnabas Hospital	951	246	25.9%
State Psychiatric	Bronx Psychiatric Center	336	38	11.3%
ADULT TOTAL		**6241**	**1148**	**18.4%**
Children (age 0 -17)				
General Hospital	Bronx-Lebanon Hospital Center	391	52	13.30%
General Hospital	NYC-HHC Lincoln Medical & Mental Health Ctr.	16	0	0%
State Psychiatric	Bronx Children's Psychiatric Center	61	2	3.30%
CHILDREN TOTAL		**468**	**54**	**11.5%**
ADULT AND CHILDREN TOTAL		**6709**	**1202**	**17.9%**

Source: NYS OMH, 2012.

Table 64 - Chronic Medical Condition Co-Morbidity of Behavioral Health Clients, by Age Group

		Age		
Chronic Medical Condition	**Total Clients**	**Below 18**	**18-64**	**65+**
Total Clients Served	16,942	3,268	12,364	1,308
No Chronic Medical Condition	6,668	2,451	4,054	163
At Least One Chronic Medical Condition	9,215	658	7,467	1,089
Unknown if Chronic Medical Condition is Present	1,059	159	843	56
% of Clients Served with at least One Chronic Medical Condition	54.4%	20.1%	60.4%	83.3%

Source: NYS OMH, Patient Characteristic Survey (PCS), 2013.

Table 65 - Binge Drinking by Neighborhood

Neighborhood	% Binge Drink	Absolute #
New York City	**19.6**	**1,224,000**
Bronx	**18.5**	**189,000**
Kingsbridge/Riverdale	18.8	11,000
Northeast Bronx	18.5	26,000
Fordham/Bronx Park	19.4	38,000
Pelham/Throgs Neck	17.2	30,000
The South Bronx	18.8	74,000

Source: NYC DOHMH Community Health Survey, 2012

Table 66 - Chronic Hepatitis C

Location	Reported Cases	Crude Rate (per 100,000)	Age-Adjusted Rate (per 100,000)*
NYC	7,582	90.9	85.5
Bronx	1,787	126.9	not available

**adjusted to the Year 2000 Standard Population Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [Communicable Disease Surveillance Data]. [9/10/14].* http://nyc.gov/health/epiquery

Table 67 - Gonorrhea Rate by Neighborhood

Neighborhood	Gonorrhea Rate per 100,000	Absolute #
New York City	**130.3**	**10,898**
Bronx	**218.5**	**3,029**
Kingsbridge	71.8	62
Northeast Bronx	230.2	434
Fordham	173.1	449
Pelham	155.2	462
Crotona	311.3	661
Morrisania	244.1	503
Mott Haven	275	375
Bronx- neighborhood unknown	*n/a*	*83*

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 68 - Chlamydia Rate, by Neighborhood

Neighborhood	Chlamydia Rate per 100,000	Absolute #
New York City	**697.7**	**58,353**
Bronx	**1,238.80**	**17,176**
Kingsbridge	453	391
Northeast Bronx	1,179.80	2,224
Fordham	1060	2,750
Pelham	1,009.10	3,003
Crotona	1,653.80	3,511
Morrisania	1,406.50	2,898
Mott Haven	1,423.60	1,941
Bronx- neighborhood unknown	*n/a*	*458*

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [STD Surveillance Data, 2009]. [1 August 2014]. http://nyc.gov/health/epiquery

Table 69 - All PQI Indicators, 2012

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Bronx**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Bronx**	**NYC**	**NYS**
Adult Overall Conditions Composite (PQI 90)	13,447	44,943	69,084	1.31	1.02	1.00
Adult Chronic Conditions Composite (PQI 92)	10,063	32,619	48,568	1.34	1.03	1.00
Adult All Diabetes Composite (PQI S01)	2,775	9,289	14,121	1.24	1.01	1.00
Adult Diabetes Short-term Complications (PQI 01)	792	2,533	4,506	1.13	0.91	1.00
Adult Diabetes Long Term Complications (PQI 03)	1,585	5,357	7,572	1.31	1.07	1.00
Adult Uncontrolled Diabetes (PQI 14)	327	1,178	1,679	1.16	1.04	1.00
Lower Extremity Amputation among Adults with Diabetes (PQI 16)	136	432	699	1.38	0.97	1.00
Adult All Circulatory Conditions Composite (PQI S02)	3,173	11,116	15,795	1.34	1.06	1.00
Adult Hypertension (PQI 07)	969	2,991	3,938	1.51	1.10	1.00
Adult Heart Failure (PQI 08)	2,013	7,426	10,902	1.28	1.04	1.00
Adult Angina Without Procedure (PQI 13)	191	699	955	1.26	1.09	1.00

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Bronx**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Bronx**	**NYC**	**NYS**
All Adult Respiratory Conditions Composite (PQI S03)	4,116	12,216	18,653	1.42	1.02	1.00
COPD and Asthma in Older Adults (PQI 05)	3,383	10,486	16,244	1.38	1.01	1.00
Asthma in Younger Adults (PQI 15)	733	1,730	2,410	1.61	1.11	1.00
Adult Acute Conditions Composite (PQI 91)	3,384	12,328	20,521	1.24	0.99	1.00
Adult Dehydration (PQI 10)	691	2,403	3,958	1.26	0.98	1.00
Adult Bacterial Pneumonia (PQI 11)	1,424	5,353	9,347	1.20	0.96	1.00
Adult Urinary Tract Infection (PQI 12)	1,269	4,572	7,216	1.27	1.04	1.00
Pediatric Overall Conditions Composite (PDI 90): ages 6-17 years	1,151	2,909	3,774	1.58	1.19	1.00
Pediatric Chronic Conditions Composite (PDI 92): ages 6-17 years	958	2,255	2,903	1.69	1.19	1.00
Pediatric Asthma (PDI 14): ages 2-17 years	1,865	4,282	5,384	1.80	1.73	1.00
Pediatric Diabetes Short-term	74			1.16	1.04	1.00

				PQI Observed / Expected ratio		
PQI Indicator	**# of Medicaid PQI Hospitalizations, Bronx**	**# of Medicaid PQI Hospitalizations, NYC**	**# of Medicaid PQI Hospitalizations, NYS**	**Bronx**	**NYC**	**NYS**
Complications (PDI 15): ages 6-17 years		234	380			
Pediatric Acute Conditions Composite (PDI 91): 6 - 17 years	193	654	871	1.17	1.16	1.00
Pediatric Gastroenteritis (PDI 16): ages 3 months - 17 years	558	1,758	2,333	1.31	1.18	1.00
Pediatric UTI (PDI 18): ages 3 months - 17 years	134	602	929	0.80	1.04	1.00

Source: 2012, New York State Department of Health

Table 70 - Potentially Preventable Readmission data for Bronx Hospitals

Facility Name	At Risk Admissions	Observed PPR Chains	Observed / Expected PPR	Observed PPR Rate	Expected PPR Rate	Expected PPR Chains
BRONX LEB HSP CTR CNCRSE DIV*	15,869	1,443	1.14	9.09	7.95	1,262
CALVARY HOSPITAL	61	7	2.54	11.48	4.52	3
JACOBI MEDICAL CENTER	10,172	694	1.03	6.82	6.65	676
LINCOLN MEDICAL/MENTAL HLTH	13,130	855	1.07	6.51	6.1	801
MONTEFIORE MEDICAL CENTER	32,086	2,381	1.11	7.42	6.67	2,140
NORTH CENTRAL BRONX HOSPITAL	4,551	311	1.10	6.83	6.19	282
ST BARNABAS HOSPITAL	10,287	1,134	1.26	11.02	8.76	901
BRONX HOSPITALS TOTAL	**86,156**	**6,825**	**1.13**			**6,065**

Source: New York State Department of Health, 2012

*PPR is not available from DOH for Bronx Lebanon Fulton Division, which offers behavioral health related services.

Table 71 - Domain 3 Metrics, Behavioral Health

Select Clinical Improvement Measures, 2012	NYS	NYC	Bronx
PPV (for persons with BH diagnosis)	[No known public source]	[No known public source]	[No known public source]
Antidepressant Medication Management (Effective Acute Phase Treatment)*	50%	47%	46%
Diabetes Monitoring for People with Diabetes and Schizophrenia (aged 18-64 years)*	68%	70%	71%
Diabetes Screening for People with Schizophrenia or Bipolar Disorder (aged 18-64 years) Using Antipsychotic Medication*	79%	80%	83%
Cardiovascular Monitoring for People with CVD and Schizophrenia.	[No known public source]	[No known public source]	[No known public source]
Follow-up care for Children Prescribed ADHD Medications (Initiation Phase)*	56%	64%	64%
Follow-up after hospitalization for Mental Illness within 30 Days*	55%	51%	56%
Screening for Clinical Depression and follow-up			
Adherence to Antipsychotic Medications (at least 80% of	64%	63%	59%

Select Clinical Improvement Measures, 2012	NYS	NYC	Bronx
treatment time) for People with Schizophrenia (aged 19-64 yrs)*			
Initiation of Alcohol and Other Drug Dependence Treatment*	78%	78%	82%
PPR for SNF patients	[No known public source]	[No known public source]	[No known public source]
Percent of Long Stay Residents who have Depressive Symptoms**	12.23%	[No known public source]	[No known public source]

Sources:
**Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*
*** Nursing Home Quality Initiative 2012 (this source does not provide data at the city or county level).*

Table 72 - Domain 3 Metrics, Cardiovascular Disease

Select Clinical Improvement Measures, 2012	NYS	NYC	Bronx
PQI # 7 Hypertension, # of Discharges, 2012	3,938	2,991	969
PQI #13 Angina Without Procedure, # of Discharges, 2012	955	699	191
Cholesterol Management for Patients with CV Conditions[a]	[No known public source]	35.9% (33.3-38.7)	38.3% (30.6-46.7)
Controlling High Blood Pressure (Provider responsible for medical record reporting)[a,b]	63%*	67.0% (63.3-70.5)	[No known public source]
Aspirin Discussion and Use [b] Discussion of Aspirin Risks and Benefits(HMO/PPO) Aspirin Use(HMO/PPO)	 49%/43% 39%/39%	[No known public source]	[No known public source]
Medical Assistance with Smoking Cessation[a]	[No known public source]	5.8% (4.3-7.8)	5.1% (2.4-10.8)
Flu Shots for Adults Ages 50 – 64[a]	[No known public source]	51.6% (49.4 - 53.7)	56.5% (50.7 - 62.1)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse	[No known public source]	[No known public source]	[No known public source]

Sources: NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)
[b] QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)
[c] QARR 2011(Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 73 - Domain 3.b. Metrics, Cardiovascular Disease

Adult Hospitalizations, 2012	NYS	NYC	Bronx
Angina Without Procedure (PQI 13)	955	699	191
Hypertension (PQI 07)	3,938	2,991	969
All Circulatory Conditions (PQI 07, PQI 08)	15,795	11,116	3,173
Adult Heart Failure (PQI 08)	10,902	7,426	2,013

Source: NYS DOH, 2012 data

Table 74 - Domain 3 Metrics: Diabetes Mellitus

Potentially Avoidable Hospitalizations, 2012	NYS	NYC	Bronx
Diabetes Long Term Complications (PQI 03)	7,572	5,357	1,585
All Diabetes Composite (PQI 01, PQI 03, PQI 16)	14,121	9,289	2,775
Adult Diabetes Short-term Complications (PQI 01)	4,506	2,533	792
Adult Uncontrolled Diabetes (PQI 14)	1,679	1,178	327
Lower Extremity Amputation among Adults with Diabetes (PQI 16)	699	432	136
Pediatric Diabetes Short-term Complications (PDI 15)	380	234	74

Source: NYS DOH, 2012 data

Table 75 - Select Clinical Improvement Measures, Diabetes

Select Clinical Improvement Measures, 2012	NYS	NYC	Bronx
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy)[a]	51%	[See source note]	[See source note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Testing*	80%	82%	80%
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)[a]	33%	[See source note]	[See source note]
Comprehensive diabetes care - LDL-c control (<100mg/dL): Lipids Controlled (<100 mg/dL) Monitoring Diabetes - Lipid Profile[a]	 47% 87%	[See source note]	[See source note]
Medical Assistance with Smoking Cessation[b]	[See source note]	5.8% (4.3-7.8)	5.1% (2.4-10.8)
Flu Shots for Adults Ages 50 – 64b	[See source note]	43% (40.0-45.9)	51.5% (43.8-59.1)
Health Literacy Items (includes understanding of instructions to manage chronic condition, ability to carry out the instructions and instruction about when to return to the doctor if condition gets worse)	[No known public source]	[No known public source]	[No known public source]

Sources:

** Healthcare Effectiveness Data & Information Set (HEDIS), Medicaid Recipients, 2012, as presented by the New York State Department of Health, Office of Health Systems Management*

[a] QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

[b] NYC DOHMH Community Health Survey, 2012 (NYC DOHMH Community Health Survey, 2012 (Note: this source provides information only that the city and county level)

Table 75 - Domain 3 Metrics, Asthma

Potentially Avoidable Hospitalizations, 2012	NYS	NYC	Bronx
All Adult Respiratory Conditions Composite (PQI 05, PQI 15)	18,653	12,216	4,116
Asthma in Younger Adults (PQI 15)	2,410	1,730	733
COPD and Asthma in Older Adults (PQI 05)	16,244	10,486	3,383
Pediatric Asthma (PDI 14)	5,384	4,282	1,865

Source: NYS DOH, 2012 data

Table 76 - Select Clinical Improvement Measures, Asthma

Select Clinical Improvement Measures, 2012	NYS	NYC	Bronx
Asthma Medication Ratio	[See Source Note]	[See Source Note]	[See Source Note]
Medical Management for People with Asthma:			
50% Covered (Ages 5-11)	48%	[See Source Note]	[See Source Note]
50% Covered(Ages 12-18)	49%		
50% Covered(Ages 19-50)	63%		
50% Covered (Ages 51-64)	77%		
50% Covered (Ages 5-64)	57%		
75% Covered (Ages 5-11)	25%		
75% Covered(Ages 12-18)	25%		
75% Covered(Ages 19-50)	38%		
75% Covered (Ages 51-64)	53%		
75% Covered (Ages 5-64)	34%		

Source: QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)

Table 77. Select Clinical Measures, Perinatal Care

Select Clinical Improvement Measures, 2012			
Measure	**NYS**	**NYC**	**Bronx**
Prenatal and Postpartum Care—Timeliness and Postpartum Visits:[a, b]			
% mothers received postpartum checkup	90.1%	89.2%	
% mothers received prenatal care - start 1st to 3rd month	71.8%	70.4%	60.3%
% mothers received prenatal care - start 4th to 6th month	27.9%	30.5%	44.8%
% mothers received prenatal care - start 7th to 9th month	23.9%	28.7%	37.0%
% late or no prenatal (Note: zip code level avl.)	5.4%	6.9%	10.2%
Frequency of Ongoing Prenatal Care:[c]			
Frequency of Ongoing Prenatal Care 61-80%	12%	[See source note]	[See source note]
Frequency of Ongoing Prenatal Care 41-60%	6%		
Frequency of Ongoing Prenatal Care 21-40%	4%		
Frequency of Ongoing Prenatal Care <21%	8%		
Percentage of Children Who Had Five (5) or More Well Care Visits in the first 15 months*	85%	83%	83%
Childhood Immunization Status:[c]			
Childhood immunization (0Immz)	1%		
Childhood immunization-3 or more IPVs	93%		
Childhood immunization-2 or 3 rotavirus	69%		

Select Clinical Improvement Measures, 2012			
Measure	**NYS**	**NYC**	**Bronx**
Childhood immunization-4 or more pneumococcals	81%	[See source note]	[See source note]
Childhood immunization-2 or more HepA	37%		
Childhood Immunization-2 or more influenza	57%		
Childhood Immunization-Varicella	91%		
Childhood Immunization-MMR	93%		
Childhood Immunization-4 or more DTPs	83%		
Childhood Immunization-3 or more HepB	92%		
Childhood Immunization-3 or more Hibs	93%		
Childhood Immunization Status (Combo 3: 4-3-1-3-3-1-4)	74%		
Lead Screening in Children[c]	89%	[See source note]	[See source note]

Sources:
[a] *NY State Vital Statistics, 2012*
[b] *PRAMS 2011 (postpartum metrics)*
[c] *QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*
[d] *QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 78 - Select Clinical Improvement Measures, Palliative Care

Select Clinical Improvement Measures	NYS	NYC	Bronx
Risk-Adjusted percentage of members who remained stable or demonstrated improvement in pain	[No known public source]	[No known public source]	[No known public source]
Risk-Adjusted percentage of members who had severe or more intense daily pain	[No known public source]	[No known public source]	[No known public source]
Risk-adjusted percentage of members whose pain was not controlled.	[No known public source]	[No known public source]	[No known public source]
Advanced Directives – Talked about Appointing for Health Decisions	[No known public source]	[No known public source]	[No known public source]
Depressive feelings - percentage of members who experienced some depression feeling	[No known public source]	[No known public source]	[No known public source]

Source: Not applicable

Table 79 - Select Clinical Improvement Measures, Renal Care

Select Clinical Improvement Measures, 2012	NYS	NYC	Bronx
Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy)[a]	51%	[See Source Note]	[See Source Note]
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%)[a]	33%	[See Source Note]	[See Source Note]
Comprehensive diabetes care - LDL-c control (<100mg/dL)[a]	47% 87%	[See Source Note]	[See Source Note]
Annual Monitoring for Patients on Persistent Medications – ACE/ARB[b]	92%	[See Source Note]	[See Source Note]

Sources:
[a] *QARR, 2011 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*
[b] *QARR, 2012 (Note: this source reports data by health plan. Due to the fact that many health plans operate throughout the state, it is not possible to report metrics from this data set at the city or county level)*

Table 80 - Domain 4 Metrics: Premature Death, Preventable Hospitalizations, Insurance and Health Care Provider Status

Measure	Data year(s)	NYS	NYC	Bronx
Percentage of premature death (before age 65 years)[a]	2012	23.9	27.6	33.9
Ratio of Black non-Hispanics to White non-Hispanics [a]	2010-2012	2.04	2.1	2.52
Ratio of Hispanics to White non-Hispanics [a]	2010-2012	2.03	2.04	2.43
Age-adjusted preventable hospitalizations rate per 10,000 - Aged 18+ years [b]	2012	135.6	158.5	238.5
Ratio of Black non-Hispanics to White non-Hispanics [b]	2010-2012	2.06	2.27	1.76
Ratio of Hispanics to White non-Hispanics [b]	2010-2012	1.51	1.58	1.4
Percentage of adults with health insurance - Aged 18-64 years [c]	2012	89.1	86.2	85.1
Age-adjusted percentage of adults who have a regular health care provider - Aged 18+ years [d]	2012	81.5	81.7	78.7

Sources:

[a] *State data obtained from 2012 Behavioral Risk Factor Surveillance System (BRFSS) as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard. City and county data retrieved from: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [Community Health Survey 2012]. [1 August 2014]. http://nyc.gov/health/epiquery*

[b] *SPARCS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.*

[c] *US Census Bureau, American Community Survey, 2012*

[d] *State data retrieved from the 2012 Behavioral Risk Factor Surveillance System as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard; city and county data retrieved from the 2012 NYC Community Health Survey*

Table 81 - Domain 4 Metrics: Promote Mental Health and Prevent Substance Abuse

Measure	Data Year(s)	NYS	NYC	Bronx
Age-adjusted percentage of adults with poor mental health for 14 or more days in the last month [a]	2008-2009	10.2	9.2	9.1
Age-adjusted percentage of adult binge drinking during the past month [b]	2012	17.7	19.6	18.5
Age-adjusted suicide death rate per 100,000 [c]	2010-2012	7.8	5.7	5.4

Sources:

[a] *2008-2009 BRFSS and Expanded BRFSS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.*
[b] *State data retrieved from the 2012 Behavioral Risk Factor Surveillance System as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard; city and county data retrieved from the 2012 NYC Community Health Survey.*
[c] *Vital Statistics data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.*

Table 82 - Domain 4 Metrics: Prevent Chronic Diseases

Measure	Data Year(s)	NYS	NYC	Bronx
Percentage of adults who are obese [a]	2008-2009, 2012	23.6	24.2	32
Percentage of children and adolescents (K-8th grades) who are obese [b]	2010-2011	17.6 (excludes NYC)	21.7	23.5
Percentage of cigarette smoking among adults [a]	2012	16.2	15.6	15.8
Percentage of adults who receive a colorectal cancer screening based on the most recent guidelines - Aged 50-75 years [c]	2008-2009, 2012	61.5	68.5	70.7
Asthma emergency department visit rate per 10,000 [d]	2012	88.6	139.6	260.2
Asthma emergency department visit rate per 10,000 - Aged 0-4 years [d]	2012	225.1	348.4	642.5
Age-adjusted heart attack hospitalization rate per 10,000 [d]	2012	15.1	13.5	14.6
Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 6-17 years [d]	2010-2012	3	3.4	5
Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 18+ years [d]	2010-2012	6.1	7	12

Sources:
[a] *State data obtained from 2012 Behavioral Risk Factor Surveillance System (BRFSS) as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard. City and county data retrieved from: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - [Community Health Survey 2012]. [1 August 2014]. http://nyc.gov/health/epiquery*
[b] *State data excludes NYC and was obtained from the 2010-12 Student Weight Status Category Reporting System as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard (includes children in grades K-12). City and county-level data obtained from "FitnessGram" (2010-2011) as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard (includes children in grades K-8).*
[c] *State data obtained from the 2012 BRFSS and reports the "Percentage of adults who received colorectal cancer screening according to most recent guidelines." Those complying with recent guidelines included individuals who used a blood stool test at home in the past year; and/or, sigmoidoscopy in the past 5 years and blood stool test in the past 3 years; and/or, had a colonoscopy in the past 10 years. However, the 2012 NYC Community Health Survey only reports the percentage of respondents who received a "colon cancer screening in last 10 years."*
[d] *SPARCS data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard.*

Table 83 - Domain 4 Metrics: Prevent HIV/STDs

Measure	Data Year(s)	NYS	NYC	Bronx
Newly diagnosed HIV case rate per 100,000 [a]	2010-2012	18.3	33.5	43.1
Difference in rates (Black and White) of new HIV diagnoses [a]	2010-2012	46.7	49.1	54.2
Difference in rates (Hispanic and White) of new HIV diagnoses [a]	2010-2012	24.2	21.6	23.8
Gonorrhea case rate per 100,000 women - Aged 15-44 years [b]	2012	235.8	283.1	513.6
Gonorrhea case rate per 100,000 men - Aged 15-44 years [b]	2012	284.1	444.9	584.7
Chlamydia case rate per 100,000 women - Aged 15-44 years [b]	2012	1,625.1	2,047.6	3,508.2
Primary and secondary syphilis case rate per 100,000 males [b]	2012	12.4	24.3	25.8
Primary and secondary syphilis case rate per 100,000 females [b]	2012	0.5	0.7	0.9

Sources:
[a] *Bureau of HIV/AIDS Epidemiology data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard*
[b] *NYS STD Surveillance System data as reported on the NYS Prevention Agenda 2013-2017 State and County Dashboard*

Table 84 - Domain 4 Metrics: Promote Healthy Women, Infants, and Children

	Measure	Data Year(s)	NYS	NYC	Bronx
41	Percentage of preterm births	2012	10.8	10.8	12.2
42	*Ratio of Black non-Hispanics to White non-Hispanics*	2010-2012	1.62	1.8	1.41
43	*Ratio of Hispanics to White non-Hispanics*	2010-2012	1.25	1.39	1.21

Source: Vital Statistics data as reported on the NYS Prevention Agenda 201

COMMUNITY NEEDS ASSESSMENT
APPENDIX C – Primary Data Collection Instruments and Information

December 16, 2014

Instruments Prepared by The New York Academy of Medicine

ID : _____ **Date: _____**

New York City Health Provider Partnership: Community Needs Assessment
Community Survey

The New York Academy of Medicine and Tripp Umbach are conducting this 15-20 minute survey on behalf of HHC as part of a community needs assessment. The community needs assessment is being done for New York City health care providers. The information that you provide is important to help providers better serve their communities.

The survey is voluntary and confidential. You do not have to complete the survey, and you can skip questions you do not want to answer. Your name will not be written on the survey, and we will not be able to connect your answers to you personally.

In appreciation of your time and effort, you will receive a $10 MetroCard for completing this survey.

First, some background questions.

1. Where do you live?

☐ Bronx ☐ Brooklyn ☐ Manhattan ☐ Queens
[If Bronx, Brooklyn, Manhattan, or Queens - Continue to Question 2]

☐ Staten Island ☐ Outside of New York City
[If Staten Island, or outside of NYC - Thank you for your time. Unfortunately you are not eligible for the survey.]

2. What is your ZIP code? _____ 3. What neighborhood do you live in? _____

4. How old are you? _____ years
[If younger than 18 years old: Thank you for your time. Unfortunately you are not eligible for the survey.]

Next, some questions about health issues in your community.

5. What do you think are the biggest health concerns in your community? (Check up to five.)

☐ Adolescent health
☐ Asthma
☐ Arrests and incarceration
☐ Cancer
☐ Diabetes
☐ Disability
☐ Drug and alcohol use
☐ Family planning/birth control
☐ Hepatitis
☐ Heart disease
☐ High blood pressure
☐ HIV
☐ Maternal and child health
☐ Mental health (e.g., depression, suicide)
☐ Obesity
☐ Pollution (e.g., air quality, garbage)
☐ Sexually transmitted infections
☐ Stroke
☐ Teen pregnancy
☐ Tobacco use
☐ Violence or injury
☐ Other, specify: _____
☐ Don't know

6. What kind of health education or programs are **needed** in your community? (Check all that apply.)

☐ Cancer/cancer prevention
☐ Diabetes
☐ Domestic violence
☐ Exercise/physical activity
☐ Family planning
☐ Heart disease
☐ HIV/sexually transmitted diseases
☐ Maternal and child health
☐ Mental health
☐ Nutrition
☐ Substance abuse
☐ Sickle cell anemia
☐ Vaccinations
☐ Violence
☐ Other, specify:
_____
☐ Don't know

7. To what extent is each of the following available in your community?

	Very available	Available	Not very available	Not available at all	Don't know
a. Accessible transportation	☐	☐	☐	☐	☐
b. Affordable housing	☐	☐	☐	☐	☐
c. Dental services	☐	☐	☐	☐	☐
d. Healthy foods	☐	☐	☐	☐	☐
e. Home health care	☐	☐	☐	☐	☐
f. Job training	☐	☐	☐	☐	☐
g. Medical specialists	☐	☐	☐	☐	☐
h. Mental health services	☐	☐	☐	☐	☐
i. Pediatric and adolescent services	☐	☐	☐	☐	☐
j. Places to exercise, walk and play	☐	☐	☐	☐	☐
k. Primary care medicine	☐	☐	☐	☐	☐
l. Social services	☐	☐	☐	☐	☐
m. Substance abuse services	☐	☐	☐	☐	☐
n. Vision services	☐	☐	☐	☐	☐

The next questions are about your health and health care use.

8. In general, would you say that your health is:
☐ Excellent ☐ Very good ☐ Good ☐ Fair ☐ Poor

9. Which of the following health concerns do you face? *[If yes to any condition]* Do you feel that your condition is under control?

	No	Yes	*[If yes] Is it under control?*	Prefer not to answer
a. Asthma	☐	☐	☐	☐
b. Cancer	☐	☐	☐	☐
c. Chronic pain	☐	☐	☐	☐
d. Depression or anxiety	☐	☐	☐	☐
e. Diabetes	☐	☐	☐	☐
f. Drug or alcohol abuse	☐	☐	☐	☐
g. Heart disease	☐	☐	☐	☐
h. Hepatitis C	☐	☐	☐	☐
i. High blood pressure	☐	☐	☐	☐
j. High cholesterol	☐	☐	☐	☐
k. HIV	☐	☐	☐	☐
l. Mobility impairment	☐	☐		☐
m. Osteoporosis	☐	☐	☐	☐

10. What is your current weight in pounds? _____ pounds ☐ Don't know ☐ Prefer not to answer

11. What is your current height? _____ feet, _____ inches ☐ Don't know ☐ Prefer not to answer

12. Do you currently have health insurance? (Check all that apply.)
☐ Yes, Medicaid ☐ Yes, Medicare ☐ Yes, Private/commercial ☐ Yes, VA
☐ Yes, other, specify: _____ ☐ No ☐ Don't know

13. Do you have a primary care provider or personal doctor?
☐ Yes ☐ No ☐ Don't know ☐ Prefer not to answer

14. Is there a specific place you **usually** go for health care, when it is not an emergency (e.g., for a fever or rash)?
☐ Yes *[Continue to Question 15]* ☐ No *[Skip to Question 17]* ☐ Prefer not to answer *[Skip to Question 17]*

15. What kind of place is it?

☐ Primary care doctor's office ☐ Emergency room ☐ Alternative care (e.g., herbalist, acupuncturist)
☐ Specialist doctor's office ☐ Urgent care ☐ Other, specify: _____
☐ Community/family health center ☐ Pharmacy ☐ Don't know
☐ Hospital-based clinic ☐ Drug treatment center ☐ Prefer not to answer
☐ Private clinic ☐ Mental health center

16. Where is it located?

☐ Bronx ☐ Brooklyn ☐ Manhattan ☐ Queens ☐ Staten Island
☐ Outside of New York City ☐ Prefer not to answer

17. Do you use any complementary or alternative treatments or remedies? (Check all that apply.)

☐ Yes, acupuncture ☐ Yes, chiropractic care ☐ Yes, herbal remedies
☐ Yes, homeopathy ☐ Yes, remedies from a botánica ☐ Yes, other, specify: _____
☐ No ☐ Prefer not to answer

18. When was your last routine checkup (when you were not sick)?

☐ Within the past year ☐ Over one year ago, but within the past two years
☐ Over two years ago ☐ Never had a routine physical exam
☐ Prefer not to answer ☐ Don't know

19. Have you been to the dentist in the past 12 months?

☐ Yes ☐ No ☐ Don't know ☐ Prefer not to answer

20. Was there a time in the past 12 months when you needed health care or health services but did not get it?

☐ Yes *[Continue to Question 21]* ☐ No *[Skip to Question 22]* ☐ Prefer not to answer *[Skip to Question 22]*

21. Why didn't you get the health care you needed? (Check all that apply.)

☐ Not insured ☐ Concerned about quality of care ☐ Had other responsibilities (e.g., work, family)
☐ Cost of co-pays ☐ Didn't know where to go ☐ Didn't have transportation
☐ Couldn't get an appointment soon or at the right time ☐ Concerned about language or translation issues
☐ Other, specify: _____ ☐ Don't know
☐ Prefer not to answer

22. During the past 12 months, how many times have you gone to a hospital emergency room about your own health?

☐ None (skip to 24) ☐ One time ☐ Two or more times
☐ Don't know ☐ Prefer not to answer

23. Why did you go to the emergency room in the last year? (Check all that apply.)

☐ Didn't have insurance ☐ Problem too serious for a doctor's office or clinic
☐ Didn't have transportation to doctor's office or clinic ☐ Doctor's office or clinic wasn't open
☐ Get most care at emergency room ☐ Other, specify: _____
☐ Don't know ☐ Prefer not to answer

24. Do you ever worry you won't have enough money to pay for food or housing?

☐ Always ☐ Sometimes ☐ Rarely ☐ Never ☐ Don't know ☐ Prefer not to answer

25. Where do you get most of your health information? (Check all that apply.)

☐ Books ☐ Family or friends ☐ School
☐ Doctor or health care provider ☐ Health insurance plan ☐ Television or radio
☐ Community based organization ☐ Health department ☐ Other, specify: _____
☐ Ethnic media (e.g., ethnic newspaper, TV, radio) ☐ Health fairs ☐ Don't know *[Only if none of the above are selected]*
☐ Internet ☐ Prefer not to answer
☐ Faith-based organization (e.g., church, temple, mosque) ☐ Library
☐ Newspapers or magazines

26. Which of the following do you currently use? (Check all that apply.)

☐ Email ☐ Smart phone (e.g., iPhone or Galaxy) ☐ Twitter
☐ Internet ☐ Text messaging ☐ Facebook
☐ None ☐ Prefer not to answer

27. Do you visit or attend events at any of the following organization at least once per month?

☐ Community center organization ☐ Gym or recreational center ☐ Other community
☐ Library ☐ Political club ☐ School
☐ Faith-based organization (e.g., church, temple, synagogue, mosque) ☐ Senior center ☐ Sports league
☐ None ☐ Prefer not to answer
☐ Neighborhood association (e.g., tenant or block association, precinct council)

Last, we'd like to get some background information.

28. Are you…

☐ Female ☐ Male ☐ Transgender ☐ Prefer not to answer

29. Do you consider yourself…

☐ Heterosexual or straight ☐ Homosexual, gay, or lesbian ☐ Bisexual
☐ Other ☐ Don't know ☐ Prefer not to answer

30. Do you consider yourself to be Hispanic or Latino?

☐ Yes ☐ No ☐ Prefer not to answer

31. What is your race? (Check all that apply.)

☐ White ☐ Native Hawaiian or other Pacific Islander
☐ Black or African American ☐ Other, specify: _____
☐ Asian, specify: _____ ☐ Prefer not to answer
☐ American Indian or Alaskan Native

32. What ethnic group do you identify with, if any? _____

33. Were you born outside of the U.S.?

☐ Yes ☐ No ☐ Prefer not to answer

34. What is the primary language you speak at home?

☐ English ☐ Haitian/French Creole ☐ Urdu
☐ Spanish ☐ Hindi ☐ Yiddish
☐ Arabic ☐ Italian ☐ Other, specify: _____
☐ Chinese (Mandarin, Cantonese, or other) ☐ Korean ☐ Prefer not to answer
☐ French ☐ Russian

35. Do you prefer to get health care in a language other than English?

☐ Yes ☐ No ☐ No preference ☐ Prefer not to answer

36. How well do you speak English?

☐ Very well ☐ Well ☐ Not well ☐ Not at all ☐ Prefer not to answer

37. What is your highest level of education completed? (Check one)

☐ Did not attend high school ☐ Some high school, but did not graduate
☐ High school graduate or GED ☐ Technical or vocational training

☐ Some college but no degree
☐ Two year degree (i.e., Associate's Degree)
☐ Bachelor's Degree
☐ Master's Degree or above
☐ Prefer not to answer

38. What is your current employment status?

☐ Employed full-time
☐ Employed part-time
☐ Homemaker
☐ Student
☐ Retired
☐ Unemployed
☐ Unable to work
☐ Prefer not to answer

39. What is your total annual household income?

☐ Less than $10,000
☐ $50,000 to $59, 999
☐ $150,000 or more
☐ $10,000 to $19,999
☐ $60,000 to $69, 999
☐ Don't know
☐ $20,000 to $29, 999
☐ $70,000 to $79, 999
☐ Prefer not to answer
☐ $30,000 to $39, 999
☐ $80,000 to $99, 999
☐ $40,000 to $49, 999
☐ $100,000 to $149, 999

40. How many people are part of your household, including yourself, children and adults? _____

Thank you for helping us to better understand the needs of people in your community!

Community Needs Assessment
Key Informant Interview Guide

We first wanted to find out about you, your general experience and your role within the community here.

1) Can you tell me a little about your background, including how long you have lived/worked in this community?

2) Can you talk a little about your position as [community leader/role]?
   a) How long have you been doing that?
   b) How did you come to take on this role?

3) In what ways is your work—or your organization—involved with health issues or health care services?

Next I wanted to ask your perception of the community and communities here.

4) I'm very interested in hearing you describe your community – can you tell me about it?
   a) What are the strengths and weaknesses?
   b) What are the priorities and concerns?
   c) What challenges do you think are most common among your community members?

I'd like to talk about health and health care now.

5) From your perspective, what are the most significant health issues in your community?
   a) Why do you feel those are particularly significant?
   b) To what extent are services available and accessible to prevent and manage these issues?
   c) Are there any factors that make it difficult for people to manage these issues? (e.g., lack of insurance, housing, transportation, language, poverty)

6) What are the most significant behavioral health issues (including mental health, substance abuse, domestic violence) in your community and who do they affect (e.g. a particular age group or gender)?
   a) What are the services available to help people with behavioral health issues—such as medical and social services, as well as faith- and – community-based services?
   b) Can you describe the access issues—both what limits access and what promotes access?

7) To what extent is health care easily accessible to members of your community?
   a) How accessible is preventive care? Primary care? Specialty care?
   b) Are there any significant gaps?
   c) What specifically makes it easy—or difficult—to get health care here?
   d) Are there organizations that are particularly accessible – or that help in facilitating access to other organizations (e.g., outreach and referral programs)?
   e) Do you have any concerns about the quality of available services?

8) Where are people in your community most likely to go for health care? Why?
   a) What are the qualities that are most important to people in your community when they are choosing healthcare?

9) What do you consider to be the most prevalent social service needs in the community?
   a) Are there organizations that help people address these needs? Which organizations?
   b) How effectively are social service needs addressed?

As you know, there is more to good health than just health care. Next, I'd like to talk to you about the neighborhood and the community and their impact on health.

10) In what ways do you feel this neighborhood promotes or discourages good health? (For example, is there healthy food available here, places for physical activity, does it seem safe, etc.)
   a) To what extent do people take advantage of those opportunities (what are the barriers/facilitators)?
   b) How might organizations facilitate access to these resources (e.g., parks, farmers markets, etc.)?
   c) What is needed to make the neighborhood a healthier place to live?

11) What role might health care providers have in making this neighborhood a healthier place to live? (e.g., health education, programs that give people "healthy" skills, easier access to preventive and disease management services)
   a) Would people in the community be interested in these activities?
   b) What would be the best way to engage people in these activities (e.g., where to hold them, what organizations to partner with, how to publicize)?

12) What role might community, faith, civic and other organizations have in making this neighborhood a healthier place to live?

13) Thinking about the community again, and their culture and habits, to what extent and in what ways does your community and culture promote (or discourage) good health?
   a) Is maintaining good health (e.g. eating right, exercising, maintaining a good weight) important in your community? Can you describe in what ways it is or is not important?
   b) What might motivate people in your community to be more concerned about health and to access health-related services?

14) If you were able to transform the health care system to better meet the needs of community members, what would you do?

I want to thank you again for taking the time to talk to us. Just a few final questions:

15) Can you name a few other individuals or organizations that you would recommend we talk to in order to get a fuller picture of the health needs of this community?

16) We also want to talk to groups of residents—to conduct some focus groups (group interviews with about 8-10 people)—so we can gather information and recommendations directly from them. Do you have suggestions about organizations (including your own) that might be appropriate for hosting such conversations?
   a) In general, what are the characteristics of the community members that would participate?

17) Is there anything else you would like us to know?

18) Do you have any questions?

Thank you!

Community Needs Assessment
Resident Focus Group Guide

Thank you for taking the time to meet with us today. We want to talk to you about health issues and health care services in your community. This focus group is part of a community needs assessment, a study to find out about health-related needs of residents. We will use information from this focus group and discussions with other community groups to identify ways that providers can better serve communities. The study is being conducted by The New York Academy of Medicine in collaboration with a large group of health care providers.

I want to remind you that everything you say will be kept confidential. In our reports, no one will be able to connect you with the comments you made. You do not have to be part of the focus group and you do not have to answer any question you do not want to answer. I also want to mention some guidelines for discussion. Information shared during this focus group should be treated as confidential by everyone present today. However, we can't control what people say later, so if you are worried that something you say might be repeated later, you need not say it. Also, it's okay to ask each other questions. We expect people to disagree, as long as we are all respectful. The facilitators will lead the discussion to make sure that all topics are covered and everyone has an equal opportunity to speak.

19) To start, can a few of you tell us a little about your involvement with *[the host organization]*, including what kind of services or activities you are involved in?

20) We'd next like to hear a little about you, including how long you have lived in this community and what you do.

As you know, we're particularly interested in health and health care here. We'd first like to ask a little about behaviors that might affect health.

21) Can you talk a little about the food that you and your family generally eat?
    a) Do you feel it's healthy?
    b) Do you and your family think about whether food is healthy or not?
    c) Where do you usually get your food? How easy is it to eat and serve healthy food?
    d) What might make it easier to eat healthy?
    e) Do you think others in your community think about how healthy their food is? (explain)

22) We're also interested in exercise, including walking, sports (like soccer and basketball) and other kinds of physical activity.
    a) Do people here (in your community) exercise?
    b) *[If yes]* What do they do and how often?
    c) *[If no]* Why not?
    d) What might encourage people to exercise more?

Switching more specifically to health.

23) What do you think are the greatest health issues for people here? (e.g., particularly common illnesses or problems)
    a) Do you know why these health issues are so significant here? (e.g., age of the population, diet, lifestyle, pollution, other environmental factors)
    b) How well are people able to control or manage these issues?

24) Are there any particular mental health issues for people here, including depression, anxiety, trauma, or stress?
    a) Why do you think these issues are significant here?
    b) Are there adequate organizations in the community to help people cope with these issues?
    c) Are there gaps?

25) *[If appropriate condition mentioned]* We've heard that *[x condition, as determined from key informant interviews or other focus groups]* is particularly common in this community. Do you think it is a problem here?
    a) *[If yes]* Why do you think *[x condition]* is so common?

26) Overall, what might make it easier or more difficult to be healthy?

27) What could organizations in this neighborhood, including *[x organization]*, health care providers, or the government, do to help people here stay healthy? [*If silence, use these prompts]* Here are some thoughts:
    a) More health education (for whom, on what?)
    b) More programs that strengthen people's skills with respect to "healthy" choices (e.g., healthy cooking classes, exercise classes)
    c) Easier access to services that may help prevent disease, such as vaccinations or cancer screenings.
    d) Easier access to services that help people manage illnesses (e.g., education, supports)

28) Would people in the community be interested in these activities and services?
    a) What would be the best way to get people to attend? (e.g., where to hold them, what organizations to partner with, how to publicize)

Now I'd like to talk about health care.

29) Do people here (and family members) go to the doctor each year to get checked, *[for women]* including seeing a gynecologist?
    a) For those that don't, why not?

30) How about dental care – do people go to the dentist each year to get checked?
    a) If not, why not?

31) When you are sick and feel you need to see a doctor, do you always go?
    a) For those that don't, why not?
    b) How about family members, do they see doctors when they are sick?
    c) What are some of the things you do when you don't see a doctor for illness?

32) Where do people go for doctor's visits (like checkups and relatively minor illnesses)?
    a) How did you choose that place?
    b) How do you like it – what's good and bad about it?

33) Do people see complimentary or alternative medicine providers, such as herbalists, botánicas or acupuncturists?
    a) What kind of providers do you see?
    b) How do you decide when to see a complimentary provider and when to see a mainstream provider?

34) Do people ever go to the emergency room instead of an office or clinic-based doctor?
    a) Do you ever go when it's not a real emergency (i.e., a condition that could be treated in your provider's office)? If so, why do you go to the emergency room?
    b) What do you think providers can do to get people into the doctor's office and out of the emergency room?

35) Do you generally get health care in *[Brooklyn, the Bronx, or Queens]*?
    a) What services do you use here?
    b) What services do you go to other boroughs for?
    c) How do you decide where to receive care? (e.g., referrals, input from friends)

36) Who do people – people here in this group or people in the community – talk to if they are feeling sad or anxious and need help with that?
    a) Doctors? Religious leaders? Community organizations? Others?
    b) Are people willing to seek help for these kinds of issues?
    c) What might help people to use these kinds of services more for these types of issues?

37) Where do people go if they need help with issues such as benefits, insurance, immigration, or receiving other supportive services?
    a) What needs are the most common in the community?
    b) Are people able to get help with these issues?

38) Overall, do you feel that health care (of different types) is easy for you and your family members or friends to get?
    a) What specifically makes it easy—or difficult—to get health care in this community?
    b) Are there organizations that are helpful? (i.e. for providing services or providing connections to other organizations)
    c) Is cost of services an issue?
    d) Is insurance an issue?
    e) Is language – or provider sensitivity an issue?

39) If you could change the way healthcare is provided in your community, what would you do? What would it look like?

40) Do you have any other comments about health or health care here – anything we haven't discussed?

Community Needs Assessment
CBOs and Local Organizations Participating in the CNA

Bronx

Bronx - Primary Data Collection (Focus Groups and/or Surveys):

African Diaspora and Festival Parade
BOOM! Health
Center for Independence of the Disabled, New York
Friends of Saint Mary's Park
Health and Hospitals Corporation
Highbridge Gardens Houses
Local Initiatives Support Corporation
Mekong
Morris Heights Health Center
Regional Aid for Interim Needs (RAIN)
Services & Advocacy for GLBT Elders (SAGE)
Soundview Houses
Violence Intervention Program

Bronx Key Informant Interviews:[1]

- **African Services Committee**
  Kim Nichols, Co-Executive Director

- **AHRC**
  Melvin Gertner, Board member

- **BOOM! Health**
  Robert Cordero, President and Chief Program Officer

- **Bronx District Public Health Office**
  Jane Bedell, Assistant Commissioner and Medical Director

- **Bronx Health Link**
  Barbara Hart, Executive Director

- **Callen Lorde**
  Jay Laudato, Executive Director

- **Center for Independence of the Disabled, New York**

[1] There is some repetition in the list of key informants by borough, as some interviewees addressed City-wide issues, and data obtained were used in more than one CNA.

Susan Dooha, Executive Director

- **Children's Aid Society**
  Lisa Handwerker, Medical Director
  Maria Astudilla, Deputy Director, Health and Wellness Division

- **Coalition for Asian American Families and Children (CACF)**
  Noilyn Abesamis-Mendoza, Health Policy Director

- **Commission on the Public Health System**
  Anthony Feliciano, Director
  Judy Wessler, Former Director

- **Community Service Society**
  Elisabeth Benjamin, Vice President of Health Initiatives

- **Corporation for Supportive Housing**
  Kristin Miller, Director

- **Jewish American Serving the Aging (JASA)**
  Kathryn Haslanger, CEO
  Amy Chalfy, Director of Programs

- **Lincoln Medical Center**
  Balavenkatesh Kanna, Director of Research of Lincoln Medical and Mental Health Center

- **LISC NYC**
  Jessica Guilfoy, Deputy Director
  Anabelle Rondon, Community Development Associate

- **NADAP**
  John Darin, President & CEO
  Joy Demos, Assistant Director of Care Coordination

- **New York Immigration Coalition**
  Jackie Vimo, Director of Health Advocacy
  Claudia Calhoon, Health Advocacy Senior Specialist

- **New York Lawyers for the Public Interest**
  Shena Elrington, Former Director of the Health Justice Program

- **NYC Department of Homeless Services**
  Dova Marder, Medical Director

- **NYCDOH/Rikers Island**

Alison Jordan, Executive Director, NYCDOHMH, Correctional Health Services' Transitional Health Care Coordination

- **NYCHA**
  Andrea Bachrach Mata, Senior Manager for Community Health Initiatives

- **RAIN**
  Anderson Torres, CEO

- **Services & Advocacy for GLBT Elders (SAGE)**
  Catherine Thurston, Senior Director for Programs

- **Urban Health Plan**
  Paloma Hernandez, Executive Director

Brooklyn

Brooklyn - Primary Data Collection (Focus Groups and/or Surveys):

Arab Family Support Center
Arthur Ashe Institute for Urban Health
Brookdale Healthy Families
Brooklyn Health Provider Partnership
Brownsville Multiservice Family Health Center
CAMBA
Caribbean Women's Health Association
Center for Independence of the Disabled, New York
Chinese American Planning Council
Diana Jones Senior Center
El Puente
Health and Hospitals Corporation
Jewish Association Serving the Aging (JASA)
Make the Road NY
NADAP
New Dimensions in Care
Red Hook Initiative
Ridgewood Bushwick Senior Citizens Council
Services & Advocacy for GLBT Elders (SAGE)
Youth Congress of Bangladeshi Americans

Brooklyn - Key Informant Interviews:

- **AHRC**
  Melvin Gertner, Board member

- **Arab American Family Support Center**
  Maha Attieh, Health Program Manager

- **Arthur Ashe Institute for Urban Health**
  Humberto R. Brown, Director of Health Disparities Initiative & New Constituency Development

- **Brooklyn District Public Health Office**
  Aletha Maybank, Assistant Commissioner, New York City Dept. of Health and Mental Hygiene

- **Brooklyn Perinatal Network**
  Ngozi Moses, Executive Director

- **Brownsville Multiservice Family Health Center**
  Nathalie Georges, Community Follow-up Health Homes Care Management Director

- **Callen Lorde**
  Jay Laudato, Executive Director

- **CAMBA**
  Kevin Muir, Vice President, Health Homes/Care Management

- **Caribbean Women's Health Association**
  Cheryl Hall, Executive Director

- **Center for Independence of the Disabled, New York**
  Susan Dooha, Executive Director

- **Charles B. Wang Community Health Center**
  Nuna Kim, Medical Director

- **Children's Aid Society**
  Lisa Handwerker, Medical Director
  Maria Astudilla, Deputy Director, Health and Wellness Division

- **Coalition for Asian American Families and Children (CACF)**
  Noilyn Abesamis-Mendoza, Health Policy Director

- **Commission on the Public Health System**
  Anthony Feliciano, Director
  Judy Wessler, Former Director

- **CommuniLife**
  Rosa Gil, President and CEO

- **Community Service Society**
  Elisabeth Benjamin, Vice President of Health Initiatives

- **Corporation for Supportive Housing**
  Kristin Miller, Director

- **Crown Heights Community Mediation Center**
  Allen James, Program Manager, S.O.S. Crown Heights

- **Haitian American United for Progress**
  Elsie St. Louis Accilien, Executive Director

- **Jewish American Serving the Aging (JASA)**
  Kathryn Haslanger, CEO
  Amy Chalfy, Director of Programs

- **Make the Road**
  Theo Oshiro, Deputy Director

- **NADAP**
  John Darin, President & CEO
  Joy Demos, Assistant Director of Care Coordination

- **New York Immigration Coalition**
  Jackie Vimo, Director of Health Advocacy
  Claudia Calhoon, Health Advocacy Senior Specialist

- **New York Lawyers for the Public Interest**
  Shena Elrington, Former Director of the Health Justice Program

- **NYC Department of Homeless Services**
  Dova Marder, Medical Director

- **NYCDOH/Rikers Island**
  Alison Jordan, Executive Director, NYCDOHMH Correctional Health Services' Transitional Health Care Coordination

- **Ridgewood Bushwick Senior Citizens Council**
  James Cameron, CEO
  Sandy Christian, Asst. Exec. Director - Senior & Care Management
  Maria Viera, Deputy Housing Director of Social Services

- **Services & Advocacy for GLBT Elders (SAGE)**
  Catherine Thurston, Senior Director for Programs

Queens

Queens - Primary Data Collection (Focus Groups and/or Surveys):

Adhikaar
Center for Independence of the Disabled in New York
Charles B. Wang Community Health Center
Chhaya Community Development Corporation
Health and Hospitals Corporation
Korean American Family Service Center
Korean Community Services
Make the Road NY
Queens Community House
Queens PPS
Queens Pride House
Self Help Community Services
Services & Advocacy for GLBT Elders (SAGE)
South Asian Council for Social Services
Services Now for Adult Persons (SNAP)
Youth Congress of Bangladeshi Americans

Queens – Key Informant Interviews:

- **AHRC**
  Melvin Gertner, Board member

- **Callen Lorde**
  Jay Laudato, Executive Director

- **Center for Independence of the Disabled, New York**
  Susan Dooha, Executive Director

- **Charles B. Wang Community Health Center**
  Nuna Kim, Medical Director

- **Children's Aid Society**
  Lisa Handwerker, Medical Director
  Maria Astudilla, Deputy Director, Health and Wellness Division

- **Child Center of New York**
  Traci Donnelly, CEO

- **Coalition for Asian American Families and Children (CACF)**
  Noilyn Abesamis-Mendoza, Health Policy Director

- **Commission on the Public Health System**
  Anthony Feliciano, Director
  Judy Wessler, Former Director

- **CommuniLife**
  Rosa Gil, President and CEO

- **Community Service Society**
  Elisabeth Benjamin, Vice President of Health Initiatives

- **Corporation for Supportive Housing**
  Kristin Miller, Director

- **Haitian American United for Progress**
  Elsie St. Louis Accilien, Executive Director

Jamaica Hospital Center
Jogesh Syalee, Director, School Health

- **Jewish American Serving the Aging (JASA)**
  Kathryn Haslanger, CEO
  Amy Chalfy, Director of Programs

- **Make the Road**
  Theo Oshiro, Deputy Director

- **NADAP**
  John Darin, President & CEO
  Joy Demos, Assistant Director of Care Coordination

- **New York Immigration Coalition**
  Jackie Vimo, Director of Health Advocacy
  Claudia Calhoon, Health Advocacy Senior Specialist

- **New York Lawyers for the Public Interest**
  Shena Elrington, Former Director of the Health Justice Program

- **NYC Department of Homeless Services**
  Dova Marder, Medical Director

- **NYCDOH/Rikers Island**
  Alison Jordan, Executive Director, NYCDOHMH Correctional Health Services' Transitional Health Care Coordination

- **Services & Advocacy for GLBT Elders (SAGE)**
  Catherine Thurston, Senior Director for Programs

- **South Asian Council for Social Services**
  Sudha Acharya, Executive Director

Manhattan

Manhattan: Primary Data Collection (Focus Groups and/or Surveys)

Addicts Rehabilitation Center Fund, Inc.
ALBOR
Fortune Society
Gay Men's Health Crisis
Hamilton-Madison House
Harlem United
Henry Street Settlement
Independence Care
Postgraduate Center for Mental Health-Care Coordination
Ryan-NENA Community Health Center
William F. Ryan Community Health Center
East Harlem Council for Human Services
NYCHA Johnson House
The Door
CAMBA - Urban Peace Academy RAPP
Callen-Lorde Community Health Center
Central Harlem Senior Citizens' Centers, Inc.
Hamilton-Madison House: City Hall Senior Center
Hamilton-Madison House: Knickerbocker Village Senior Center
Hamilton-Madison House: Smith Senior Service NORC
Iris House
The Lesbian, Gay, Bisexual & Transgender Community Center

Manhattan: Key Informant Interviews

- **African Services Committee**
  Kim Nichols, Co-Executive Director

- **Coalition for Asian-American Children and Families**
  Noilyn Abesamis-Mendoza, Health Policy Director

- **Corporation for Supportive Housing**
  Kristin Miller, Director

- **East and Central Harlem District Public Health Office**
  Roger Hayes, Assistant Commissioner, New York City Department of Health and Mental Hygiene

- **Isabella Geriatric Center**
  Mark Kater, President and CEO

- **Little Sisters of Assumption Family Health Service**
  Ray Lopez, Director of Environmental Health

- **NADAP**
  John Darin, President and CEO
  Joy Demos, Assistant Director of Care Coordination

- **New York Lawyers for the Public Interest- Health Justice Program**
  Shena Elrington, Former Director of the Health Justice Program

MANHATTAN COMMUNITY NEEDS ASSESSMENT APPENDIX D - REPORT OF THE PRIMARY DATA COMPONENT

December 16, 2014

Prepared by Tripp Umbach in collaboration with The New York Academy of Medicine

MANHATTAN COMMUNITY NEEDS ASSESSMENT:
REPORT OF THE PRIMARY DATA COMPONENT
OCTOBER 2014

INTRODUCTION

The goal of the Delivery System Reform Incentive Payment (DSRIP) program is to promote community-level collaborations and focus on system reform in order to reduce avoidable inpatient admissions and emergency room visits by 25% over five years for the Medicaid and uninsured populations in New York State. To inform the health system transformation that is required under the DSRIP program, emerging Performing Provider Systems (PPS's) must submit a comprehensive Community Needs Assessment (CNA) with their Project Plan applications. The Manhattan PPS's CNA, conducted from July through September, included primary and secondary data analysis and had the following aims:

- To describe health care and community resources;
- To describe the communities served by the PPSs;
- To identify the main health and health service challenges facing the community; and
- To summarize the assets, resources, and needs for proposed DSRIP projects.

This report describes the primary data methodology and analysis and has been developed as an appendix to the full CNA, and to provide more in-depth information to the PPS's, which may be useful for DSRIP project planning, as well as planning and implementation of programs and services outside of the DSRIP program.

METHODS

PROTOCOL DESIGN

Tripp Umbach and The Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted the primary data portion of the CNA, which included surveys of community residents, and focus groups and interviews with Manhattan residents, providers, and other stakeholders (see appendix for data collection instruments). The protocol was developed in collaboration with selected PPS's in Manhattan, Brooklyn, the Bronx, and Queens and was approved by the HHC Institutional Review Board (IRB).

The primary data component was designed to address anticipated gaps in the secondary data, including: 1) community member and stakeholder perspectives on health issues, including their causes and impact; 2) data on populations (e.g., particular immigrant groups) and issues (e.g., links between incarceration and health) that might be obscured in population-based data sets; 3) significant detail on issues identified; and 4) recommended approaches to address identified

problems. Overarching questions for the primary data component, which—consistent with DSRIP—focused on Medicaid and other low-income populations, as well as the uninsured, included:

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?
- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?
- What are the health related programming and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health promotion and health care needs be better addressed, overall and for distinct populations?

DATA COLLECTION

Community Engagement: Consistent with DSRIP CNA guidance, Tripp Umbach conducted primary data collection in collaboration with numerous community organizations, which were identified in collaboration with PPS representatives, and represented a range of populations (e.g., older adults, immigrant populations, etc.) and neighborhoods. As described below, community organizations assisted in recruitment for and administration of focus groups and surveys. All organizations assisting with survey administration or focus group facilitation were provided with written guidelines including information on data collection and the general research protocol, the voluntary nature of research, and confidentiality. Organizations also participated in an in-person or phone training on data collection conducted by Tripp Umbach staff. Community organizations partnering in the research received an agency honorarium consistent with their level of responsibility.

As described in a subsequent section, community members and stakeholders were largely responsive to the request to participate in the CNA and they appreciated DSRIP aims and the opportunity to have their opinions heard.

Data Collection Activities: As noted above, the primary data component involved three distinct methodologies:

- Resident Surveys*:* 943 surveys were completed by residents of either Manhattan, Brooklyn, the Bronx, and Queens, ages 18 and older. Of all the surveys collected for the Manhattan CNA, 632 were from Manhattan residents. Survey questions focused on basic demographics, health concerns (individual and community-wide), health care utilization, barriers to care, and use

of community and other services. Survey respondents were identified and recruited by local organizations, including community based organizations, senior centers, social service, and health providers. Surveys were self-administered or administered by staff or volunteers at community organizations, who were trained and supported in survey administration by Tripp Umbach staff and consultants. The surveys were translated into 4 languages: Chinese (simplified and traditional), French, and Spanish. Participants received a Metrocard valued at $5 for completing the survey.

- Key Informant Interviews: Eight key informant interviews which included 10 individuals each were conducted. Key informants were selected with input from the PPS. A portion had population specific expertise, including particular immigrant groups, older adults, children and adolescents. Others had expertise in specific issues, including supportive housing, care coordination, and homelessness. All key informant interviews were conducted by NYAM staff using a pre-written interview guide. All key informants were asked about perceptions of health issues in the community, barriers and facilitators to good health, health care and other service needs, and recommendations for services and activities that may benefit the local population. Follow-up questions, asked on *ad hoc* basis, probed more deeply into the specific areas of expertise of key informants. The interview guide was designed for a discussion lasting 60 minutes; in fact, interviews ranged from 45 to 120+ minutes. All key informant interviews were audiotaped and professionally transcribed to ensure an accurate record and to allow for verbatim quotations. (See Appendix C for the list of Key Informants by name, position, and organization.)
- Focus Groups: Seventeen focus groups were conducted for the Manhattan Community Needs Assessment, involving over 150 participants. All of the focus groups were with community members, recruited by collaborating CBOs. Populations targeted included, but were not limited to, older adults, Asian and Latino populations, LGBTQ, and individuals with disabilities. The mean age of focus group participants was 45; 60% were female; 44% were Black, 9% Asian, and 46% Latino; 56% were on Medicaid and 21% were uninsured; 23% reported speaking a language other than English at home.

  Focus groups lasted approximately 90 minutes and were conducted using a semi-structured guide, with questions that included, but were not limited to: perceptions of health issues in the community, access to resources that might promote health (e.g., fresh fruit and vegetables, gyms), use of health services, access to medical and behavioral health care, domestic violence, and recommendations for change. Follow-up questions were asked on *ad hoc* basis, based on responses heard. Focus groups were conducted by Tripp Umbach staff members and consultants retained by Tripp Umbach, each of whom was trained in the established protocol. Many of the resident focus groups were co-facilitated by representatives of CBOs that were also trained on the focus group protocol. Focus groups in languages other than English and Spanish were conducted solely by trained community partners. Participants received a $25 honorarium, in appreciation of their time and insights. All focus groups were

audio recorded, so that transcriptions and/or detailed reports could be developed for each, and to allow for verbatim quotations.

DATA MANAGEMENT AND ANALYSIS

Surveys: Survey data were entered using SPSS, data analysis software. They were analyzed according to standard statistical methods, using SPSS. Means and proportions were generated, overall and by Upper and Lower Manhattan. Although the survey sample cannot be considered representative of the catchment areas in a statistical sense, and gaps are unavoidable, the organizational outreach facilitated engagement of a targeted yet diverse population, including individuals connected and unconnected to services.

Survey respondents came from all Manhattan neighborhoods; socio-demographic characteristics included: 54% female, 38% Black/African American, 29% Latino, 27% Asian, 45% foreign born, 27% limited English proficient, 40% on Medicaid and 4% uninsured. The mean age of respondents was 55, with a standard deviation of 16.5 (see Table 1).

Interviews and Focus Groups: Transcripts and focus group reports were maintained and analyzed in NVivo, a software package for qualitative research. Data were coded according to pre-identified themes

Table 1: Demographic characteristics	Manhattan Only
Characteristic	**(N = 621)**
Age (Mean, SD)	54.98 (16.5)
18-20	0.6%
21-44	23.3%
45-64	43.5%
65-74	15.0%
75-84	9.0%
85 and older	3.2%
Missing	5.4%
Gender	
Female	53.8%
Male	44.2%
Transgender	1.5%
Prefer not to Answer	0.5%
Sexual Orientation	
Heterosexual	78.3%
LGBTQI	11.5%
Other/Don't Know/Prefer not to Answer	10.2%
High school graduate or higher	68.8%
Hispanic	28.6%
Race	**(N=553)**
White	19.0%
Black or African American	37.6%
Asian	27.1%
American Indian or Alaska Native	1.1%
Native Hawaiian or othe Pacific Islander	0.4%
Other/mixed	14.8%
Limited English proficient	26.8%
Foreign born	44.5%
Health Insurance	
Medicaid	39.9%
Medicare	14.4%
Private/commercial	9.2%
VA/Other/More than one	31.9%
None	4.4%
Don't Know	0.2%

relevant to health, community needs, and DSRIP, as well as themes emerging from the data themselves. Analysts utilized standard qualitative techniques, involving repeated reviews of the data and consultation between multiple members of the research team. Analyses focused on 1) common perceptions regarding issues, populations, recommendations, etc., 2) the unique knowledge and expertise of particular individuals or groups and 3) explanatory information that facilitated interpretation of primary and secondary source data.

FINDINGS

POPULATION DESCRIPTION

Poverty: Given the DSRIP and CNA focus on low income populations, the significance of poverty and its implications is unsurprising. As noted above, 55% of survey respondents earn less than $20,000 a year and 15% were unable to work or unemployed (25.9%). Overall, 76% of survey respondents report that they worried about not having enough to eat (see Exhibit 1 for detailed data tables).

Although the health related implications of poverty may vary by population, common themes were evident: poverty was described as directly affecting health; affecting prioritization (or de-prioritization) of health behaviors; and as affecting access to health related resources, including nutritious food, stable and well-maintained housing, health care coverage, and medical services.

Discussions focused on the relationship between:

- Access to basic necessities: Key Informants and focus group populations discussed the relationship between the choices residents must make about food, clothing, housing, etc. based on the amount of money they have available.
- Poor health outcomes: Key informants and focus group populations discussed that often lower income populations have poorer health outcomes and a higher prevalence of chronic health conditions and disease due to an inability to afford the treatment and/or lifestyle needed.
- Access to income: Key informants and focus group populations discussed the access residents have to income (i.e., homelessness, incarceration, physical disability, etc.) having an impact on physical and behavioral health outcomes.
- Immigrant residents that have ties and responsibilities to loved ones in other countries may send resources out of the home, which limits resources for this population.

Foreign Born: Large foreign born populations in Manhattan include Chinese (from different countries and provinces), Latinos, and a growing—and increasingly diverse—West African population. Although there are many overlaps, each of these communities has needs related to culture, language, education, and economics, which may impact on health and healthcare use. In addition, the strengths of these and other immigrant communities were emphasized, which may

include close family ties, strong work ethics, and healthy eating habits relative to American born populations.

Concerns about language access obviously suggest concrete requirements with respect to knowledge and skills. CNA participants discussed the role that language plays in seeking healthcare services for residents that have limited English proficiency. When residents discussed language barriers what they often relayed was a disjointed experience when they seek health services. Key informants talked about the role that language barriers play in the comfort level of residents to seek treatment for physical and/or mental ailments, as well as the barrier to effective service provision when language barriers were present:

> *The only thing I can think of, like we've had language barrier problems, but the thing about the Health Home system is that it's such a huge conglomerate that all I have to do if I have a client who's, "I only want to speak to someone in Creole, my native tongue." Actually, we do have two Creole-speaking staff members, but as an example, if I called the Heath Home and said, "This is what I have, I need services," they get back to me within a day with this is your new care management agency, this is their information, this is their counselor, this is where they go. (Key informant, home health)*

> *So one of the studies that we found was we had interviewed clients among our social service agencies just to find out what are some of their primary issues. Language access came up over and over again. So in certain communities, I think about some of our smallest South Asian communities, if they need specialty care, like for the Nepali speaking community, they probably would have a really hard time finding somebody who spoke their language, a cardiologist, for example. They oftentimes would have to rely on family members that could interpret for them or community-based organizations that would have to go with them to their appointments or their treatments. (Key informant, Asian social services)*

Residents described the experiences they have had related to poor translation services in healthcare settings and the way it made them feel. Often times an experience of poor translation services colored the experience residents had and their opinion of healthcare providers.

> *I'm helping a lady from the community who was diagnosed with cancer and has been operated on. She receives her healthcare from Bellevue. One day, I went with her to Bellevue and they had no one on their staff that spoke Spanish. So the doctor got a secretary on the phone who was able to translate and the secretary from over the phone told the lady that the chances of her survival were 1 in 100. They had a secretary tell her that over the phone. I thought that was horrible and insensitive and so that was the icing on the cake. (Participant from a focus group conducted with Latino(a) residents)*

> *Language barrier is also a big concern, because when you speak to them in Spanish then they speak to you in English and they continue, making you feel ignorant. (Participant from a focus group conducted with residents who have limited English proficiency)*

PHYSICAL HEALTH ISSUES

Overview: Survey respondents felt that the most common physical health concerns in their community were drug and alcohol abuse (50%), diabetes (46%), high blood pressure (39%), HIV (33%), and mental health (32%) (see Table 2). Similarly, the most common areas where they reported additional health information was needed were mental health (49%), substance abuse (48%), and diabetes (47%). Community members clearly recognize that obesity was linked to diabetes and heart disease and talked about the need for healthy eating and physical activity.

Smoking: Smoking was discussed in 10 focus groups, with discussions about the impact of cigarette and marijuana smoking. Manhattan residents identified with the negative impact that smoking had on the respiratory health of smokers and non-smokers alike, including children:

> *Everywhere you go you see people of all ages smoking cigarettes, no matter what age group from 12 to 90, everybody's smoking cigarettes and that has to raise some real serious concerns. (Participant from a focus group conducted with residents that have a history of substance abuse)*

> *Asthma is also a major issue. Just the other day I was in the park and there were people smoking cigarettes, they have no respect. Second hand smoke also affects our children. (Participant from a focus group conducted with residents that have limited English proficiency)*

Table 2: Health Concerns	
Adolescent health	8.70%
Asthma	29.10%
Arrests and incarceration	19.70%
Cancer	25.90%
Diabetes	50.60%
Disability	18.90%
Drug and alcohol use	49.30%
Family planning / Birth control	9.50%
Hepatitis	11.30%
Heart Disease	23.10%
High Blood Pressure	43.10%
HIV	28.50%
Maternal and child health	6.20%
Mental health (e.g., depression, suicide)	33.20%
Obesity	31.00%
Pollution (e.g., air quality, garbage)	16.90%
Sexually transmitted infections	20.00%
Stroke	10.00%
Teen pregnancy	13.00%
Tobacco use	30.80%
Violence or injury	21.80%
Other	4.30%

Obesity, nutrition and physical exercise:

Discussions among CNA participants often focused on obesity; particularly as it relates to poverty and the resources to maintain a healthy weight. CNA participants discussed the reality that the resources necessary for health eating (e.g., stores, time to prepare food, money, etc.) were often scarce and unhealthy foods often readily available in lower SES neighborhoods. Participants felt that limited education related to healthy nutrition which also plays a role in the obesity seen in the community.

So, it's about having enough leisure time and flexibility to engage in activities, exercise or yoga or meditation or mental health counseling or cooking. Cooking a healthy meal, or shopping for healthy food, there has to be that leisure time, but also they have to be a routine that builds up and that takes a while. Especially for new immigrants. I don't see the healthcare setting as being the prime impetus for moving healthy lifestyle change. (Key informant, African services)

McDonald's offers these dollar meals. They offer these very cheap meals, so that's very hard to compete with. If you've got four kids and you've got four bucks in your pocket, that's where you're going to go. So I think the poverty issues, the cost issues are still a big issue in this community, no matter what our messaging is. (Key informant, public health)

McDonald's, soda and the advertisement, such as 3 burgers if you buy this then you get this for free, the portion like the soda and fries. So look for how to mess yourself up. The nutritional program here, helped me out a lot, I educated myself. My son loves soda, but now I bought a water filter in where I use it and give him water constantly rather than juices and soda. I educated myself. (Participant from a focus group conducted with residents with limited English proficiency)

I also agree on part of what he said, however what we have to see is that our supermarkets around here take brands like Crasdale which doesn't provide good options on healthy foods and that is what they put on our shelves and it is more affordable, so that is what we are going to buy. Conversely in the other markets they do provide healthy foods but they are more expensive. (Participant from a focus group conducted with Latino(a) residents)

Yeah, but they flood the neighborhood with a lot of liquor stores and have a lot of unhealthy things. All your grocery stores have all these sugary things, all these sugary drinks. They don't have natural things or organic stuff here. (Participant from a focus group conducted with residents living in NYCHA Housing)

When you live in the mental health assisted place and near shelter, you're above everything like fast food places…burger king and pizza places. (Participant from a focus group conducted with residents diagnosed with mental health and medical health comorbidities)

CNA participants also discussed the lack of physical exercise in the community and public schools due to a lack of accessible recreational space, legal liabilities, safety concerns, and time.

So it turns out, we had about a quarter of the kids we figure in this neighborhood go to some afterschool program. East and Central. Some major providers like Union Settlement, RBI, SCAN, etc., Children's Zone, obviously, Children's Aid, and then we try to get a sense of what's going on there. So there was a survey and we found that generally a lot of activities like you'd suspect, but one of the issues was the problem of

regularly scheduling physical activity. It seems like a lot of these afterschool programs that are kind of stuck in classrooms. (Key informant, public health)

Culture and traditional diets were often central to discussions about healthy nutrition related to obesity.

There's many community members who feel in their mind they're transient here and they haven't exactly connected with their communities. And then on top of that they're living in neighborhoods that are very different from the country that they're coming from. For example, there's a plaza where everybody can gather and that isn't necessarily the case in many neighborhoods. They don't even have green space. And then in terms of – I think about farmers' markets, too. Oftentimes I've heard things from our community partners like, "It would be great for our community members to go there." And it's not even a cost issue but a lot of the fruits and vegetables that they sell are things that we don't cook with. Yes, so figuring out how to integrate that. And then the other piece which I felt was interesting, too, was we looked at the food options that are quote "culturally specific" to our communities. They're not the healthiest options, either. (Key informant, Asian community)

Sincerely as Latinos we are usually eating foods that are not so good for us. We eat a lot of rice, pork and of course fried foods. (Participant from a focus group conducted with Latino(a) residents)

Access to healthy foods was described as sufficient in most neighborhoods (the average rating being 2.16 on a scale of 1 to 4), although affordability was most often discussed in relationship to healthy foods:

So, vegetables, and grains, and things of that nature are very important to me. But being on a fixed income, and depending on the neighborhood that you live in, that can be very costly. And the way things are at this time, the more you get, the cost of living increases in your benefits, the more they decrease your food-stamps. By the time you end up getting what you're going to get, and you get let's say $147, that's all for the whole month. By the time you buy some vegetables one time, and some milk, and some bread, and some eggs, the whole $147 is gone. And then, if you live in a building where, let's say, I can only go by my own, by what I go through, if you live in a place where your income is almost, not much, but almost exceeds your expenses, almost exceeds your income, then you're not really able to afford the nutritious things that you need to eat. Then you buy carbs, which are cheap, and that's not good when you're diabetic. (Participant from a focus group conducted with residents living with a physical disability)

Yes those are some of the problems as well. Also around here it is a lot more expensive to buy vegetables than buying a big sack of rice. Right now there is a supermarket on the corner of the senior living center and I don't know how these old folk on a limited income

can afford to eat healthier because the prices will bankrupt them. (Participant from a focus group conducted with Latino(a) residents)

Even where healthy food was available, some CNA participants reported that purchase of unhealthy choices was common.

Because a lot of people go to these fast food restaurants, you go to Chinese food, you go to someplace convenient. A lot of these people need to take care of themselves and eat properly and have the right nutrition within their system. If you're not eating right, it's going to affect your body and you're going to end up having to have illnesses, some type of problem. Then you got to end up going to the hospital. (Participant from a focus group conducted with residents living with HIV/AIDS)

More than one-third of survey respondents reported being in fair or poor health. The most commonly reported health issues were high blood pressure (44%), depression and anxiety (41%) and chronic pain (39%) (see Table 3).

The ability to manage health conditions was impacted by a number of factors, including broader environmental conditions (e.g., indoor and/or outdoor pollution in the case of asthma), knowledge, attitudes, disease management skills, conflicting priorities, depression, and poverty. Culture and traditional choices were discussed as a barrier of successful behavior change. Additionally, it was noted that stores that sell healthy produce often do not offer a variety of ethnic food options.

Table3: Health Status	
	(N=632)
Perceived health status	
Excellent/very good/good	64.6%
Fair/Poor	35.4%
Body mass index (Mean)	
	26.8%
Health issues faced	
Asthma	23.4%
Cancer	7.6%
Chronic pain	38.5%
Depression or anxiety	40.9%
Diabetes	24.8%
Drug & alcohol abuse	19.6%
Heart disease	12.2%
Hepatitis C	9.6%
High blood pressure	43.7%
High cholesterol	34.7%
HIV	17.4%
Mobility impairment	19.4%
Osteoporosis	21.2%

Asthma: One of the most discussed topics among CNA participants was asthma and other respiratory conditions. CNA participants connected asthma with poor housing conditions, and environmental factors (i.e., rats, roaches, mold, second hand smoke, etc.), which are found most often in lower SES communities.

One is sort of these kids who have really bad symptoms often and there are a lot of them in Harlem and a lot of them live in NYCHA. NYCHA's a big issue for our families. The

repairs, the slowness, just the general deterioration over the years. There have been a lot of articles written on that recently,– a consequence of that is that kids are exposed to more triggers, I would say; 50% of our kids live in the projects, so there's that. (Key informant, public health)

But with the asthma, that's also in reference with children, unfortunately, it's very high in Harlem because of the rat, the roaches and bad living conditions. (Participant from a focus group conducted with residents living with a physical disability)

Asthmas is also a major issue. Just the other day I was in the park and there were people smoking cigarettes, they have no respect. Second hand smoke also affects our children. (Participant from a focus group conducted with residents that have limited English proficiency)

CNA participants discussed the positive effects of care coordination and education (i.e., effective ways to employ medications and healthy activities) in residents' ability to effectively manage respiratory conditions like asthma.

Once a parent can understand her child's asthma and how medication plays a role and triggers play a role, she's pretty good at managing that…So that just in terms of getting people more a sense of their own power to manage their lives, the more we can do with that, the better. (Key informant, public health)

Diabetes: Residents often discussed that it can be difficult to manage diabetes due to homelessness, income, and education. Homelessness was cited as a barrier to controlling diabetes in many ways. Residents discussed the food at homeless shelters not being diabetic friendly and the lack of stability making it difficult to develop routines necessary for management of diabetes. Residents often discussed the cost of medications, testing equipment and diabetic friendly foods being more than they could afford. Residents also discussed eating habits as they are shaped by mental health status and cultural practices and the relationship to effectively managing diabetes. Additionally, residents discussed the need for care management in diabetes due to medication regimens and nutritional changes required to manage the disease.

You can't get the proper food. I live in a shelter. I don't eat their food at all, so mine's really up and down, up and down. It's not a good environment for me…Because you can't take all the insulin because of the food. (Participant from a focus group conducted with residents diagnosed with diabetes)

My children's mother was turned diabetic through alcohol abuse. And, medication induced. There's some of the medications we take who are HIV positive, that they're always monitoring your sugar because they're sugar-based. (Participant from a focus group conducted with residents living with HIV/AIDS)

So I now go to the Roberto Clemente Center, which is a very good center for mental health. That's where I found out about how diabetics shouldn't take Seroquels. They shouldn't prescribe Seroquels to diabetics because number one, it raises your sugar. It makes you eat. You sleep and you eat. You sleep and you eat. You understand? \ I'm not

even prescribed Seroquels anymore. (Participant from a focus group conducted with residents diagnosed with diabetes)

HIV/AIDS: When HIV/AIDS was discussed among key informants and focus groups, they discussed the stigma associated with the disease, the avoidance of testing due to a fear of diagnosis, and the unhygienic conditions found in some of the common areas of supportive housing. Key Informants discussed the shift in funding strategies away from outreach and supportive services.

So the system of care for HIV is well-built. What's peeling away are some of the supportive services that keep people in care or bring them to care in the first place. With the community-based programs that used to provide supportive services for HIV Africa Care have been pared down, and there's more of a funder focus on medical HIV care, putting more funding in the hospital setting for case management, HIV case management. And, I think that 70 AIDS service organizations in New York City have closed or merged with another organization since 2009. (Key informant, African services)

It's common areas not being taken care of. I'm scared for my health. And that's why I'm trying to stress to get out of this place. Because my health is important today. And I'm not trying to pick up something I didn't come in here with. And I know, being the person that I am, being HIV positive going on 31 years; I have to be around a clean environment because I don't need to get another disease, on top of what I have there. (Participant from a focus group conducted with residents having experienced domestic violence)

Before I got into housing in Harlem United, they had me living in one of those SROs and it was so unhealthy. Because the bathrooms, they weren't clean. The roaches, the way we were eating, the kitchen privileges. Being HIV, I can't be around all that stuff. I got sick while I was in there. (Participant from a focus group conducted with residents living with HIV/AIDS)

One focus group discussed the desire of youth to become infected with HIV in order to secure affordable housing.

In my community there's a lot of young gay kids coming up and they think that having unprotected sex is cute. They think it's cute because they want to get the virus so they can get HASA or get an apartment. But that's just not the solution. (Participant from a focus group conducted with residents having experienced domestic violence)

Additionally, CNA participants felt there is a persisting lack of education and understanding related to HIV in their communities, which often leads to poor decision making and the spread of the virus.

Well, in the gay community some guys still believe that you can't get STDs if you are on top and some people think that unless you're gay you can't get HIV or AIDS because there's no intercourse. Such as two females think they can't get it because there isn't

intercourse. (Participant from a focus group conducted with residents from the LGBTQ community)

But when I stop people, and I say, "Oh how are you doing? We got a health fair over here, a lot of good information and my company, I work for Harlem United. What we're doing over here, is we're doing free HIV testing…So many people say, nah, I'm OK, I'm OK. I ask them, "Have never been tested." "No." "But you OK. How many girlfriends?" One guy told me, "I only mess with two girls, so I know I'm OK." You know? People are ignorant to the facts. (Participant from a focus group conducted with residents living with HIV/AIDS)

The general consensus among CNA participants is that HIV/AIDS patients have a great deal of resources.

People living with HIV disease or living with AIDS diagnosis have pretty good access to the help and support if they need it in New York City. (Key informant, African services)

BEHAVIORAL HEALTH ISSUES

Mental Health: Behavioral health issues were seen as common in all populations. Thirty-three percent of survey respondents reported that mental health issues were a main concern in their community; 41% report personally facing depression or anxiety.

Residents recognized the lack of stability mental health patients often face as they cycle through hospitals, prisons and homelessness. Additionally, residents discussed the public safety issues related to the decompensation of residents with serious mental illnesses who are not managed consistently. Typical comments include:

Sometimes these people are mental, and they need help, and they need to be institutionalized…A lot of our institutions put out all these people out on the street and then they send them back to go and get medication every day. But these people are not able to do that. They put them out in the street. They put them in housing, they put them in all these places. They're not able to take care of themselves…They need supervisor, but the hospitals don't want to keep them because it costs too much to keep them in the hospital. So they put them on the street and they going around doing all kinds of crazy things. Then what happens? They get arrested, they put them in the jail. They don't get no help from the jail. Then they end up back in the street. Some of them don't want to live in shelters because the shelters are bad. They get victimized in the shelters. (Participant from a focus group conducted with residents living in NYCHA Housing)

Alcohol and Other Drugs: CNA participants discussed the prevalence of substance abuse in their communities. CNA participants recognized that substance abuse and homelessness are heavily correlated and coupled with poor health outcomes. Residents with a history of substance abuse explained that they did not often seek medical care while using:

I don't think I'm going to do that neither. When I was using, I didn't think about going to a doctor. That drug was my doctor. If my tooth hurts, I go smoke some crack. (Participant from a focus group conducted with residents that have a history of substance abuse)

I found out after I wasn't using, everything breaks down then. You find out everything that's wrong with you all at one time. I'm blessed, I only had two medicals and it is a part of fear but I find myself pushing even harder after using, smoking behind people, being around different places, clean places, messy places, things of that nature so always follow up once my mind is clear to make sure that things are coping steady. (Participant from a focus group conducted with residents that have a history of substance abuse)

[A doctor] we were on a panel with her a while ago, and she opened by talking about how she had started a double shift on a Saturday morning, and discharged a guy who was homeless. He came into the emergency department inebriated, had fallen. They kind of fixed him up. She discharged him. That night he came back and had smashed his face and was inebriated. And as she was ordering the expensive tests to see if he had facial fractures, and the plastic surgeon, and everybody had come in, she knew that she would kind of repair this thing. But that he was just going to be back. And until we got housing for him, she was just doing Band-Aids. And I think that's where there's huge opportunity to really make very positive impacts for these individuals if we can find them a place to live. (Key informant, public health)

Residents discussed the prevalence of co-occurrence of mental health and substance abuse and the need for co-location of substance abuse and mental health services

If you go there for psych and you also have an alcohol problem, you've got depression but they say it's either depression or psych. It usually goes hand in hand. You have multiple things that are coming into play like you're saying, you're depressed and you turn to alcohol or you turn to drugs to recover rather than going and getting the help that you really need. (Participant from a focus group conducted with residents without continuous care)

I was in the hospital for 14 days, psych, New York Presbyterian. When I came out of there, I had told them about the alcohol but I was there for 14 days and I was fine but they wanted to put me in one of those rehabs and my health plan wouldn't cover it. They said: "how could she relapse if she's been in the hospital for 14 days". When I came out the cab dropped me off right at my building he gave me $10 and I went out and bought me a bottle. (Participant from a focus group conducted with residents without continuous care)

ACCESS TO RESOURCES AND SERVICES

Resources for Good Health: As noted above, survey respondents in most neighborhoods reported that healthy foods were available or very available. Places to walk, exercise and play were also reported to be available in most neighborhoods (average score of 2.02 on a scale of 1 to 4). In contrast, respondents were less likely to report that affordable housing was available or very available (average score of 2.66 on a scale of 1 to 4). (see Table 4). Consistent with this survey result, CNA participants recognized the relationship between housing stability and health outcomes by often discussing the notable higher rate of mental illness among homeless, the high use of healthcare resources by chronic homeless persons and the high recidivism rates in the medical health and behavioral health industries of persons without stable housing due to the inability to fully implement medical recommendations and lack of oversight/ case management. Key informants and focus group participants both discussed the impact of housing on physical health. Discussions focused on the relationship between:

- Housing conditions on asthma and other chronic health conditions: Key Informants and focus groups discussed the inflammatory impact that poor housing conditions (i.e., lead paint, rats, mold, roaches, bed bugs, etc.) have on chronic health conditions (e.g., asthma).
- Housing stability: Key Informants discussed the positive impact that stable housing can have on reducing the use of health care resources (i.e., ED use) among chronically homeless populations; particularly those residents with mental health or substance abuse issues.
- Homelessness: Key informants and focus groups discussed the negative impact homelessness has on residents related to victimization, street violence, lack of hygiene, access to proper nutrition to manage chronic health issues (i.e., diabetes), etc.
- Communal Housing: Focus groups discussed the poor hygiene found in communal housing (i.e., SROs) and the impact on individuals including persons with existing health conditions (i.e., persons diagnosed with HIV).
- Location: focus groups discussed the location of housing for at-risk populations often being located around unhealthy options with limited access to healthy options (i.e., fast food restaurants, liquor stores, violence, etc.).

Medical services: Approximately one in five respondents reported that there was a time in the last year when they needed healthcare but didn't get it. The most commonly noted reasons for that were "not insured" (26% of the subsample), and "could not get an appointment soon or at the right time" (23%). While survey respondents reported relatively good access to most types of medical care; residents from Lower Manhattan were more likely to report primary care was available. Approximately 83% of survey respondents reported that they had a primary care provider or personal doctor, and 84% reported that had a routine check-up in the last 12 months.

Table4: Health Status (Mean 1-4; 1=Very available, 4=Not available at all)	
	(N=632)
Accessible transportation	1.69
Affordable housing	2.66
Dental services	2.13
Healthy foods	2.23
Home health care	2.13
Job training	2.65
Medical specialists	2.2
Mental health services	2.3
Pediatric and adolescent services	2.18
Places to exercise, walk and play	2.02
Primary care medicine	2
Social services	2.15
Substance abuse services	2.34
Vision services	2.22

Respondents discussed a sense of apathy among residents in communities with a high concentration of poor health outcomes (e.g., penetrating trauma, cancer, heart disease). As described by community residents, when their neighbors suffer from chronic, long-term, and/or poor health outcomes, they begin to believe that they have no power/control in their own health outcomes. This leads to an increase in high-risk behaviors (i.e., substance abuse, high-risk sexual behaviors, etc.).

> *But like I said, it's where the individual comes. I, by experience and I know some people that said, "Oh, no matter what I eat, I going to die." If I eat this or that, don't matter we know we going to die, but if you want to live another day, be conscious. (Participant from a focus group conducted with residents living in NYCHA Housing)*

Focus group participants discussed the cost of healthcare treatment being a barrier to seeking care in both the ED and primary care. Additionally, participants cited the lack of transparency in billing practices as a cause for not seeking healthcare. Also discussed were unaffordable co-pays for outpatient treatment at some mental health providers.

Emergency Department Services: Forty-one percent of survey respondents had been to the ED at least once in the past year and 11% of respondents report receiving their primary care at the ED. Often focus group participants expressed a resistance to visiting the ED due to cost; however, there were participants that discussed having to seek treatment at the ED due to a lack of insurance:

If you're sick, really sick, you need to go and they can't turn you away. They know this. I don't have insurance yet, I tend to go to the emergency room and they can give me pain medication, they can give me a needle in the back but when you look at it, I don't have money for insurance but now you tell me I'm getting into this big hole, debt from going to get care. (Participant from a focus group conducted with residents without continuous healthcare)

There is a factor that hinders people's overall health. I work and have a good health insurance, however I have friends that need to visit health facilities but don't go because they have no health insurance or any way to cover it out of pocket. So they don't get medical attention and there conditions worsen…But by law no one can be rejected from the hospital….Yes, but then they make you wait or tell you to come in weeks later. (Multiple participants from a focus group conducted with Latino(a) residents)

A key informant related to geriatric care explained their perspective of preventable hospitalizations related to patients that have been discharged from the hospital before they were able to be sustained in a less intensive setting:

I would say, I'm going to give them the benefit of the doubt and say 7 out of 10 times, if my folks are saying, "They got here too soon. They had to go back," they're probably right. If somebody goes back right away within one or two days, that's a cause for concern in that hospital relationship. If someone goes back after two weeks, then you just have to start asking questions about, "Well, what's going on here, and is the event really so acute in nature that we can't handle it?" (Key informant, geriatric care)

Behavioral Health Services: Study participants discussed the need for care coordination, medication management and cultural sensitivity among behavioral health providers. Additional participants discussed the limited capacity and effectiveness of many behavioral health services available in Manhattan.

CNA participants often discussed the lack of consistent behavioral health services and a lack of capacity at institutions that are often filled, causing residents to have to wait to receive services. Additionally, high turnover rates among mental health professionals were identified as a key cause for disruption of consistent care, and was identified as a possible cause for non-adherence to medication. One focus group participant discussed the loss of his psychiatrist and lengthy process in securing a new provider due to a lack of insurance. A process that had caused him to run out of his mental health medication and begin to decompensate:

From my experience, I have been to depression real bad. But for me, it's Department of Corrections. I've been in the system all my life, 28 years. Come out here, nothing out here for me. Get real depressed. Right now I'm a little depressed because I just moved in a new place. The psychiatrist at my other spot, she moved back to Canada, then I don't have a psychiatrist. Then the list here is a two month list. I went back to see, I went to my

parole case manager. They trying to see if they can up the appointment because I'm going through it. Because right now, I'm outside at nighttime, I don't even want to go back in my apartment sometime. I feel comfortable in the street. So, when I'm taking medication, I feel comfortable, not feel comfortable, I feel alive. Since I'm not taking them, I feel like…. (Participant from a focus group conducted with residents living with HIV)

The availability of culturally sensitive care can impact the leverage communities have in managing issues like suicide, substance abuse, etc. One key informant shared that there are issues in the Asian-American community that are not culturally appropriate to discuss:

So, Asian-American young women have the highest rate of suicidal ideation among all racial ethnic groups. And we find something similar, not just with the young people, but senior – Asian-American women who are seniors as well…So we definitely know that that's a big issue. And even among our – we have a young people's program here. And one of the first projects that they wanted to work on was the need for mental health services at their schools, particularly among counselors who are knowledgeable about their communities. And so it is a big issue. And I think there's a lot of stigma across the board of getting services. Some things that we hear are even the parents who understand that there are young people that could really benefit from getting treatment and services, it's like let's just keep it in the family. We'll go ahead and we'll find a place and just don't let anyone else know. Because I think for a lot of them, they just come from cultures where it's not okay to talk about that. Or it's either a reflection on the parents, right? Or it's maybe you did something in a previous life or they're crazy, right? But I definitely see it more among immigrants – even immigrants who have been here for 30, 40 years, are still like, just keep it within the family. I think substance abuse is something that is definitely not talked about. But in the work that I've done, alcoholism in certain communities is definitely something that people just don't want to acknowledge. In the Filipino community, for example, it's called shabu, but it's equivalent to crystal meth. That's definitely – and Asians around addiction, as well as gambling addiction. Domestic violence, definitely, and family violence. (Key informant, Asian social services)

Dental Care: Survey respondents felt that dental services are available or very available in their community (average rating of 2.13 on a scale of 1-very available to 4 not available at all); 59% reported having been to the dentist in the prior 12 months. Focus group participants with good coverage reported using dental services consistently, a number of participants described dissatisfaction with services, commonly due to the high cost, lack of coverage and/or a lack of experienced providers offering dental care to lower-income populations.

I went to the dentist. That my insurance led me to, you gonna go over here and they're going to go over there, because they're paying. And they said it to me just like that. (Participant from a focus group conducted with residents having experienced domestic violence)

Insurance: Manhattan residents discussed frequent experiences of confusion (e.g., which providers accepts which insurances?); they describe as a constant shift in insurance provision that is difficult to keep up with. Residents also discussed the different levels of care provided to residents based on the type of insurances they have. Often residents discussed the experience level, bedside manner and quality of provider care being lower for Medicaid Beneficiaries than it is for residents with other types of insurance:

I think the other barrier is people feel very strongly – and this came out of the needs assessment too – that when they have different – and this came out in the focus groups – when they had different kinds of insurance, they definitely felt a difference in how they were received by the frontline staff, by the health care provider. So if you didn't have insurance, you had Medicaid, you had a certain kind of Medicaid, you were treated a certain way. And this is from people who had different kinds of insurance in their lives, or family members who had private health insurance and when they had Medicaid they felt a difference in the interactions. (Key Informant, Healthcare advocate)

You go to an emergency room, they're going to analyze what your insurance is first before they serve you. It isn't like you can go in there and come out after. They're going to see if they can get their money first on the temperature of how they're going to treat you. (Participant from a focus group conducted with residents living with HIV)

I don't know what the reason is, but I think it's the lack of; it's got to be a lack of communication, first and foremost. Then being a minority with state insurance, not private insurance because there's a difference and it came up in my face when I went to the dentist. That my insurance led me to, you gonna go over here and they're going to go over there, because they're paying. And they said it to me just like that. I felt some kind of way. Okay, but I know where I'm at and I know why I chose to be where I am at, but the fact that my insurance, it's not where it's at I need to go over here. So I'm being treated by the interns. Whereas you're getting treated by a doctor that has skills. Okay, so you got the ones that have to be taught how to treat it and then you got the ones that are experts on how to treat it. (Participant from a focus group conducted with residents having experienced domestic violence)

While residents experience many barriers to care; CNA participants discussed the barriers posed by the cost of care and lack of insurance coverage. One key informant shared the results of a study conducted with Asian social service clients where language and cost of care were the top two barriers to seeking health services:

Language access came up over and over again. But the bigger issue was actually the cost of services, which I thought was really interesting because it was much higher than

language access needs. And so oftentimes they would forego getting any care, getting screenings, or even if they were deathly ill, they will totally wait until the end, and even with people who had insurance, because they were afraid of the cost of care. (Key informant, Asian social services)

Respondents suggest that there is a lack of quality providers accepting Medicaid, specifically for specialty care.

And so there's a gap in primary care providers' ability to find specialists who are accepting Medicaid or different kinds of insurance. And so that continues to be an issue and one that doesn't get talked about. I think dental care is big. That's something that we saw in the health needs assessment that we did as well, that people are very concerned about that. Behavioral health therapy is also big. (Key informant, health advocate)

Supportive Services

CNA participants, key informants and Manhattan resident groups alike, recognized the benefits of care coordination as well as the poor health outcomes when care coordination is absent. CNA participants discussed the need for medication management, provider consistency and provider engagement in both mental health and primary care settings. The discussions often focused on the successful management of mental and physical illnesses, including chronic illness, when providers were engaged, provided follow-up and medication evaluations.

A group of diabetic residents with unstable diabetes discussed the success of a program helping them control their historically uncontrolled diabetes due to the engaging nature of the coordinator and the accessibility of services:

[Our coordinator] helps me a lot. When I talk to [the coordinator] out of his office, I feel good after I talk to [the coordinator]. He makes me feel there is somebody in my corner, there is somebody that cares. I'm getting choked up for real right now. But seriously, he really does. I feel good when I leave his office. I know I can call him up because he tells me, "--, if you need to talk, call me up." … I did so well that I no longer qualified for his program…that should tell you how important it is to have something like this…Because it's like a one-on-one thing. He's one-on-one and has connections. He knows the nutritionist and, "You know what? I got this information about this nutritionist." Or he knows about particular places you may go, and can look it up. [The coordinator], he even takes information that you have to bring to him, and he involves himself with it and helps you with that and lets you know what you need to know so you can talk to your endocrinologist…It's good having someone that knows exactly what his position is, is what it does for us, .he helps you out. He helps you manage the care, and he gives you information that you really need. If you don't have any type of connections or anything like that, he can help direct you to whatever other services are out there…Yeah, oh, he's

good. He is good. (Multiple participants from a focus group conducted with residents diagnosed with diabetes)

The same group, who when asked how this program was different from other programs they had experienced in the past, said:

[Other programs] Not caring at all…The most important, right? They don't care…Not giving you the materials that you're supposed to read up on about diabetes. You're just being diagnosed with it. I'm just speaking for me. You're just being diagnosed with it. Like I said, I've been diagnosed in emergency room, and I never knew nothing about it. When I went to that clinic over there, they really didn't, like [the coordinator], like I've only been to [the coordinator] twice, right? He gave me more information about being diabetic and what we're supposed to do and the material papers and stuff like that to read up on. (Multiple participants from a focus group conducted with residents diagnosed with diabetes)

One resident discussed her experience with a provider that completed a comprehensive medication evaluation to find that she was taking medications that she no longer required, which were negatively impacting her health:

I don't know about anybody else but with me I have quite a few things. I take like six pills a day , everything that y'all can think of but I was going to three hospitals and all those hospitals giving me the same medications. I take six pills a day. I moved from one hospital to another and they checked my heart out. Cost 3,800 dollars. The $800 I have to pay now so the 3,000 my plan paid. My new doctor, he took me and he examined me. One pill was for the heart, which was no good. He said in less than 30 days I could be dead. One pill was for cancer. Co-payment was $140 payment for all three pills. He tell me put it on the table, he said. And another one, he said was for kidney and when he mentioned that, I put all the medications on the table. He said if you take either one of these pills, he said your family might be burying you. He said because how long. I said I took those pills for six years. Six years… I only take 3 pills now…I feel good. (Participant from a focus group conducted with residents living in NYCHA Housing)

Care Coordination/Case Management: Across populations and conditions, care coordinator and case management models were described as highly effective approaches for improving health and reducing health care use. Multiple key informants cited research studies that demonstrated positive outcomes during implementation of care coordination programs. Responsibilities of care coordinators included linkage and serving as liaison to multiple providers, health education, assisting with accessing entitlement and supportive services, and monitoring the stability and engagement of clients.

Key informants talked about the need for continuity of care in more transient populations in order to manage chronic illnesses, as well as the relationship between insurance type and the level of care continuity provided in some facilities:

> *I think what I found in research I've done on my own in previous jobs, it's continuity of care is what needs to be…is the biggest thing that will inspire better outcomes…I think it's the nature of certain diagnoses that it's, yes, harder to sustain kind of stability or housing or all the pieces that, if those are in place, then you can stabilize care. (Key informant, home health)*

> *Yes. I think depending on where people are getting seen there is a whole question around continuity of care that comes up as well. So, I don't know if this is strictly related to insurance, but for some of the teaching hospitals where you have residents rotating in and out, it's those residents they're seeing more likely, which I think is the case between uninsured or Medicaid patients, it becomes an issue with. (Key Informant, Healthcare advocate)*

Residents often discussed the turnover rates among providers of both physical health and mental health services. Discussions focused on the resident's lack of trust and comfort in engaging with new providers once they have lost previous providers. Residents also focused on the confusion that consistently rotating providers can cause, particularly for seniors and mentally ill patients. Additionally, residents discussed the lack of continuity of care resulting from changing providers.

> *Group Discussion (Multiple speakers): They do change the doctors on you a lot. All the time. You have a doctor sometimes for month or two months, until you go again. They change you to somebody else and they'll change you to a different plan, too…It's confusing to some people, especially elderly people who don't understand, who are used to having one doctor. Then when they come back, then they have somebody else telling them something else. You don't feel comfortable because you are used to the doctor that you had for so many years. (Multiple participants from a focus group conducted with residents living in NYCHA Housing)*

> *Group Discussion (Multiple speakers): Yeah, there's groups that are available, there's also individual counsel, the only issue with individual counsel is sometimes you get someone who is a resident, or in training… And then, next year someone else, and then next year is someone else… when you are doing something personal like that and talking to somebody in a meeting, you need somebody who is there all the time to build a relationship with and trust…Yes, to be comfortable with…No continuity of care.*

(Multiple participants from a focus group conducted with residents living with a physical disability)

Every time you get a new doctor it is like starting all over again. I had a therapist for almost four years. He told me a week before he was leaving. I don't even want to go to a therapist now. (Participant from a focus group conducted with residents diagnosed with mental health and medical health comorbidities)

Quality of Care

Several concerns related to quality of care were repeatedly raised in focus groups and key informant interviews. Each of these were reported to contribute to delays in care, neglect of care, poor adherence to medical recommendations, and poor health outcomes.

While many of the participants in the CNA discussed having access to care there were discussions around the length of time it takes to secure an appointment with primary care providers. Participants made the link between the amount of advance notice one must have to secure an appointment at the doctor (e.g., four months), which often leads residents to seek treatment in the ED due to the urgency of their medical condition.

It's still very common sense but sometimes it feels like that message is not getting across to providers who maybe they're … or the hours are at a time when it's really inconvenient for people. Or people say it's not rational to go to the emergency room for care, but when we talk to people, they would say things like, "Well, I tried to make an appointment with my doctor, and it's like four months in advance." What rational person is going to wait four months rather than go. So there just seems to be very common sense things that people are experiencing but we're not hearing people vocalizing it and saying this is not how I access care, this is not the optimal way or this is a barrier. The challenge I think is hard if you're stuck in the institutional setting where you're looking at it like, "What are good hours for my doctor to be working" kind of thing. There's that disconnect. I think things like that. (Key informant, Health advocate)

We should push for walk-in rooms where if you wake up with a problem, you can go to the walk-in room and not have to either call to make an appointment and wait several weeks or go to the emergency room. People should not only have the option of an emergency room or wait a few weeks for a doctor to see them. If there were more walk in rooms where people can get their care from, we would keep a healthier community and people would not have to be compelled to go to the emergency room. We would have better health results at a lesser cost. (Participant from a focus group conducted with Latino(a) residents)

Another problem was the wait to see a physician is very, very long. (Participant from a focus group conducted with residents living with HIV)

Doctors give you appointments too late. (Participant from a focus group conducted with residents with limited English proficiency)

Focus group participants discussed their experiences when visiting the emergency department:

I've gone to the hospital ER before, Metropolitan. I had what I thought was a cold. I went there two weeks in a row, and they kept on saying it was a cold. And I said, "You do additional tests." They would not do it. They just sent me back out. I went to a different hospital, Bellevue, and I had pneumonia. It was just really crazy that some hospitals won't do additional tests to figure out the issues just because you've been there multiple times. (Participant from a focus group conducted with residents living with HIV)

Manhattan residents discussed the need for sensitivity among providers and staff in health care settings to effectively treat clients. Often discussions focused on the lack of sensitivity in healthcare settings, which often lead patients to resist necessary care:

Group discussion (multiple speakers): This is what I see. They'll read your information and still call you on what they see in front of them. There was a representative there, read my stuff, read it loud over the speaker and he still ends up addressing me as sir. And that was a first. I've never had that before. They're not gender sensitive. They're not friendly enough. (Multiple participants from a focus group conducted with residents living with HIV)

And then the other piece is when you look at specialty care, say around mental health, for example, if an individual wants to go to someone who's culturally competent, we don't have a lot of Asian-Americans who are going into fields like mental health or behavioral health issues. Those that specialize in substance abuse. So oftentimes it's like you got them through the door and now what's going to happen? (Key informant, Asian social services)

There are few culturally competent and linguistically competent mental health services available to the African community, so we started a small mental health counseling program initially for HIV clients, but we've expanded it to clients with any kind of trauma. (Key informant, African services)

SPECIFIC POPULATIONS

Low income, uninsured, and immigrant populations, as described above, face a number of multiple barriers to optimal health and health care use. However, within these populations, there are a number of groups for which the barriers are exacerbated. These include individuals with disabilities, criminal justice involved, homeless, and young adults transitioning out of foster care. A number of these groups are also high users of expensive medical services due to a combination of greater medical need and barriers to community based services.

Individuals with Disabilities: Individuals with physical and/or cognitive disabilities are disproportionately low income, unemployed, and have a high number of co-morbidities,

including obesity, hypertension, and cardiovascular disease. Despite a high need for services, they reportedly delayed care because of poor accommodation (e.g., absence of ramps, sign language interpreters) and providers that are insensitive to both their capabilities and their limitations. These access barriers—and their implications— were described by CNA participants. Unfortunately, barriers are considered more significant in community as compared to hospital settings so may become more pronounced as—consistent with the goals of DSRIP—services move into the community.

> *I was very sick at one point very, very sick and that lady was there every day. Now when you go to the hospital, they don't get paid. The home attendants don't get paid, and I was there for three weeks. (Participant from a focus group conducted with residents living with a physical disability)*

> *Unfortunately, my issue with mental health is being a person in a wheelchair, a lot of times, these people, instead of looking at, and I'm sorry for saying these people, because now I'm doing what they do to me, but they freaking look at me like my concerns are not valid. (Participant from a focus group conducted with residents living with a physical disability)*

Criminal Justice Involved: CNA participants discussed the impact incarceration has on physical and mental health as well as socioeconomic status. Focus groups discussed the poor quality and limited capacity of medical and mental health services in prison.

> *I don't think New York City does enough to treat the mentally ill. Right now, like, my husband, mentally ill and he also has substance abuse problems. It's very hard on us, you know? Also, I don't think those who work in certain occupations, such as corrections, are trained properly. Because, to deal with the mentally ... Because my cousin, he's a schizophrenic. He beat a guy up one night. He was wandering the streets and he beat some guy up, and he had went to Riker's Island and instead of them helping him, they put him in a cell and he end up getting the crap beaten out of him. (Participant from a focus group conducted with residents living with HIV/AIDS)*

> *I also want to go with the jail system. I was incarcerated before in Riker's Island, I've never been upstate. They help you in no kind of way. You go in and you're coming out worse than you went in. You sit in the receiving room which is where you do your doctor, 2 days. 2 days in order to get into a cell or into a dorm to get into your bed. 2 days. I learnt my lesson. I'm never going to jail again in my life but I want to say too that it just goes across the board, they're building more jails everyday but the hospitals are shutting down. (Participant from a focus group conducted with residents that have a history of substance abuse)*

Participants discussed the lack of support services available for previously incarcerated individuals post-release particularly transitional housing, employment, and mental health.

> *The assistance you need. They don't have the assistance you need… To keep you out [of prison]. To help you transition to being free. I had to look for all that myself. They didn't assist me in any way. (Participant from a focus group conducted with residents living with HIV/AIDS)*

> *That's what they did. They started out on the Step program. They have you thinking okay when you come out they're going to get you an apartment and then they don't. (Participant from a focus group conducted with residents diagnosed with mental health and medical health comorbidities)*

Homeless Population: The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. CNA participants recognized the relationship between housing stability and health/behavioral health outcomes by often discussing the notable higher rate of mental illness among homeless, the high use of healthcare resources by chronic homeless persons and the high recidivism rates in the medical health and behavioral health industries of persons without stable housing due to the inability to fully implement medical recommendations and lack of oversight/ case management. Key informants and focus group participants both discussed the impact of housing on physical health. Discussions focused on the relationship between:

- Housing stability: Key Informants discussed the positive impact that stable housing can have on reducing the use of health care resources (i.e., ED use) among chronically homeless populations; particularly those residents with mental health or substance abuse issues.
- Homelessness: Key informants and focus group populations discussed the negative impact homelessness has on residents related to victimization, street violence, lack of hygiene, access to proper nutrition to manage chronic health issues (i.e., diabetes), etc.
- Communal Housing: Focus group populations discussed the poor hygiene found in communal housing (i.e., SROs) and the impact on individuals including persons with existing health conditions (i.e., persons diagnosed with HIV).
- Location: Focus group populations discussed the location of housing for at-risk populations often being located around unhealthy options with limited access to healthy options (i.e., fast food restaurants, liquor stores, violence, etc.).

Homeless individuals are reported to be frequent users of emergency services, not only because of health conditions but because of the instability in their lives.

[A doctor] opened by talking about how she had started a double shift on a Saturday morning, and discharged a guy who was homeless. He came into the emergency department inebriated, had fallen. They kind of fixed him up. She discharged him. That night he came back and had smashed his face and was inebriated. And as she was ordering the expensive tests to see if he had facial fractures, and the plastic surgeon, and everybody had come in, she knew that she would kind of repair this thing. But that he was just going to be back. And until we got housing for him, she was just doing Band-Aids. And I think that's where there's huge opportunity to really make very positive impacts for these individuals if we can find them a place to live. (Key informant, supportive housing)

Young Adults Transitioning Out of Foster Care: In New York, foster children are able to remain a ward of the state until they are 21. There are professionals in place to guide this transitional process. However, focus group participants told stories of overworked professionals and delayed or missed opportunities in preparing to transition to self-sustainable adult living (i.e., drivers licenses, housing, employment training, etc.). As a result, these young adults often go through a series of transitions with little to no support or guidance:

A lot of kids are not even educated. That's the problem. These kids are not educated. It's a lot of foster kids that's growing up with not even the right proper training and the right home care and the right wisdom to even get through life or even know what it is. So, it's about education. (Participant from a focus group conducted with young adults 18+ transitioning out of foster care)

There's a chance that I might be more at risk because of my social environment. I'm 21. I'm already on one extension. My social worker, last time I saw her, she said she was going on vacation and then will see me when she came back. I don't know if she filled out the paper work for the extension or not. (Participant from a focus group conducted with young adults 18+ transitioning out of foster care)

My social worker, I don't know … She went on vacation and told me she will see me when she gets back. I don't know if she quit, got fired, or just decided I'm not coming back. All of a sudden, come to my agency, she doesn't work there no more. My new social worker, something that, she was giving me stuff to fill out like if you need care, how to get it. Some paperwork that you have to fill out to get insurance after you leave care, stuff like that. It's crazy because she asked me, "Did she give this stuff to you?" I'm like, "No." She said she was supposed to give this stuff to you when you were 19. She never gave me this stuff. I was like, "No, she never did." this is the reason why there might be a chance why I might be homeless, because right now, they're trying to push for me to get a second

extension, at least until November. They're trying right now. My social worker, I already know that when you're in foster care, by the time you're at least 18-19 years old, that's when they usually start putting in the process. I am 21! (Participant from a focus group conducted with young adults 18+ transitioning out of foster care)

DISCUSSION

Manhattan community members and other stakeholders are clearly interested in partnering with hospitals and being part of solutions that promote good health and reduced hospitalizations. Focus group and interview participants articulated specific barriers to good health and good health care, many of which were related to poverty and its consequences, including unstable housing, and the need to prioritize expenditures—even among basic needs. For specific groups, including the disabled, young adults transitioning out of foster care, criminal justice involved, and the homeless, health-related barriers were compounded, due to both attitudinal and practical considerations.

Focus group and interview participants also articulated potential "fixes," such as increased ease of access for medical visits (e.g., reduced wait time, reduced insurance restrictions, increased integrated care); improved provider sensitivity; and a range of supportive services, including care coordinators—particularly for difficult to manage medical conditions and high risk populations. Health education, addressing (for example) prevention, screening, disease management, insurance, and increased capacity for the treatment of mental health issues, was considered essential at the individual and the community level, to ensure that the population has the knowledge and skills necessary for independent action that promotes their own good health.

Table 1: Distribution of Responses (N=605)*

UHF Neighborhood	UHF code	Zipcode	Frequency	%
Washington Hgts/Inwood	301	10031, 10032, 10033, 10034, 10040	49	7.2%
Central Harlem/Morningside Hgt	302	10026, 10027, 10030, 10037, 10039	160	23.6%
East Harlem	303	10029, 10035	99	14.6%
Upper West Side	304	10023, 10024, 10025	27	4.0%
Upper East Side	305	10021, 10028, 10044, 10128	8	1.2%
Chelsea/Clinton	306	10001, 10011, 10018, 10019, 10020, 10036	54	8.0%
Gramercy Park/Murray Hill	307	10010, 10016, 10017, 10022	10	1.5%
Greenwich Village/Soho	308	10012, 10013, 10014	24	3.5%
Union Sq./Lower Eastside	309	10002, 10003, 10009	188	27.8%
Lower Manhattan	310	10004, 10005, 10006, 10007, 10038, 10280	58	8.6%
			677	100.0%

* Only included responses with zipcode

Table 2: Demographic characteristics

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan
Age (Mean, SD) (N=677)	45.3 (15.3)	52.9 (14)	48.3 (12.7)	55.6 (14.6)	44.8 (21.4)	51.8 (14.2)	63.7 (11.4)	51.9 (16.6)	56.5 (17.4)	71.8 (13.5)	54.4 (16.4)
18-20	4.1%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	1.7%	0.6%
21-44	36.7%	21.3%	34.3%	14.8%	50.0%	27.8%	0.0%	29.2%	25.0%	5.2%	24.5%
45-64	42.9%	55.6%	55.6%	63.0%	0.0%	48.1%	50.0%	33.3%	38.3%	10.3%	44.2%
65-74	10.2%	5.0%	4.0%	7.4%	37.5%	7.4%	40.0%	25.0%	19.1%	39.7%	14.0%
75-84	0.0%	5.6%	3.0%	14.8%	0.0%	3.7%	0.0%	0.0%	13.3%	27.6%	8.7%
85 and older	0.0%	1.3%	2.0%	0.0%	0.0%	1.9%	10.0%	4.2%	3.2%	13.8%	3.1%
Unknown	6.1%	11.3%	1.0%	0.0%	0.0%	11.1%	0.0%	8.3%	1.1%	1.7%	4.9%
Gender (N=667)											
Female	39.6%	49.0%	40.8%	51.9%	12.5%	45.3%	77.8%	50.0%	58.1%	80.7%	52.2%
Male	52.1%	50.3%	58.2%	44.4%	87.5%	50.9%	22.2%	37.5%	40.9%	19.3%	45.7%
Transgender	6.3%	0.6%	0.0%	0.0%	0.0%	1.9%	0.0%	8.3%	1.1%	0.0%	1.3%
Unknown	2.1%	0.0%	1.0%	3.7%	0.0%	1.9%	0.0%	4.2%	0.0%	0.0%	0.7%
Sexual Orientation (N=643)											
Heterosexual	75.0%	78.4%	83.2%	74.1%	87.5%	57.7%	57.1%	65.2%	81.8%	87.0%	78.1%
LGBTQI	20.8%	17.0%	11.6%	14.8%	12.5%	28.8%	28.6%	13.0%	6.8%	9.3%	13.8%
Unknown	4.2%	4.6%	5.3%	11.1%	0.0%	13.5%	14.3%	21.7%	11.4%	3.7%	8.1%
High school graduate or higher (N=649)	91.5%	79.9%	84.9%	81.5%	75.0%	80.8%	90.0%	81.8%	59.6%	48.3%	73.3%
Hispanic (N=646)	33.3%	25.8%	23.2%	15.4%	25.0%	28.0%	12.5%	17.4%	37.7%	35.2%	29.4%
Race (N=630)											
White	28.9%	14.6%	6.7%	14.8%	50.0%	32.0%	44.4%	20.8%	16.0%	22.8%	18.1%
Black or African American	46.7%	62.9%	65.6%	48.1%	12.5%	24.0%	33.3%	4.2%	8.9%	12.3%	36.0%
American Indian or Alaskan Native	0.0%	2.0%	4.4%	3.7%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	2.1%
Asian	2.2%	2.6%	4.4%	11.1%	12.5%	18.0%	22.2%	45.8%	49.1%	59.6%	24.1%
Native Hawaiian or other Pacific Islander	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.3%
Other	15.6%	14.6%	12.2%	7.4%	25.0%	18.0%	0.0%	16.7%	17.8%	0.0%	13.8%
Unknown	6.7%	2.6%	6.7%	14.8%	0.0%	8.0%	0.0%	12.5%	4.7%	5.3%	5.6%
Unemployed (N=659)	29.2%	41.3%	41.5%	19.2%	12.5%	37.0%	20.0%	13.0%	13.1%	3.4%	26.4%
Always/sometimes worry about not having enough money to pay for food or housing (N=677)	67.3%	68.8%	62.6%	51.9%	50.0%	75.9%	60.0%	66.7%	61.7%	50.0%	63.7%

Table 3: Language

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan
Primary langauge spoken at home (N=660)											
English	83.3%	89.5%	89.5%	81.5%	75.0%	74.1%	70.0%	50.0%	36.1%	22.4%	64.8%
Spanish	8.3%	7.2%	4.2%	7.4%	12.5%	9.3%	10.0%	8.3%	17.5%	29.3%	12.0%
Arabic	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.5%	0.0%	0.3%
Chinese (Mandarin, Cantonese, or other)	2.1%	2.6%	2.1%	7.4%	12.5%	14.8%	20.0%	33.3%	44.8%	44.8%	20.6%
French	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.2%
Haitian/French Creole	4.2%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
Hindi	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Italian	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Korean	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russian	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Urdu	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Yiddish	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.5%
Other	0.0%	0.7%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	0.6%
Unknown	2.1%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	0.5%
English proficiency (N=677)											
Very well/well	93.8%	91.4%	96.8%	85.2%	100.0%	84.9%	70.0%	75.0%	48.1%	40.4%	74.2%
Not well/not at all	6.3%	8.6%	2.1%	14.8%	0.0%	15.1%	30.0%	20.8%	48.6%	59.6%	24.5%
Unknown	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	4.2%	3.3%	0.0%	1.2%
Foreign born (N=677)	27.1%	35.9%	22.7%	48.1%	25.0%	34.0%	33.3%	34.8%	61.4%	68.4%	43.4%

* only those who indicated ever not getting healthcare when needed

Table 4: Health-related characteristics

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan
Perceived health status (N=636)											
Excellent/very good/good	83.0%	72.7%	78.0%	66.7%	75.0%	72.5%	33.3%	62.5%	58.8%	32.7%	65.9%
Fair/Poor	17.0%	27.3%	22.0%	33.3%	25.0%	27.5%	66.7%	37.5%	41.2%	67.3%	34.1%
Body mass index (Mean, SD)* (N=562)	26.3 (5.6)	26.6 (5.8)	28.6 (7.2)	28.3 (6.1)	25.2 (5.2)	27.6 (5.4)	28.7 (8.3)	24.1 (4.1)	25.9 (5.7)	26.1 (5.8)	25.2 (5.2)
Underweight	0.0%	5.8%	1.3%	0.0%	0.0%	0.0%	0.0%	5.3%	2.5%	3.8%	2.8%
Normal	44.1%	33.6%	26.6%	34.8%	57.1%	34.1%	55.6%	57.9%	51.6%	45.3%	40.9%
Overweight	38.2%	39.4%	40.5%	26.1%	28.6%	43.2%	22.2%	26.3%	29.9%	32.1%	35.1%
Obese	17.6%	21.2%	31.6%	39.1%	14.3%	22.7%	22.2%	10.5%	15.9%	18.9%	21.2%
Have health insurance (N=677)											
Medicaid	34.7%	44.4%	46.5%	18.5%	25.0%	42.6%	10.0%	41.7%	34.0%	8.6%	36.0%
Medicare	16.3%	16.9%	11.1%	11.1%	25.0%	5.6%	0.0%	8.3%	9.6%	27.6%	13.3%
Dual Eligible	10.2%	15.0%	13.1%	29.6%	25.0%	16.7%	60.0%	12.5%	14.9%	41.4%	18.0%
Private/commercial	14.3%	4.4%	5.1%	14.8%	12.5%	7.4%	10.0%	16.7%	11.7%	3.4%	8.4%
VA	0.0%	0.0%	1.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Other	2.0%	1.3%	5.1%	3.7%	0.0%	1.9%	10.0%	4.2%	3.7%	0.0%	2.8%
More than one insurance	4.1%	6.9%	3.0%	7.4%	0.0%	3.7%	10.0%	8.3%	12.2%	13.8%	8.0%
Uninsured	18.4%	11.3%	15.2%	11.1%	12.5%	22.2%	0.0%	8.3%	13.8%	5.2%	13.1%

***BMI categories** less than 18.5 : underweight; 18.5 to 24.9 : normal; 25.0 to 29.9 : overweight; 30.0 or higher : obese

Table 4: Healthcare utilization

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Have a primary care provider/personal doctor	69.4%	86.9%	71.7%	81.5%	100.0%	83.3%	80.0%	75.0%	78.7%	82.8%	79.9%
Have a usual place to go for non-emergency health services	75.5%	76.9%	62.6%	81.5%	75.0%	74.1%	80.0%	83.3%	75.0%	77.6%	74.4%
Use complimentary or alternative treatments or remedies	26.5%	38.1%	36.4%	37.0%	37.5%	44.4%	50.0%	45.8%	49.5%	34.5%	40.8%
In the past 12 months:											
Had routine check-up	73.5%	80.6%	78.8%	81.5%	87.5%	75.9%	80.0%	70.8%	85.1%	87.9%	81.1%
Have been to a dentist	55.1%	60.0%	54.5%	44.4%	62.5%	68.5%	80.0%	62.5%	55.3%	63.8%	58.3%
Have gone to a hospital emergency room at least once	18.4%	25.6%	18.2%	18.5%	12.5%	22.2%	10.0%	8.3%	19.7%	15.5%	19.9%
Need healthcare but didn't get it	24.5%	21.9%	22.2%	14.8%	0.0%	25.9%	10.0%	29.2%	19.7%	5.2%	19.9%

Table 5: Place for non-emergency healthcare services*

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=578)
Type of place											
Primary care doctor's office	52.5%	56.8%	44.9%	48.0%	42.9%	31.3%	50.0%	57.9%	45.3%	64.7%	49.7%
Specialist doctor's office	5.0%	3.6%	1.3%	4.0%	0.0%	2.1%	10.0%	5.3%	3.7%	7.8%	3.8%
Community/family health center	22.5%	10.1%	17.9%	28.0%	28.6%	27.1%	40.0%	21.1%	14.3%	3.9%	15.9%
Hospital-based clinic	12.5%	20.9%	19.2%	8.0%	0.0%	18.8%	0.0%	10.5%	11.2%	9.8%	14.7%
Private clinic	0.0%	4.3%	5.1%	0.0%	14.3%	12.5%	0.0%	5.3%	15.5%	11.8%	8.5%
Emergency room	2.5%	1.4%	5.1%	4.0%	14.3%	2.1%	0.0%	0.0%	3.1%	0.0%	2.6%
Urgent care	0.0%	0.0%	1.3%	4.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.5%
Pharmacy	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Drug treatment center	0.0%	0.0%	3.8%	4.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.9%
Mental health center	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	1.2%	0.0%	0.5%
Alternative care (e.g. herbalist, acupuncturist)	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.3%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.3%
Unknown	2.5%	2.2%	1.3%	0.0%	0.0%	4.2%	0.0%	0.0%	2.5%	2.0%	2.1%
Location											
Bronx	9.8%	9.7%	9.1%	4.2%	0.0%	6.4%	0.0%	0.0%	1.2%	0.0%	5.3%
Brooklyn	0.0%	2.8%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	1.2%
Manhattan	90.2%	83.4%	84.4%	91.7%	100.0%	91.5%	100.0%	100.0%	96.4%	94.2%	90.7%
Queens	0.0%	2.8%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	1.0%
Staten Island	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Outside of New York City	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	5.8%	1.0%
Unknown	0.0%	0.7%	2.6%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.7%

*only for those who indicated that they have a specific place they usually go for non-emergency services.

Table 6: Barrier to getting healthcare*

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=135)
Not insured	33.3%	10.3%	41.7%	50.0%		19.0%		33.3%	22.9%	0.0%	23.6%
Cost of copays	8.3%	15.4%	4.2%	25.0%		9.5%		11.1%	14.3%	25.0%	12.2%
Concerns about quality of care	8.3%	2.6%	4.2%	0.0%		4.8%		11.1%	5.7%	25.0%	5.4%
Did not know where to go	0.0%	5.1%	0.0%	0.0%		4.8%		0.0%	8.6%	0.0%	4.1%
Had other responsibilities (e.g. work, family)	16.7%	7.7%	8.3%	0.0%		4.8%		11.1%	2.9%	0.0%	6.8%
Could not get an appointment soon or at the right time	8.3%	28.2%	20.8%	0.0%		19.0%		11.1%	14.3%	25.0%	18.9%
Did not have transportation	0.0%	10.3%	4.2%	0.0%		14.3%		0.0%	5.7%	25.0%	7.4%
Concerns about language or translation issues	8.3%	5.1%	4.2%	25.0%		9.5%		0.0%	17.1%	0.0%	8.8%
Other	16.7%	15.4%	12.5%	0.0%		14.3%		22.2%	8.6%	0.0%	12.8%

*only for those who indicated that they ever not get healthcare when needed in the past 12 months.

Table 7: Reason for ER use*

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=266)
Did not have insurance	5.9%	1.3%	20.0%	33.3%	0.0%	13.0%	0.0%	0.0%	13.6%	0.0%	9.2%
Did not have transportation to a doctor's office or clinic	0.0%	2.6%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	1.6%
Get most care at ER	5.9%	13.2%	17.5%	33.3%	0.0%	8.7%	0.0%	0.0%	10.2%	22.2%	12.8%
Problem too serious for a doctor's office or clinic	17.6%	28.9%	30.0%	16.7%	50.0%	34.8%	40.0%	25.0%	35.6%	55.6%	32.4%
Doctor's office or clinic was not opened	41.2%	30.3%	15.0%	16.7%	0.0%	17.4%	20.0%	25.0%	27.1%	16.7%	24.8%
Other	29.4%	23.7%	15.0%	0.0%	50.0%	26.1%	40.0%	50.0%	11.9%	5.6%	19.2%

*only for those who indicated that they went to the ER at least once in the past 12 months

Table 8: Health concern in the community

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Adolescent health	8.2%	8.8%	10.1%	11.1%	0.0%	13.0%	0.0%	4.2%	9.6%	5.2%	8.9%
Asthma	16.3%	38.8%	33.3%	40.7%	25.0%	14.8%	20.0%	16.7%	26.6%	25.9%	28.8%
Arrest and incarcertation	24.5%	30.0%	33.3%	18.5%	12.5%	9.3%	10.0%	0.0%	11.7%	3.4%	19.1%
Cancer	10.2%	26.9%	29.3%	29.6%	0.0%	14.8%	30.0%	20.8%	25.0%	44.8%	25.7%
Diabetes	34.7%	51.3%	51.5%	51.9%	62.5%	24.1%	30.0%	37.5%	53.2%	62.1%	48.7%
Disability	10.2%	23.8%	17.2%	18.5%	37.5%	18.5%	50.0%	12.5%	17.6%	13.8%	18.8%
Drug and alcohol abuse	61.2%	60.6%	72.7%	51.9%	25.0%	53.7%	30.0%	25.0%	36.2%	20.7%	49.2%
Family planning/birth control	12.2%	13.1%	17.2%	7.4%	0.0%	3.7%	0.0%	4.2%	6.9%	0.0%	9.2%
Hepatitis	6.1%	16.3%	16.2%	14.8%	0.0%	9.3%	10.0%	4.2%	9.6%	1.7%	11.1%
Heart disease	10.2%	16.9%	13.1%	25.9%	0.0%	13.0%	10.0%	16.7%	33.0%	46.6%	22.6%
Hypertension (High blood pressure)	32.7%	41.3%	35.4%	40.7%	25.0%	33.3%	10.0%	20.8%	46.3%	69.0%	41.5%
HIV	28.6%	41.9%	43.4%	22.2%	0.0%	42.6%	20.0%	8.3%	14.4%	5.2%	27.6%
Maternal and child health	10.2%	8.8%	5.1%	7.4%	0.0%	3.7%	0.0%	12.5%	5.9%	3.4%	6.5%
Mental health (e.g. depression, suicide)	38.8%	31.9%	26.3%	44.4%	50.0%	40.7%	40.0%	45.8%	32.4%	24.1%	33.1%
Obesity	28.6%	26.9%	34.3%	29.6%	62.5%	25.9%	10.0%	29.2%	33.0%	34.5%	30.7%
Pollution (e.g. air quality, garbage)	16.3%	9.4%	17.2%	7.4%	0.0%	25.9%	20.0%	37.5%	18.6%	15.5%	16.4%
Sexual transmitted infections	18.4%	25.6%	24.2%	14.8%	0.0%	35.2%	10.0%	16.7%	12.8%	6.9%	19.2%
Stroke	4.1%	10.0%	7.1%	3.7%	0.0%	14.8%	0.0%	8.3%	11.7%	15.5%	9.9%
Teen pregnancy	18.4%	14.4%	21.2%	11.1%	25.0%	13.0%	0.0%	0.0%	12.2%	3.4%	13.3%
Tobacco use	18.4%	14.4%	21.2%	11.1%	25.0%	13.0%	0.0%	0.0%	12.2%	3.4%	13.3%
Violence or injury	18.4%	23.8%	33.3%	14.8%	12.5%	16.7%	10.0%	4.2%	20.7%	15.5%	21.3%
Other	0.0%	2.5%	4.0%	0.0%	0.0%	13.0%	0.0%	16.7%	3.7%	3.4%	4.1%

Table 9: Health issues faced

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Asthma	14.3%	25.6%	25.3%	18.5%	12.5%	18.5%	20.0%	29.2%	16.0%	10.3%	19.8%
Cancer	6.1%	7.5%	8.1%	7.4%	0.0%	3.7%	10.0%	8.3%	2.1%	8.6%	5.8%
Chronic pain	18.4%	26.3%	25.3%	14.8%	37.5%	35.2%	60.0%	16.7%	36.2%	48.3%	30.7%
Depression or anxiety	42.9%	33.1%	28.3%	37.0%	37.5%	38.9%	50.0%	33.3%	30.9%	29.3%	33.1%
Diabetes	20.4%	21.3%	18.2%	18.5%	37.5%	16.7%	10.0%	20.8%	17.0%	31.0%	19.9%
Drug or alcohol abuse	16.3%	23.8%	33.3%	14.8%	25.0%	14.8%	10.0%	4.2%	6.9%	0.0%	16.0%
Heart disease	12.2%	7.5%	6.1%	11.1%	12.5%	5.6%	10.0%	8.3%	11.2%	20.7%	9.9%
Hepatitis C	8.2%	15.0%	7.1%	7.4%	0.0%	7.4%	0.0%	4.2%	4.3%	3.4%	7.7%
High blood pressure	30.6%	39.4%	28.3%	37.0%	25.0%	31.5%	40.0%	8.3%	37.2%	69.0%	37.1%
High cholesterol	28.6%	23.8%	20.2%	29.6%	37.5%	25.9%	10.0%	33.3%	32.4%	41.4%	28.2%
HIV	24.5%	27.5%	13.1%	14.8%	12.5%	22.2%	20.0%	4.2%	1.6%	3.4%	13.9%
Mobility impairment	12.2%	12.5%	15.2%	3.7%	25.0%	22.2%	50.0%	4.2%	14.4%	17.2%	14.6%
Osteoporosis	14.3%	10.6%	10.1%	11.1%	25.0%	13.0%	10.0%	12.5%	21.3%	34.5%	16.2%

Table 10: Service availability

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Accessible transportation	75.5%	81.3%	75.8%	81.5%	87.5%	77.8%	80.0%	83.3%	70.2%	63.8%	75.3%
Affordable housing	0.0%	15.0%	8.1%	7.4%	25.0%	9.3%	20.0%	0.0%	9.6%	5.2%	9.5%
Dental services	59.2%	57.5%	62.6%	70.4%	25.0%	55.6%	70.0%	62.5%	66.5%	70.7%	62.3%
Healthy food	55.1%	51.9%	36.4%	66.7%	75.0%	63.0%	70.0%	75.0%	64.9%	69.0%	57.8%
Home health care	46.9%	53.1%	43.4%	55.6%	75.0%	48.1%	60.0%	50.0%	66.5%	65.5%	56.0%
Job training	20.4%	33.1%	34.3%	11.1%	37.5%	33.3%	10.0%	25.0%	34.6%	19.0%	30.1%
Medical specialists	63.3%	48.8%	43.4%	51.9%	62.5%	59.3%	80.0%	58.3%	62.8%	63.8%	56.1%
Mental health services	55.1%	52.5%	40.4%	48.1%	62.5%	42.6%	80.0%	37.5%	47.3%	27.6%	46.4%
Pediatric and adolescent services	57.1%	50.6%	48.5%	55.6%	37.5%	42.6%	50.0%	45.8%	55.3%	46.6%	51.0%
Places to exercise, walk, and play	61.2%	60.0%	57.6%	77.8%	100.0%	59.3%	70.0%	66.7%	73.4%	58.6%	64.8%
Primary care medicine	63.3%	65.0%	59.6%	70.4%	62.5%	66.7%	70.0%	62.5%	72.3%	67.2%	66.6%
Social services	57.1%	60.6%	45.5%	44.4%	37.5%	59.3%	20.0%	54.2%	69.7%	53.4%	58.2%
Substance abuse services	32.7%	55.6%	53.5%	40.7%	37.5%	40.7%	40.0%	20.8%	32.4%	5.2%	39.4%
Vision services	51.0%	57.5%	52.5%	51.9%	37.5%	57.4%	80.0%	50.0%	51.1%	44.8%	53.0%

*Percentage reflects participants who responded very available or available

Table 11: Health education needed in the community

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Cancer/cancer prevention	20.4%	35.6%	44.4%	40.7%	12.5%	29.6%	40.0%	25.0%	27.7%	37.9%	32.9%
Diabetes	44.9%	55.6%	45.5%	48.1%	12.5%	37.0%	30.0%	45.8%	50.5%	51.7%	48.6%
Domestic violence	32.7%	36.3%	45.5%	29.6%	25.0%	29.6%	10.0%	25.0%	30.3%	29.3%	33.4%
Exercise/physical activity	44.9%	40.0%	46.5%	51.9%	75.0%	44.4%	10.0%	50.0%	43.6%	44.8%	43.9%
Family planning	30.6%	28.1%	43.4%	14.8%	37.5%	25.9%	0.0%	8.3%	25.0%	10.3%	26.4%
Heart disease	30.6%	25.0%	23.2%	44.4%	12.5%	20.4%	30.0%	33.3%	35.1%	36.2%	29.5%
HIV/sexual transmitted diseases	49.0%	58.8%	59.6%	40.7%	0.0%	38.9%	10.0%	20.8%	23.9%	5.2%	38.8%
Maternal and child health	20.4%	15.6%	21.2%	14.8%	0.0%	13.0%	0.0%	4.2%	13.3%	12.1%	14.8%
Mental health	46.9%	56.3%	47.5%	63.0%	75.0%	55.6%	40.0%	45.8%	42.6%	44.8%	49.3%
Nutrition	46.9%	45.6%	38.4%	51.9%	50.0%	53.7%	30.0%	29.2%	44.7%	39.7%	44.0%
Substance abuse	59.2%	50.6%	60.6%	59.3%	37.5%	53.7%	20.0%	33.3%	34.6%	31.0%	45.9%
Sickle cell anemia	8.2%	11.3%	11.1%	11.1%	0.0%	3.7%	0.0%	8.3%	2.7%	0.0%	6.6%
Vaccinations	16.3%	16.3%	16.2%	14.8%	12.5%	11.1%	10.0%	20.8%	16.0%	6.9%	14.9%
Violence	34.7%	36.3%	59.6%	51.9%	25.0%	20.4%	0.0%	29.2%	28.7%	19.0%	34.4%
Other	4.1%	6.9%	7.1%	7.4%	0.0%	11.1%	0.0%	4.2%	3.2%	3.4%	5.5%

Table 12: Source of health information

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Doctor or health care provider	53.1%	56.9%	58.6%	59.3%	62.5%	51.9%	70.0%	54.2%	54.3%	48.3%	55.2%
Family or friends	30.6%	11.9%	31.3%	44.4%	37.5%	25.9%	10.0%	37.5%	29.8%	20.7%	25.4%
Books	32.7%	21.9%	17.2%	14.8%	12.5%	22.2%	40.0%	29.2%	18.1%	20.7%	21.0%
Television or radio	32.7%	19.4%	21.2%	25.9%	0.0%	22.2%	30.0%	45.8%	22.3%	20.7%	22.9%
Newspaper or magazines	28.6%	12.5%	12.1%	14.8%	12.5%	22.2%	30.0%	29.2%	15.4%	10.3%	16.0%
Ethnic media (e.g. ethnic newspaper, TV, radio)	16.3%	11.3%	16.2%	11.1%	12.5%	18.5%	0.0%	29.2%	17.6%	37.9%	17.4%
Internet	44.9%	20.0%	24.2%	33.3%	37.5%	40.7%	50.0%	58.3%	19.7%	8.6%	25.6%
Library	16.3%	6.9%	5.1%	3.7%	12.5%	14.8%	20.0%	25.0%	4.8%	1.7%	7.7%
Community-based organization	22.4%	23.1%	25.3%	14.8%	50.0%	31.5%	20.0%	8.3%	22.3%	22.4%	23.2%
Faith-based organization (e.g. church, temple, synogogue, mosque)	12.2%	6.9%	6.1%	0.0%	12.5%	0.0%	0.0%	20.8%	1.1%	6.9%	5.2%
School	8.2%	4.4%	5.1%	3.7%	12.5%	3.7%	10.0%	12.5%	3.2%	3.4%	4.7%
Health insurance plan	16.3%	14.4%	11.1%	11.1%	0.0%	9.3%	20.0%	20.8%	14.4%	12.1%	13.4%
Health department	10.2%	5.0%	8.1%	7.4%	12.5%	3.7%	0.0%	0.0%	3.2%	3.4%	5.0%
Health fairs	8.2%	6.9%	14.1%	11.1%	0.0%	9.3%	10.0%	12.5%	6.4%	1.7%	8.0%
Other	4.1%	5.6%	2.0%	0.0%	0.0%	3.7%	0.0%	4.2%	1.1%	0.0%	2.7%

Table 13: Use of technology

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Email	63.3%	37.5%	42.4%	48.1%	50.0%	59.3%	60.0%	75.0%	31.4%	15.5%	40.5%
Internet	67.3%	40.6%	42.4%	59.3%	50.0%	57.4%	50.0%	75.0%	31.4%	20.7%	42.1%
Smart phone (e.g. iPhone, Galaxy)	53.1%	41.3%	47.5%	37.0%	25.0%	46.3%	30.0%	50.0%	39.4%	12.1%	40.2%
Text messaging	57.1%	36.9%	43.4%	55.6%	50.0%	48.1%	40.0%	41.7%	28.2%	8.6%	36.5%
Twitter	14.3%	0.6%	6.1%	3.7%	0.0%	3.7%	20.0%	4.2%	4.3%	3.4%	4.4%
Facebook	36.7%	20.0%	30.3%	40.7%	0.0%	25.9%	30.0%	25.0%	18.6%	10.3%	22.9%
None	14.3%	21.9%	23.2%	18.5%	25.0%	20.4%	20.0%	12.5%	35.6%	62.1%	28.2%

Table 14: Civic engagement

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Community center	26.5%	33.8%	21.2%	14.8%	50.0%	29.6%	30.0%	29.2%	23.9%	34.5%	27.6%
Library	30.6%	35.0%	15.2%	25.9%	37.5%	27.8%	30.0%	41.7%	22.3%	17.2%	26.0%
Faith-based organization (e.g. church, temple, synogogue, mosque)	32.7%	32.5%	30.3%	63.0%	12.5%	29.6%	40.0%	20.8%	19.7%	27.6%	28.7%
Neighborhood association	10.2%	11.3%	6.1%	18.5%	0.0%	7.4%	0.0%	8.3%	8.5%	5.2%	8.7%
Gym or recreational center	28.6%	16.3%	14.1%	25.9%	0.0%	24.1%	20.0%	29.2%	14.4%	6.9%	16.8%
Political club	6.1%	2.5%	4.0%	3.7%	0.0%	3.7%	10.0%	0.0%	2.1%	0.0%	2.8%
Senior center	12.2%	23.1%	8.1%	11.1%	0.0%	13.0%	40.0%	29.2%	25.0%	81.0%	24.5%
School	6.1%	5.0%	5.1%	3.7%	12.5%	1.9%	20.0%	12.5%	3.7%	3.4%	4.9%
Sport league	0.0%	3.8%	6.1%	0.0%	0.0%	3.7%	0.0%	0.0%	1.6%	3.4%	2.8%
Other community organization	14.3%	15.0%	14.1%	11.1%	37.5%	13.0%	20.0%	8.3%	7.4%	3.4%	11.5%
None	12.2%	15.0%	29.3%	14.8%	37.5%	20.4%	10.0%	12.5%	19.7%	5.2%	17.9%

Table 15: Use of complementary or alternative treatments/remedies

	Washington Hgts/ Inwood	Central Harlem/ Morningside Hgt	East Harlem	Upper West Side	Upper East Side	Chelsea/Clinton	Gramercy Park/ Murray Hill	Greenwich Village/ Soho	Union Sq./ Lower Eastside	Lower Manhattan	Manhattan (N=677)
Acupunture	8.2%	10.0%	8.1%	11.1%	0.0%	11.1%	20.0%	12.5%	16.5%	10.3%	11.7%
Chiropractic care	4.1%	4.4%	5.1%	3.7%	0.0%	7.4%	0.0%	4.2%	1.1%	3.4%	3.5%
Herbal medicine	12.2%	8.8%	10.1%	11.1%	12.5%	20.4%	0.0%	12.5%	21.3%	13.8%	14.2%
Homeopathy	4.1%	2.5%	2.0%	7.4%	12.5%	7.4%	10.0%	8.3%	3.2%	3.4%	3.8%
Remedies from a botanica	2.0%	3.1%	3.0%	0.0%	0.0%	0.0%	0.0%	12.5%	1.6%	0.0%	2.2%
Other	0.0%	2.5%	2.0%	3.7%	0.0%	5.6%	0.0%	4.2%	2.1%	0.0%	2.2%
None	73.5%	61.9%	63.6%	63.0%	62.5%	55.6%	50.0%	54.2%	50.5%	65.5%	59.2%
Unknown	6.1%	6.9%	9.1%	7.4%	12.5%	11.1%	0.0%	4.2%	5.3%	5.2%	6.8%

QUEENS COMMUNITY NEEDS ASSESSMENT
APPENDIX D - REPORT OF THE PRIMARY DATA COMPONENT

December 16, 2014

Prepared by The New York Academy of Medicine

QUEENS COMMUNITY NEEDS ASSESSMENT:
REPORT OF THE PRIMARY DATA COMPONENT
OCTOBER 2014

SUMMARY

BACKGROUND

The goal of the Delivery System Reform Incentive Payment (DSRIP) program is to promote community-level collaborations and focus on system reform in order to reduce avoidable inpatient admissions and emergency room visits for the Medicaid and uninsured populations in New York State. To inform the health system transformation that is required under the DSRIP program, emerging Performing Provider Systems (PPSs) must submit a comprehensive Community Needs Assessment (CNA) with their Project Plan applications. The Queens PPS's CNA included primary and secondary data analysis. This report describes the primary data methodology and analysis and has been developed as an attachment to the full CNA, and to provide more in-depth information to the PPS's, which may be useful for DSRIP project planning, as well as planning and implementation of programs and services outside of the DSRIP program.

METHODS

The Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted the primary data portion of the CNA, which included 605 surveys of community residents, and 18 focus groups and 22 interviews with Queens residents, providers, and other stakeholders. The protocol was developed in collaboration with selected PPS's in Queens, Brooklyn, the Bronx, and Manhattan and was implemented in partnership with the PPS's as well we a number of Community Based Organizations.

The primary data component was designed to address anticipated gaps in the secondary data, including: 1) community member and stakeholder perspectives on health issues, including their causes and impact; 2) data on populations (e.g., particular immigrant groups) and issues (e.g., links between incarceration and health) that might be obscured in population-based data sets; 3) significant detail on issues identified; and 4) recommended approaches to address identified problems. Overarching questions for the primary data component, which—consistent with DSRIP—focused on Medicaid and other low-income populations, as well as the uninsured, included:

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?
- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?

- What are the health related programming and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health promotion and health care needs be better addressed, overall and for distinct populations?

FINDINGS

Queens community members and other stakeholders are clearly interested in partnering with hospitals and being part of solutions that promote good health and reduced hospitalizations. Many are wary, fearing that hospitals will not fully engage with the community going forward, as most lack experience doing so and the financial incentives of health system re-engineering are unclear. The predominant theme in Queens is seemingly "diversity," given the large numbers of foreign born – as well as a sizable African American population in particular neighborhoods. This diversity brings with it strengths, as well as multiple challenges regarding language, culture, and economics. Focus group and interview participants articulated specific barriers to good health and good health care, many of which were related to poverty and it's consequences, including long work hours, unstable housing, and the need to prioritize expenditures—even among basic needs. For specific groups, including the disabled, LGBTQ, criminal justice involved, and the homeless, health-related barriers were compounded, due to both attitudinal and practical considerations.

Focus group and interview participants also articulated potential "fixes," such as increased ease of access for medical visits (e.g., reduced wait time, reduced insurance restrictions, increased integrated care); improved provider sensitivity; and a range of supportive services, including community health workers, care coordinators—particularly for difficult to manage medical conditions and high risk populations—and navigators. Health education, addressing (for example) prevention, screening, disease management, insurance, and the normalizing of mental health issues, was considered essential at the individual and the community level, to ensure that the population has the knowledge and skills necessary for independent action that promotes their own good health.

QUEENS COMMUNITY NEEDS ASSESSMENT:
REPORT OF THE PRIMARY DATA COMPONENT
OCTOBER 2014

INTRODUCTION

The goal of the Delivery System Reform Incentive Payment (DSRIP) program is to promote community-level collaborations and focus on system reform in order to reduce avoidable inpatient admissions and emergency room visits by 25% over five years for the Medicaid and uninsured populations in New York State. To inform the health system transformation that is required under the DSRIP program, emerging Performing Provider Systems (PPS's) must submit a comprehensive Community Needs Assessment (CNA) with their Project Plan applications. The Queens PPS's CNA, conducted from July through September, included primary and secondary data analysis and had the following aims:

- To describe health care and community resources;
- To describe the communities served by the PPSs;
- To identify the main health and health service challenges facing the community; and
- To summarize the assets, resources, and needs for proposed DSRIP projects.

This report describes the primary data methodology and analysis and has been developed as an attachment to the full CNA, and to provide more in-depth information to the PPS's, which may be useful for DSRIP project planning, as well as planning and implementation of programs and services outside of the DSRIP program.

METHODS

PROTOCOL DESIGN

The Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted the primary data portion of the CNA, which included surveys of community residents, and focus groups and interviews with Queens residents, providers, and other stakeholders (see appendix for data collection instruments). The protocol was developed in collaboration with selected PPS's in Queens, Brooklyn, the Bronx, and Manhattan and was approved by the NYAM Institutional Review Board (IRB).

The primary data component was designed to address anticipated gaps in the secondary data, including: 1) community member and stakeholder perspectives on health issues, including their causes and impact; 2) data on populations (e.g., particular immigrant groups) and issues (e.g., links between incarceration and health) that might be obscured in population-based data sets; 3) significant detail on issues identified; and 4) recommended approaches to address identified

problems. Overarching questions for the primary data component, which—consistent with DSRIP—focused on Medicaid and other low-income populations, as well as the uninsured, included:

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?
- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?
- What are the health related programming and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health promotion and health care needs be better addressed, overall and for distinct populations?

DATA COLLECTION

Community Engagement: Consistent with DSRIP CNA guidance, NYAM conducted primary data collection in collaboration with numerous community organizations, which were identified in collaboration with PPS representatives, and represented a range of populations (e.g., older adults, immigrant populations) and neighborhoods. As described below, community organizations assisted in recruitment for and administration of focus groups and surveys. All organizations assisting with survey administration or focus group facilitation were provided with written guidelines including information on data collection and the general research protocol, the voluntary nature of research, and confidentiality. Organizations also participated in an in-person or phone training on data collection conducted by NYAM staff. Community organizations partnering in the research received an agency honorarium consistent with their level of responsibility.

As described in a subsequent section, community members and stakeholders were largely responsive to the request to participate in the CNA. Although several expressed concern that their input and recommendations would not ultimately be used in the selection and planning of DSRIP projects, they appreciated the ultimate DSRIP aims and the opportunity to have their opinions heard.

Data Collection Activities: As noted above, the primary data component involved three distinct methodologies:

- Resident Surveys*:* 605 surveys were completed by Queens residents, ages 18 and older. Survey questions focused on basic demographics, health concerns (individual and

community-wide), health care utilization, barriers to care, and use of community and other services. Survey respondents were identified and recruited by local organizations, including community based organizations, senior centers, social service and health providers, and through NYAM initiated street outreach in targeted neighborhoods—consistent with PPS service areas—where we wanted to ensure sufficient representation, including Jamaica, Flushing, Woodside and Corona. Surveys were self-administered or administered by NYAM staff or staff or volunteers at community organizations, who were trained and supported in survey administration by NYAM staff and consultants. The surveys were translated into 10 languages: Arabic, Bangla, Chinese (simplified and traditional), Haitian Creole, French, Hindi, Korean, Polish, Russian and Spanish. Participants received a Metrocard valued at $10 for completing the survey.

- Key Informant Interviews: Twenty-two key informant interviews were conducted, including 27 individuals. Key informants were selected with input from the PPS's. A portion had population specific expertise, including particular immigrant groups, older adults, children and adolescents. Others had expertise in specific issues, including supportive housing, care coordination, corrections, and homelessness. All key informant interviews were conducted by NYAM staff using a pre-written interview guide. All key informants were asked about perceptions of health issues in the community, barriers and facilitators to good health, health care and other service needs, and recommendations for services and activities that may benefit the local population. Follow-up questions, asked on *ad hoc* basis, probed more deeply into the specific areas of expertise of key informants. The interview guide was designed for a discussion lasting 60 minutes; in fact, interviews ranged from 45 to 120+ minutes. All key informant interviews were audiotaped and professionally transcribed to ensure an accurate record and to allow for verbatim quotations. (See Appendix for the list of Key Informants by name, position, and organization.)
- Focus Groups: Eighteen focus groups were conducted for the Queens Community Needs Assessment, involving over 200 participants. Most of the focus groups were with community members, recruited by collaborating CBOs. Populations targeted included, but were not limited to, older adults, Asian and Latino immigrant populations, LGBTQ, and individuals with disabilities. The mean age of survey participants was 53; 56% were female; 12% were Black, 41% Asian, and 25% Latino; 47% were on Medicaid and 14% were uninsured; 43% reported speaking a language other than English at home. In addition to the resident groups, we conducted a small number of focus groups with community leaders, as well as providers, including behavioral health providers, care coordinators, and physicians, so as to ensure that the perspective of key stakeholders was incorporated into the findings. These groups were coordinated by collaborating PPS's.

  Focus groups lasted approximately 90 minutes and were conducted using a semi-structured guide, with questions that included, but were not limited to: perceptions of health issues in the community, access to resources that might promote health (e.g., fresh fruit and

vegetables, gyms), use of health services, access to medical and behavioral health care, domestic violence, and recommendations for change. Follow-up questions were asked on *ad hoc* basis, based on responses heard. Focus groups were conducted by CEAR staff members and consultants retained by CEAR, each of whom was trained in the established protocol. Many of the resident focus groups were co-facilitated by representatives of CBOs that were also trained on the focus group protocol. Focus groups in languages other than English and Spanish were conducted solely by trained community partners. Participants received a $25 honorarium, in appreciation of their time and insights. All focus groups were audio recorded, so that transcriptions and/or detailed reports could be developed for each, and to allow for verbatim quotations.

DATA MANAGEMENT AND ANALYSIS

Surveys: Survey data were entered using Qualtrics, a web-based survey platform. They were analyzed according to standard statistical methods, using SAS. Means and proportions were generated, overall and by neighborhood. Although the survey sample cannot be considered representative of the catchment areas in a statistical sense, and gaps are unavoidable, the combination of street and organizational outreach facilitated engagement of a targeted yet diverse population, including both individuals connected and unconnected to services.

Table 1: Demographic characteristics

Characteristic	(n = 605)
Age (Mean, SD)	50.2 (19.8)
18-20	3.6%
21-44	39.3%
45-64	29.1%
65-74	11.7%
75-84	10.3%
85 and older	4.1%
Unknown	1.8%
Gender	
Female	64.0%
Male	35.7%
Transgender	0.3%
Sexual Orientation	
Heterosexual	94.4%
LGBTQI	5.7%
High school graduate or higher	80.5%
Hispanic	19.5%
Race (N=584)	
White	20.2%
Black or African American	10.8%
Asian	53.9%
American Indian or Alaskan Native	1.0%
Native Hawaiian or other Pacific Islander	0.2%
Other/mixed/unknown	13.9%
Limited English proficient	38.6%
Foreign born	71.7%
Health Insurance	
Medicaid	43.0%
Medicare	25.6%
Private/commercial	16.1%
VA/Other/More than one	17.8%
None	19.3%

Survey respondents came from all Queens neighborhoods; socio-demographic characteristics included: 64% female, 11% Black/African American, 20% Latino, 54% Asian (primarily Chinese, South Asian, and Korean), 72% foreign born, 39% limited English proficient, 70% living below the poverty line,

43% on Medicaid and 19% uninsured. The mean age of respondents was 50.2, with a standard deviation of 19.8 (see Table 1).

Interviews and Focus Groups: Transcripts and focus group reports were maintained and analyzed in NVivo, a software package for qualitative research. Data were coded according to pre-identified themes relevant to health, community needs, and DSRIP, as well as themes emerging from the data themselves (see Appendix for code list). Analysts utilized standard qualitative techniques, involving repeated reviews of the data and consultation between multiple members of the research team. Analyses focused on 1) common perceptions regarding issues, populations, recommendations, etc., 2) the unique knowledge and expertise of particular individuals or groups and 3) explanatory information that facilitated interpretation of primary and secondary source data.

FINDINGS

IMPORTANCE OF COMMUNITY ENGAGEMENT

As noted above, key informants and focus group participants largely welcomed engagement in the community needs assessment and appreciated the opportunity to provide input that might be used for the re-engineering of health care in NYS. They were enthusiastic about the basic DSRIP aim of shifting health-related efforts from inpatient services to the community, where the focus can be on prevention and health maintenance. As described in some detail within this report, CNA participants had numerous ideas regarding health promotion, disease management, and improved health systems. However, a number of respondents expressed skepticism and concern that suggestions from the community—and recommendations in the interest of community based organizations—would be ignored by the hospitals that are applying for DSRIP funds, in part because the DSRIP goals are seemingly contrary to their financial interests and inconsistent with usual practice.

> *The hospitals don't like doing things outside of the hospitals… They always try to do it themselves and do it…acting as if they're going to incorporate the community, the nonprofit organizations, community-based organizations and so on. But they find any way possible to not include them and to do it within their own structure. They're challenged with having to change … in a way that's going to hurt them [i.e., reducing readmissions and revenue], and then they're also told that they're forced to integrate the community and community providers and they're not used to doing that. So there's a lot of fanfare … but in reality it it's not in their best interest to do either one of the two things, integrate the community and community providers, community service providers, or to reduce their inpatient hospitalizations by 25%. (key informant, multiservice organization)*

The importance of alignment with community-based recommendations and the need for solutions that address the social determinants of health were emphasized. For example:

> *My greatest fear is that hospital will get the money from DSRIP and they will define what to do. As opposed to going outside the door, getting people and saying, "Listen, what do you think that we could do to really minimize this problem"... You really have to seriously listen to [community] and then they really have to be partners. You know, you just cannot use the community for something and then discard. (key informant, CBO)*

> *We may not like every aspect of the waiver, but it is much better than past waivers. But there's still concerns, legitimate concerns that include how things are going to be done in terms of engaging communities. ... you can write it all in the document and say all you want, but we're talking about, historically, hospitals not knowing how to do it. (key informant, health advocacy)*

> *The [PPS's] really, I think, often naturally gravitate towards the medical solutions. And what we try to say is, "Yes, but without housing you're never going to achieve that." And when you go talk to the frontline staff, whether they're in your emergency department, your social work department, your nurses, they're going to tell you that this guy needs housing. We were on a panel a while ago, and [a doctor] opened by talking about how she had started a double shift on a Saturday morning, and discharged a guy who was homeless. He came into the emergency department inebriated, had fallen. They kind of fixed him up. She discharged him. That night he came back and had smashed his face and was inebriated. And as she was ordering the expensive tests to see if he had facial fractures, and the plastic surgeon, and everybody had come in, she knew that she would kind of repair this thing. But that he was just going to be back. And until we got housing for him, she was just doing Band-Aids. (key informant, health advocacy)*

There were also concerns regarding the mismatch between, on the one hand, an emphasis on prevention and community engagement, and on the other, clinical and utilization measures that may not reflect the highest priorities of the community. For example, addressing obesity, particularly among children, is unlikely to impact hospitalizations and ER use in the short term.

> *I think that's a real challenge, because when we're looking at things like DSRIP, we're looking at preventing hospitalizations, ... Children who are obese don't get hospitalized. They get hospitalized and they use higher cost services when they become adults but then all this money is gonna be gone. So you know, so nobody's looking at doing something that you need 15 years to have an impact on. Everybody's looking at something that you can have an impact on today or tomorrow. (key informant, provider)*

POPULATION DESCRIPTION

Poverty: Given the DSRIP and CNA focus on low income populations, the significance of poverty and its implications is unsurprising. As noted above, 70% of survey respondents were living below the federal poverty line; in Jamaica, 78% of respondents were living below the poverty line and 62% report that in the last year they sometimes worried about not having enough to eat. Overall, 53% of survey respondents report that they worried about not having enough to eat (see Appendix for detailed data tables).

Although the health related implications of poverty may vary by population, common themes were evident: poverty was describing as directly affecting health; affecting prioritization (or de-prioritization) of health behaviors; and as affecting access to health related resources, including nutritious food, stable and well-maintained housing, health care coverage, and medical services:

> *Most of us parents are constantly working, and many times we don't have the time to commit to cooking a healthy meal every night – and so, we resort to fast food. (focus group participant)*

> *We also have identified that there's food insecurity because of lack of available funds to maybe buy the groceries that they need. So people are making those decisions every day about, "Well, what can I buy, what can I afford with my limited amount of income for this month?" And oftentimes nutrition suffers in that mix, because they'll get their medication instead of buying the food. And sometimes we found they won't get their medication either. (key informant, CBO)*

The behavioral implications of living in poverty were clear to focus group participants and to key informants that worked closely with community members. There was frustration that many health care providers appeared to lack a similar level of understanding.

> *I'm just gonna reflect on a conversation I had with a father who was there with this 12-year-old son who was already showing signs of pre-diabetes and he just, he looked at me and he says, "You, there is no way you are ever going to understand my life." I said "You're absolutely right. I can hear what you're telling me but I don't understand how hard it is for you to have food in your house, and how hard it is for you to get your child to eat the right things and exercise which is the only way that's gonna prevent him from getting diabetes as this point." But I think that what he expressed is his frustration that the general medical community could not understand the problems of people living in poverty when their children have health problems. (key informant, provider)*

Foreign Born: Among the most consistent themes across data collection activities was the concentration of foreign born in Queens, and the seemingly unprecedented diversity of many of the target neighborhoods, particularly Elmhurst, Corona, Jackson Heights, and Flushing. Seventy-two percent of survey respondents were foreign born. Large foreign born populations in Queens include Chinese (from different countries and provinces), Koreans, Latinos (from Puerto Rico, Ecuador, Colombia, Dominican Republic, and elsewhere), and a growing—and increasingly diverse—South Asian population, including groups from India, Pakistan, Bangladesh, and Nepal. Although there are many overlaps, each of these communities has needs related to culture, language, education, and economics, which may impact on health and healthcare use. In addition, the strengths of these and other immigrant communities were emphasized, which may include close family ties, strong work ethics, and healthy eating habits relative to American born populations. Common themes from key informants and focus groups representing diverse population groups included some combination of:

- Significance of language access across the spectrum of services;
- Difficulties meeting basic needs, leading to extended work hours and emotional stresses;
- Prioritization of work, children and education over health;
- Lack of sufficient information on health and health services;
- Minimal knowledge, interest, and engagement in prevention services;
- Low utilization of health care services, relative to other populations;
- Cultural issues, including greater stigmatization of particular health conditions;
- Relatively high rates of non-insurance, due to multiple factors including ineligibility; and
- Fear of medical bills, medical debt, and deportation.

> *In the Borough of Queens, one of the biggest barriers to healthcare is the ethnic diversity that exists here. So it's not even just about language. Language, of course, is a barrier, but more easily addressed than cultural barriers. And in some cultures, seeking out healthcare is just not something that they do. They're not comfortable with it, especially if a person has a questionable immigration status. They're extremely hesitant... So a lot of times what happens is that the emergency room becomes a primary care provider, because they don't have preventive care. They're not keeping up with regular routine visits, they're not monitoring their status. (key informant, CBO)*

Concerns about language access obviously suggest concrete requirements with respect to knowledge and skills. Although many CNA participants described significant capacity among Queens providers, there was some concern regarding training, skills, and credentials of dual role interpreters (i.e., bilingual staff who are asked to interpret on an *ad hoc* basis) and gaps in services remain, particularly for smaller language and ethnic groups, and for particular services, including mental health care and specialist services:

The main issue [in the Nepali community] is language …. Our family member shouldn't have to explain medical conditions to us unless they are also medical practitioners, because even an educated and good English speaker may not understand medical terms, and so they aren't able to interpret what is going on. (focus group participant)

When you look at specialty care, say around mental health, for example, if an individual wants to go to someone who's culturally competent, we don't have a lot of Asian-Americans who are going into fields like mental health or behavioral health issues. (key informant, health advocacy)

CNA participants were consistent in their reports of very long work hours among multiple foreign born groups. Descriptions of 16 hours days, six or seven days a week were not uncommon. Small business owners felt the need to keep shops open for extended hours, taxi drivers report 12 hour shifts without a break, and laborers work multiple jobs because pay is low. Key informants and focus group participants reported that some workers are supporting large families in the US, while also sending funds to relatives in their home country. Such long work hours impact health and access to health care services

Small business that include the liquor stores to laundromats to deli stores. They're the most common ones [Koreans] have. So, because you are small business owner or worker who work at those small businesses, your working hours are much longer, because they are open at 7:00 up to like 10:00-ish. And you barely get to have a day off. And then a lot of workers also work in restaurant field so that's also long, labor intensive work. (key informant, CBO)

We see people [in the Latino community] who have very low paying jobs. But as long as they're able to have their children in school, as long as they're able to maybe send them to a community college – really the vision and the longer term goal is about their children, and their children having better futures… I don't like frame it as it's their concern and that it's their fault, but they're so concerned about jobs that other things kind of fall to the wayside. So health is a key part of that really. (key informant, CBO)

Independent of work and language access issues, key informants and focus group participants described cultural, attitudinal, perceptual and knowledge-based barriers to care among the foreign born, including greater stigmatization of particular health conditions, difficulties navigating the health insurance and care system, low prioritization of preventive care services, and fear of medical bills and deportation if they engage with any part of "the system."

[Arab] women if they have breast cancer, they try to hide it as much as they can, because they don't want the community to know that their girls might get it. They might inherit it

from the mother. Nobody will marry their daughters, so all these problems, they feel like they don't let anyone in the community – even though confidentiality is a very big issue for us and very important for us, but they feel very protective of themselves. They don't want anybody to know about health issues and health problems. (key informant, CBO)

Fear of medical bills and deportation was greatest among the undocumented but affected other immigrant groups, as well.

You also have insurance literacy and like, "What does a co-pay mean?" And some of the complexity of some of the plans, the way they're designed, you have co-payments and then you have co-insurance which is distinct. And then on top of that you have your premiums. And so, that's – we say this all the time, but that type of stuff is confusing to all of us, so how [immigrants] are able to navigate that moving forward and use their insurance, is huge. (key informant, health advocacy)

Oftentimes they would forego getting any care, getting screenings, or even if they were deathly ill, they will totally wait until the end, and even with people who had insurance, because they were afraid of the cost of care. (key informant, CBO)

Those are some of the most prevalent cases we get. Where people say, "I have this bill. I don't know how I could ever pay this bill." Often, even though in many cases we will help resolve the bill through the financial assistance policy, the person never wants to go back to the hospital again because that happened… Any hospital…. Often they'll have gone for like one appointment, and they get like a $7,000 bill. It just doesn't make sense to them. So it's just scary, right? So it does feel like hospitals don't really get the impact that a scary bill can have to their patient's desire to ever come back to the hospital. (key informant, CBO)

It was reported that immigrants that regularly returned to their home country used medical services there. It was also reported that immigrants received prescription medicines from their home country, as the costs of medicine were generally much lower outside the US.

PHYSICAL HEALTH ISSUES

Overview: Survey respondents felt that the most common physical health concerns in their community were diabetes (53%), high blood pressure (46%), cancer (36%), obesity (33%), and heart disease (33%) (see Table 2). Similarly, the most common areas where they reported additional health information was needed were diabetes (53%), exercise and physical activity (47%), and cancer/cancer prevention (40%). Community members clearly recognize that obesity was linked to diabetes and heart disease and talked about the need for healthy eating and physical activity. For some, change was described as challenging:

I am more familiar with the right ways of nutrition and I am trying to get used to it as much as I can. (focus group participant)

Others report that they—and other community members—are making efforts to exercise and to eat well, so as to remain healthy.

I used to think, 'if I don't eat rice, I'm not eating' but now I don't eat rice, and I am still alive. (Focus group participant)

Seniors are aware of exercise. In my neighborhood there are two groups along the parkway for seniors to do exercise: Tai Chi. In my neighborhood, residents walk in their walkers around the houses. Here in Flushing, in the park, a lot of people are doing activities. Seniors are more aware than before. (Focus group participant)

People are getting more health conscious, joining a gym… Not where we ought to be, but as [the Haitian] community we've definitely made some progress in the direction that we should have in obesity and child obesity—a little better, understanding it and making some kind of life change. (key informant, CBO)

Table 2: Health Concerns

	Queens (N=599)
Adolescent health	8.0%
Asthma	19.4%
Arrest and incarcertation	6.3%
Cancer	36.0%
Diabetes	52.8%
Disability	11.7%
Drug and alcohol abuse	25.5%
Family planning/birth control	6.0%
Hepatitis	7.4%
Heart disease	32.7%
High blood pressure	45.6%
HIV	10.5%
Maternal and child health	9.5%
Mental health (e.g. depression, suicide)	23.2%
Obesity	33.3%
Pollution (e.g. air quality, garbage)	13.5%
Sexual transmitted infections	7.5%
Stroke	11.2%
Teen pregnancy	9.4%
Tobacco use	24.4%
Violence or injury	12.4%
Other	3.0%

Just over one-quarter of survey respondents reported being in fair or poor health. The most commonly reported health issues were high blood pressure and high cholesterol (both approximately 28%) and chronic pain (19%). Fifteen percent reported having diabetes (see Table 3). There appeared to be some variability in health and health concerns according to

population. According to one key informant working with older adults, reported that African Americans had more illnesses at a younger age, compared to other populations, possibly due to historically poor access to health care services in minority communities. Survey respondents in Jamaica were more likely to report that HIV was a health concern (26.4%, compared to 11% for the full sample) and more likely to report having asthma (19% compared to 11% for the full sample). Overweight and obesity rates were highest in Jamaica and in the Western Queens UHF neighborhood (Corono, Elmhurst, Jackson Heights, etc.) —53% in each, compared to 44% for the full sample (see Appendix). The Asian population appeared to have better dietary behavior (more vegetables, although commonly fried) and greater levels of physical activity (e.g., walking, yoga, tai chi) than other populations. However, smoking rates were reported to be high, particularly among Asian men.

Table 3: Health Status

	(N=605)
Perceived health status	
Excellent/very good/good	72.6%
Fair/Poor	27.4%
Body mass index (Mean, SD)*	25.2 (5.2)
Underweight	4.7%
Normal	51.0%
Overweight	29.5%
Obese	14.8%
Health Issues Faced	
Asthma	10.5%
Cancer	4.5%
Chronic pain	19.4%
Depression or anxiety	16.9%
Diabetes	15.3%
Drug or alcohol abuse	2.6%
Heart disease	12.9%
Hepatitis C	1.9%
High blood pressure	28.3%
High cholesterol	27.7%
HIV	1.9%
Mobility impairment	10.3%
Osteoporosis	13.9%

I think Asians and Koreans in general, especially men, there are many smokers. Just in our populations, so smoking is another issue. If you actually walk on Main Street [in Flushing], there are a lot of people smoking. (key informant, CBO)

Access to healthy foods was described as sufficient in most neighborhoods (76% of survey respondents reported that healthy food was available or very available), although limitations were described in Jamaica. (63% reported healthy food was available or very available). According to one Jamaica based provider: *We preach to our patients and they go home and they don't have much in the way of good options (key informant, health care provider).* Even where healthy food was available, some CNA participants reported that purchase of unhealthy choices was common.

> *I live in Elmhurst. Generally, most of the supermarkets are Asian, we have a Stop and Shop and generally the food is very healthy.… And we have choices, so we are not, even when we go to the Corona Park and Rego Park, that area, when we go to the*

supermarket we have choices still. The food is generally healthy. The meat and the fish and the vegetables, we have options. (focus group participant)

I shop at the Trade Fair on Astoria Boulevard on 99th street. You can see the shopping carts filled with a lot of junk food. (focus group participant)

The ability to manage health conditions was impacted by a number of factors, including broader environmental conditions (e.g., indoor and/or outdoor pollution in the case of asthma), knowledge, attitudes, disease management skills, conflicting priorities, depression, and poverty. Although the implications of these factors on health and disease management are described throughout this report, additional comments illustrating these factors include:

[In the South Asian community] they don't consider high blood pressure or diabetes. It doesn't show. They don't feel anything unless it is very very acute, so they don't think it needs to be [addressed]…. Like, "Oh, it's okay." They don't feel it, so to them it's okay. And you probably remember, a kind of fatalistic attitude. So it's the good deeds that you have done, you can take a few, it's all there, it's all karma, it's all something. It's like, if you need to go you need to go, that sort of thing. That's there, right? And it's a coping strategy as well. (key informant, CBO)

So their medications in the early part of the year, they can keep up with. And then toward the latter part of the year, they have difficulty and sometimes have to make that decision whether to fill the prescription or fill their shopping cart. Or they start taking their medication every other day. You know, they find very creative ways of making it last. (key informant, CBO)

There are people who are very fragilely or inappropriately housed. Like a 65-year-old man with extreme diabetes, who is living in the 4th-floor walkup in his daughter's overcrowded apartment, sleeping on the couch. That man is not going to have good health outcomes. He's stressed. He's not getting out. Can't get a good meal. (key informant, health advocacy)

BEHAVIORAL HEALTH ISSUES

Mental Health: Behavioral health issues were seen as common in all populations. Twenty-three percent of survey respondents reported that mental health issues were a main concern in their community; 17% report personally facing depression or anxiety. For immigrant groups, depression and isolation were reported to result from the pressures of migration and assimilation, long work hours, and social isolation. Typical comments include:

I think there's just a lot of trauma about what [Latino immigrants have] left, and then the process of trying to integrate here. And to some extent, a good amount of isolation.

When you're working so much, you don't really have as much time to seek out other things that are not hard work. So we've seen that as kind of crisis moments where people come in and they're like, "I can't take this anymore." (key informant, CBO)

From day one in the United States there is mental pressure. There is depression and frustration because my experiences, qualification and education from [Bangladesh] are not compatible with the demands here. There is no job satisfaction. We aspire to do well in this country, but the realization of not being able to is frustrating. (focus group participant)

The Chinese population is depressed because they came from their home to a new environment. Maybe they felt they had a good life back then, but here it's a different situation. And the language barrier makes it so they don't have as many friends to talk to. (focus group participant)

Depression was also cited as relatively common in older adults, with implications for physical health and disease self-management.

And also one of the issues on the physical side that is connected with isolation is poor nutrition. A person oftentimes when they're alone has no incentive to cook or to eat. And we find that many of the [older adult] clients that [we see] are nutritionally compromised. (key informant, CBO)

When people entering old age stop working. Work is very important, because it distracts you, physically and mentally. If you don't have work, you fall little by little into depression. (focus group participant)

Alcohol and Other Drugs: Substance abuse, particularly alcohol, was described as problematic for individuals and for health care delivery. There were suggestions that alcohol issues were particularly pronounced among foreign born populations.

I grew up in New York in my 20s and we drank hard and we partied, but I feel like the new immigrants are not acclimated to the amount of alcohol that's available and the way we drink. I don't know the answer to this. But I see on Roosevelt Avenue people crazy drunk like I've never seen before, so those people are not being reached [in AA]. Maybe different languages in this neighborhood are not being reached and represented (focus group participant)

Emergency department staff reported that caring for patients with alcohol issues was difficult and put a strain on ED resources. Comments from a focus group of emergency department providers include:

> *We see a pretty large group of patients with alcohol related issues. And so those patients are very regular here and very difficult, despite trying to get interventions for them, whether it be psychiatric interventions or substance abuse interventions. It's extremely difficult to get them connected and to get them to stay in any kind of program. So we can see them more than once a day, and it wouldn't be surprising….And I'll also say there are some private hospitals in the area that the expectation is the patients are going to come here. We're an HHC hospital. This is an intoxicated patient. You bring them to the city hospital.*

> *Once we admit a patient with intoxication, we treat and release, they go back and drink… We can give names of places [for treatment], but many patients do not follow… They go out, drink and come back.*

ACCESS TO RESOURCES AND SERVICES

Resources for Good Health: As noted above, survey respondents in most neighborhoods reported that healthy foods were available or very available (76%). Residents of Jamaica were least likely to report that healthy foods were available (63%). Places to walk, exercise and play were also reported to be available in most neighborhoods (79%). In contrast, just 34% of respondents reported that affordable housing was available or very available (see Table 4). Consistent with this survey result, multiple key informants described crowded and instable living conditions, with implications for health and well-being:

> *Because of increase in rent, more families are moving in together, even with strangers. Children are exposed to all kinds of things as a result. Toxic stress. You go to school with all the stress, and the little things just make you explode. (key informant, provider)*

> *The other issue is they're staying with friends and relatives and cousins, they move a lot. So they have different homes and different parents or families, and children move so much that that also causes the same destruction in whatever set up that they've got ... The phones change every other day, the phones change, because they don't have the money to pay the bills, and now you're stuck with, "How do you reach this guardian?" You have a child who's sick and you need to get hold of mom or dad, and it's very hard to reach them (key informant, provider)*

There's a lot of housing issues and things that [the Asian community doesn't] really want people to know about. We room together in like a two, three bedroom, you know, three or four families living together, these kinds of things. (key informant, provider)

Medical services: Approximately one quarter of respondents reported that there was a time in the last year when they needed healthcare but didn't get it. The most commonly noted reasons for that were "not insured" (41% of the subsample), "could not get an appointment soon or at the right time" (17%), and "cost of copays" (13%). They did, however, report relatively good access to most types of medical care. Approximately 80% of survey respondents reported that primary care was available or very available, 77% reported that they had a primary care provider or personal doctor, and 76% reported that had a routine check-up in the last 12 months. However, acess obviously varies according to individual characteristics:

Table 4: Service Availability

	(N=605)
Accessible transportation	86.9%
Affordable housing	34.1%
Dental services	71.2%
Healthy food	76.2%
Home health care	66.4%
Job training	38.4%
Medical specialists	72.4%
Mental health services	54.6%
Pediatric and adolescent services	73.4%
Places to exercise, walk, and play	79.1%
Primary care medicine	79.8%
Social services	67.3%
Substance abuse services	39.1%
Vision services	69.4%

*Percentage reflects participants who responded very available or available

I would say the majority of immigrants that we hear about go to HHC. I think that some go to FQHC's. A lot of people though pay out of pocket to go see their own providers. That's actually fairly common. (key informant, health advocacy)

Seventy-three percent of survey respondents reported that pediatric and adolescent services were available/very available. Seventy-two percent reported that medical specialists are available/very available, although there was significant variability in responses according to neighborhood (e.g., 57% in northwest Queens, compared to 85% in north Queens). Several key informants and focus groups participants reported on relatively poor access to specialist services.

There's still a ton of people in the community that we've served that have chronic illnesses that are the result of a whole bunch of different factors that primary and preventative care are just not going to be able to address. And so there's a gap in primary care providers' ability to find specialists who are accepting Medicaid or different kinds of insurance. (key informant, health advocacy)

Behavioral Health Services: Survey respondents reported that behavioral health services are less available than other types of care: 55% reported that mental health services were available/very available (range: 30% in northwest Queens, 79% in central Queens) and 39% reported that substance abuse services were available/very available. Mental health services for children and adolescents were described as particularly limited, as well as culturally and linguistically competent services. As described by a key informant working with the Latino community:

> *People going through really crappy situations on a day-to-day basis that wears them down over time. And then, people come to us and they're just like, "Where can I go? Who can I see?" And really what they need is not to be admitted to a long-term thing. They need to have someone to be able to talk to. And, you know, the folks that don't have insurance – there's just nothing for them, right? I guess one thing is the language issue. There aren't a ton of good psychologists or psychiatrists or social workers – maybe some more social workers -- but psychologists or psychiatrists that speak Spanish and can do talk therapy in Spanish. And then the cost thing, you know. Most good providers do not take insurance at all, let alone Medicaid, so that's been huge. It's been a big challenge for us to figure out, as an organization. (key informant, CBO)*

In the words of one primary care provider, *"We often throw our hands up because it is so difficult to find [adolescent mental health] providers."* According to some providers, services that are available might also be unknown to community organizations and residents—or they might be unaware of processes for accessing them. In addition, behavioral health issues generally carry greater stigma than other health concerns, which tends to limit use of services. Key informants and focus group participants both reported that many affected individuals and families try to address problems internally—or not at all. A key informant emphasized the disparities in perceptions of behavioral health across NYC.

> *In New York, if you're white having a therapist is a badge of honor, if you're black it's stigmatized. (key informant, CBO)*

According to key informants that are themselves providers, regulatory issues promote fragmentation of services.

> *Depending upon the level of what people talk about, behavioral health can be done within the Article 28. We have psychiatrists who work within the [article] 28 and psychiatry can be in health clinics. They're really there to really confirm and confer. It's called a consultation liaison model and you know, you're really, the rule of thumb and it's hard to get answers out of Medicaid about how many times we can be seen. It's like a maximum of three times. So if someone needs more than just a simple SSRI, you know, you see that the psychiatrist. The psychiatrist may say you know what, "I really think you*

should go into [article] 31" … It's not that it's a bad thing, you know but it's just another step … We do offer short term therapy in our 28 … We have very limited slots and because of licensure, it has to be secondary to a medical issue because again, the Medicaid rules are very clear. (key informant, CBO)

A number of providers suggested that there is even poorer integration within behavioral health services themselves than between physical and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH) with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. Thus, a mental health provider might be limited in the severity of illness that can be treated, the age of the patient, and other factors.

Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So, if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I mean really become integrated in treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (key informant, multiservice organization)

Dental Care: Seventy-one percent of survey respondents felt that dental services are available or very available in their community; 58% reported having been to the dentist in the prior 12 months. Although focus group participants with good coverage reported using dental services consistently, a number of participants described dissatisfaction with services, commonly due to the high cost.

I became a citizen but whenever I go to Korea, I'll do my dental care there, because here it's so expensive. (key informant, CBO)

You go to the doctor for one problem and they tell you 2, 3 more problems. You have a cavity they tell you to get a root canal. (focus group participant)

Two health care providers described poor oral health *("horrible teeth")* among children.

Insurance: Focus group participants, in response to a question regarding what should change in health care, overwhelming cited insurance, including its expense, complications, and the limitations it places on choice. Limitations on choice were particularly problematic for

individuals with special needs, including individuals with disabilities and limited English proficient individuals. A key informant explained:

> *So if you signed up for a plan and that doctor that takes care of your community isn't on that plan then there's not a whole lot you can do. And the other issue is you might be signed up for a provider who says he accepts this plan and then halfway through the year you're locked into the plan, [even] if the provider drops it…They do not have any commitment and so that's been – there's no accountability on the provider side in terms of staying in it. And this is particularly important for immigrants … when you talk about languages of lesser infusion, where there are not that many providers that speak those languages or have the cultural competence. (key informant, health advocacy)*

Lack of insurance was, not surprisingly, a more common problem in immigrant communities, due to limitations on immigrant eligibility for public insurance programs, as well as more limited access to employer-sponsored care (due to restricted job opportunities). However, community members and key informants also report that income restrictions for Medicaid are unrealistically low, and self-purchased coverage is felt to be too expensive for low- income populations, given the difficulties of paying for basic necessities like food and housing in NYC. Many low income, previously uninsured, community members had been receiving free or very low cost services at FQHC's or HHC facilities; insurance is perceived to be expensive in comparison.

Lack of insurance coverage resulted in neglect of primary care, preventive services, and dentistry; limited access to prescription medications; and use of emergency care for non-urgent issues. Many focus group participants commented that they do not receive care without insurance coverage. For example:

> *I was a diabetic. I had to fight [it alone] for 10 years, because I had no insurance and no place to support me. Even I didn't report my disease to my wife and children. I decided to cure it by myself. The problem is that the middle-income and middle age groups in society do not usually benefit from government-controlled health insurance programs like Medicaid and Medicare. (focus group participant)*

<u>Supportive Services</u>

For populations that have difficulty accessing health care services, whether because of unfamiliarity with the system, age, language, or other factors, supportive services, including transit, health education, navigation, case management, can make a critical difference. For example:

> *We have transportation services that allow many seniors access to the centers, because otherwise they'd have no other way of getting here. We provide transportation to medical*

appointments. And not only do we provide the transportation, but we … launched an escort program. So in addition to providing the actual transportation, we now will assist by providing a companion to travel with the senior, because what we were finding was that both in physical frailty as well as cognitive frailty, seniors needed more assistance because they often became disoriented or needed that help in navigating through the holes … and even in medical buildings, you know, it's very difficult. And even though you may have been there before, sometimes it looks different. (key informant, CBO)

Community Health Workers: Several CNA participants described the significance of community health workers (CHWs), and the multiple roles they played (or could play) in promoting health and appropriate health care use, particularly with respect to complicated components of the health care system, including health insurance and hospitals. From the perspective of CNA participants, training and employment of CHWs not only benefited patients and clients but also provided important training and employment opportunities for community members.

A great model is the community health worker model. This cooperative idea is training, hiring people from the community to improve people's health. Who's better than someone who's next to you? And maybe not always, because of privacy and other issues. But if he looks like you, and he has family who comes from [the same place], they get trained in a way to do it. It would be great to have more community health workers around everywhere. (key informant, health advocacy)

There's some work to be done on the pre, coming into the hospital … making sure that all the doctors have been pre-certified and pre-cleared, making sure that people did or did not drink or understood exactly all the instructions they needed to follow before coming into the hospital. Making sure that they know where to go when they go to the hospital, so it's not so scary and daunting and maybe so scary and so daunting that perhaps someone doesn't show up, because it just sounds a little too overwhelming. (key informant, health advocacy)

Particularly for immigrant communities, CHWs—whether they be health educators, navigators, or advocates—helped to ameliorate the pervasive language and cultural barriers. A key informant working with the Latino community commented:

They are people that come from the community, that speak the language, and that are trained up on how to navigate this hospital, or how to navigate the health insurance system, etc. And so, when you plug in that person as part of the team of people that takes care of someone, and then it just makes a world of difference. So the [patient] isn't confused as to where in the hospital he's supposed to go. They ask their navigator how the primary care department is relating to the specialized care department, and there's communication happening. You know, there's advocacy being done on language

resources, on financial aspects… So I don't think it's the magical solution, but having someone that can help guide you through that and make it less of a scary process is huge. (key informant, CBO)

CHWs were reported to be particularly valuable and effective in ensuring that hospital discharge plans are effectively implemented:

We see a lot of people that – when they emerge, when they leave the hospital, and they come to us, and we say, "All right, what's the plan?" And people often say, "I'm not sure." "All right, when is your next appointment?" And they say, "I don't know." So we have to just call [the hospital] and ask, "When is this person's [appointment]?" So they've been discharged, and they're supposed to understand this stuff, but the people just don't know… We try to find out what the next steps are. And then, often people get prescriptions, and … people don't understand why. If you don't understand why you're taking this thing, you're less likely to keep taking it. So people stop. They get sick again. (key informant, CBO)

I think one of the things we do miserably in New York City … is horrible discharge planning, horrible, horrible. And if there were these advanced primary care workers or at least community health workers, I think one of the main things I would really have them do is think about discharge planning. If [DSRIP] money is going through hospitals, I would really, No. 1, think about discharge planning and how to make that really real and follow-up calls and texts and whatever for all these folks. And making sure that there's really a system, and that the community health worker or advanced primary care worker gets a copy of that discharge plan and follows up with the patient. (key informant, health advocacy)

Care Coordination/Case Management: Across populations and conditions, care coordinator and case management models were described as highly effective approaches for improving health and reducing health care use. Multiple key informants cited research studies that demonstrated positive outcomes during implementation of care coordination programs. Responsibilities of care coordinators included linkage and serving as liaison to multiple providers, health education, assistance with accessing entitlement and supportive services, and monitoring the stability and engagement of clients.

Children with asthma and other chronic illnesses need care managers, who my suggestion would be that there is some communication from the emergency room to the primary care provider, who then reaches out to the care manager to follow up with that parent on whether or not they were, or using the medication as prescribed, whether they filled the prescription, whether they had the medication. Whether they're using the

medication as prescribed during a home visit to make sure that's indeed the case and ensuring that there is a follow up within one week at the pediatrician's office.

Care coordination was seen as valuable in part because of excessive fragmentation within the healthcare system, though developing care coordination programs did not diminish the need for improved integration of care.

I think [DISRP is] exciting for a lot of people for different reasons, but we're excited about it because we think that it's an opportunity to potentially change some of [this]. The system doesn't support us…. And when I say "us," I mean me as a representative of the client. The client themselves, it doesn't support them. And that's a problem, and we shouldn't have to be working double time, and we shouldn't have to have another system of people who we pay to coordinate care, because the system is so fragmented. You do need coordinated care and creating that resource is valuable, but this has to get unfragmented, too. (key informant, CBO)

Unfortunately, funds for care coordination are limited and salaries for the positions are relatively low. Low salaries make hiring difficult and may necessitate selection of candidates that are under-qualified, particularly considering the expectations of the job, which include work with challenging populations, familiarity with multiple psychosocial and health issues—and the services available to address them, as well as the logistic and administrative aspects of the position, including use of multiple electronic health records.

We have to find people that are from the managed care world, that are from the hospital world. We have to find professionals that understand those worlds and they also have to be database professionals, they have to be able to navigate Navitar, they have to be able to navigate Dashboard, they have to be able to input information into these databases, and into our own database, and to be able to do it many times offsite. You're stuck between a rock and hard place, because people with enough skills and training to work with such a high acuity, in most cases, group of clients. But then also they'll have, like the background is more like data entry… You want them to come in with some of the skills, 50% of the skills, I mean, maybe we have to teach them the other 50%. Maybe they come in with substance abuse skills but they don't know mental health and they don't diabetes and primary healthcare concerns, or maybe it's the other way around. It feels like [it's too much to ask of a person], but you have to make it work. (key informant multiservice agency).

Lack of trust or engagement (or possibly time) in care coordination on the part of medical providers also was considered to limit the potential effectiveness of care coordination models.

What's missing is … saying to individual providers that this is important, and you need to be responsive, and you need to talk to people, and you need to interact with care coordinators. One of the biggest problems and flaws in the system is that in all of our contracts… we're required to go to providers, individual PCP's and psychiatrists, and get information from them both about their care that they're providing to our client or their patient or the lab work that's been done, tests, reports, anything that they're doing with our patient. We need to get access to that information so that we can help to provide better care and to guide that person along in the care that they're getting. So if they get prescribed a specific medication, we can say, "Are you taking that medication? Where are you at with it? Have you filled the prescription?" Those kind of things. The problem is, on the provider's side, they don't get paid. No one's telling them – no one's saying to them from the funder level … "You must communicate with these people."… so the providers ignore us. (key informant, multiservice organization)

Finally, a consistent electronic health record was described as a challenge for agencies offering care coordination services, as they had to utilize multiple systems.

The State's not equipped to be able to mandate [a consistent electronic health record]. So everybody is left on their own to be able to design their own or to pick and choose an on-the-shelf or off-the-shelf package. And that's been what's causing the mess. So then not only do you have that, but you also don't have the communication between Health Homes to talk about a client, where a client is… being able to get some kind of a text message or an email saying a client is in an emergency room or a hospital. …that should be really enhanced where we have much more access to the client's status, where that client is, when the client is in crisis, so that we can intervene and help the client. (key informant, Multiservice agency)

Health Education: Health education was a common theme in interviews and focus groups, incorporating both education of the broader public and individual level education regarding management of complex health conditions.

All the hospitals, for example, that saw these kids and saw a lot of admissions hired instructors, asthma care instructors, patient care instructors, who would meet regularly with the asthmatics after the physicians saw them. "Are you taking your meds? What are you taking? What do you do when you do this?" …. So that was patient educators I guess is what they called them, and it worked beautifully for all those diseases. (key informant, provider)

Topics for education of the broader public included insurance, nutrition, screening, preventive health care, and mental health care. Information related to general awareness and related to

behavior change were both considered important. Health fairs, school based programming, and faith based programing were all seen as important venues for the dissemination of information—and for health screening. For example:

> *I would love to see lots of programs in schools to target children. We have millions of people in our schools, in public schools, in private schools. Can we target the children and their parents with workshops? Education materials for them to give it to go home with every child. We'll be targeting millions of people. Public school is a big door for us, open wide for us to reach out to the children and their families, to educate them about preventive services. (key informant, CBO)*

> *Teach them how to shop, read labels, especially they need to know what they're eating. Eat small portions. Eat lots of fruits and vegetables. What has sugar; what doesn't have sugar? (key informant, CBO)*

> *Some of the communities that we know of—they do a lot of their health education at faith-based organizations. Faith-based organizations have access to space, for example, so many of them I know will open up their space. Groups can rent it out. They'll have exercise classes or dance classes. So I think they play a huge role. And this idea around shared use agreements, I think would be really fantastic to look at. And then civic – I mean civic associations, too, I mean they reach a certain community that might not necessarily be going for social services. So, definitely ways to integrate them. And then they're trusted in their community. They're leaders there, so if you can convince those members or leaders to partner with you on these projects, I think it would be a win-win. (key informant, health advocacy)*

> *Mental health services and behavioral health are supposed to be treated as equally important. And so, insurers cannot decline to provide coverage [for mental health services]. And so, but the way that that's – the degree to which that is sort of implemented and I think communicated – education is really important to lots of communities. (key informant, health advocacy)*

> *I feel that young [Arab] adults… they are the ones who are going to reach out to their parents and grandparents to educate them about what's going on, about health disparities like breast cancer. It works out for the girls, they want to talk to their mother and grandma, "Did you do your mammogram? Do you know about breast cancer?" Because of the stigma in our community about breast cancer, they don't like to do mammograms. The women are very protective, like, "I'm not going to show my breast to anyone." … Some of them they never did mammogram in their lifetime. (key informant, CBO)*

Quality of Care

Several concerns related to quality of care were repeatedly raised in focus groups and key informant interviews. Each of these were reported to contribute to delays in care, neglect of care, poor adherence to medical recommendations, and poor health outcomes.

- Wait times for appointments. For certain specialty services, including dieticians, wait times are reported to be as long as a year.

  People say it's not rational to go to the emergency room for care, but when we talk to people, they would say things like, "Well, I tried to make an appointment with my doctor, and it's like four months in advance." What rational person is going to wait four months rather than go [to the ER]

- Wait times on the day of a visit and in the ER

  They give you an appointment at 10:00 am and you leave at 5:00 pm (Focus group participant)

- Short visits that did not allow for health needs to be appropriately addressed. Community members felt that providers do what is expedient rather than what represents the highest quality of care, and ER physicians report that primary care providers refer their difficult cases to the ER, since their allotted time per visit is so brief.

  We try to encourage people to ask questions, and get as much information as possible. And often people feel like the reality is really that they have five minutes with the doctor. (Key informant, CBO)

- Multiple and complicated referral pathways, that result in significant inconvenience and expense for patients. Limitations on subspecialty services in Queens mean that patients may be referred to hospitals in other boroughs. Furthermore, the possible need for multiple visits (e.g., for tests) discourages timely use of services.

- Poor discharge planning after emergency department visits and inpatient stays. Patients are discharged without a clear understanding of their discharge plan, including medication use and follow-up visits. In addition, follow-up appointments are not necessarily consistent or logical. For example, patients discharged after hospital stays will be referred to other institutions due to financial incentives (or disincentives). Or, in contrast, ED patients that they a primary care provider will be referred to a hospital clinic for follow-up care.

  Kids walk into the emergency room with a Medicaid card that says that they have Health First, and they get prescribed the medicine in the emergency room, and then they get

scheduled with a follow-up appointment at that hospital's clinic even though their pediatrician is on the card. Does that make sense? No. (Key informant, provider)

If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not happening [for homeless patients]. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient. (Key informant, provider

- Lack of knowledge, sensitivity, and competency regarding diverse populations, and populations with special health needs.

  Community members have reported back that doctors and health care professionals in general talk about certain illnesses, like diabetes, hypertension, heart [disease] – a lot of these things are inevitable, right? Or kind of like, "Okay, you have hypertension, here's your medication," as opposed to actually there are things that you can do, lifestyle changes that you can make. I remember we had a really well-known pastor at an organization we're working with in the Bronx, and he said that he didn't know that if you had diabetes, it didn't mean that you had to have a limb amputated, which is pretty nuts, right? That because you have diabetes it does not mean that you have to lose limbs. I think, for whatever reason, providers may feel like when they're talking with certain populations that it's not worth it to talk about what else you can do to address your needs that's not medication or that's not amputation. And there may be some cultural biases that are – there are culture biases, I think, that are built into that way of talking to the patient (key informant, health advocacy)

SPECIFIC POPULATIONS

Low income, uninsured, and immigrant populations, as described above, face a number multiple barriers to optimal health and health care use. However, within these populations, there are a number of groups for which the barriers are exacerbated. These include individuals with disabilities, as well as individuals that are lesbian, gay, transgender, and queer (LGBTQ); criminal justice involved, homeless, or victims or survivors of domestic violence. A number of these groups are also high users of expensive medical services due to a combination of greater medical need and barriers to community based services.

Individuals with Disabilities: Individuals with physical and/or cognitive disabilities are disproportionately low income, unemployed, and have a high number of co-morbidities, including obesity, hypertension, and cardiovascular disease. Despite a high need for services, they reportedly delay care because of poor accommodation (e.g., absence of ramps, sign language interpreters) and providers that are insensitive to both their capabilities and their limitations. These access barriers—and their implications— were described by CNA participants. Unfortunately, barriers are considered more significant in community as compared to hospital settings so may become more pronounced as—consistent with the goals of DSRIP—services move into the community.

> *A requirement, for example, that you come to an appointment timely, or if you miss an appointment three times, you can be dis-enrolled from a program or a provider, [is discriminatory]. If you use Access-a-Ride, for example, it is almost impossible to know when you will arrive at a location on a consistent basis. The service is simply of such poor quality that if … you need door-to-door transportation, you need flexibility in appointment scheduling.*

> *In the health setting, practitioners are often listed – clinics are often listed as being wheelchair accessible in managed care program directories. But in fact, according to a survey by the Community Service Society, it was found that these practitioners have steps at their front entrance. The providers don't even know what accessibility means. And so they list themselves as accessible, but when you go to their site or you call them on the phone, they'll say, "Oh yes, we have a few [steps] at our entrance, but that's no big deal."*

> *They don't have exam tables that will lower so that you can transfer from a wheelchair. Or they don't provide ASL interpreters, either in person or by video phone or other system. …. They don't give you longer times for your appointment if it's going to take you a long time to dress and undress…*

LGBTQ: The LGBT population have both typical and particular health concerns. Utilization of health care services—even the ER—is reported to be less than needed, due to lack of sensitivity on the part of providers. Although the lack of sensitivity is particularly pronounced with respect to transgender patients, it effects lesbian, gay and bisexual individuals as well.

> *So there are health disparities that we know exist among LGBT older people. And part of this has to do with the fact that they're so much less likely to reach out for help and so much less likely to get screening. So there's a higher rate of breast and gynecological cancers among lesbian women. There are higher rates of rectal cancer and prostate cancer among gay and bisexually identified men. (key informant, CBO)*

They're not willing to be forthcoming with their providers, they withhold information from their providers, they're real reluctant particularly with transgender folks to engage in health care on so many levels and we could talk for hours about trans people like getting disrobed, what room do you go into, what's your name on the form, why doesn't this match your insurance card, why do you have breasts and a penis, can I touch this? (key informant, health care organization)

But even when I was in the hospital with my mother. I went there with no makeup. I clearly have boobs, have my long hair. I looked weird, and no one gave me the respect or anything. When I used to open my mouth before, I got attention and I got whatever I needed. Now it's like, "You're a freak, go away."(focus group participant)

Isolation and perceived stigma lead to mental health concerns in the LGBT population.

I think for many LGBT people they're separate from other minority groups, the isolation from levels of support starts at a very young age and it's within the family and within the local community and so there is a lot of effective issues that people experience just from an early age onward. I wouldn't say that the prevalence of psychiatric diagnosis is greater but there is a substantial amount of the affective issues of mood anxiety, depression and with those in particular for anxiety and depression, substances play a very key role in modulating mood. (key informant, health care organization)

Criminal Justice Involved: Working with individuals that have been involved in the criminal justice system requires nonjudgmental staff that are familiar with the practical (e.g., Medicaid deactivations of Medicaid, parole regulations), medical, and psychosocial issues faced, including the limited economic options and high rates of trauma and mental illness. According to a key informant that works in correctional health, this population is comprised of:

The sickest people in the city, who are the most socioeconomically disadvantaged, the most stigmatized and the least likely to access care in a way that would be, exclusive of using the emergency room and that sort of thing.

I think, honestly, with the, state emptying the psychiatric facilities, which nobody liked, but I'm not sure that jail is a better alternative. And right now we're talking about 40% of [the Rikers] population are mentally ill. And about 60 to 80% have some kind of behavioral health issue. And then we're talking about, you know, folks with chronic health conditions and the population in jails is aging, so now we've got diabetes and heart disease at much higher rates.

A key informant knowledgeable in this field recommends bridging connections directly from jails/prisons to community based organizations and providers upon re-entry, to avoid emergency department use post-release:

> *[There are] increased rates of hospitalization and emergency department visits post release. We've shown both those things. So anything that we do to try to systematically reduce hospitalizations would definitely benefit from partnering with local jails to help facilitate what I call warm transitions to primary care for medical and to behavioral health treatment, including drug treatment, substance use treatment so that we can avoid people coming to the emergency room 'cause that's what they're gonna do if they don't have - if they don't have a plan. I think it's kind of a no-brainer.*

Aggressive policing in Queens related to carrying condoms was reported by a key informant and in an unrelated focus group:

> *The police around here take the fact that you're carrying a condom, if you're a transgender person, as proof that you're a prostitute and will arrest you. So that's, to say the least, exactly the wrong message. They've actually harassed me, as well, for giving condoms to transgender individuals on the street, accusing me of encouraging prostitution. I have to show them my ID, the letter from the Department of Health that shows my job, and they're like, "It's three in the morning. Why are you out here propositioning them?" And I'm like, "Look, here's my bag. I work for the center. I'm not encouraging them to do anything, I just want them to be safe." (focus group participant, CBO)*

> *One good example is this whole access to condoms thing where right now the police can use someone having condoms as evidence of prostitution. So, we've seen that people, particularly in Queens, are stopped, searched, they have condoms, they get arrested… the access to condoms has a direct health component. Because we see people that are like, "I'm not going to carry condoms. I'm not going to use condoms anymore because they're evidence." (key informant, CBO)*

Homeless Population: The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed, and which may be, in turn, further exacerbated by homelessness. According to a key informant that works with the homeless:

A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients.

Homeless individuals are reported to be frequent users of emergency services, not only because of health conditions but because of the instability in their lives.

Our clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street.

Recommendations for improved coordination of care, more efficient use of services, and improved health focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service. In addition, key informants in multiple fields emphasized the importance of supportive housing for high need homeless populations.

Domestic Violence: Domestic violence—with wives, older adults and children as potential victims— was a topic that resonated with several interviewees and focus group participants as a significant community concern that has received inadequate attention. Of Queens survey respondents, 28% reported that health education or programs on domestic violence are needed in their community; the proportion was 44% in Jamaica. Domestic violence obviously can result in both physical health (e.g., injury) and mental health issues, including anxiety and depression. Although not necessarily more prevalent, domestic violence issues were particularly relevant in immigrant communities, due to possibly different standards in their home country as compared to the US, stigma, lack of linguistically and culturally appropriate resources, and fear of deportation—particularly in mixed immigration status families.

They came to U.S. legally with their husband, but because of abuse, and sometimes, oftentimes abusers use their immigration status as a tool to control their partner, so they ended up being undocumented, so it's much harder for then get a job. They ended up working under the table, a lot of labor trafficking issues there too by the employer. (key informant, CBO)

DISCUSSION

Queens community members and other stakeholders are clearly interested in partnering with hospitals and being part of solutions that promote good health and reduced hospitalizations. Many are wary, fearing that hospitals will not fully engage with the community going forward, as most lack experience doing so and the financial incentives of health system re-engineering are unclear. The predominant theme in Queens is seemingly "diversity," given the large numbers of foreign born – as well as a sizable African American population in particular neighborhoods. This diversity brings with it strengths, as well as multiple challenges regarding language, culture, and economics. Focus group and interview participants articulated specific barriers to good health and good health care, many of which were related to poverty and it's consequences, including long work hours, unstable housing, and the need to prioritize expenditures—even among basic needs. For specific groups, including the disabled, LGBTQ, criminal justice involved, and the homeless, health-related barriers were compounded, due to both attitudinal and practical considerations.

Focus group and interview participants also articulated potential "fixes," such as increased ease of access for medical visits (e.g., reduced wait time, reduced insurance restrictions, increased integrated care); improved provider sensitivity; and a range of supportive services, including community health workers, care coordinators—particularly for difficult to manage medical conditions and high risk populations—and navigators. Health education, addressing (for example) prevention, screening, disease management, insurance, and the normalizing of mental health issues, was considered essential at the individual and the community level, to ensure that the population has the knowledge and skills necessary for independent action that promotes their own good health.

Table 1: Distribution of Responses (N=605)*

UHF Neighborhood	UHF code	Zipcode	Alternate Name (for attached tables)	Frequency	%
Long Island City, Astoria, Sunnyside	401	11101, 11102, 11103, 11104, 11105, 11106	Northwest Queens	35	5.8%
Corona, Elmhurst, Jackson Heights, Maspeth, Woodside	402	11368, 11369, 11370, 11372, 11373, 11377, 11378	West Queens	217	35.9%
Bay Terrace, Clearview, College Point, Flushing, Whitestone	403	11354, 11355, 11356, 11357, 11358, 11359, 11360	North Queens	169	27.9%
Bayside, Douglaston, Little Neck, Oakland Gardens	404	11361, 11362, 11363, 11364	West Central Queens	30	5.0%
Forest Hills, Glendale, Middle Village, Rego Park, Ridgewood	405	11374, 11375, 11379, 11385	Central Queens	29	4.8%
Fresh Meadows, Hillcrest, Kew Garden Hills	406	11365, 11366, 11367	Northeast Queens	24	4.0%
Kew Gardens, Ozone Park, Richmond Hill, Woodhaven	407	11414, 11415, 11416, 11417, 11418, 11419, 11420, 11421	Southwest Queens	15	2.5%
Jamaica	408	11412, 11423, 11432, 11433, 11434, 11435, 11436	Jamaica	55	9.1%
Cambria Heights, Glen Oaks, Laurelton, Queens Village, Rosedale	409	11004, 11005, 11411, 11413, 11422, 11426, 11427, 11428, 11429	Southeast Queens	24	4.0%
Rockaways	410	11691, 11692, 11693, 11694, 11695, 11697	Rockaways	7	1.2%
				605	100%

* Only included responses with zipcode

Table 2: Demographic characteristics

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=605)
Age (Mean, SD)	43.7 (17.4)	45.8 (18.0)	59.9 (19.4)	58.8 (19.6)	46.9 (19.2)	53.3 (18.5)	32.6 (11.1)	40.0 (14.1)	59.7 (22.2)	37.4 (20.9)	50.2 (19.8)
18-20	5.7%	1.4%	2.4%	0.0%	3.5%	4.2%	6.7%	9.1%	8.3%	42.9%	3.6%
21-44	57.1%	49.8%	20.1%	23.3%	44.8%	33.3%	66.7%	56.4%	20.8%	28.6%	39.3%
45-64	17.1%	30.9%	30.2%	36.7%	34.5%	37.5%	20.0%	27.3%	12.5%	14.3%	29.1%
65-74	11.4%	7.8%	17.2%	13.3%	6.9%	8.3%	0.0%	7.3%	33.3%	14.3%	11.7%
75-84	5.7%	5.1%	20.1%	16.7%	10.3%	8.3%	0.0%	0.0%	20.8%	0.0%	10.3%
85 and older	0.0%	3.2%	7.1%	10.0%	0.0%	8.3%	0.0%	0.0%	4.2%	0.0%	4.1%
Unknown	2.9%	1.8%	3.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	0.0%	1.8%
Gender											
Female	68.6%	62.4%	73.1%	55.2%	89.3%	54.2%	53.3%	36.5%	70.8%	42.9%	64.0%
Male	31.4%	37.1%	27.0%	41.4%	10.7%	45.8%	46.7%	63.5%	29.2%	57.1%	35.7%
Transgender	0.0%	0.5%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Sexual Orientation											
Heterosexual	87.0%	93.6%	95.8%	100.0%	91.3%	100.0%	100.0%	91.8%	100.0%	60.0%	94.4%
LGBTQI	13.0%	6.4%	4.2%	0.0%	8.7%	0.0%	0.0%	8.2%	0.0%	40.0%	5.7%
High school graduate or higher	90.6%	73.0%	84.8%	86.2%	85.2%	77.3%	92.9%	85.7%	81.8%	57.1%	80.5%
Hispanic	15.2%	35.0%	4.4%	7.7%	40.7%	8.7%	20.0%	7.7%	25.0%	0.0%	19.5%
Race (N=584)											
White	14.7%	21.0%	24.0%	28.6%	28.6%	12.5%	6.7%	3.8%	30.4%	14.3%	20.2%
Black or African American	5.9%	5.4%	2.4%	3.6%	0.0%	8.3%	33.3%	50.9%	21.7%	85.7%	10.8%
Asian	52.9%	49.8%	68.9%	64.3%	42.9%	66.7%	53.3%	32.1%	39.1%	0.0%	53.9%
American Indian or Alaskan Native	2.9%	1.5%	0.0%	0.0%	3.6%	0.0%	0.0%	1.9%	0.0%	0.0%	1.0%
Native Hawaiian or other Pacific Islander	0.0%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Other	17.7%	15.6%	2.4%	0.0%	14.3%	4.2%	6.7%	5.7%	8.7%	0.0%	9.1%
Mixed	2.9%	2.0%	0.6%	0.0%	3.6%	4.2%	0.0%	0.0%	0.0%	0.0%	1.4%
Unknown	2.9%	4.9%	1.8%	0.0%	7.1%	4.2%	0.0%	5.7%	0.0%	0.0%	3.4%
Unemployed	8.6%	17.1%	7.2%	10.0%	10.7%	16.7%	0.0%	34.0%	12.5%	0.0%	13.8%
Always/sometimes worry about not having	54.6%	61.7%	40.4%	42.9%	60.0%	39.1%	75.0%	61.5%	45.5%	66.7%	53.2%
Living below a federal poverty level	76.2%	68.0%	69.6%	60.0%	50.0%	75.0%	66.7%	78.1%	76.9%	100.0%	69.8%

Table 3: Language

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=594)
Primary langauge spoken at home											
English	35.3%	35.1%	30.1%	36.7%	46.4%	25.0%	40.0%	66.7%	40.9%	100.0%	37.9%
Spanish	14.7%	31.3%	1.8%	6.7%	32.1%	8.3%	13.3%	3.7%	27.3%	0.0%	16.5%
Arabic	14.7%	1.9%	0.0%	0.0%	0.0%	4.2%	0.0%	1.9%	0.0%	14.3%	2.0%
Chinese (Mandarin, Cantonese, or other)	2.9%	4.7%	32.5%	20.0%	10.7%	25.0%	6.7%	1.9%	4.6%	0.0%	13.9%
French	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	0.3%
Haitian/French Creole	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	6.7%	0.0%	4.6%	0.0%	0.5%
Hindi	2.9%	1.9%	3.0%	0.0%	3.6%	4.2%	0.0%	0.0%	4.6%	0.0%	2.2%
Italian	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Korean	17.7%	2.8%	26.5%	40.0%	14.3%	29.2%	0.0%	0.0%	4.6%	0.0%	13.5%
Russian	0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%
Urdu	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	4.6%	0.0%	0.5%
Yiddish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other	32.4%	34.1%	9.6%	0.0%	7.1%	12.5%	40.0%	25.9%	22.7%	0.0%	21.9%
Multiple language	20.6%	12.2%	9.0%	6.7%	12.3%	13.0%	6.7%	1.9%	4.6%	14.3%	10.3%
English proficiency											
Very well/well	69.7%	56.2%	50.6%	60.0%	67.9%	68.2%	80.0%	90.6%	69.6%	100.0%	61.4%
Not well/not at all	30.3%	43.8%	49.4%	40.0%	32.1%	31.8%	20.0%	9.4%	30.4%	0.0%	38.6%
Ever not get healthcare because of language or	0.0%	1.9%	17.1%	0.0%	0.0%	0.0%	0.0%	7.7%	25.0%	0.0%	6.5%
Foreign born	67.7%	76.4%	74.4%	65.5%	75.0%	75.0%	46.7%	59.6%	68.2%	42.9%	71.7%

* only those who indicated ever not getting healthcare when needed

Table 4: Health-related characteristics

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=605)
Perceived health status											
Excellent/very good/good	82.4%	74.0%	65.6%	71.4%	82.1%	69.6%	66.7%	82.4%	66.7%	85.7%	72.6%
Fair/Poor	17.6%	26.0%	34.4%	28.6%	17.9%	30.4%	33.3%	17.7%	33.3%	14.3%	27.4%
Body mass index (Mean, SD)*	24.8 (6.7)	25.9 (5.2)	24.1 (4.3)	24.7 (4.8)	24.9 (5.1)	25.7 (4.7)	25.3 (6.0)	26.3 (5.3)	26.1 (6.2)	25.8 (9.4)	25.2 (5.2)
Underweight	3.5%	4.4%	7.3%	0.0%	5.0%	5.3%	0.0%	2.0%	0.0%	16.7%	4.7%
Normal	65.5%	42.3%	58.0%	63.2%	50.0%	47.4%	71.4%	44.9%	50.0%	50.0%	51.0%
Overweight	17.2%	36.3%	24.7%	21.1%	30.0%	31.6%	21.4%	32.7%	27.8%	16.7%	29.5%
Obese	13.8%	17.0%	10.0%	15.8%	15.0%	15.8%	7.1%	20.4%	22.2%	16.7%	14.8%
Have health insurance											
Medicaid	45.7%	39.4%	44.6%	31.0%	37.9%	50.0%	60.0%	58.2%	25.0%	57.1%	43.0%
Medicare	25.7%	15.3%	43.5%	37.9%	13.8%	12.5%	0.0%	10.9%	54.2%	28.6%	25.6%
Private/commercial	17.1%	13.4%	14.3%	34.5%	24.1%	25.0%	20.0%	9.1%	29.2%	0.0%	16.1%
VA	0.0%	0.0%	0.0%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Other	11.4%	6.5%	6.6%	6.9%	3.5%	4.2%	0.0%	7.3%	8.3%	0.0%	6.5%
More than one insurance	14.3%	4.7%	22.3%	13.8%	10.3%	4.2%	0.0%	3.6%	16.7%	0.0%	11.1%
Uninsured	14.3%	29.6%	12.1%	6.9%	27.6%	12.5%	14.3%	18.2%	4.2%	14.3%	19.3%

*__BMI categories__ less than 18.5 : underweight; 18.5 to 24.9 : normal; 25.0 to 29.9 : overweight; 30.0 or higher : obese

Table 4: Healthcare utilization

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=605)
Have a primary care provider/personal doctor	77.4%	71.8%	83.5%	85.7%	69.9%	72.7%	73.3%	67.9%	91.3%	83.3%	76.5%
Have a usual place to go for non-emergency health services	72.7%	75.6%	81.1%	90.0%	65.4%	82.6%	64.3%	73.6%	82.6%	83.3%	77.5%
Use complimentary or alternative treatments or remedies	26.5%	21.7%	39.1%	48.2%	25.9%	31.6%	38.5%	28.3%	31.6%	0.0%	30.1%
In the past 12 months:											
Had routine check-up	67.9%	74.9%	75.8%	79.3%	78.6%	63.6%	80.0%	85.7%	73.9%	100.0%	76.0%
Have been to a dentist	62.5%	51.2%	62.8%	72.4%	75.9%	50.0%	64.3%	50.0%	58.3%	83.3%	58.1%
Have gone to a hospital emergency room at least once	26.7%	31.1%	18.5%	27.6%	17.2%	29.2%	20.0%	43.9%	31.8%	40.0%	27.5%
Need healthcare but didn't get it	15.2%	26.7%	21.5%	26.7%	29.6%	30.4%	14.3%	24.5%	19.1%	33.3%	24.1%

Table 5: Place for non-emergency healthcare services*

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=450)
Type of place											
Primary care doctor's office	62.5%	67.7%	57.9%	74.1%	58.8%	47.4%	77.8%	74.4%	68.4%	40.0%	64.2%
Specialist doctor's office	12.5%	8.9%	15.8%	7.4%	11.8%	15.8%	11.1%	5.1%	26.3%	40.0%	12.2%
Community/family health center	0.0%	3.2%	8.3%	0.0%	5.9%	5.3%	0.0%	2.6%	5.3%	0.0%	4.4%
Hospital-based clinic	8.3%	12.0%	0.8%	3.7%	5.9%	15.8%	11.1%	7.7%	0.0%	0.0%	6.9%
Private clinic	12.5%	9.5%	16.5%	11.1%	23.5%	10.5%	0.0%	2.6%	10.5%	0.0%	11.6%
Emergency room	4.2%	4.4%	5.3%	7.4%	5.9%	0.0%	0.0%	7.7%	0.0%	0.0%	4.7%
Urgent care	4.2%	3.2%	3.0%	3.7%	11.8%	10.5%	0.0%	0.0%	5.3%	0.0%	3.6%
Pharmacy	4.2%	5.1%	3.8%	3.7%	5.9%	5.3%	0.0%	0.0%	5.3%	0.0%	4.0%
Drug treatment center	0.0%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Mental health center	4.2%	1.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
Alternative care (e.g. herbalist, acupuncturist)	4.2%	0.6%	0.8%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
Other	0.0%	0.6%	0.0%	3.7%	5.9%	0.0%	0.0%	2.6%	0.0%	0.0%	0.9%
Location											
Bronx	8.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%
Brooklyn	0.0%	0.6%	0.0%	3.7%	17.7%	0.0%	0.0%	7.7%	15.8%	20.0%	2.7%
Manhattan	8.3%	8.3%	6.0%	3.7%	11.8%	0.0%	22.2%	5.1%	5.3%	0.0%	6.9%
Queens	83.3%	89.8%	90.2%	88.9%	70.6%	94.7%	77.8%	84.6%	63.2%	80.0%	87.1%
Staten Island	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Outside of New York City	0.0%	0.6%	3.0%	3.7%	0.0%	5.3%	0.0%	2.6%	15.8%	0.0%	2.5%

*only for those who indicated that they have a specific place they usually go for non-emergency services.

Table 6: Barrier to gettig healthcare*

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=138)
Not insured	20.0%	50.0%	31.4%	50.0%	50.0%	14.3%	0.0%	61.5%	0.0%	0.0%	40.6%
Cost of copays	0.0%	20.4%	8.6%	12.5%	0.0%	0.0%	0.0%	7.7%	25.0%	50.0%	13.0%
Concerns about quality of care	0.0%	9.3%	8.6%	0.0%	0.0%	0.0%	0.0%	7.7%	0.0%	0.0%	6.5%
Did not know where to go	0.0%	5.6%	2.9%	0.0%	0.0%	14.3%	0.0%	7.7%	0.0%	0.0%	4.4%
Had other responsibilities (e.g. work, family)	20.0%	14.8%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%	25.0%	0.0%	8.0%
Could not get an appointment soon or at the right time	40.0%	11.1%	17.1%	50.0%	12.5%	14.3%	100.0%	7.7%	0.0%	0.0%	16.7%
Did not have transportation	0.0%	1.9%	2.9%	0.0%	0.0%	14.3%	0.0%	7.7%	50.0%	0.0%	4.4%
Concerns about language or translation issues	0.0%	1.9%	17.1%	0.0%	0.0%	0.0%	0.0%	7.7%	25.0%	0.0%	6.5%
Other	20.0%	14.8%	11.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%

*only for those who indicated that they ever not get healthcare when needed in the past 12 months.

Table 7: Reason for ER use*

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=158)
Did not have insurance	0.0%	23.1%	6.7%	12.5%	0.0%	14.3%	66.7%	17.4%	14.3%	50.0%	17.1%
Did not have transportation to a doctor's office or clinic	0.0%	4.6%	0.0%	12.5%	0.0%	0.0%	0.0%	4.4%	0.0%	50.0%	3.8%
Get most care at ER	12.5%	10.8%	26.7%	12.5%	20.0%	14.3%	0.0%	13.0%	14.3%	0.0%	14.6%
Problem too serious for a doctor's office or clinic	50.0%	33.9%	33.3%	62.5%	20.0%	14.3%	33.3%	26.1%	28.6%	50.0%	33.5%
Doctor's office or clinic was not opened	12.5%	13.9%	16.7%	37.5%	20.0%	28.6%	0.0%	8.7%	28.6%	0.0%	15.8%
Other	0.0%	12.3%	6.7%	0.0%	0.0%	28.6%	0.0%	13.0%	0.0%	0.0%	9.5%

*only for those who indicated that they went to the ER at least once in the past 12 months

Table 8: Health concern in the community

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=599)
Adolescent health	2.9%	10.7%	6.0%	6.7%	6.9%	8.3%	20.0%	5.7%	8.7%	0.0%	8.0%
Asthma	25.7%	21.9%	16.1%	16.7%	27.6%	20.8%	13.3%	13.2%	21.7%	14.3%	19.4%
Arrest and incarcertation	11.4%	5.6%	6.0%	3.3%	13.8%	0.0%	6.7%	5.7%	4.4%	28.6%	6.3%
Cancer	45.7%	40.0%	38.7%	30.0%	34.5%	25.0%	26.7%	24.5%	43.5%	0.0%	36.0%
Diabetes	60.0%	53.0%	53.6%	43.3%	55.2%	58.3%	40.0%	45.3%	73.9%	14.3%	52.8%
Disability	2.9%	10.2%	12.5%	13.3%	24.1%	4.2%	6.7%	15.1%	21.7%	0.0%	11.7%
Drug and alcohol abuse	37.1%	31.2%	15.5%	6.7%	31.0%	25.0%	6.7%	39.6%	26.1%	28.6%	25.5%
Family planning/birth control	0.0%	9.8%	1.8%	0.0%	3.5%	8.3%	13.3%	7.6%	13.0%	0.0%	6.0%
Hepatitis	17.1%	4.2%	10.7%	10.0%	0.0%	8.3%	13.3%	3.8%	8.7%	0.0%	7.4%
Heart disease	31.4%	28.8%	41.7%	33.3%	34.5%	41.7%	33.3%	15.1%	43.5%	0.0%	32.7%
High blood pressure	45.7%	42.3%	51.2%	43.3%	41.4%	54.2%	53.3%	32.1%	65.2%	28.6%	45.6%
HIV	14.3%	12.6%	4.2%	3.3%	6.9%	12.5%	6.7%	26.4%	8.7%	14.3%	10.5%
Maternal and child health	20.0%	11.2%	7.1%	0.0%	3.5%	8.3%	33.3%	7.6%	8.7%	0.0%	9.5%
Mental health (e.g. depressin, suicid	25.7%	22.8%	26.2%	33.3%	24.1%	12.5%	26.7%	22.6%	4.4%	0.0%	23.2%
Obesity	25.7%	37.2%	32.1%	40.0%	34.5%	45.8%	20.0%	22.6%	39.1%	14.3%	33.3%
Pollution (e.g. air quality, garbage)	31.4%	9.3%	19.1%	13.3%	13.8%	16.7%	0.0%	3.8%	8.7%	28.6%	13.5%
Sexual transmitted infections	11.4%	11.6%	2.4%	0.0%	0.0%	0.0%	13.3%	15.1%	4.4%	14.3%	7.5%
Stroke	14.3%	9.8%	14.9%	10.0%	3.5%	20.8%	0.0%	7.6%	13.0%	0.0%	11.2%
Teen pregnancy	11.4%	16.3%	0.6%	3.3%	13.8%	8.3%	0.0%	15.1%	0.0%	14.3%	9.4%
Tobacco use	42.9%	17.2%	29.8%	26.7%	24.1%	41.7%	6.7%	22.6%	21.7%	14.3%	24.4%
Violence or injury	14.3%	14.0%	11.9%	10.0%	13.8%	16.7%	0.0%	11.3%	4.4%	14.3%	12.4%
Other	0.0%	4.7%	2.4%	3.3%	0.0%	0.0%	0.0%	5.7%	0.0%	0.0%	3.0%

Table 9: Health issues faced

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=605)
Asthma	11.4%	10.1%	6.8%	14.8%	14.8%	4.2%	6.7%	19.2%	13.6%	28.6%	10.5%
Cancer	11.4%	2.9%	6.7%	3.7%	0.0%	4.2%	6.7%	1.9%	4.4%	0.0%	4.5%
Chronic pain	14.3%	13.5%	31.7%	32.1%	7.4%	20.8%	13.3%	11.5%	17.4%	0.0%	19.4%
Depression or anxiety	20.0%	16.4%	20.1%	18.5%	0.0%	12.5%	40.0%	11.5%	17.4%	0.0%	16.9%
Diabetes	22.9%	11.6%	16.5%	21.4%	7.4%	20.8%	20.0%	17.3%	21.7%	0.0%	15.3%
Drug or alcohol abuse	5.7%	2.9%	0.6%	0.0%	0.0%	4.2%	6.7%	5.8%	4.4%	0.0%	2.6%
Heart disease	5.7%	10.2%	21.2%	11.1%	3.7%	12.5%	13.3%	3.9%	21.7%	14.3%	12.9%
Hepatitis C	2.9%	1.5%	2.5%	0.0%	0.0%	0.0%	6.7%	3.9%	0.0%	0.0%	1.9%
High blood pressure	11.4%	24.2%	34.4%	40.7%	14.8%	45.8%	13.3%	26.9%	43.5%	28.6%	28.3%
High cholesterol	17.1%	26.7%	33.3%	22.2%	33.3%	37.5%	6.7%	19.2%	34.8%	28.6%	27.7%
HIV	5.7%	1.5%	2.5%	0.0%	0.0%	0.0%	6.7%	1.9%	0.0%	0.0%	1.9%
Mobility impairment	8.6%	8.2%	15.2%	18.5%	7.7%	4.2%	20.0%	3.9%	8.7%	0.0%	10.3%
Osteoporosis	17.1%	7.8%	27.2%	18.5%	7.7%	12.5%	6.7%	1.9%	8.7%	0.0%	13.9%

Table 10: Service availability

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=605)
Accessible transportation	100.0%	89.2%	87.8%	69.2%	92.0%	63.6%	71.4%	88.0%	87.5%	80.0%	86.9%
Affordable housing	29.0%	36.7%	36.2%	13.0%	26.1%	21.1%	26.7%	36.0%	52.4%	25.0%	34.1%
Dental services	67.7%	68.2%	78.7%	69.2%	90.5%	50.0%	46.2%	72.3%	66.7%	66.7%	71.2%
Healthy food	75.0%	73.7%	80.5%	76.0%	91.3%	75.0%	83.3%	62.5%	81.8%	75.0%	76.2%
Home health care	46.2%	57.0%	87.9%	58.3%	80.0%	42.1%	58.3%	66.7%	63.2%	66.7%	66.4%
Job training	39.3%	37.8%	54.4%	5.9%	47.1%	31.6%	15.4%	32.6%	23.5%	25.0%	38.4%
Medical specialists	56.7%	66.9%	85.3%	76.0%	85.7%	50.0%	54.6%	68.1%	76.2%	33.0%	72.4%
Mental health services	30.0%	53.9%	62.0%	45.8%	78.6%	38.9%	54.6%	58.7%	64.7%	0.0%	54.6%
Pediatric and adolescent services	63.0%	73.7%	84.3%	57.9%	73.7%	58.8%	64.3%	75.0%	70.6%	0.0%	73.4%
Places to exercise, walk, and play	78.2%	72.6%	84.2%	74.1%	81.8%	85.7%	76.9%	83.0%	89.5%	75.0%	79.1%
Primary care medicine	84.0%	78.4%	87.2%	68.0%	90.0%	44.4%	83.3%	77.1%	76.2%	75.0%	79.8%
Social services	51.9%	60.0%	85.6%	56.6%	62.5%	65.0%	41.7%	60.5%	68.4%	50.0%	67.3%
Substance abuse services	26.1%	40.4%	39.4%	22.2%	33.3%	20.0%	57.6%	54.8%	50.0%	0.0%	39.1%
Vision services	70.4%	62.9%	85.5%	56.5%	68.8%	31.8%	72.7%	76.7%	66.7%	50.0%	69.4%

*Percentage reflects participants who responded very available or available

Table 11: Health education needed in the community

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=596)
Cancer/cancer prevention	62.9%	39.9%	42.8%	40.0%	44.8%	20.8%	33.3%	29.1%	50.0%	0.0%	40.3%
Diabetes	68.6%	49.3%	57.2%	36.7%	62.1%	45.8%	40.0%	45.5%	77.3%	14.3%	52.5%
Domestic violence	37.1%	31.0%	21.1%	3.3%	27.6%	29.2%	40.0%	43.6%	18.2%	14.3%	27.7%
Exercise/physical activity	60.0%	43.7%	47.0%	56.7%	44.8%	62.5%	40.0%	47.3%	36.4%	0.0%	46.5%
Family planning	31.4%	23.9%	6.0%	0.0%	13.8%	8.3%	20.0%	36.4%	0.0%	42.9%	17.5%
Heart disease	28.6%	29.6%	43.4%	26.7%	48.3%	45.8%	26.7%	18.2%	45.5%	0.0%	33.9%
HIV/sexual transmitted disea	22.9%	27.2%	10.2%	10.0%	24.1%	16.7%	20.0%	40.0%	22.7%	14.3%	21.5%
Maternal and child health	17.1%	16.4%	8.4%	0.0%	13.8%	4.2%	26.7%	21.8%	13.6%	0.0%	13.3%
Mental health	28.6%	36.6%	47.0%	46.7%	27.6%	33.3%	20.0%	32.7%	27.3%	14.3%	37.6%
Nutrition	42.9%	44.1%	41.0%	26.7%	41.4%	45.8%	40.0%	30.9%	31.8%	0.0%	39.9%
Substance abuse	42.9%	21.1%	16.3%	16.7%	34.5%	25.0%	20.0%	27.3%	18.2%	28.6%	22.2%
Sickle cell anemia	2.9%	3.8%	2.4%	0.0%	13.8%	4.2%	0.0%	10.9%	0.0%	0.0%	4.0%
Vaccinations	22.9%	15.0%	22.3%	16.7%	24.1%	37.5%	6.7%	20.0%	9.1%	0.0%	18.8%
Violence	20.0%	17.8%	10.2%	10.0%	41.4%	12.5%	0.0%	34.6%	9.1%	42.9%	17.5%
Other	5.7%	3.8%	4.2%	6.7%	6.9%	12.5%	6.7%	7.3%	0.0%	0.0%	4.9%

Table 12: Source of health information

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=597)
Doctor or health care provider	41.2%	45.8%	39.9%	40.0%	44.8%	47.8%	46.7%	40.4%	65.2%	42.9%	43.9%
Family or friends	44.1%	38.0%	41.1%	56.7%	31.0%	34.8%	46.7%	23.1%	34.8%	28.6%	38.4%
Books	20.6%	15.3%	20.2%	30.0%	20.7%	17.4%	6.7%	25.0%	17.4%	42.9%	19.1%
Television or radio	32.4%	20.8%	29.8%	30.0%	17.2%	21.7%	6.7%	15.4%	13.1%	0.0%	23.0%
Newspaper or magazines	17.7%	13.0%	30.4%	23.3%	17.2%	34.8%	0.0%	11.5%	0.0%	14.3%	18.8%
Ethnic media (e.g. ethnic newspaper, TV, radio)	26.5%	14.4%	35.7%	20.0%	10.3%	21.7%	13.3%	9.6%	8.7%	28.6%	20.9%
Internet	47.1%	36.6%	20.8%	26.7%	34.5%	47.8%	40.0%	26.9%	13.0%	14.3%	30.7%
Library	5.9%	4.6%	10.1%	6.7%	6.9%	13.0%	0.0%	7.7%	8.7%	14.3%	7.2%
Community-based organization	5.9%	21.8%	19.1%	23.3%	10.3%	13.0%	0.0%	11.5%	4.4%	0.0%	16.9%
Faith-based organization (e.g. church, temple, synogogue, mosque)	11.8%	4.2%	8.3%	0.0%	6.9%	4.4%	6.7%	1.9%	8.7%	0.0%	5.7%
School	2.9%	5.6%	3.6%	3.3%	3.5%	0.0%	6.7%	3.9%	4.4%	14.3%	4.4%
Health insurance plan	11.8%	13.9%	14.3%	30.0%	3.5%	4.4%	0.0%	3.9%	4.4%	0.0%	12.1%
Health department	17.7%	3.2%	6.6%	6.7%	0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	3.9%
Health fairs	8.8%	5.1%	6.0%	13.3%	6.9%	4.4%	0.0%	5.8%	13.0%	0.0%	6.2%
Other	0.0%	0.9%	1.8%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%

Table 13: Use of technology

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=596)
Email	54.3%	44.7%	44.1%	71.4%	51.7%	58.3%	80.0%	71.7%	39.2%	16.7%	50.0%
Internet	62.9%	51.2%	46.4%	53.6%	55.2%	62.5%	60.0%	60.4%	52.2%	66.7%	52.5%
Smart phone (e.g. iPhone, Galaxy)	54.3%	47.9%	40.5%	57.1%	41.4%	50.0%	60.0%	58.5%	56.5%	33.3%	47.8%
Text messaging	45.7%	37.2%	30.4%	39.3%	41.4%	41.7%	60.0%	60.4%	43.5%	16.7%	38.9%
Twitter	0.0%	7.4%	6.0%	3.6%	3.5%	8.3%	20.0%	3.8%	4.4%	0.0%	6.0%
Facebook	40.0%	34.5%	17.9%	32.1%	34.5%	20.8%	60.0%	43.4%	30.4%	0.0%	30.4%

Table 14: Civic engagement

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=594)
Community center	25.7%	24.4%	23.5%	36.7%	13.8%	25.0%	15.4%	18.9%	25.0%	14.3%	23.6%
Library	28.6%	26.8%	38.0%	36.7%	37.9%	41.7%	30.8%	50.9%	29.2%	0.0%	33.7%
Faith-based organization (e.g. church, temple, synogogue, mosque)	20.0%	32.4%	32.5%	36.7%	24.1%	25.0%	38.5%	30.2%	37.5%	0.0%	31.0%
Neighborhood association	2.9%	4.2%	5.4%	6.7%	3.5%	0.0%	0.0%	7.6%	8.3%	0.0%	4.7%
Gym or recreational center	11.4%	15.0%	10.2%	20.0%	13.8%	8.3%	15.4%	22.6%	33.3%	0.0%	14.7%
Political club	0.0%	2.4%	1.8%	6.7%	0.0%	0.0%	0.0%	3.8%	0.0%	0.0%	2.0%
Senior center	20.0%	11.7%	37.4%	36.7%	17.2%	16.7%	0.0%	5.7%	50.0%	14.3%	21.9%
School	5.7%	13.6%	4.8%	0.0%	10.3%	12.5%	30.8%	11.3%	16.7%	0.0%	9.9%
Sport league	0.0%	3.8%	0.0%	0.0%	3.5%	8.3%	0.0%	1.9%	8.3%	0.0%	2.4%
Other community organization	8.6%	8.5%	7.8%	13.3%	3.5%	4.2%	0.0%	1.9%	0.0%	0.0%	6.9%

Table 15: Use of complementary or alternative treatments/remedies

	Northwest Queens	West Queens	North Queens	West Central Queens	Central Queens	Northeast Queens	Southwest Queens	Jamaica	Southeast Queens	Rockaways	Queens (N=582)
Acupunture	588.0%	2.9%	17.8%	10.7%	6.9%	9.5%	0.0%	3.9%	435.0%	0.0%	8.3%
Chiropractic care	8.8%	2.9%	7.1%	7.1%	0.0%	4.8%	0.0%	2.0%	0.0%	0.0%	4.3%
Herbal medicine	8.8%	9.2%	14.8%	17.9%	10.3%	4.8%	26.7%	5.9%	21.7%	0.0%	11.7%
Homeopathy	0.0%	2.4%	1.8%	10.7%	0.0%	9.5%	6.7%	9.8%	0.0%	0.0%	3.3%
Remedies from a botanica	5.9%	3.4%	5.3%	7.1%	10.3%	4.8%	0.0%	0.0%	0.0%	0.0%	4.1%
Other	0.0%	2.9%	2.4%	7.1%	0.0%	4.8%	0.0%	5.9%	4.4%	0.0%	2.9%

BROOKLYN COMMUNITY NEEDS ASSESSMENT APPENDIX D - REPORT OF THE PRIMARY DATA COMPONENT

December 16, 2014

Prepared by The New York Academy of Medicine

BROOKLYN COMMUNITY NEEDS ASSESSMENT:
REPORT OF THE PRIMARY DATA COMPONENT
OCTOBER 2014

EXECUTIVE SUMMARY

BACKGROUND

The goal of the Delivery System Reform Incentive Payment (DSRIP) program is to promote community-level collaborations and focus on system reform in order to reduce avoidable inpatient admissions and emergency room visits for the Medicaid and uninsured populations in New York State. To inform the health system transformation that is required under the DSRIP program, emerging Performing Provider Systems (PPSs) must submit a comprehensive Community Needs Assessment (CNA) with their Project Plan applications. The Brooklyn PPS's CNA included primary and secondary data analysis. This report describes the primary data methodology and analysis and has been developed as an attachment to the full CNA, and to provide more in-depth information to the PPSs, which may be useful for DSRIP project planning, as well as planning and implementation of programs and services outside of the DSRIP program.

METHODS

The Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted the primary data portion of the CNA, which included 681 surveys of community residents, 24 focus groups and 28 interviews with Brooklyn residents, providers, and other stakeholders. The protocol was developed in collaboration with selected PPSs in Brooklyn, Queens, the Bronx, and Manhattan and was implemented in partnership with the PPSs as well as a number of Community Based Organizations.

The primary data component was designed to address anticipated gaps in the secondary data, including: 1) community member and stakeholder perspectives on health issues, including their causes and impact; 2) data on populations (e.g., particular immigrant groups) and issues (e.g., links between incarceration and health) that might be obscured in population-based data sets; 3) significant detail on issues identified; and 4) recommended approaches to address identified problems. Overarching questions for the primary data component, which—consistent with DSRIP—focused on Medicaid and other low-income populations, as well as the uninsured, included:

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?

- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?
- What are the health related programming and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health promotion and health care needs be better addressed, overall and for distinct populations?

FINDINGS

Brooklyn community members and other stakeholders are clearly interested in partnering with hospitals and health care providers and being part of solutions that promote good health and reduced hospitalizations. Many are wary, fearing that hospitals will not fully engage with the community going forward, as most lack experience doing so and the financial incentives of health system re-engineering are unclear. The predominant theme in Brooklyn is seemingly "disparity," given the frequency of comments pointing to the stark differences between neighborhoods, the uneven distribution of resources, and the sense that the odds are stacked against certain communities and their residents. Focus group and interview participants articulated specific barriers to good health and good health care, many of which were related to poverty and its consequences, including long work hours, unstable housing, unsafe neighborhoods and the need to prioritize expenditures—even among basic needs. For specific groups, including the disabled, LGBTQ, criminal justice involved, and the homeless, health-related barriers were compounded, due to both attitudinal and practical considerations.

Focus group and interview participants also articulated potential "fixes," such as increased ease of access for medical visits (e.g., reduced wait time, reduced insurance restrictions, increased integrated care); improved provider sensitivity; and a range of supportive services, including community health workers, care coordinators—particularly for difficult to manage medical conditions and high risk populations—and navigators. Health education, addressing (for example) prevention, screening, disease management, insurance, and the normalizing of mental health issues, was considered essential at the individual and the community level, to ensure that the population has the knowledge and skills necessary for independent action that promotes their own good health.

BROOKLYN COMMUNITY NEEDS ASSESSMENT:
REPORT OF THE PRIMARY DATA COMPONENT
OCTOBER 2014

INTRODUCTION

The goal of the Delivery System Reform Incentive Payment (DSRIP) program is to promote community-level collaborations and focus on system reform in order to reduce avoidable inpatient admissions and emergency room visits by 25% over five years for the Medicaid and uninsured populations in New York State. To inform the health system transformation that is required under the DSRIP program, emerging Performing Provider Systems (PPSs) must submit a comprehensive Community Needs Assessment (CNA) with their Project Plan applications. The Brooklyn PPS's CNAs, conducted from July through September, included primary and secondary data analysis and had the following aims:

- To describe health care and community resources;
- To describe the communities served by the PPSs;
- To identify the main health and health service challenges facing the community; and
- To summarize the assets, resources, and needs for proposed DSRIP projects.

This report describes the primary data methodology and analysis and has been developed as an attachment to the full CNA, and to provide more in-depth information to the PPSs, which may be useful for DSRIP project planning, as well as planning and implementation of programs and services outside of DSRIP.

METHODS

PROTOCOL DESIGN

The Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted the primary data portion of the CNA, which included surveys of community residents, and focus groups and interviews with Brooklyn residents, providers, and other stakeholders (see appendix for data collection instruments). The protocol was developed in collaboration with selected PPSs in Brooklyn, Queens, the Bronx, and Manhattan and was approved by the NYAM Institutional Review Board (IRB).

Knowing that the secondary data component of the CNA would be extension, the primary data component was designed to address anticipated gaps in the secondary data, including: 1) community member and stakeholder perspectives on health issues, including their causes and impact; 2) data on populations (e.g., particular immigrant groups) and issues (e.g., links between incarceration and health) that might be obscured in population-based data sets; 3) significant

detail on issues identified; and 4) recommended approaches to address identified. Overarching questions for the primary data component, which—consistent with DSRIP—focused on Medicaid and other low-income populations, as well as the uninsured, included:

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?
- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?
- What are the health related programming and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health promotion and health care needs be better addressed, overall and for distinct populations?

DATA COLLECTION

Community Engagement: Consistent with DSRIP CNA guidance, NYAM conducted primary data collection in collaboration with numerous community organizations, which were identified in collaboration with PPS representatives, and represented a range of populations (e.g., older adults, immigrant populations) and neighborhoods. As described below, community organizations assisted in recruitment for and administration of focus groups and surveys. All organizations assisting with survey administration or focus group facilitation were provided with written guidelines including information on data collection and the general research protocol, the voluntary nature of research, and confidentiality. Organizations also participated in an in-person or phone training on data collection conducted by NYAM staff. Community organizations partnering in the research received an agency honorarium consistent with their level of responsibility.

As described in a subsequent section, community members and stakeholders were largely responsive to the request to participate in the CNA. Although several expressed concern that their input and recommendations would not ultimately be used in the selection and planning of DSRIP projects, they appreciated the ultimate DSRIP aims and the opportunity to have their opinions heard.

Data Collection Activities: As noted above, the primary data component involved three distinct methodologies:

- Resident Surveys*:* 681 surveys were completed by Brooklyn residents, ages 18 and older. Survey questions focused on basic demographics, health concerns (individual and

community-wide), health care utilization, barriers to care, and use of community and other services. Survey respondents were identified and recruited by local organizations, including community based organizations, senior centers, social service and health providers, and through NYAM initiated street outreach in targeted neighborhoods—consistent with PPS service areas—where we wanted to ensure sufficient representation, including Downtown Brooklyn, Fort Greene, Williamsburg, East New York, Brownsville, Sunset Park and Coney Island. Surveys were self-administered or administered by NYAM staff or staff or volunteers at community organizations (as described above), who were trained and supported in survey administration by NYAM staff and consultants. The surveys were translated into 10 languages: Arabic, Bangla, Chinese (simplified and traditional), Haitian Creole, French, Hindi, Korean, Polish, Russian and Spanish. Participants received a Metrocard valued at $10 for completing the survey.

- Key Informant Interviews: Twenty-eight key informant interviews were conducted, including 35 individuals. Key informants were selected with input from the PPS's. A portion had population specific expertise, including particular immigrant groups, older adults, children and adolescents. Others had expertise in specific issues, including supportive housing, care coordination, corrections, and homelessness. All key informant interviews were conducted by NYAM staff using a pre-written interview guide. All key informants were asked about perceptions of health issues in the community, barriers and facilitators to good health, health care and other service needs, and recommendations for services and activities that may benefit the local population. Follow-up questions, asked on *ad hoc* basis, probed more deeply into the specific areas of expertise of key informants. The interview guide was designed for a discussion lasting 60 minutes; in fact, interviews ranged from 45 to 120+ minutes. All key informant interviews were audiotaped and professionally transcribed to ensure an accurate record and to allow for verbatim quotations. (See Appendix for the list of Key Informants by name, position, and organization.)
- Focus Groups: Twenty-four focus groups were conducted for the Brooklyn Community Needs Assessment. Most of the focus groups were with community members, recruited by collaborating CBOs. Populations targeted included, but were not limited to, older adults, Asian and Haitian Creole/Caribbean immigrant populations, LGBTQ, and individuals with disabilities. The mean age of focus group respondents (N=344) was 47.3; 66% were female; 53% were Black/African American, 30% Latino, 7% Asian; 16% were uninsured and 52% were on Medicaid; 39% reported speaking a language other than English at home. In addition to the resident groups, we conducted a small number of focus groups with stakeholders, including behavioral health providers, hospital advisory board members. These groups were coordinated by collaborating PPSs, so as to ensure that the perspective of key stakeholders was incorporated into the findings.

  Focus groups lasted approximately 90 minutes and were conducted using a semi-structured guide, with questions that included, but were not limited to: perceptions of health issues in

the community, access to resources that might promote health (e.g., fresh fruit and vegetables, gyms), use of health services, access to medical and behavioral health care, domestic violence, and recommendations for change. Follow-up questions were asked on *ad hoc* basis, based on responses heard. Focus groups were conducted by CEAR staff members and consultants retained by CEAR, each of whom was trained in the established protocol. Many of the resident focus groups were co-facilitated by representatives of CBOs that were also trained on the focus group protocol. Focus groups in languages other than English and Spanish were conducted solely by trained community partners. Participants received a $25 honorarium, in appreciation of their time and insights. All focus groups were audio recorded, so that transcriptions and/or detailed reports could be developed for each, and to allow for verbatim quotations.

DATA MANAGEMENT AND ANALYSIS

Surveys: Survey data were entered using Qualtrics, a web-based survey platform. They were analyzed according to standard statistical methods, using SAS. Means and proportions were generated, overall and by neighborhood. Although the survey sample cannot be considered representative of the catchment areas in a statistical sense, and gaps are unavoidable, the combination of street and organizational outreach facilitated engagement of a targeted yet diverse population, including individuals both connected and unconnected to services.

Survey respondents came from all Brooklyn neighborhoods; socio-demographic characteristics included: 60% female, 44% Black/African American, 32% Latino, 14% Asian, 54% foreign born, 26% limited English proficient, 82% living below the poverty line, 53% on Medicaid and 13% uninsured. The mean age of respondents was 43.5, with a standard deviation of 17.8 (see Table 1).

Interviews and Focus Groups: Transcripts and focus group reports were maintained and analyzed in NVivo, a software package for qualitative research. Data were coded

Table 1: Demographic characteristics of survey participants

Characteristic	(N=681)
Age (Mean, SD)	43.5 (17.8)
18-20	8.1%
21-44	44.1%
45-64	32.0%
65-74	7.2%
75-84	4.3%
85 and older	1.0%
Unknown	3.4%
Gender	
Female	60.4%
Male	39.1%
Transgender	0.5%
Sexual Orientation	
Heterosexual	93.5%
LGBTQI	6.5%
High school graduate or higher	73.2%
Hispanic	31.8%
Race	
White	12.5%
Black or African American	44.3%
Asian	13.7%
American Indian or Alaskan Native	0.8%
Native Hawaiian or other Pacific Islander	0.3%
Other/mixed/unknown	28.4%
Limited English proficiency	26.3%
Foreign born	53.7%
Below poverty level	82.4%
Health insurance	
Medicaid	53.4%
Medicare	14.8%
Private/commercial	14.5%
VA/Other/More than one	11.1%
None	13.0%

according to pre-identified themes relevant to health, community needs, and DSRIP, as well as themes emerging from the data themselves (see Appendix for code list). Analysts utilized standard qualitative techniques, involving repeated reviews of the data and consultation between multiple members of the research team. Analyses focused on 1) common perceptions regarding issues, populations, recommendations, etc., 2) the unique knowledge and expertise of particular individuals or groups and 3) explanatory information that facilitated interpretation of primary and secondary source data.

FINDINGS

IMPORTANCE OF COMMUNITY ENGAGEMENT

As noted above, key informants and focus group participants largely welcomed engagement in the community needs assessment and appreciated the opportunity to provide input that might be used for the re-engineering of health care in NYS. As described in some detail within this report, community members had numerous ideas regarding health promotion, disease management, and improved health systems. However, a number of respondents expressed concern that suggestions from the community—and recommendations in the interest of community based organizations—would be ignored by the hospitals that are applying for DSRIP funds. They emphasized the importance of alignment with community-based recommendations and engagement with community members. For example:

> *I think you have to have people at the table. ... Whatever your community is, the voice needs to be present at the table…. we still have to value people for what they know and what their experience is… Value my voice and show it in your actions. Don't just say it, don't take me through this process. If you take me through this process…what is the action at the end of this process? (key informant, government)*

> *We may not like every aspect of the waiver, but it is much better than past waivers. But there's still concerns, legitimate concerns that include how things are going to be done in terms of engaging communities. ... you can write it all in the document and say all you want, but we're talking about historically hospitals not knowing how to do it. (key informant, health advocacy)*

There were also concerns regarding the mismatch between, on the one hand, an emphasis on prevention and community engagement, and on the other, clinical and utilization measures that may not reflect the highest priorities of the community. Addressing obesity, particularly among children, is unlikely to impact hospitalizations and ER use in the short term.

> *I think that's a real challenge, because when we're looking at things like DSRIP. We're looking at preventing hospitalizations, … children who are obese don't get hospitalized.*

They get hospitalized and they use higher cost services when they become adults but then all this money is gonna be gone. So you know, so nobody's looking at doing something that you need 15 years to have an impact on. Everybody's looking at something that you can have an impact on today or tomorrow. (key informant, provider)

If you don't know the context, it's hard to appreciate the problem….DSRIP is supposed to move care out in the community…Do they know how to move care out into the community? Are there any efforts being made to really find that out? … Our concern with this particular needs assessment, is the evidence and the guarantee that there is a real focus and not just scratching the surface, to get that community intelligence… The concern we have is that you cannot transform the healthcare system using a medical model approach. The medical model approach is what got us where we are. (key informant, CBO)

POPULATION DESCRIPTION

Poverty: Given the DSRIP and CNA focus on low-income populations, the significance of poverty and its implications is unsurprising. As noted above, 82% of survey respondents were living below the federal poverty line; in Borough Park where nearly 50% of respondents were Asian, 88% were living below the poverty line and 75% reported that, in the last year, they sometimes worried about not having enough to eat. Overall, 71% of survey respondents reported that they worried about not having enough to eat.

Although the health related implications of poverty may vary by population, common themes were evident: poverty was described as directly affecting health; affecting prioritization (or de-prioritization) of health behaviors; and as affecting access to health related resources, including nutritious food, stable and well-maintained housing, health care coverage, and medical services:

A lot of people here don't have health care. They can't pay, so they don't go to the doctor to find out what's going on with them, so they let it slide. (focus group participant)

No, I can't afford to take care of myself. My doctor said to get a colonoscopy, but I said I'll wait 2 more years. The company I work for, they don't really cover everything. I pay $150 to get no health care, and I can't pay another $200 for a colonoscopy. I need to keep my house. I'd rather pay for insurance for my car. I have to pick and choose. I am the working poor and it is terrible. (focus group participant)

There was a concern that DSRIP's focus on decreasing ER use could negatively affect the low-income, primarily non-white and immigrant communities.

So when we talk about special doctors and distributions, you will see that communities where minorities live, and when you will see low income, you see immigrants, you see an absence of certain things. Most of our community accesses their care through the emergency room, and since DSRIP is talking about reducing those things, that's a big challenge. (key informant, CBO)

Disparities: Among the most consistent themes across data collection activities was a concern about longstanding disparities affecting communities of color in Brooklyn, differentiating these neighborhoods from nearby wealthier ones. In addition to the direct implications of poverty described above, other issues frequently mentioned were the concentration of public housing, lack of access to healthy food and/or overabundance of unhealthy food, lack of green spaces, as well as concerns over physical safety. Although there appears to be an increased awareness of the role that diet and physical activity play in the development of obesity and related chronic diseases, CNA participants felt that—because of environmental conditions— it is simply harder in low-income neighborhoods to lead a healthy lifestyle, as compared to other Brooklyn communities.

It's easy to talk about exercising if I live in Battery Park. They just made the whole garden thing, you can walk, run, do anything you want. It's beautiful…How do you do that in Flatbush? (key informant, CBO)

We definitely know there are spaces in which there's not access to healthy fruits and vegetables as readily. We know there are neighborhoods that are more violent than other neighborhoods. … We know that there's trash all over certain communities. We know that certain parks aren't kept up to standards as other parks are. So all those things definitely have an impact on health of the community. But it's looking deeper than just that it exists, but why does it exist? (key informant, government)

Overall, just more than half of survey respondents (59%) reported that healthy food was available or very available in their neighborhoods, and many observed that healthier foods were more readily available elsewhere, and that cost of healthy food options presented a barrier.

I had three conversations with the local supermarket: the manager and both of the owners. Where's the organic? Where's a bunch of stuff? Oh, [he said] people in this neighborhood don't eat like that. (focus group participant, CBO)

[There was a farmer's market] on Parkside, I went down to. But it left one day. They should have one or two that you can reach. There is none in this neighborhood---you have to take a bus to get there---why do I have to go that far? (focus group participant, CBO)

Every corner, we have a Chinese restaurant and a liquor store, or McDonalds. We don't have good jobs to pay for high quality food. (focus group participant)

Many residents and community members also spoke of the impact of rapid gentrification and the acute lack of affordable housing, and how this situation can play a large role in people's health.

I think the gentrification situation is creating a lot of tension. And sort of housing and healthcare are correlated, of course …And it is very tense and there is just serious sort of anxiety. There's serious stress associated with and having unstable housing. (Key informant, health advocacy)

Yes, there's totally a housing crisis in New York. There's a quarter of a million people on NYCHA's waiting list. The federal government has pulled out of funding Section 8 – which was our mainstay for a very long time. We would get project-based Section 8's to support the rent of these buildings. Affordability is going through the roof. The vacancy rate, particularly in very low-income housing, is – there's almost no vacancy rate. (key informant, health advocacy)

While there was a sense that much could be done to improve neighborhood conditions, even given the constraints of the built environment, there was also frustration and anger that despite the available data demonstrating longstanding inequities, neglect was persistent.

Transportation in [Brownsville], especially because it's such a commercial area, this is considered a commercial area, there are just legendary tales about how the buses just don't run. And when we have snowstorms and we have the winters that we've had, or the erratic tropical storms, this is an area that is down. I don't know if anybody even takes on the fact that Brownsville exists when we have blackouts, brownouts, because it's one of the last communities to come up again. Like the lights go on, the plows come through. You can have snow on the street for two days before you actually see the plow mark. … We do have all the housing, New York City housing, and imagine New York City housing, streets not paved, no one could get to the grocery store, because the grocery store owners couldn't get into the community, it just gets shut down. (key informant, CBO)

Coney Island is the group that suffers greatly economically. We have a high rate of unemployment in Coney Island. High rate of high school drop outs. Lots of senior citizens. Lots of young mothers…. We probably have the most [public housing] in New York City….Coney Island has been like a warehouse. That's why Coney Island has so many problems and so many needs. For about 30 years, no money had been invested in

Coney Island, so what it had been used for—for a long time—was just to warehouse people. (focus group participant)

So if you go and interview some of these communities, they say, no I don't want to talk, I don't want them to take away my child. So the agency that provides supports, the perception of the community is that these agencies are just there to stigmatize – to take away our kids. They're not there to help us. They want to know if we're getting welfare, if we're doing what we're doing to cut the services, people still see it as – their approach to us is punitive action towards us. So if you don't address some of those issues, that level of trust is not there. So I – this issue of access, in it means, "Do I trust what I have access to?" (key informant, CBO)

Violence and safety: Key informants and focus group participants in the lowest income communities made frequent reference to the ways that violence and safety issues come into play, and how this impacts their physical and mental well-being. Twenty-two percent of survey respondents reported that violence or injury was a concern in their community and 34% felt that more violence education was needed.

Among Black/African American participants in particular, there was an acute perception of the way race and violence intersect in certain Brooklyn neighborhoods, and how street violence affects children at a young age and can fragment communities.

To be honest with you, my son is 10 years old, and as an African American child, I'm scared to send him outside; I'm scared to send him outside to even run around or play outside. Sometimes [I'm scared] of the police, even at age 10. Because they watch them when they're growing up. They think 'these are the street kids' because they watch them growing up and at a certain age they start to arrest them. The next thing is the shooting. You don't know what's going to happen the moment you have your kids outside playing. You don't know when your child's going to get shot down. We live in a society right now where we just need to breathe. (focus group participant)

And so in this neighborhood on the street, I am really sensitive to the aggression and the constant turmoil that just, the street life is not a community kind of street life. The way of communicating is jarring. People can go from peace to conflict and conflict to violence in very, very few steps. The steps on that conflict escalator that you're familiar with, a lot of them are missing. If you just go, "Bang, boom," violence. And that's the way kids are too, so there's that, there's a lot of lack of empathy and concern for neighbors, and the poverty is heartbreaking for me. (key informant, CBO)

In terms of understanding what factors encourage violence in particular neighborhoods multiple social issues were cited, including family stability, concentrated poverty, and lack of alternatives for young people.

> *There's really beautiful places here. So it's not so much that it's physical look, it's that, my uniformed opinion, it's social. It's shredded families and unemployment and public housing and badly run schools. Those are the things that feed the violence. Shredded families comes first. (key informant, CBO)*

> *From September through June they have afterschool programs in some of the schools, but during the summer there's nothing. During the summer is when you have the gangsters and the gun violence. Now we have an anti-violence initiative. The only thing it does is when someone gets killed or something, they'll go and acknowledge it but there's no program in place. No conflict resolution initiative to address the needs of these students. (focus group participant)*

> *The problem exists among the young people – black and Hispanic – who don't have anything to do. They're out there, they're standing at the corners. They're gathering in various groups with nothing positive. No direction to go in. When I listen to some of the information coming out of Kings County. Starting on Friday nights through Sunday, the emergency room is like a battleground, because they're coming in with all kinds of injuries: guns, bottles, knives. You name it. This is what happens on the emergency room in weekends. This is a direct result of what's going on – or isn't going on in a positive nature … the hospitals can play a part in terms of opening some programs. The City of NY really has to step up, particularly where NYCHA is involved… All of that spills into the health care area because now hospitals are forced to give care in certain areas that came out of not a disease situation but because of economic or underprivileged situation. (focus group participant)*

The effects of violence extend to hospitals in the area—as described above, but due to lack of resources, health providers and partners in the affected neighborhoods have not been able to make it a priority area of intervention.

> *So, I know ER staff definitely have brought it up and it is – somebody has to go to the ER if they get shot or if it's domestic violence. Whatever the violence issue is, the hospitals are involved in it. So it's a clear reflection that it affects all of us, but we haven't really…taken it on as a priority. (key informant, government)*

Foreign Born: Fifty-four percent of survey respondents were foreign born. Large foreign born populations in Brooklyn include Caribbean (including Haiti, Jamaica, Trinidad and other West Indian Nations), Latinos (from, Puerto Rico, Mexico, Dominican Republic, and other Central American and South American countries), Chinese, and Russian. Although there are many overlaps, each of these communities has needs related to culture, language, education, and economics, which may impact on health and healthcare use. In addition, the strengths of these and other immigrant communities were emphasized, which may include close family ties, strong work ethics, and healthy eating habits relative to American born populations. Common themes from key informants and focus groups representing diverse population groups included some combination of:

- Significance of language access across the spectrum of services;
- Difficulties meeting basic needs, leading to extended work hours and emotional stresses;
- Prioritization of work, children and education over health;
- Lack of sufficient information on health and health services;
- Minimal knowledge, interest, and engagement in prevention services;
- Cultural issues, including greater stigmatization of particular health conditions;
- Relatively high rates of non-insurance, due to multiple factors including ineligibility; and
- Fear of medical bills, medical debt, and deportation.

> *If we talk about the adults in the Latino community, many of them are monolingual. If they are recent immigrants, you know speak Spanish, limited English. I believe that to navigate the healthcare system is really challenging for them around the issue of language and health care systems. (key informant CBO).*

Concerns about language access obviously suggest concrete requirements with respect to knowledge and skills. Although many CNA participants described significant capacity among Brooklyn providers for some languages/cultures, there was some concern regarding training and skills of dual role interpreters (i.e., bilingual staff who are asked to interpret on an *ad hoc* basis) and gaps in services remain, particularly for less common languages and dialects, and for particular services, including mental health care and specialist services:

> *[We need] the doctors who speak [Arabic] or staff who speak [Arabic], because I don't want to end up calling the janitor or the security guard to translate for these patients. I want trained staff, nurses and doctors... Who is helping them to fill out the forms when they walk into clinics and hospitals? .... Who fills out the forms for them?...They bring their children with them. (focus group participant)*

> *When you look at specialty care, say around mental health, for example, if an individual wants to go to someone who's culturally competent, we don't have a lot of Asian-*

Americans who are going into fields like mental health or behavioral health issues. (key informant, health advocacy)

There was a perception in some neighborhoods that health care providers and hospitals have not adjusted to changing demographics.

Brooklyn is changing, not only demographics, economics. I'm not sure that we are paying attention to – I think we are, but there's going to be a part of that in which if you are focusing – let's look at East Flatbush, it was once Italian and Jewish. It's no longer Italian and Jewish it's 90 percent Caribbean; however, there hasn't been a change within the facilities within that community. So it's the same doctors they've had for the last 20 years, an old guy who has no clue… I go back to saying that cultural competency piece that they, hospitals aren't addressing that becomes very important in outcomes (key informant, CBO)

CNA participants were consistent in their reports of very long work hours among multiple foreign born groups. Descriptions of 12 - 16 hours days, six or seven days a week were not uncommon, with people working multiple jobs (often under hazardous conditions) because pay is low. Such long work hours impact health and access to health care services

We see people who have very low paying jobs. But as long as they're able to have their children in school, as long as they're able to maybe send them to a community college – really the vision and the longer term goal is about their children, and their children having better futures… I don't like frame it as it's their concern and that it's their fault, but they're so concerned about jobs that other things kind of fall to the wayside. So health is a key part of that really. (key informant, CBO)

Independent of work and language access issues, key informants and focus group participants described cultural, attitudinal, perceptual and knowledge-based barriers to care among the foreign born, including greater stigmatization of particular health conditions, difficulties navigating the health insurance and care system, low prioritization of preventive care services, and fear of medical bills and deportation if they engage with any part of "the system."

That's why sometimes I feel that colon cancer, breast cancer are on the rise in the [Arab] community because they've never been screened before. Some people, they have colon cancer for a long time. They discover it too late. Breast cancer. Sometimes it's too late. You can't survive because it's already spread. Why? Because they didn't get their mammograms. So our community back home, they never had these screenings, so when they come here, they never ask for it. Sometimes it takes two or three years to have their annual checkup…. [Arab] women if they have breast cancer, they try to hide it as much

as they can, because they don't want the community to know that their girls might get it. They might inherit it from the mother. Nobody will marry their daughters, so all these problems, they feel like they don't let anyone in the community – even though confidentiality is a very big issue for us and very important for us, but they feel very protective of themselves. They don't want anybody to know about health issues and health problems. (key informant, CBO)

You also have insurance literacy and like, "What does a co-pay mean?" And some of the complexity of some of the plans, the way they're designed, you have co-payments and then you have co-insurance which is distinct. And then on top of that you have your premiums. And so, that's – we say this all the time, but that type of stuff is confusing to all of us, so how [immigrants] are able to navigate that moving forward and use their insurance, is huge. (key informant, CBO)

Fear of medical bills and deportation was greatest among the undocumented but affected other immigrant groups, as well.

I still don't have green card and I'm too afraid to go to the insurance company. (focus group participant)

Those are some of the most prevalent cases we get. Where people say, "I have this bill. I don't know how I could ever pay this bill." Often, even though in many cases we will help resolve the bill through the financial assistance policy, the person never wants to go back to the hospital again because that happened… Any hospital…. Often they'll have gone for like one appointment, and they get like a $7,000 bill. It just doesn't make sense to them. So it's just scary, right? So it does feel like hospitals don't really get the impact that a scary bill can have on their patient's desire to ever come back to the hospital. (key informant, CBO)

It was reported that immigrants that regularly returned to their home country used medical services there. It was also reported that immigrants received prescription medicines from their home country, as the costs of medicine were generally much lower outside the US.

PHYSICAL HEALTH ISSUES

Overview: Survey respondents reported that the most common physical health concerns were diabetes (52%), drug and alcohol abuse (44%), high blood pressure (41%), obesity (35%), asthma and cancer (both 31%) (see Table 2). Similarly, the most common areas where they reported additional health information was needed were diabetes (49%), nutrition (45%), HIV/sexually transmitted diseases (40%), and exercise and physical activity (39%). Community members clearly recognize that obesity was linked to diabetes and heart disease and talked about the need for healthy eating and physical activity. For some, change was described as challenging:

Table 2: Health concerns

	(N=676)
Adolescent health	14.4%
Asthma	30.9%
Arrest and incarcertation	18.5%
Cancer	30.5%
Diabetes	51.5%
Disability	12.7%
Drug and alcohol abuse	44.1%
Family planning/birth control	10.4%
Hepatitis	7.7%
Heart disease	23.7%
High blood pressure	40.7%
HIV	23.4%
Maternal and child health	6.5%
Mental health (e.g. depressin, suicide)	20.3%
Obesity	35.2%
Pollution (e.g. air quality, garbage)	13.5%
Sexual transmitted infections	16.3%
Stroke	11.0%
Teen pregnancy	19.1%
Tobacco use	21.5%
Violence or injury	21.6%
Other	2.1%

> *I am more familiar with the right ways of nutrition and I am trying to get used to it as much as I can. (focus group participant)*

> *It's not always healthy. It's healthy-ish. We're gonna have fried chicken with stewed potatoes and you know, so you know, it's a healthy dish. It's not all the way healthy but not all the way bad. We have greasy food with vegetables. (focus group participant)*

> *I work so hard that I don't have time to eat right. I'm trying to eat the healthy foods but I work 12 hours a day, 5 days a week. So when I come home I'm ready to go to sleep. I try to eat the right things but then I go back to eating junk food. It's a bad thing for me. (focus group participant)*

Nearly 30% of survey respondents reported being in fair or poor health (see Table 3). The most commonly reported health issues were high blood pressure (28%), depression or anxiety, and high cholesterol (both 22%). Fourteen percent reported having diabetes. There was some variability in health and health concerns according to population and neighborhood. Survey respondents in Borough Park were more likely to report that heart disease was a health concern (48%, compared to 23% for the full sample) and more likely to report fair or poor perceived health status (45% compared to 29% for the full sample). Among survey respondents, overweight and obesity rates were highest in the Southern Brooklyn UHF neighborhood

(Brighton Beach, Coney Island, Sheepshead Bay)—69% compared 62.5% for the full sample (see Appendix).

The ability to manage health conditions was impacted by a number of factors, including broader environmental conditions (e.g., indoor and/or outdoor pollution in the case of asthma), knowledge, attitudes, disease management skills, conflicting priorities, depression, and poverty. Although the implications of these factors on health and disease management are described throughout this report, additional illustrative comments include:

Table 3: Health Status

	(N=681)
Perceived health status	
Excellent/very good/good	71.2%
Fair/Poor	28.9%
Body mass index (Mean, SD)	27.4 (6.2)
Underweight	2.4%
Normal	35.1%
Overweight	33.1%
Obese	29.4%
Health issues faced	
Asthma	18.6%
Cancer	4.6%
Chronic pain	19.1%
Depression or anxiety	22.2%
Diabetes	14.4%
Drug or alcohol abuse	7.1%
Heart disease	8.5%
Hepatitis C	4.3%
High blood pressure	27.7%
High cholesterol	21.6%
HIV	5.7%
Mobility impairment	9.0%
Osteoporosis	7.7%

I had [a conversation] with a father who was there with this 12-year-old son who was already showing signs of pre-diabetes and he just, he looked at me and he says, you, there is no way you are ever going to understand my life. I said you're absolutely right. I can hear what you're telling me but I don't understand how hard it is for you to have food in your house and how hard it is for you to get your child to eat the right things and exercise which is the only way that's gonna prevent him from getting diabetes as this point but I think that what he expressed is his frustration that the general medical community could not understand the problems of people living in poverty when their children have health problems. (key informant, health advocacy)

There are people who are very fragilely or inappropriately housed. Like a 65-year-old man with extreme diabetes, who is living in the 4th-floor walkup in his daughter's overcrowded apartment, sleeping on the couch. That man is not going to have good health outcomes. He's stressed. He's not getting out. Can't get a good meal. (key informant, health advocacy)

BEHAVIORAL HEALTH ISSUES

Mental Health: Behavioral health issues were seen as relatively common in all populations. Twenty percent of survey respondents reported that mental health issues were a main concern in their community; 22% reported personally facing depression or anxiety. Poverty and its stresses were perceived as closely linked to depression.

The amount of economic pressure, when you lose your job then there goes the resources and increased pressure. It breaks you down. If you are a husband, there goes your manhood. Maybe there is no strong family foundation to talk to about it, no one close to tell them they are going through this, so they have to carry that. If there is no spiritual life, it eats them up inside; they become mentally ill, short- tempered. (focus group participant)

[In Crown Heights] the mental health issues are many, and addiction to me is a mental health issue. And that's rampant in the neighborhood, and just depression. I mean, I don't know about today, but in this block alone you can just walk up and down the street and see guys sitting around, sitting in front of the liquor store down there or just, all day they'll be out there, from the time I come to work at around 9:00 a.m. or 10:00 a.m., and they'll be out there until I leave… if you take a look at them and that life, underneath that there's probably some real depression setting in. Poverty kind of breeds that. (key informant, CBO

For low-income immigrant groups, depression was commonly attributed to the pressures of migration and assimilation, long work hours, and social isolation.

I think there's just a lot of trauma [in the Latino community] about what they've left, and then the process of trying to integrate here. And to some extent, a good amount of isolation. When you're working so much, you don't really have as much time to seek out other things that are not hard work. So we've seen that as kind of crisis moments where people come in and they're like, "I can't take this anymore." (key informant, CBO)

[The Arab] population, because of the political problems in the Middle East, they feel unsafe, unprotected. They are scared all the time. They are afraid to go anywhere or speak out. All these issues, it doesn't help them financially, psychologically, and other problems like mental health issues are on the rise in our community, because they can't provide food for their children. (key informant, CBO)

Depression was also cited as relatively common in older adults who were reported to isolate themselves, with implications for physical health and disease self-management.

Many seniors happen to not want to go out, not want to socialize. They don't want to actually talk to people. They're depressed because of aging, because of many issues. Sometimes, it's dementia. (key informant, CBO)

Alcohol, Tobacco and other Drugs: Substance abuse (including alcohol, prescribed medications, and illegal drugs) was seen as problematic in particular neighborhoods, and among US and foreign born communities alike, although issues might be more hidden in immigrant communities. In some neighborhoods, drug use and drug selling was perceived to impact on crime rates and safety issues. As described in more detail in a subsequent section, individuals with substance use issues tend to be inefficient and expensive users of the healthcare system.

> *I definitely see it more among immigrants – even immigrants who have been here for 30, 40 years, are still like, just keep it within the family. I think substance abuse is something that is definitely not talked about. But in the work that I've done, alcoholism in certain communities is definitely something that people just don't want to acknowledge. (key informant, health advocacy)*

> *Folks get their Social Security income check on the first of the month, and it's gone by the fourth of the month because they've used it on drugs. And then they, oftentimes, will go directly to the ER because they're so affected by the drugs that they just used. And then they'll sober up and get back into it and 30 days pass, and they're back to their first of the month again. (key informant, CBO)*

Smoking was considered problematic among particular populations, including Chinese and Arab immigrants. Among Arab populations, smoking is considered an indicator of maturity and offering cigarettes a common courtesy. In addition the increasing number of hookah bars in Arab neighborhoods was an issue of concern.

> *Another cultural thing, the hookah bars, the hookah smoking in the community. It's a culture thing. It's getting very bad in the community. I start to see it here in downtown Brooklyn, and they are planning to open one here, one of the hookah bars here, and there are about 20 of them in the Village area... one hour of the hookah stuff is like you're smoking a whole pack in one hour. (key informant, CBO)*

ACCESS TO RESOURCES AND SERVICES

Resources for Good Health: As noted above, survey respondents in 59% of neighborhoods reported that healthy foods were available. Residents of East New York/New Lots and Canarsie/Flatlands were least likely to report that healthy foods were available (44%). Places to walk, exercise and play were more likely to be available in most neighborhoods (72%), although safety issues were frequently cited. In contrast, just 31% of respondents reported that affordable housing was available or very available (see Table 4). Consistent with this survey result, multiple key informants and focus group participants described unstable living conditions, with implications for health and well-being. The pressures of gentrification were very well-

recognized, with many formerly low-income communities becoming unaffordable, and residents feeling that they are being discriminated against and that they have few realistic choices.

Table 4: Service availability	
	(N=681)
Accessible transportation	90.3%
Affordable housing	30.5%
Dental services	67.4%
Healthy food	58.7%
Home health care	59.0%
Job training	33.3%
Medical specialists	58.9%
Mental health services	47.0%
Pediatric and adolescent services	65.9%
Places to exercise, walk, and play	72.2%
Primary care medicine	73.6%
Social services	59.1%
Substance abuse services	40.8%
Vision services	58.6%

*Percentage reflects participants who responded very available c

> *Yes, and then because in the apartment I lived, the landlords, they started to put pressure on me. They took me to court last week… I have a three bedroom apartment. I pay $1,055 and it's a block away from the Brooklyn Museum. They want the black people to move away so they can raise the rent. So this is what they're trying to do. This is all the aggravation. And I have to deal with the stress of my pain, and I have to deal with the stress of the landlord. I can't afford to move. (focus group participant)*

> *I am lucky to have a house that was left to me, but the taxes, the water. We used to be able to get an apartment for $300- $500 dollars, but now forget it, because it's $2,000. My community is growing; they are trying to re-zone so they can have these high-rise buildings. They aren't hiring anyone from the community to build these. This is a big issue. There are no services for people like us because you are pushing us out anyway. New residents are not going to local doctors, they are going to private doctors. (focus group participant)*

> *I live in Ditmas Park/Flatbush. But I needed to fight fight fight to keep the rent down. In my building there are different levels of rent. I had to keep going to court. What should be basic rights, food, clothes, and housing, we have to fight for. We give back, we take care of people's children, their parents, and other communities. We deserve basic rights. (focus group participant)*

Medical services: Close to one quarter of respondents reported that there was a time in the last year when they needed healthcare but didn't get it. The most commonly noted reasons for that were "not insured" (44% of the subsample), "cost of copays" (19%), and "had other responsibilities (e.g., work family)" (13%). Respondents did, however, report relatively good access to most types of medical care. Approximately 75% of survey respondents reported that primary care was available or very available, 82% reported that they had a primary care provider

or personal doctor, and 84% reported that had a routine check-up in the last 12 months. However, a number of gaps were described:

> *We participated in a study that was done three years ago, and one of the big issues identified was the fact that in this community, at 5 o' clock doctor's offices closed, health centers closed and only source is the emergency room, hence, the overuse of the emergency rooms. (key informant, CBO)*

> *I think the nature of the problem of health inequities and disparities in this community, it is documented well. Right? It's documented well. We talk about the poor quality of health care delivery in this community, because you don't have enough primary care centers. You don't have specialists in their neighborhoods where they live, so cardiologists when people need special care. Special care is concentrated in certain other neighborhoods ... So the question from me is, what do we do with that data in relation to addressing the problem that we already know exists? (key informant, CBO)*

> *You get into poor neighborhoods like Brownsville and East New York, and even Bed-Stuy is probably underserved. There's not a lot of services there for people, everyday-type services, so I think that's probably the biggest problem that – one of the biggest problems that needs to be addressed is getting people access to better quality care in the community that's more easily accessible so that they don't – and then retraining people so that they don't feel like they have to go to the emergency room to treat a cold, that they can actually go to their doctor and get an appointment and go get seen by a doctor in the community. That's a tough one, though, because doctors don't want to go to these communities. ... They're happy to be in Park Slope or in Brooklyn Heights, but to be in the middle of Brownsville, it's a little bit harder to get a doctor to go there. (key informant, CBO)*

Sixty-six percent of survey respondents reported that pediatric and adolescent services were available/very available. Fifty-nine percent reported that medical specialists are available/very available, although there was significant variability in responses according to neighborhood (e.g., 49% in Flatbush, compared to 74% in Borough Park and Southern Brooklyn).

> *There's still a ton of people in the community that we've served that have chronic illnesses that are the result of a whole bunch of different factors that primary and preventative care are just not going to be able to address. And so there's a gap in primary care providers' ability to find specialists who are accepting Medicaid or different kinds of insurance. (key informant, health advocacy)*

Behavioral Health Services: Although 22% of survey respondents reported facing depression or anxiety, they also noted that behavioral health services are less available than other types of care: 47% reported that mental health services were available/very available (range: 36% in southern Brooklyn, 55% in central Brooklyn) and 41% reported that substance abuse services were available/very available. Mental health services for specific populations, including children and adolescents, older adults, and the foreign born were described as particularly limited:

> *In Brooklyn, no mental health services for old people that are easily accessible. We do use them, I mean, there are a few providers, but they don't, they don't do home visits or they can't do it on a, you know, in a major way. (key informant, multiservice organization)*

> *There's a huge crisis nationwide is the lack of child and adolescent psychiatrists. It is a crisis in this country right now that we don't have enough child and adolescent psychiatrists. The sad thing from my perspective is that New York State is dealing with this by saying well, "Pediatricians can, no, pediatricians always could prescribe but we're going to give training to pediatricians to be able to meet the needs that the child and adolescent psychiatrists could do." So, that's putting more stuff on to pediatricians … which they really don't get paid for. It's not fair for a pediatrician to have no support and be told you have to figure out how to help this mother deal with the behavioral needs of her child. (key informant, provider)*

> *People going through really crappy situations on a day-to-day basis that wears them down over time. And then, people come to us and they're just like, "Where can I go? Who can I see?" And really what they need is not to be admitted to a long-term thing. They need to have someone to be able to talk to. And, you know, the folks that don't have insurance – there's just nothing for them, right? I guess one thing is the language issue. There aren't a ton of good psychologists or psychiatrists or social workers – maybe some more social workers -- but psychologists or psychiatrists that speak Spanish and can do talk therapy in Spanish. And then the cost thing, you know. Most good providers do not take insurance at all, let alone Medicaid, so that's been huge. It's been a big challenge for us to figure out, as an organization. (key informant, CBO)*

Despite these prevailing perception of significant gaps, according to some behavioral health providers, services that are available might also be unknown to community organizations and residents—or they might be unaware of processes for accessing them.

Behavioral health issues generally carry greater stigma than other health concerns, which also impacts on access and use of services. Key informants and focus group participants both

reported that many affected individuals and families try to address problems internally—or not at all.

> *Mental health. People think to keep it quiet because of the stigma. You see it and nobody addresses it until it deteriorates. Nobody knows that they are carrying this disease. You wonder what you can do, but you cannot approach them to tell them they have a mental health issue, but you can see that it is more visible? (Focus group participant)*

> *In New York, if you're white having a therapist is a badge of honor, if you're black it's stigmatized. (key informant, CBO)*

> *I will say that they are sometimes—first of all, people have an aversion to it. There's a cultural aversion to it. There's a cultural stigma and misunderstanding about mental healthcare and behavioral healthcare. People are not motivated in the way they perhaps should be to seek it, but it's not like there are clinics around. (key informant, CBO)*

According to key informants who are themselves providers, regulatory issues promote fragmentation of services, which also impact on access and use.

> *We have psychiatrists who work within the [article] 28 and psychiatry can be in health clinics. They're really there to really confirm and confer. It's called a consultation liaison model and you know, you're really, the rule of thumb and it's hard to get answers out of Medicaid about how many times we can be seen. It's like a maximum of three times. So if someone needs more than just a simple SSRI, you know, you see that the psychiatrist. The psychiatrist may say you know what, "I really think you should go into [article] 31" ... It's not that it's a bad thing, you know but it's just another step ... We do offer short term therapy in our 28 ... We have very limited slots and because of licensure, it has to be secondary to a medical issue because again, the Medicaid rules are very clear. (key informant, CBO)*

> *While there have been some important new programs in the last few years that are supposed to be working with the seriously and persistently mentally ill and some people who have very substantial behavioral health issues. We've actually tried to use some of those programs with no success and here's the reason. If you have to present with the diagnosis already stapled on your forehead, that's a problem because these are, we're working in this senior population, we're working with people who have been kind of outside of those service systems, haven't been touched, it's not like they were a kid in school who went through an evaluation and got a label, you know. This is somebody who has gradually become more and more problematic and has been outside the service system and is probably, you know, homebound and/or unwilling to leave, unable to leave,*

unwilling to leave. Those are, you know, different but related. So if your ticket to getting that intensive health home intervention is that you have one of those diagnoses, that's not helpful to us because there's a whole process of gaining someone's trust, engaging them and getting them to be willing to interact with a professional who can give them that unfortunate stamp that will unlock the services that they need. That is a big gaping hole and it is a big gaping hole including in Brooklyn, where there are people who think they are solving this problem. (key informant, CBO)

A number of providers suggested that there is even poorer integration within behavioral health services themselves than between physical and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH) with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. Thus, a mental health provider might be limited in the severity of illness that can be treated, the age of the patient, and other factors.

Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So, if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I mean really become integrated in treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (key informant, multiservice organization)

Dental Care: Sixty-seven percent of survey respondents felt that dental services are available or very available in their community; 59% reported having been to the dentist in the prior 12 months. Focus group participants reported that dental care for children is more available than for adults, due to Medicaid coverage for services. Although many focus group participants with good coverage reported using dental services consistently, others avoided the dentist for fear of the procedures and pain. In addition, a number of participants described dissatisfaction with services, due to wait time, the high cost (and lack of insurance coverage), and quality.

They would rather pull your teeth out then give you a cap to save the tooth, in terms of paying for it. It's not about what is best for me, but what is expedient for the health insurance company. But that affects my overall health. It's a basic part of health. (focus group participant)

It's too expensive - when I was in Haiti and go to see a dentist, they don't charge much money. If I want to see a doctor, I pay my money and go back to Haiti. (focus group participant)

My insurance doesn't cover dental health care, I prefer to go to Yemen to fix my teeth. It's cheaper. (focus group participant)

The dentist is a problem. The healthcare people. They give me three dentists. None of them accept the insurance. The money is too small. (focus group participant)

Insurance: Focus group participants, in response to a question regarding what should change in health care, overwhelming cited insurance, including its expense, complications, and the limitations it places on choice. Limitations on choice were particularly problematic for individuals with special needs, including individuals with disabilities and limited English proficient individuals. A key informant explained:

So if you signed up for a plan and that doctor that takes care of your community isn't on that plan then there's not a whole lot you can do. And the other issue is you might be signed up for a provider who says he accepts this plan and then halfway through the year you're locked into the plan, [even] if the provider drops it…They do not have any commitment and so that's been – there's no accountability on the provider side in terms of staying in it. And this is particularly important for immigrants … when you talk about languages of lesser infusion, where there are not that many providers that speak those languages or have the cultural competence. (key informant, health advocacy)

Lack of insurance was, not surprisingly, a more common problem in immigrant communities, due to limitations on immigrant eligibility for public insurance programs, as well as more limited access to employer-sponsored care (due to restricted job opportunities). However, community members and key informants also report that income restrictions for Medicaid are unrealistically low, and self-purchased coverage is felt to be too expensive for low-income populations, given the difficulties of paying for basic necessities like food and housing in NYC. Many low-income, previously uninsured, community members had been receiving free or very low cost services at FQHC's or HHC facilities; insurance is perceived to be expensive in comparison.

We have lots of people who are low income families, but they're not eligible for Medicaid and they can't afford Obamacare. (key informant, CBO)

Lots of people don't get Obamacare. If we pay the violation for not having insurance, it is cheaper than paying each month's fee. (focus group participant)

Lack of insurance coverage resulted in neglect of primary care, preventive services, and dentistry; limited access to prescription medications; and use of emergency care for non-urgent issues. For example:

> *I go to emergency room. That's where most people have to go if they don't have a doctor. That's where everybody has to go if you don't have health insurance. (focus group participant)*

> *As you know we have the Affordable Care implementation, but that has to do with your choices of what do you prioritize? You prioritize buying food, paying for your kids' education, or going to check this pain that you have in your chest. Do you think you can do it later? Until you have a massive heart attack, right? Certain of the type of work that people do, in those fields you don't have a lot of health insurance coverage prior to this Affordable Care. A lot of our community work in construction, a lot of community works in service area, restaurants, small business things. So they don't receive healthcare through work-related insurance. So emergency room becomes the place that they go to – and so they don't have a primary physician care, they don't have a continued care. (key informant, CBO)*

> *I lost my job, but I was not qualified for Medicaid. I had high blood pressure but there was nothing free and accessible. It's a problem for people who are born here; working people cannot afford health care. I want to drop my insurance. I can't afford it. I pay $150 month premium and $50 co-pays. It's worse when you are undocumented but it's a problem for people raised here. People who have minimum wage jobs are not given health insurance or enough hours of work but make too much for Medicaid, so the guidelines need to be changed. If you make more than $104 a week and that's with taxes, you can't live like that. I couldn't get sick. I had to fend for myself. That alone would make you sick, stress you out. (focus group participant)*

> *A lot that don't have insurance, only time they go is some severe case like they can't move may be okay, I'll go to the hospital. They don't wanna be like, Let me go to the doctor now for a regular checkup." I don't have the insurance. You got to have insurance. It's $160.00 just to get a physical. (focus group participant)*

<u>Supportive Services</u>

For populations that have difficulty accessing health care services, whether because of unfamiliarity with the system, age, language, or other factors, supportive services, including transit, health education, navigation, and coordination, can make a critical difference.

Supportive services include but are not limited to Community Health Workers, Case Managers, Care Coordinators, and Health Educators.

Community Health Workers: Several CNA participants described the significance of community health workers (CHWs), and the multiple roles they played (or could play) in promoting health and appropriate health care use, particularly with respect to complicated components of the health care system, including health insurance and hospital care. From the perspective of CNA participants, training and employment of CHWs not only benefited patients and clients but also provided important training and employment opportunities for community members.

> *A great model is the community health worker model. This cooperative idea is training, hiring people from the community to improve people's health. Who's better than someone who's next to you? And maybe not always, because of privacy and other issues. But if he looks like you, and he has family who comes from [the same place], they get trained in a way to do it. It would be great to have more community health workers around everywhere. (key informant, health advocacy)*

> *There's some work to be done on the pre, coming into the hospital … making sure that all the doctors have been pre-certified and pre-cleared, making sure that people did or did not drink or understood exactly all the instructions they needed to follow before coming into the hospital. Making sure that they know where to go when they go to the hospital, so it's not so scary and daunting and maybe so scary and so daunting that perhaps someone doesn't show up, because it just sounds a little too overwhelming. (key informant, health advocacy)*

Particularly for immigrant communities, CHWs—whether they be health educators, navigators, or advocates—helped to ameliorate the pervasive language and cultural barriers. A key informant working with the Latino community commented:

> *They are people that come from the community, that speak the language, and that are trained up on how to navigate this hospital, or how to navigate the health insurance system, etc. And so, when you plug in that person as part of the team of people that takes care of someone, and then it just makes a world of difference. So the [patient] isn't confused as to where in the hospital he's supposed to go. They ask their navigator how the primary care department is relating to the specialized care department, and there's communication happening. You know, there's advocacy being done on language resources, on financial aspects… So I don't think it's the magical solution, but having someone that can help guide you through that and make it less of a scary process is huge. (key informant, CBO)*

CHWs were reported to be particularly valuable and effective in ensuring that hospital discharge plans are effectively implemented:

> *We see a lot of people that – when they emerge, when they leave the hospital, and they come to us, and we say, "All right, what's the plan?" And people often say, "I'm not sure." "All right, when is your next appointment?" And they say, "I don't know." So we have to just call [the hospital] and ask, "When is this person's [appointment]?" So they've been discharged, and they're supposed to understand this stuff, but the people just don't know… We try to find out what the next steps are. And then, often people get prescriptions, and … people don't understand why. If you don't understand why you're taking this thing, you're less likely to keep taking it. So people stop. They get sick again. (key informant, CBO)*

> *I think one of the things we do miserably in New York City … is horrible discharge planning, horrible, horrible. And if there were these advanced primary care workers or at least community health workers, I think one of the main things I would really have them do is think about discharge planning. If [DSRIP] money is going through hospitals, I would really, No. 1, think about discharge planning and how to make that really real and follow-up calls and texts and whatever for all these folks. And making sure that there's really a system, and that the community health worker or advanced primary care worker gets a copy of that discharge plan and follows up with the patient. (key informant, health advocacy)*

Despite their key role in hospital care, there is some question as to their ultimate placement. While one Brooklyn-based CBO participating in the CNA described their ,CHW training program which seeks to place graduates in hospital jobs, another—though enthusiastic about the role—was more skeptical about hospital placement:

> *The medical caregiver, it's not his role to figure out how to deal with the environment … because we're not one to turn a doctor, a medical doctor into a social worker. That's not his trade, and that would be the wrong use of his time. So the team approach, the use of the community based workers…Many hospitals are hiring community health workers, but those workers need to be in organizations in the community, that know, live or are some way connected and understand what's happening in the community. (key informant, CBO)*

Care Coordination/Case Management: Across populations and conditions, care coordinator and case management models were described as highly effective approaches for improving health and reducing health care use. Multiple key informants cited research studies that demonstrated positive outcomes during implementation of care coordination programs. Responsibilities of care coordinators included linkage and serving as liaison to multiple providers, health education,

assistance with accessing entitlement and supportive services, and monitoring the stability and engagement of clients.

> *Children with asthma and other chronic illnesses need care managers, who my suggestion would be that there is some communication from the emergency room to the primary care provider, who then reaches out to the care manager to follow up with that parent on whether or not they were, or using the medication as prescribed, whether they filled the prescription, whether they had the medication. Whether they're using the medication as prescribed during a home visit to make sure that's indeed the case and ensuring that there is a follow up within one week at the pediatrician's office. (key informant, provider)*

Care coordination was seen as valuable, in part, because of excessive fragmentation within the healthcare system, though developing care coordination programs did not diminish the need for improved integration of care.

> *I think [DISRP is] exciting for a lot of people for different reasons, but we're excited about it because we think that it's an opportunity to potentially change some of [this]. The system doesn't support us…. And when I say "us," I mean me as a representative of the client. The client themselves, it doesn't support them. And that's a problem, and we shouldn't have to be working double time, and we shouldn't have to have another system of people who we pay to coordinate care, because the system is so fragmented. You do need coordinated care and creating that resource is valuable, but this has to get unfragmented, too. (key informant, CBO)*

> *This silo specialization in medicine is a problem for everybody, but it's a particular problem for the geriatric population with, you know, 12 medications and four presenting conditions. And so that anything that can happen to not just coordinate but actually integrate care across specialties so that when you do need the interaction of the medical institution for it to deal with a whole person as a whole person, not by its individually, coded and billed body parts would be really important. Anything that could happen along those lines would help everybody, but it would particularly help our guys…All our social workers can tell you stories and we could say personally, you know, the orthopedist comes in and says, well you know, "Mrs. Smith, yeah, your hip will be great," but Mrs. Smith has dementia and Mrs. Smith is not going to recover in a great way. You know, he's solely looking at one body part. And he's not thinking what the rehab is going to be like… and the disorientation. And the family is left standing like, "Are you kidding, what are you talking about?"(key informant, multiservice organization)*

Unfortunately, funds for care coordination are limited and salaries for the positions are relatively low. Low salaries make hiring difficult and may necessitate selection of candidates that are

under-qualified, particularly considering the expectations of the job, which include work with challenging populations, familiarity with multiple psychosocial and health issues (and the services available to address them), as well as the logistic and administrative aspects of the position, including use of multiple electronic health records.

> *We have to find people that are from the managed care world, that are from the hospital world. We have to find professionals that understand those worlds and they also have to be database professionals, they have to be able to navigate Navitar, they have to be able to navigate Dashboard, they have to be able to input information into these databases, and into our own database, and to be able to do it many times offsite. You're stuck between a rock and hard place, because people with enough skills and training to work with such a high acuity, in most cases, group of clients. But then also they'll have, like the background is more like data entry… You want them to come in with some of the skills, 50% of the skills, I mean, maybe we have to teach them the other 50%. Maybe they come in with substance abuse skills but they don't know mental health and they don't diabetes and primary healthcare concerns, or maybe it's the other way around. It feels like [it's too much to ask of a person], but you have to make it work. (key informant multiservice agency)*.

Lack of trust or engagement in care coordination on the part of medical providers was also considered to limit the potential effectiveness of care coordination models.

> *What's missing is … saying to individual providers that this is important, and you need to be responsive, and you need to talk to people, and you need to interact with care coordinators. One of the biggest problems and flaws in the system is that in all of our contracts… we're required to go to providers, individual PCP's and psychiatrists, and get information from them both about their care that they're providing to our client or their patient or the lab work that's been done, tests, reports, anything that they're doing with our patient. We need to get access to that information so that we can help to provide better care and to guide that person along in the care that they're getting. So if they get prescribed a specific medication, we can say, "Are you taking that medication? Where are you at with it? Have you filled the prescription?" Those kind of things. The problem is, on the provider's side, they don't get paid. No one's telling them – no one's saying to them from the funder level … "You must communicate with these people."… so the providers ignore us. (key informant, multiservice organization)*

Finally, a electronic health records were described as challenging for agencies offering care coordination services, as they had to utilize multiple systems.

The State's not equipped to be able to mandate [a consistent electronic health record]. So everybody is left on their own to be able to design their own or to pick and choose an on-the-shelf or off-the-shelf package. And that's been what's causing the mess. So then not only do you have that, but you also don't have the communication between Health Homes to talk about a client, where a client is… being able to get some kind of a text message or an email saying a client is in an emergency room or a hospital. …that should be really enhanced where we have much more access to the client's status, where that client is, when the client is in crisis, so that we can intervene and help the client. (key informant, multiservice agency)

Health Education: Health education was a common theme in interviews and focus groups, incorporating both education of the broader public and individual level education regarding management of complex health conditions.

All the hospitals, for example, that saw these kids and saw a lot of admissions hired instructors, asthma care instructors, patient care instructors, who would meet regularly with the asthmatics after the physicians saw them. "Are you taking your meds? What are you taking? What do you do when you do this?" …. So that was patient educators I guess is what they called them, and it worked beautifully for all those diseases. (key informant, provider)

Topics for education of the broader public included insurance, nutrition, screening, preventive health care, and mental health care. For some community participants, there was a sense that health education would need to include creating new models for people not accustomed to thinking about their health:

You're going to have to start from scratch in terms of the education part, 'cause I think there are a lot of people in our community that really don't even know what it feels like to be totally healthy. So, you know, they can function, and they can get through a day, and they can do all the things they need to do, you know, to make their life move forward… Folks assume that just because they can get up and get through a day, they assume, "Well that's what it means to be physically fit and to be healthy" (key informant, CBO)

Health education is just abysmal. Young people do not know basic things that they should know, not even about reproductive health but other health issues, certainly nutrition being among them, the importance of exercise being among them, the culture slipping to where norms are entirely different than they were a generation and a half or two generations ago. (key informant, CBO)

Information related to general awareness of health issues and related to behavior change were both considered important. Health fairs, school based programming, and faith based programing were all seen as important venues for the dissemination of information—and for health screening. For example:

> *Health education is so important. A lot of young kids have diabetes already. People should go into the schools, so they know how to eat properly. They go to the corner stores and buy junk, and parents buy it for them. It starts at home. (focus group participant)*

> *Some of the communities that we know of—they do a lot of their health education at faith-based organizations. Faith-based organizations have access to space, for example, so many of them I know will open up their space. Groups can rent it out. They'll have exercise classes or dance classes. So I think they play a huge role. And this idea around shared use agreements, I think would be really fantastic to look at. And then civic – I mean civic associations, too, I mean they reach a certain community that might not necessarily be going for social services. So, definitely ways to integrate them. And then they're trusted in their community. They're leaders there, so if you can convince those members or leaders to partner with you on these projects, I think it would be a win-win. (key informant, health advocacy)*

> *I feel that young [Arab] adults… they are the ones who are going to reach out to their parents and grandparents to educate them about what's going on, about health disparities like breast cancer. It works out for the girls, they want to talk to their mother and grandma, "Did you do your mammogram? Do you know about breast cancer?" Because of the stigma in our community about breast cancer, they don't like to do mammograms. The women are very protective, like, "I'm not going to show my breast to anyone." … Some of them they never did mammogram in their lifetime. (key informant, CBO)*

<u>Quality of Care</u>

Several concerns related to quality of care were repeatedly raised in focus groups and key informant interviews. Each of these were reported to contribute to delays in care, neglect of care, poor adherence to medical recommendations, and poor health outcomes.

- Wait times for appointments.

  > *If I get sick today, and I don't want to go the emergency room. And, so I try to consult with my primary physician, and there they give me an appointment for a month or two months. I say to myself 'for what? If I am sick now and I need a doctor now' (focus group participant)*

People say it's not rational to go to the emergency room for care, but when we talk to people, they would say things like, "Well, I tried to make an appointment with my doctor, and it's like four months in advance." What rational person is going to wait four months rather than go [to the ER] (key informant, health advocacy)

- Wait times on the day of a visit

  I say go over to [the clinic] at 9:00 in the morning and 5:00 in the afternoon, you're just getting out of the clinic, why would you listen to me again? (key informant, CBO)

- Short visits that did not allow for health needs to be appropriately addressed. Community members felt that providers do what is expedient rather than what represents the highest quality of care, and ER physicians report that primary care providers refer their difficult cases to the ER, since their allotted time per visit is so brief.

  We try to encourage people to ask questions, and get as much information as possible. And often people feel like the reality is really that they have five minutes with the doctor. (key informant, CBO)

- Multiple and complicated referral pathways, that result in significant inconvenience and expense for patients. Furthermore, the possible need for multiple visits (e.g., for tests) discourages timely use of services.

  It's across the board, dentists, doctors, all of them. I don't think they respect your time. They think you have nothing better to do. For me personally, I went to get a cleaning last year when I was pregnant. They sent me to Long Island, the hospital that's closed there now. I went there and didn't move for like three hours, just stay there. Went in, did the scan, the x-ray, then I went back outside and then, "Oh, you have to come back, make another appointment. It's gonna be the cleaning." (focus group participant)

- Differential treatment because of insurance type. Focus group participants felt they received poorer quality care, or are considered less worthy of care, due to their insurance status.

  I understand that when someone is sick they go to a doctor to cure them, but what the doctor looks at first is what time of insurance they have…and I think this is unfair. The doctor should help the person no matter what insurance or resources they have. (focus group participant)

- Poor discharge planning after emergency department visits and inpatient stays. Patients are discharged without a clear understanding of their discharge plan, including medication use and follow-up visits. In addition, follow-up appointments are not necessarily consistent or logical. For example, patients discharged after hospital stays will be referred to other institutions due to financial incentives (or disincentives). Or, in contrast, ED patients that have a primary care provider will be referred to a hospital clinic for follow-up care.

Kids walk into the emergency room with a Medicaid card that says that they have Health First, and they get prescribed the medicine in the emergency room, and then they get scheduled with a follow-up appointment at that hospital's clinic even though their pediatrician is on the card. Does that make sense? No. (Key informant, provider)

If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not happening [for homeless patients]. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient. (Key informant, provider)

- Lack of knowledge, sensitivity, and competency regarding diverse populations, and populations with special health needs, including the foreign born and older adults

When people with disabilities go to seek care, someone sees them in terms of their diagnosis. "Oh, you are the person with MS. You are the person with the TBI. You are the person with cerebral palsy." And so you are not seen as the person who is sexually active and needs advice about that. Or who may be drinking excessively. Or who may be drugging and self-medicating. You are not seen as the person who needs vaccinations. You are not seen as the person who needs advice about smoking cessation. After all, your quality of life must be so poor that at least I could allow you smoking. So I'm not going to bother to give you smoking messages because I'm assuming that if I were you, I would feel so bad about myself. So there's also a mythology about people with disabilities, that we are all depressed as well. So why bother to counsel you about any of these other things? (key informant, health advocacy)

Community members have reported back that doctors and health care professionals in general talk about certain illnesses, like diabetes, hypertension, heart [disease] – a lot of these things are inevitable, right? Or kind of like, "Okay, you have hypertension, here's your medication," as opposed to actually there are things that you can do, lifestyle changes that you can make. I remember we had a really well-known pastor at an organization we're working with in the Bronx, and he said that he didn't know that if you

had diabetes, it didn't mean that you had to have a limb amputated, which is pretty nuts, right? That because you have diabetes it does not mean that you have to lose limbs. I think, for whatever reason, providers may feel like when they're talking with certain populations that it's not worth it to talk about what else you can do to address your needs that's not medication or that's not amputation. And there may be some cultural biases that are – there are culture biases, I think, that are built into that way of talking to the patient (key informant, health advocacy)

SPECIFIC POPULATIONS

Low income, uninsured, and immigrant populations, as described above, face a number multiple barriers to optimal health and health care use. However, within these populations, there are a number of groups for which the barriers are exacerbated. These include individuals with disabilities, as well as individuals that are lesbian, gay, transgender, and queer (LGBTQ); criminal justice involved, homeless, or victims or survivors of domestic violence. A number of these groups are also high users of expensive medical services due to a combination of greater medical need and barriers to community based services.

Individuals with Disabilities: Individuals with physical and/or cognitive disabilities are disproportionately low income, unemployed, and have a high number of co-morbidities, including obesity, hypertension, and cardiovascular disease. Despite a high need for services, they reportedly delay care because of poor accommodation (e.g., absence of ramps, absence of sign language interpreters) and providers that are insensitive to both their capabilities and their limitations. These access barriers—and their implications— were described by CNA participants. Unfortunately, barriers are considered more significant in community as compared to hospital settings so may become more pronounced as—consistent with the goals of DSRIP—services move into the community. As explained by a key informant in the field:

A requirement, for example, that you come to an appointment timely, or if you miss an appointment three times, you can be dis-enrolled from a program or a provider, [is discriminatory]. If you use Access-a-Ride, for example, it is almost impossible to know when you will arrive at a location on a consistent basis. The service is simply of such poor quality that if … you need door-to-door transportation, you need flexibility in appointment scheduling.

In the health setting, practitioners are often listed – clinics are often listed as being wheelchair accessible in managed care program directories. But in fact, according to a survey by the Community Service Society, it was found that these practitioners have steps at their front entrance. The providers don't even know what accessibility means. And so they list themselves as accessible, but when you go to their site or you call them on the phone, they'll say, "Oh yes, we have a few [steps] at our entrance, but that's no big deal."

They don't have exam tables that will lower so that you can transfer from a wheelchair. Or they don't provide ASL interpreters, either in person or by video phone or other system. …. They don't give you longer times for your appointment if it's going to take you a long time to dress and undress…

LGBTQ: The LGBT population has both typical and particular health concerns. Utilization of health care services—even the ER—is reported to be less than needed, due to lack of sensitivity on the part of providers. Although the lack of sensitivity is particularly pronounced with respect to transgender patients, it affects lesbian, gay and bisexual individuals, as well.

So there are health disparities that we know exist among LGBT older people. And part of this has to do with the fact that they're so much less likely to reach out for help and so much less likely to get screening. So there's a higher rate of breast and gynecological cancers among lesbian women. There are higher rates of rectal cancer and prostate cancer among gay and bisexually identified men. (key informant, CBO)

They're not willing to be forthcoming with their providers, they withhold information from their providers, they're real reluctant particularly with transgender folks to engage in health care on so many levels, and we could talk for hours about trans people like getting disrobed, "What room do you go into, what's your name on the form, why doesn't this match your insurance card, why do you have breasts and a penis, can I touch this?" (key informant, health care organization)

But even when I was in the hospital with my mother. I went there with no makeup. I clearly have boobs, have my long hair. I looked weird, and no one gave me the respect or anything. When I used to open my mouth before, I got attention and I got whatever I needed. Now it's like, "You're a freak, go away."(focus group participant)

Isolation and perceived stigma lead to mental health issues in the LGBTQ population.

I think for many LGBT people, they're separate from other minority groups, the isolation from levels of support starts at a very young age and it's within the family and within the local community and so there is a lot of effective issues that people experience just from an early age onward. I wouldn't say that the prevalence of psychiatric diagnosis is greater, but there is a substantial amount of the affective issues of mood anxiety, depression and with those in particular for anxiety and depression, substances play a very key role in modulating mood. (key informant, health care organization)

Criminal Justice Involved: Working with individuals that have been involved in the criminal justice system requires nonjudgmental staff that are familiar with the practical (e.g.,

deactivations of Medicaid, parole regulations), medical, and psychosocial issues faced, including the limited economic options and high rates of trauma and mental illness. According to a key informant that works in correctional health, this population is comprised of:

> *The sickest people in the city, who are the most socioeconomically disadvantaged, the most stigmatized and the least likely to access care in a way that would be, exclusive of using the emergency room and that sort of thing….I think, honestly, with the, state emptying the psychiatric facilities, which nobody liked, but I'm not sure that jail is a better alternative. And right now we're talking about 40% of [the Rikers] population are mentally ill. And about 60 to 80% have some kind of behavioral health issue. And then we're talking about, you know, folks with chronic health conditions and the population in jails is aging, so now we've got diabetes and heart disease at much higher rates. (key informant, government)*

Bridging connections directly from jails/prisons to community based organizations and providers upon re-entry was recommended, so as to avoid emergency department use post-release:

> *[There are] increased rates of hospitalization and emergency department visits post release. We've shown both those things. So anything that we do to try to systematically reduce hospitalizations would definitely benefit from partnering with local jails to help facilitate what I call warm transitions to primary care for medical and to behavioral health treatment, including drug treatment, substance use treatment, so that we can avoid people coming to the emergency room 'cause that's what they're gonna do if they don't have - if they don't have a plan. I think it's kind of a no-brainer. (key informant, government)*

Homeless Population: The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed, and which may be, in turn, further exacerbated by homelessness. According to a key informant that works with the homeless:

> *A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients. (key informant, government)*

Homeless individuals are reported to be frequent users of emergency services, not only because of health conditions, but because of the instability in their lives.

[Homeless] clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street. (key informant, government)

Recommendations for improved coordination of care, more efficient use of services, and improved health, focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service. In addition, key informants in multiple fields emphasized the importance of supportive housing for high need homeless populations.

Domestic Violence: Domestic violence—with wives, older adults and children as potential victims— was a topic that resonated with several interviewees and focus group participants as a significant community concern that has received inadequate attention. Of Brooklyn survey respondents, 31% reported that health education or programs on domestic violence are needed in their community; the proportion was 40% in southwest Brooklyn. Domestic violence obviously can result in both physical health (e.g., injury) and mental health issues, including anxiety and depression. Although not necessarily more prevalent, domestic violence issues were particularly relevant in immigrant communities, due to possibly different standards in their home country as compared to the US, stigma, lack of linguistically and culturally appropriate resources, and fear of deportation—particularly in mixed immigration status families.

Mental health, domestic violence, those are serious, serious issues in our community that are a problem. Because in Haiti you can beat your wife, you can beat your children… But here, we are learning that there are resources, but they are also – there's also the immigration component. (key informant, CBO)

I had no job. He said I was illegal but the judge put him in his place. He said, 'she was good enough for you to marry her, so how come now she's illegal? You have to stand up.' He had to pay me money for a year after the separation. And then he took me for divorce and I was happy. But he couldn't beat me no more, he couldn't choke me no more. I would have ended up another Jane Doe, because I had no paperwork, they didn't know who I am in this community. (focus group participant)

Some people are afraid to let people know they're undocumented. If they let people know about their husband or brother, that means they're putting themselves at risk for

deportation. Sometimes I believe people are afraid to make that step because of the fear that they're going to be sent back. (focus group participant)

DISCUSSION

Brooklyn community members and other stakeholders are clearly interested in partnering with hospitals and health care providers and being part of solutions that promote good health and reduced hospitalizations. Many are wary, fearing that hospitals will not fully engage with the community going forward, as most lack experience doing so and the financial incentives of health system re-engineering are unclear. The predominant theme in Brooklyn is seemingly "disparity," given the frequency of comments pointing to the stark differences between neighborhoods, the uneven distribution of resources, and the sense that the odds are stacked against certain communities and their residents. Focus group and interview participants articulated specific barriers to good health and good health care, many of which were related to poverty and its consequences, including long work hours, unstable housing, unsafe neighborhoods and the need to prioritize expenditures—even among basic needs. For specific groups, including the disabled, LGBTQ, criminal justice involved, and the homeless, health-related barriers were compounded, due to both attitudinal and practical considerations.

Focus group and interview participants also articulated potential "fixes," such as increased ease of access for medical visits (e.g., reduced wait time, reduced insurance restrictions, increased integrated care); improved provider sensitivity; and a range of supportive services, including community health workers, care coordinators—particularly for difficult to manage medical conditions and high risk populations—and navigators. Health education, addressing (for example) prevention, screening, disease management, insurance, and the normalizing of mental health issues, was considered essential at the individual and the community level, to ensure that the population has the knowledge and skills necessary for independent action that promotes their own good health.

Table 1: Distribution of Responses (N=681)

UHF Neighborhood	UHF code	Zipcode	Frequency	%
Greenpoint	201	11211, 11222	18	2.6%
Brooklyn Heights, Carroll Gardens, Clinton Hill, Downtown, Fort Greene, Park Slope, and Red Hook	202	11201, 11205, 11215, 11217, 11231	65	9.5%
Bedford Stuyvesant, Crown Heights, Prospect Heights, and Brownsville	203	11213, 11212, 11216, 11233, 11238	102	15.0%
East New York, New Lots. Cypress Hills	204	11207, 11208	69	10.1%
Sunset Park	205	11220, 11232	62	9.1%
Borough Park	206	11204, 11218, 11219, 11230	82	12.0%
East Flatbush, Midwood, and Prospect Lefferts Garden	207	11203, 11210, 11225, 11226	95	14.0%
Canarsie, Flatlands, and Starrett City	208	11234, 11236, 11239	35	5.1%
Bay Ridge, Bensonhurst, and Dyker Heights	209	11209, 11214, 11228	20	2.9%
Brighton Beach, Coney Island, and Sheepshead Bay	210	11223, 11224, 11229, 11235	38	5.6%
Williamsburg and Bushwick	211	11206, 11221, 11237	95	14.0%
			681	100%

Table 2: Demographic characteristics

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=681)
Age (Mean, SD)	46.4 (14.5)	36.0 (14.7)	43.4 (14.9)	42.1 (18.2)	40.0 (14.0)	44.6 (20.9)	38.6 (13.8)	39.5 (18.4)	39.5 (16.2)	58.0 (21.1)	51.4 (18.8)	43.5 (17.8)
18-20	0.0%	9.2%	3.9%	13.0%	6.5%	9.8%	12.6%	17.1%	10.0%	5.3%	2.1%	8.1%
21-44	38.9%	58.5%	46.1%	42.0%	51.6%	42.7%	49.5%	31.4%	55.0%	21.1%	36.8%	44.1%
45-64	50.0%	27.7%	39.2%	30.4%	37.1%	29.3%	31.6%	22.9%	35.0%	26.3%	29.5%	32.0%
65-74	5.6%	3.1%	4.9%	7.3%	3.2%	7.3%	2.1%	8.6%	0.0%	23.7%	14.7%	7.2%
75-84	5.6%	0.0%	1.0%	2.9%	0.0%	7.3%	0.0%	2.9%	0.0%	15.8%	12.6%	4.3%
85 and older	0.0%	0.0%	0.0%	1.5%	0.0%	2.4%	0.0%	0.0%	0.0%	7.9%	1.1%	1.0%
Unknown	0.0%	1.5%	4.9%	2.9%	1.6%	1.2%	4.2%	17.1%	0.0%	0.0%	3.2%	3.4%
Gender												
Female	58.8%	66.1%	52.9%	57.4%	50.0%	64.2%	60.4%	62.9%	60.0%	57.9%	71.4%	60.4%
Male	41.2%	32.3%	46.1%	41.2%	50.0%	35.8%	39.6%	37.1%	40.0%	42.1%	28.6%	39.1%
Transgender	0.0%	1.6%	1.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
Sexual Orientation												
Heterosexual	100.0%	79.0%	93.8%	93.4%	98.2%	100.0%	90.7%	90.0%	100.0%	100.0%	93.0%	93.5%
LGBTQI	0.0%	21.1%	6.2%	6.6%	1.8%	0.0%	9.3%	10.0%	0.0%	0.0%	7.0%	6.5%
High school graduate or higher	44.4%	70.7%	76.0%	72.1%	73.3%	64.5%	87.1%	76.9%	77.8%	80.6%	67.1%	73.2%
Hispanic	94.4%	31.0%	20.0%	27.7%	62.1%	22.5%	10.7%	6.1%	11.1%	14.3%	64.8%	31.8%
Race												
White	7.1%	3.1%	5.2%	7.6%	9.7%	27.9%	7.6%	6.3%	10.0%	34.2%	19.1%	12.5%
Black or African American	7.1%	53.1%	73.2%	63.6%	6.5%	3.8%	79.4%	81.3%	10.0%	18.4%	28.6%	44.3%
Asian	0.0%	9.4%	2.1%	1.5%	19.4%	49.4%	0.0%	3.1%	40.0%	29.0%	10.7%	13.7%
American Indian or Alaskan Native	0.0%	0.0%	1.0%	1.5%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.8%
Native Hawaiian or other Pacific Islander	0.0%	1.6%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Other	78.6%	15.6%	8.3%	18.2%	56.5%	12.7%	6.5%	6.3%	25.0%	7.9%	20.2%	18.4%
Mixed	0.0%	4.7%	1.0%	0.0%	0.0%	1.3%	3.3%	3.1%	5.0%	0.0%	4.8%	2.2%
Unknown	7.1%	12.5%	9.3%	6.1%	6.5%	5.1%	3.3%	0.0%	10.0%	10.5%	14.3%	7.9%
Unemployed	16.7%	21.5%	32.3%	37.7%	19.7%	15.0%	25.3%	20.6%	10.0%	2.6%	14.3%	21.8%
Always/sometimes worry about not having enough money to pay for food or housing	66.7%	75.0%	75.8%	68.2%	66.7%	74.7%	77.1%	66.7%	85.0%	56.8%	67.4%	71.4%
Living below a federal poverty level	100.0%	85.0%	70.4%	86.3%	81.0%	88.4%	81.7%	83.3%	81.8%	77.1%	86.2%	82.4%

Table 3: Language

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=675)
Primary langauge spoken at home												
English	47.1%	76.9%	82.2%	87.0%	41.9%	27.2%	58.5%	42.4%	35.0%	47.4%	52.6%	58.2%
Spanish	58.8%	13.9%	14.9%	17.4%	51.6%	14.8%	8.5%	0.0%	5.0%	7.9%	48.4%	21.9%
Arabic	0.0%	0.0%	0.0%	0.0%	11.3%	3.7%	2.1%	3.0%	30.0%	2.6%	1.1%	3.1%
Chinese (Mandarin, Cantonese, or other)	0.0%	4.6%	0.0%	0.0%	12.9%	9.9%	0.0%	0.0%	30.0%	21.1%	6.3%	5.8%
French	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	5.3%	6.1%	5.0%	5.3%	0.0%	1.6%
Haitian/French Creole	0.0%	1.5%	4.0%	1.5%	0.0%	0.0%	34.0%	39.4%	0.0%	5.3%	1.1%	8.0%
Hindi	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Italian	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Korean	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	3.0%	0.0%	0.0%	0.0%	0.3%
Russian	0.0%	0.0%	1.0%	0.0%	0.0%	17.3%	0.0%	6.1%	5.0%	26.3%	0.0%	4.2%
Urdu	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Yiddish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other	0.0%	1.5%	2.0%	1.5%	1.6%	30.9%	0.0%	0.0%	0.0%	0.0%	3.2%	4.9%
Multiple language	5.9%	3.2%	4.0%	7.3%	22.6%	9.0%	10.9%	3.1%	10.0%	16.2%	12.8%	9.6%
English proficiency												
Very well/well	64.7%	88.5%	90.9%	90.9%	59.0%	50.0%	83.9%	65.6%	60.0%	58.3%	65.9%	73.7%
Not well/not at all	35.3%	11.5%	9.1%	9.1%	41.0%	50.0%	16.1%	34.4%	40.0%	41.7%	34.1%	26.3%
Ever not get healthcare because of language or translation issues*	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	10.0%	2.8%
Foreign born	50.0%	36.7%	48.0%	45.6%	56.7%	66.7%	56.8%	42.4%	70.0%	63.9%	58.2%	53.7%

* only those who indicated ever not getting healthcare when needed

Table 4: Health-related characteristics

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=681)
Perceived health status												
Excellent/very good/good	87.5%	73.3%	77.3%	76.5%	58.3%	55.0%	81.3%	82.4%	75.0%	62.2%	67.4%	71.2%
Fair/Poor	12.5%	26.7%	22.7%	23.5%	41.7%	45.0%	18.7%	17.7%	25.0%	37.8%	32.6%	28.9%
Body mass index (Mean, SD)*	28.8 (5.1)	29.0 (10.3)	27.5 (5.6)	28.1 (6.1)	27.5 (6.8)	26.1 (4.8)	26.8 (5.5)	26.0 (4.8)	25.0 (3.4)	26.9 (5.1)	28.6 (5.9)	27.4 (6.2)
Underweight	0.0%	3.7%	1.1%	1.6%	0.0%	2.7%	5.3%	3.3%	0.0%	5.7%	1.3%	2.4%
Normal	11.8%	38.9%	33.0%	37.1%	40.7%	41.9%	26.7%	43.3%	57.9%	25.7%	32.1%	35.1%
Overweight	58.8%	27.8%	37.4%	27.4%	29.6%	33.8%	40.0%	26.7%	31.6%	45.7%	23.1%	33.1%
Obese	29.4%	29.6%	28.6%	33.9%	29.6%	21.6%	28.0%	26.7%	10.5%	22.9%	43.6%	29.4%
Have health insurance												
Medicaid	44.4%	58.5%	59.4%	76.1%	32.3%	56.1%	46.2%	39.4%	45.0%	55.3%	53.2%	53.4%
Medicare	11.1%	7.7%	11.9%	7.5%	4.8%	19.5%	5.5%	12.1%	20.0%	44.7%	27.7%	14.8%
Private/commercial	11.1%	10.8%	12.9%	4.5%	29.0%	12.2%	16.5%	18.2%	20.0%	21.1%	11.7%	14.5%
VA	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Other	11.1%	7.7%	11.9%	3.0%	16.1%	15.9%	11.0%	12.1%	10.0%	13.2%	8.5%	10.9%
More than one insurance	5.9%	6.7%	8.2%	1.5%	5.1%	12.2%	1.1%	6.5%	5.6%	31.6%	14.9%	0.1%
Uninsured	23.5%	15.0%	8.2%	10.5%	18.6%	8.5%	20.2%	19.4%	0.0%	2.6%	14.9%	13.0%

*__BMI categories__ less than 18.5 : underweight; 18.5 to 24.9 : normal; 25.0 to 29.9 : overweight; 30.0 or higher : obese

Table 4: Healthcare utilization

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=681)
Have a primary care provider/personal doctor	77.8%	81.0%	87.9%	80.9%	81.4%	81.5%	81.9%	76.5%	94.4%	91.4%	72.4%	81.7%
Have a usual place to go for non-emergency health services	77.8%	86.0%	89.1%	78.8%	82.3%	83.8%	79.1%	82.4%	100.0%	81.1%	82.6%	83.4%
Use complimentary or alternative treatments or remedies	17.7%	27.6%	18.8%	9.5%	15.5%	15.6%	35.4%	40.0%	40.0%	29.7%	29.1%	23.7%
In the past 12 months:												
Have last routine check-up	66.7%	87.7%	90.0%	81.7%	74.2%	87.3%	79.8%	85.7%	94.4%	80.0%	84.3%	83.7%
Have been to a dentist	52.9%	57.4%	60.6%	53.7%	54.8%	61.0%	63.3%	53.1%	80.0%	54.1%	61.2%	59.2%
Have gone to a hospital emergency room at least once	38.9%	40.7%	44.6%	38.8%	31.2%	25.9%	39.5%	50.0%	45.0%	17.1%	47.1%	38.3%
Need healthcare but didn't get it	27.8%	23.3%	19.2%	29.7%	18.3%	31.3%	20.7%	10.0%	16.7%	19.4%	22.5%	22.5%

Table 5: Place for non-emergency healthcare services*

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=547)
Type of place												
Primary care doctor's office	57.1%	55.1%	60.0%	53.9%	43.1%	68.7%	61.1%	60.7%	50.0%	40.0%	47.4%	55.4%
Specialist doctor's office	7.1%	2.0%	3.3%	1.9%	5.9%	13.4%	6.9%	3.6%	33.3%	30.0%	11.8%	8.8%
Community/family health center	14.3%	16.3%	10.0%	5.8%	19.6%	13.4%	15.3%	10.7%	22.2%	20.0%	7.9%	13.0%
Hospital-based clinic	14.3%	14.3%	14.4%	26.9%	5.9%	4.5%	8.3%	3.6%	5.6%	16.7%	25.0%	13.5%
Private clinic	14.3%	6.1%	2.2%	11.5%	17.7%	4.5%	8.3%	14.3%	11.1%	16.7%	6.6%	8.6%
Emergency room	0.0%	14.3%	10.0%	3.9%	3.9%	6.0%	4.2%	0.0%	0.0%	3.3%	7.9%	6.2%
Urgent care	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	3.6%	0.0%	13.3%	4.0%	1.7%
Pharmacy	0.0%	2.0%	0.0%	0.0%	2.0%	1.5%	2.8%	0.0%	5.6%	10.0%	5.3%	2.4%
Drug treatment center	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Mental health center	0.0%	0.0%	1.1%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
Alternative care (e.g. herbalist, acupuncturist)	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.6%
Other	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	1.4%	3.6%	0.0%	0.0%	1.3%	0.9%
Location												
Bronx	7.1%	0.0%	4.4%	1.9%	0.0%	1.5%	1.4%	0.0%	0.0%	0.0%	2.7%	1.8%
Brooklyn	50.0%	89.8%	80.0%	84.6%	84.3%	88.1%	93.1%	92.6%	77.8%	93.3%	74.7%	84.2%
Manhattan	42.9%	6.1%	10.0%	7.7%	15.7%	9.0%	5.6%	3.7%	22.2%	6.7%	16.0%	10.8%
Queens	0.0%	4.1%	5.6%	3.9%	0.0%	1.5%	0.0%	3.7%	0.0%	0.0%	6.7%	2.9%
Outside of New York City	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%

*only for those who indicated that they have a specific place they usually go for non-emergency services.

Table 6: Barrier to gettig healthcare*

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=144)
Not insured	20.0%	42.9%	21.1%	42.1%	72.7%	36.0%	55.6%	100.0%	0.0%	71.4%	50.0%	44.4%
Cost of copays	0.0%	14.3%	21.1%	5.3%	36.4%	8.0%	44.4%	0.0%	0.0%	28.6%	20.0%	18.8%
Concerns about quality of care	40.0%	0.0%	0.0%	10.5%	18.2%	8.0%	16.7%	0.0%	0.0%	0.0%	10.0%	9.0%
Did not know where to go	0.0%	21.4%	5.3%	10.5%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	15.0%	6.9%
Had other responsibilities (e.g. work, family)	0.0%	14.3%	10.5%	5.3%	0.0%	32.0%	5.6%	0.0%	0.0%	14.3%	15.0%	12.5%
Could not get an appointment soon or at the right time	20.0%	7.1%	31.6%	5.3%	0.0%	4.0%	16.7%	0.0%	0.0%	0.0%	20.0%	11.8%
Did not have transportation	0.0%	7.1%	5.3%	10.5%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	15.0%	5.6%
Concerns about language or translation issues	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	10.0%	2.8%
Other	20.0%	0.0%	5.3%	10.5%	18.2%	8.0%	5.6%	0.0%	0.0%	0.0%	5.0%	6.9%

*only for those who indicated that they ever not get healthcare when needed in the past 12 months.

Table 7: Reason for ER use*

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=246)
Did not have insurance	14.3%	8.3%	13.3%	15.4%	15.8%	19.1%	17.7%	40.0%	22.2%	16.7%	17.5%	17.1%
Did not have transportation to a doctor's office or clinic	14.3%	0.0%	2.2%	3.9%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	5.0%	2.4%
Get most care at ER	28.6%	8.3%	4.4%	15.4%	0.0%	0.0%	8.8%	6.7%	0.0%	16.7%	20.0%	9.4%
Problem too serious for a doctor's office or clinic	85.7%	41.7%	62.2%	46.2%	36.8%	52.4%	64.7%	80.0%	44.4%	100.0%	65.0%	41.5%
Doctor's office or clinic was not opened	14.3%	20.8%	26.7%	3.9%	10.5%	9.5%	17.7%	6.7%	11.1%	0.0%	5.0%	13.4%
Other	0.0%	12.5%	15.6%	7.7%	10.5%	14.3%	20.6%	6.7%	11.1%	16.7%	22.5%	14.6%

*only for those who indicated that they went to the ER at least once in the past 12 months

Table 8: Health concern in the community

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=676)
Adolescent health	5.6%	12.5%	15.0%	10.1%	11.3%	17.1%	13.7%	20.0%	10.0%	13.2%	19.4%	14.4%
Asthma	38.9%	45.3%	33.0%	29.0%	17.7%	24.4%	26.3%	25.7%	45.0%	15.8%	43.0%	30.9%
Arrest and incarcertation	11.1%	23.4%	31.0%	23.2%	6.5%	8.5%	25.3%	22.9%	0.0%	2.6%	18.3%	18.5%
Cancer	44.4%	28.1%	22.0%	24.6%	21.0%	43.9%	36.8%	37.1%	35.0%	29.0%	28.0%	30.5%
Diabetes	77.8%	37.5%	54.0%	46.4%	50.0%	54.9%	52.6%	51.4%	25.0%	42.1%	63.4%	51.5%
Disability	16.7%	12.5%	11.0%	8.7%	6.5%	13.4%	6.3%	17.1%	20.0%	21.1%	20.4%	12.7%
Drug and alcohol abuse	33.3%	43.8%	55.0%	46.4%	46.8%	25.6%	43.2%	48.6%	50.0%	42.1%	46.2%	44.1%
Family planning/birth control	5.6%	9.4%	11.0%	14.5%	6.5%	7.3%	15.8%	14.3%	0.0%	7.9%	9.7%	10.4%
Hepatitis	5.6%	6.3%	12.0%	10.1%	4.8%	11.0%	2.1%	8.6%	10.0%	13.2%	4.3%	7.7%
Heart disease	38.9%	9.4%	14.0%	11.6%	16.1%	47.6%	19.0%	34.3%	35.0%	42.1%	24.7%	23.7%
High blood pressure	44.4%	34.4%	39.0%	36.2%	24.2%	62.2%	36.8%	28.6%	40.0%	50.0%	46.2%	40.7%
HIV	5.6%	28.1%	35.0%	23.2%	3.2%	13.4%	41.1%	34.3%	5.0%	10.5%	20.4%	23.4%
Maternal and child health	5.6%	6.3%	3.0%	1.5%	6.5%	11.0%	6.3%	14.3%	5.0%	2.6%	9.7%	6.5%
Mental health (e.g. depressin, suicide)	16.7%	18.8%	22.0%	11.6%	9.7%	34.2%	17.9%	22.9%	15.0%	26.3%	21.5%	20.3%
Obesity	33.3%	26.6%	33.0%	30.4%	30.7%	36.6%	39.0%	37.1%	45.0%	31.6%	44.1%	35.2%
Pollution (e.g. air quality, garbage)	11.1%	17.2%	12.0%	10.1%	11.3%	8.5%	11.6%	17.1%	35.0%	29.0%	10.8%	13.5%
Sexual transmitted infections	0.0%	17.2%	24.0%	14.5%	8.1%	11.0%	24.2%	20.0%	5.0%	13.2%	16.1%	16.3%
Stroke	5.6%	10.9%	14.0%	11.6%	4.8%	12.2%	13.7%	8.6%	0.0%	13.2%	10.8%	11.0%
Teen pregnancy	5.6%	31.3%	22.0%	26.1%	8.1%	9.8%	16.8%	17.1%	10.0%	18.4%	25.8%	19.1%
Tobacco use	5.6%	18.8%	19.0%	14.5%	27.4%	31.7%	14.7%	5.7%	40.0%	34.2%	24.7%	21.5%
Violence or injury	0.0%	20.3%	22.0%	27.5%	16.1%	15.9%	27.4%	28.6%	20.0%	26.3%	20.4%	21.6%
Other	0.0%	1.6%	4.0%	1.5%	4.8%	1.2%	1.1%	0.0%	5.0%	0.0%	2.2%	2.1%

Table 9: Health issues faced

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=681)
Asthma	11.1%	30.0%	22.2%	20.9%	11.7%	17.5%	15.3%	14.7%	15.0%	10.8%	21.4%	18.6%
Cancer	16.7%	1.7%	5.1%	4.5%	1.7%	3.8%	4.7%	2.9%	5.0%	13.5%	3.4%	4.6%
Chronic pain	27.8%	11.7%	23.2%	23.9%	15.0%	23.8%	12.9%	14.7%	10.0%	16.2%	23.6%	19.1%
Depression or anxiety	33.3%	27.1%	23.2%	20.9%	21.7%	31.7%	12.9%	8.8%	25.0%	8.3%	27.3%	22.2%
Diabetes	38.9%	8.5%	17.2%	13.4%	11.7%	18.8%	4.7%	14.7%	5.0%	13.9%	20.2%	14.4%
Drug or alcohol abuse	5.6%	6.7%	11.1%	9.0%	11.5%	2.5%	5.9%	0.0%	0.0%	8.3%	7.9%	7.1%
Heart disease	22.2%	1.7%	7.1%	7.5%	4.9%	17.5%	1.2%	2.9%	5.0%	21.1%	11.4%	8.5%
Hepatitis C	5.6%	5.0%	5.1%	6.0%	3.3%	6.3%	1.2%	2.9%	5.0%	5.6%	3.4%	4.3%
High blood pressure	38.9%	23.3%	30.6%	23.9%	19.7%	35.0%	16.5%	18.2%	30.0%	35.1%	37.8%	27.7%
High cholesterol	33.3%	18.6%	23.2%	20.9%	14.8%	30.0%	9.4%	17.7%	15.0%	36.1%	25.6%	21.6%
HIV	11.1%	1.7%	13.3%	13.4%	3.3%	3.8%	4.7%	0.0%	0.0%	0.0%	3.3%	5.7%
Mobility impairment	16.7%	5.1%	7.1%	4.5%	9.8%	19.0%	2.4%	5.9%	5.0%	8.1%	14.6%	9.0%
Osteoporosis	11.1%	6.7%	4.0%	6.0%	4.9%	6.3%	4.7%	2.9%	20.0%	18.9%	13.3%	7.7%

Table 10: Service availability

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=681)
Accessible transportation	100.0%	83.6%	89.1%	93.4%	95.2%	92.2%	84.3%	87.5%	80.0%	97.1%	92.9%	90.3%
Affordable housing	27.8%	42.9%	43.8%	36.8%	17.0%	24.3%	15.4%	29.6%	15.8%	52.9%	27.3%	30.5%
Dental services	68.8%	60.7%	64.8%	58.6%	64.9%	78.1%	72.2%	50.0%	64.7%	85.7%	67.1%	67.4%
Healthy food	94.4%	58.9%	52.7%	44.3%	57.6%	73.6%	48.8%	44.0%	63.2%	71.4%	64.2%	58.7%
Home health care	53.3%	61.7%	61.0%	56.4%	57.1%	62.5%	56.5%	56.5%	50.0%	61.5%	60.3%	59.0%
Job training	41.2%	48.1%	38.6%	33.3%	32.0%	28.3%	23.1%	39.1%	8.3%	33.3%	32.4%	33.3%
Medical specialists	58.8%	60.0%	58.3%	53.7%	63.0%	73.5%	48.6%	56.0%	56.3%	73.5%	50.7%	58.9%
Mental health services	37.5%	47.9%	54.9%	40.4%	50.0%	49.1%	49.3%	45.8%	50.0%	36.0%	40.6%	47.0%
Pediatric and adolescent services	50.0%	70.0%	69.5%	57.8%	64.0%	75.5%	64.3%	59.1%	55.6%	72.7%	66.2%	65.9%
Places to exercise, walk, and play	82.4%	74.1%	79.6%	65.0%	66.7%	79.7%	59.5%	63.0%	68.4%	90.9%	72.6%	72.2%
Primary care medicine	56.3%	78.0%	77.8%	68.4%	76.3%	88.2%	66.7%	65.4%	56.3%	85.7%	66.2%	73.6%
Social services	46.7%	69.2%	67.1%	54.7%	48.2%	61.8%	50.0%	64.0%	62.5%	68.6%	56.8%	59.1%
Substance abuse services	50.0%	53.2%	59.0%	44.7%	28.6%	24.3%	37.1%	38.1%	20.0%	30.4%	35.6%	40.8%
Vision services	50.0%	60.0%	60.3%	42.3%	68.4%	75.0%	50.7%	65.4%	50.0%	63.3%	54.6%	58.6%

*Percentage reflects participants who responded very available or available

Table 11: Health education needed in the community

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=672)
Cancer/cancer prevention	38.9%	28.6%	24.5%	27.3%	27.4%	46.3%	42.1%	32.4%	30.0%	37.8%	43.0%	34.8%
Diabetes	61.1%	42.9%	50.0%	40.9%	38.7%	52.4%	54.7%	50.0%	30.0%	40.5%	60.2%	49.0%
Domestic violence	27.8%	39.7%	34.3%	28.8%	29.0%	20.7%	34.7%	11.8%	40.0%	24.3%	38.7%	31.1%
Exercise/physical activity	44.4%	38.1%	39.2%	33.3%	22.6%	48.8%	40.0%	38.2%	35.0%	43.2%	46.2%	39.4%
Family planning	44.4%	36.5%	36.3%	33.3%	22.6%	17.1%	30.5%	23.5%	10.0%	32.4%	36.6%	30.2%
Heart disease	33.3%	7.9%	24.5%	24.2%	17.7%	41.5%	34.7%	29.4%	10.0%	37.8%	33.3%	27.8%
HIV/sexual transmitted diseases	16.7%	49.2%	52.0%	47.0%	17.7%	20.7%	56.8%	52.9%	10.0%	21.6%	40.9%	39.6%
Maternal and child health	27.8%	19.1%	16.7%	16.7%	11.3%	20.7%	19.0%	23.5%	10.0%	21.6%	23.7%	18.9%
Mental health	38.9%	30.2%	40.2%	31.8%	27.4%	32.9%	37.9%	38.2%	35.0%	35.1%	37.6%	35.1%
Nutrition	38.9%	38.1%	45.1%	39.4%	25.8%	56.1%	46.3%	38.2%	50.0%	51.4%	57.0%	45.2%
Substance abuse	44.4%	33.3%	51.0%	33.3%	29.0%	18.3%	25.3%	14.7%	35.0%	27.0%	37.6%	32.3%
Sickle cell anemia	5.6%	9.5%	2.9%	12.1%	4.8%	7.3%	9.5%	8.8%	5.0%	8.1%	10.8%	7.9%
Vaccinations	11.1%	11.1%	10.8%	12.1%	16.1%	25.6%	14.7%	8.8%	5.0%	18.9%	17.2%	14.9%
Violenece	33.3%	38.1%	38.2%	36.4%	30.7%	17.1%	37.9%	26.5%	50.0%	35.1%	36.6%	33.9%
Other	0.0%	1.6%	2.9%	4.6%	11.3%	2.4%	1.1%	2.9%	0.0%	2.7%	2.2%	3.1%

Table 12: Source of health information

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=667)
Doctor or health care provider	56.3%	56.9%	60.0%	43.9%	54.8%	51.9%	58.5%	36.4%	73.7%	57.9%	51.6%	54.3%
Family or friends	6.3%	27.7%	29.0%	36.4%	27.4%	55.6%	37.2%	33.3%	47.4%	52.6%	29.0%	35.4%
Books	25.0%	16.9%	21.0%	21.2%	14.5%	11.1%	29.8%	12.1%	10.5%	15.8%	21.5%	19.2%
Television or radio	6.3%	0.0%	17.0%	12.1%	21.0%	17.3%	16.0%	30.3%	31.6%	31.6%	24.7%	17.8%
Newspaper or magazines	0.0%	7.7%	5.0%	12.1%	12.9%	4.9%	7.5%	9.1%	31.6%	23.7%	12.9%	10.0%
Ethnic media (e.g. ethnic newspaper, TV, radio)	6.3%	4.6%	6.0%	10.6%	1.6%	11.1%	10.6%	12.1%	31.6%	21.1%	17.2%	10.6%
Internet	31.3%	27.7%	21.0%	28.8%	38.7%	30.9%	35.1%	30.3%	26.3%	34.2%	29.0%	30.0%
Library	6.3%	9.2%	5.0%	10.6%	3.2%	6.2%	2.1%	15.2%	5.3%	5.3%	4.3%	6.0%
Community-based organization	12.5%	18.5%	20.0%	18.2%	3.2%	7.4%	21.3%	12.1%	10.5%	26.3%	28.0%	17.4%
Faith-based organization (e.g. church, temple, synogogue, mosque)	6.3%	4.6%	9.0%	7.6%	1.6%	9.9%	9.6%	3.0%	0.0%	2.6%	8.6%	6.9%
School	6.3%	3.1%	4.0%	7.6%	16.1%	13.6%	20.2%	12.1%	10.5%	10.5%	4.3%	9.9%
Health insurance plan	6.3%	10.8%	12.0%	16.7%	6.5%	7.4%	7.5%	9.1%	26.3%	18.4%	16.1%	11.7%
Health department	0.0%	6.2%	2.0%	6.1%	1.6%	2.5%	10.6%	3.0%	26.3%	7.9%	5.4%	5.6%
Health fairs	0.0%	10.8%	6.0%	12.1%	4.8%	3.7%	10.6%	12.1%	10.5%	7.9%	17.2%	9.3%
Other	0.0%	3.1%	0.0%	0.0%	1.6%	1.2%	2.1%	0.0%	0.0%	5.3%	0.0%	1.2%

Table 13: Use of technology

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=670)
Email	38.9%	55.4%	56.9%	57.6%	51.7%	40.7%	64.5%	32.4%	42.1%	39.5%	42.6%	50.3%
Internet	50.0%	53.9%	59.8%	57.6%	65.0%	49.4%	62.4%	35.3%	52.6%	39.5%	47.9%	54.0%
Smart phone (e.g. iPhone, Galaxy)	44.4%	60.0%	53.9%	59.1%	66.7%	51.9%	51.6%	47.1%	63.2%	39.5%	54.3%	54.5%
Text messaging	27.8%	44.6%	56.9%	63.6%	61.7%	34.6%	48.4%	26.5%	42.1%	42.1%	45.7%	47.8%
Twitter	16.7%	15.4%	8.8%	10.6%	6.7%	9.9%	10.8%	11.8%	5.3%	10.5%	6.4%	9.9%
Facebook	33.3%	46.2%	34.3%	48.5%	43.3%	32.1%	43.0%	32.4%	31.6%	23.7%	27.7%	36.9%

Table 14: Civic engagement

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=665)
Community center	11.8%	38.5%	17.8%	16.2%	8.3%	8.5%	13.2%	2.9%	30.0%	40.5%	31.1%	19.6%
Library	23.5%	30.8%	25.7%	32.4%	23.3%	14.6%	31.9%	17.7%	20.0%	16.2%	17.8%	23.9%
Faith-based organization (e.g. church, temple, synogogue, mosque)	35.3%	20.0%	32.7%	35.3%	31.7%	34.2%	25.3%	32.4%	10.0%	21.6%	36.7%	30.1%
Neighborhood association	5.9%	9.2%	6.9%	2.9%	0.0%	0.0%	5.5%	2.9%	0.0%	8.1%	10.0%	5.1%
Gym or recreational center	17.7%	24.6%	24.8%	25.0%	11.7%	13.4%	23.1%	29.4%	15.0%	32.4%	24.4%	22.1%
Political club	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	4.4%	1.4%
Senior center	0.0%	3.1%	5.0%	2.9%	0.0%	2.4%	0.0%	8.8%	5.0%	35.1%	26.7%	7.8%
School	0.0%	9.2%	10.9%	10.3%	23.3%	18.3%	16.5%	8.8%	5.0%	8.1%	8.9%	12.5%
Sport league	5.9%	0.0%	6.9%	7.4%	0.0%	3.7%	0.0%	5.9%	0.0%	5.4%	2.2%	3.3%
Other community organization	0.0%	18.5%	8.9%	7.4%	3.3%	4.9%	9.9%	5.9%	25.0%	13.5%	20.0%	10.7%

Table 15: Use of complementary or alternative treatments/remedies

	Greenpoint	Northwest Brooklyn	Central Brooklyn	East NY New Lotts	Sunset Park	Borough Park	Flatbush	Canarsie Flatlands	Southwest Brooklyn	Southern Brooklyn	Bushwick Williamsburg	Brooklyn (N=655)
Acupunture	0.0%	6.4%	4.0%	1.5%	4.9%	7.6%	4.4%	3.0%	5.0%	13.2%	8.1%	5.5%
Chiropractic care	5.6%	1.6%	2.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	1.2%	1.2%
Herbal medicine	11.1%	14.3%	9.0%	7.7%	9.8%	5.1%	20.9%	24.2%	20.0%	15.8%	14.9%	13.0%
Homeopathy	0.0%	9.5%	0.0%	0.0%	0.0%	2.5%	5.5%	3.0%	10.0%	5.3%	1.2%	2.9%
Remedies from a botanica	5.6%	0.0%	2.0%	1.5%	1.6%	1.3%	2.2%	0.0%	0.0%	10.5%	3.5%	2.3%
Other	0.0%	0.0%	3.0%	0.0%	1.6%	1.3%	5.5%	6.1%	0.0%	0.0%	3.5%	2.3%

BRONX COMMUNITY NEEDS ASSESSMENT
APPENDIX D - REPORT OF THE PRIMARY DATA COMPONENT

December 16, 2014

Prepared by The New York Academy of Medicine

BRONX COMMUNITY NEEDS ASSESSMENT
OCTOBER 2014

EXECUTIVE SUMMARY

BACKGROUND

The goal of the Delivery System Reform Incentive Payment (DSRIP) program is to promote community-level collaborations and focus on system reform in order to reduce avoidable inpatient admissions and emergency room visits for the Medicaid and uninsured populations in New York State (NYS). To inform the health system transformation that is required under the DSRIP program, emerging Performing Provider Systems (PPSs) must submit a comprehensive Community Needs Assessment (CNA) with their Project Plan applications. The Bronx PPS's CNA included primary and secondary data analysis. This report describes the primary data methodology and analysis and has been developed as an attachment to the full CNA, and to provide more in-depth information to the PPSs, which may be useful for DSRIP project planning, as well as planning and implementation of programs and services outside of the DSRIP program.

METHODS

The Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted the primary data portion of the CNA, which included 622 surveys of community residents, 22 focus groups and 23 interviews with Bronx residents, providers, and other stakeholders. The protocol was developed in collaboration with selected PPSs in the Bronx, Brooklyn, Queens, and Manhattan and was implemented in partnership with the PPSs as well as a number of Community Based Organizations (CBOs).

The primary data component was designed to address anticipated gaps in the secondary data, including: 1) community member and stakeholder perspectives on health issues, as well as their causes and impact; 2) data on populations (e.g., particular immigrant groups) and issues (e.g., links between food access and health) that might be obscured in population-based data sets; 3) significant detail on issues identified; and 4) recommended approaches to address reported problems. Overarching questions for the primary data component, which—consistent with DSRIP—focused on Medicaid and other low-income populations, as well as the uninsured, included:

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?
- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?

- What are the health related programming and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health promotion and health care needs be better addressed, overall and for distinct populations?

FINDINGS

Bronx community members and other stakeholders are clearly interested in partnering with hospitals and health care providers and being part of solutions that promote good health and reduced hospitalizations. Many are wary, fearing that hospitals will not fully engage with the community going forward, as most lack experience doing so and the financial incentives of health system re-engineering are unclear. The predominant themes in the Bronx are persistent poverty, environmental hazards, and systemic neglect. Focus group and interview participants articulated specific barriers to good health and good health care, many of which were related to poverty and its consequences, including long work hours, unstable housing, unsafe neighborhoods and the need to prioritize expenditures—even among basic needs. For specific groups, including the disabled, LGBTQ, criminal justice involved, and the homeless, health-related barriers were compounded, due to both attitudinal and practical considerations.

Focus group and interview participants also articulated potential "fixes," such as increased ease of access for medical visits (e.g., reduced wait time, reduced insurance restrictions, increased integrated care); improved provider sensitivity; and a range of supportive services, including community health workers, care coordinators—particularly for difficult to manage medical conditions and high risk populations—and navigators. Health education, addressing (for example) prevention, screening, disease management, insurance, and appropriate use of health care services, was considered essential at the individual and the community level, to ensure that the population has the knowledge and skills necessary for independent action that promotes their own good health.

BRONX COMMUNITY NEEDS ASSESSMENT
OCTOBER 2014

INTRODUCTION

The goal of the Delivery System Reform Incentive Payment (DSRIP) program is to promote community-level collaborations and focus on system reform in order to reduce avoidable inpatient admissions and emergency room visits by 25% over five years for the Medicaid and uninsured populations in New York State (NYS). To inform the health system transformation that is required under the DSRIP program, emerging Performing Provider Systems (PPSs) must submit a comprehensive Community Needs Assessment (CNA) with their Project Plan applications. The Bronx PPS's CNAs, conducted from July through September, included primary and secondary data analysis and had the following aims:

- To describe health care and community resources;
- To describe the communities served by the PPSs;
- To identify the main health and health service challenges facing the community; and
- To summarize the assets, resources, and needs for proposed DSRIP projects.

This report describes the primary data methodology and findings and has been developed as an attachment to the full CNA. The primary data component was intended to provide more in-depth information to the PPSs, which may be useful for DSRIP project planning, as well as planning and implementation of programs and services outside of DSRIP.

METHODS

PROTOCOL DESIGN

The Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted the primary data portion of the CNA, which included surveys of community residents, and focus groups and interviews with Bronx residents, providers, and other stakeholders (see appendix for data collection instruments). The protocol was developed in collaboration with selected PPSs in the Bronx, Brooklyn, Queens, and Manhattan and was approved by the NYAM Institutional Review Board (IRB).

The primary data component was designed to address anticipated gaps in the secondary data, including: 1) community member and stakeholder perspectives on health issues, as well as their causes and impact; 2) data on populations (e.g., particular immigrant groups) and issues (e.g., links between food access and health) that might be obscured in population-based data sets; 3) significant detail on issues identified; and 4) recommended approaches to address reported problems. Overarching questions for the primary data component, which—consistent with

DSRIP—focused on Medicaid and other low-income populations, as well as the uninsured, included:

- To what extent are community and environmental conditions conducive to health promotion and disease prevention?
- What are the primary health concerns and health needs of residents, overall and according to neighborhood and socio-demographic characteristics?
- What are the health related programming and services available to community residents, what organizations are providing the services, and what are the service gaps?
- Are there differences in access, use and perceptions of health related programming and services according to neighborhood and according to ethnic, racial, and language groups?
- In what ways can health promotion and health care needs be better addressed, overall and for distinct populations?

DATA COLLECTION

Community Engagement: Consistent with DSRIP CNA guidance, NYAM conducted primary data collection in collaboration with numerous community organizations (see appendix for listing), which were identified with assistance from the PPS's, and represented a range of populations (e.g., older adults, immigrants) and neighborhoods. As described below, community organizations assisted in recruitment for and administration of focus groups and surveys. All organizations assisting with survey administration or focus group facilitation were provided with written guidelines including information on data collection and the general research protocol, the voluntary nature of research, and confidentiality. Organizations also participated in an in-person or phone training on data collection conducted by NYAM staff. Community organizations partnering in the research received an agency honorarium consistent with their level of responsibility.

As described in a subsequent section, community members and stakeholders were largely responsive to the request to participate in the CNA. Although several expressed concern that their input and recommendations would not ultimately be used in the selection and planning of DSRIP projects, they appreciated the ultimate DSRIP aims and the opportunity to have their opinions heard.

Data Collection Activities: As noted above, the primary data component involved three distinct methodologies:

- Resident Surveys*:* 622 surveys were completed by Bronx residents, ages 18 and older. Survey questions focused on basic demographics, health concerns (individual and community-wide), health care utilization, barriers to care, and use of community and other

services. Survey respondents were identified and recruited by local organizations, including community based organizations, senior centers, social service and health providers, and through NYAM initiated street outreach in targeted neighborhoods where we wanted to ensure sufficient representation, including Hunts Point, Mott Haven, High Bridge, Tremont, Fordham Road, and Soundview. Surveys were self-administered or administered by NYAM staff or staff or volunteers from community organizations (as described above), who were trained and supported in survey administration by NYAM staff and consultants. The surveys were translated into 10 languages: Arabic, Bangla, Chinese (simplified and traditional), Haitian Creole, French, Hindi, Korean, Polish, Russian and Spanish. Participants received a Metrocard valued at $10 for completing the survey.

- Key Informant Interviews: Twenty-three key informant interviews were conducted, including 29 individuals. Key informants were selected with input from the PPS's. A portion had population specific expertise, including particular immigrant groups, older adults, children and adolescents. Others had expertise in specific issues, including supportive housing, care coordination, corrections, and homelessness. All key informant interviews were conducted by NYAM staff using a pre-written interview guide. All key informants were asked about perceptions of health issues in the community, barriers and facilitators to good health, health care and other service needs, and recommendations for services and activities that may benefit the local population. Follow-up questions, asked on *ad hoc* basis, probed more deeply into the specific areas of expertise of key informants. The interview guide was designed for a discussion lasting 60 minutes; in fact, interviews ranged from 45 to 120+ minutes. All key informant interviews were audiotaped and professionally transcribed to ensure an accurate record and to allow for verbatim quotations. (See Appendix for the list of Key Informants by name, position, and organization.)

Focus Groups: Twenty-two focus groups were conducted for the Bronx Community Needs Assessment, involving over 240 participants. Most of the focus groups were with community members, recruited by collaborating CBOs. Populations targeted included, but were not limited to, older adults; Latino, African, and southeast Asian immigrant populations, individuals with behavioral health issues, and individuals living in public housing. Community member interest in the focus groups was high, with some groups including up to 30 individuals. In addition to the resident groups, we conducted a small number of focus groups with community leaders, including hospital advisory board members. These groups were coordinated by collaborating PPS's. Most focus group participants were female (62.8%), Black/African American or Latino (46.1% and 39.2%, respectively), and on Medicaid (57.6%); 10.8% were uninsured. The mean age of respondents was 49.6, with a standard deviation of 15.7.

Focus groups lasted approximately 90 minutes and were conducted using a semi-structured guide, with questions that included, but were not limited to: perceptions of health issues in the community, access to resources that might promote health (e.g., fresh fruit and vegetables,

gyms), use of health services, access to medical and behavioral health care, domestic violence, and recommendations for change. Follow-up questions were asked on *ad hoc* basis, based on responses heard. Focus groups were conducted by CEAR staff members and consultants retained by CEAR, each of whom was trained in the established protocol. Many of the resident focus groups were co-facilitated by representatives of CBOs that were also trained on the focus group protocol. Focus groups in languages other than English and Spanish were conducted solely by trained community partners. Participants received a $25 honorarium, in appreciation of their time and insights. All focus groups were audio recorded, so that transcriptions and/or detailed reports could be developed for each, and to allow for verbatim quotations.

DATA MANAGEMENT AND ANALYSIS

Surveys: Survey data were entered using Qualtrics, a web-based survey platform. They were analyzed according to standard statistical methods, using SAS. Means and proportions were generated, overall and by neighborhood. Although the survey sample cannot be considered representative of the Bronx in a statistical sense, and gaps are unavoidable, the combination of street and organizational outreach facilitated engagement of a targeted yet diverse population, including both individuals connected and unconnected to services.

Survey respondents (N=622 individuals) came from all Bronx neighborhoods. Sociodemographic characteristics included: 58.9% female, 54.6% Black/African American, 35.1% Latino, 10.6% Asian, 39.2% foreign born, 11.3% limited English proficiency, 78.6% living below the poverty line,

Table 1: Demographic characteristics of survey participants

Characteristic	(N=622)
Age (Mean, SD)	45.9 (17.9)
18-20	4.0%
21-44	44.4%
45-64	31.5%
65-74	10.5%
75-84	5.0%
85 and older	1.6%
Unknown	3.1%
Gender	
Female	58.9%
Male	40.7%
Transgender	0.5%
Sexual Orientation	
Heterosexual	92.6%
LGBTQI	7.5%
High school graduate or higher	77.7%
Hispanic	35.1%
Race	
White	9.3%
Black or African American	54.6%
Asian	10.6%
American Indian or Alaskan Native	1.2%
Native Hawaiian or other Pacific Islander	0.5%
Other/mixed/unknown	23.9%
Limited English proficiency	11.3%
Foreign born	39.2%
Below poverty level	78.6%
Health insurance	
Medicaid	52.7%
Medicare	21.6%
Private/commercial	17.1%
VA/Other/More than one	17.3%
None	10.8%

52.7% on Medicaid, 21.6% on Medicare, and 10.8% uninsured. The mean age of respondents was 45.9, with a standard deviation of 17.9. (see appendix for survey results by neighborhood)

Interviews and Focus Groups: Transcripts and focus group reports were maintained and analyzed in NVivo, a software package for qualitative research. Data were coded according to pre-identified themes relevant to health, community needs, and DSRIP, as well as themes emerging from the data themselves (see Appendix for code list). Analysts utilized standard qualitative techniques, involving repeated reviews of the data and consultation between multiple members of the research team. Analyses focused on 1) common perceptions regarding issues, populations, recommendations, etc., 2) the unique knowledge and expertise of particular individuals or groups and 3) explanatory information that facilitated interpretation of primary and secondary source data.

FINDINGS

IMPORTANCE OF COMMUNITY ENGAGEMENT

As noted above, key informants and focus group participants largely welcomed engagement in the community needs assessment and appreciated the opportunity to provide input that might be used for the re-engineering of health care in NYS. They were enthusiastic about the basic DSRIP aim of shifting health-related efforts from inpatient services to the community, where the focus can be on prevention and health maintenance. As described in some detail within this report, CNA participants had numerous ideas regarding health promotion, disease management, and improved health systems. However, a number of respondents expressed skepticism and concern that suggestions from the community—and recommendations in the interest of community based organizations—would be ignored by the hospitals that are applying for DSRIP funds, in part because the DSRIP goals are seemingly contrary to hospital financial interests and inconsistent with usual practice.

> *The hospitals don't like doing things outside of the hospitals… They always try to do it themselves and do it…acting as if they're going to incorporate the community, the nonprofit organizations, community-based organizations and so on. But they find any way possible to not include them and to do it within their own structure. They're challenged with having to change … in a way that's going to hurt them [i.e., reducing readmissions and revenue], and then they're also told that they're forced to integrate the community and community providers and they're not used to doing that. So there's a lot of fanfare … but in reality it it's not in their best interest to do either one of the two things, integrate the community and community providers, community service providers, or to reduce their inpatient hospitalizations by 25%.* (key informant, multiservice organization)

Despite the disincentive, the importance of alignment with community-based recommendations and the need for solutions that address the social determinants of health were emphasized. For example:

> *My greatest fear is that hospital will get the money from DSRIP and they will define what to do. As opposed to going outside the door, getting people and saying, "Listen, what do you think that we could do to really minimize this problem"... You really have to seriously listen to [community] and then they really have to be partners. You know, you just cannot use the community for something and then discard.* (key informant, CBO)

> *We may not like every aspect of the waiver, but it is much better than past waivers. But there's still concerns, legitimate concerns that include how things are going to be done in terms of engaging communities. ... you can write it all in the document and say all you want, but we're talking about, historically, hospitals not knowing how to do it.* (key informant, health advocacy)

> *The [PPS's] really, I think, often naturally gravitate towards the medical solutions. And what we try to say is, "Yes, but without housing you're never going to achieve that." And when you go talk to the frontline staff, whether they're in your emergency department, your social work department, your nurses, they're going to tell you that this guy needs housing. We were on a panel a while ago, and [a doctor] opened by talking about how she had started a double shift on a Saturday morning, and discharged a guy who was homeless. He came into the emergency department inebriated, had fallen. They kind of fixed him up. She discharged him. That night he came back and had smashed his face and was inebriated. And as she was ordering the expensive tests to see if he had facial fractures, and the plastic surgeon, and everybody had come in, she knew that she would kind of repair this thing. But that he was just going to be back. And until we got housing for him, she was just doing Band-Aids.* (key informant, health advocacy)

There were also concerns regarding the mismatch between, on the one hand, an emphasis on prevention and community engagement, and on the other, clinical and utilization measures that may not reflect the highest priorities of the community. For example, addressing obesity, particularly among children, is unlikely to impact hospitalizations and ER use in the short term.

> *I think that's a real challenge, because when we're looking at things like DSRIP, we're looking at preventing hospitalizations ... Children who are obese don't get hospitalized. They get hospitalized and they use higher cost services when they become adults but then all this money is gonna be gone. So you know, so nobody's looking at doing something*

that you need 15 years to have an impact on. Everybody's looking at something that you can have an impact on today or tomorrow. (key informant, provider)

POPULATION DESCRIPTION

Communities of Color: The Bronx has the highest proportion of non-white residents in the city, with very significant numbers of Black/African American residents (including US-born and immigrant populations coming from Caribbean nations and increasingly from Africa), as well as Latinos. Among the borough's Latino population, Puerto Ricans predominate, though an increasing number of immigrants are from the Dominican Republic and Central America. There is also a growing South and Southeast Asian population, though small in comparison to other immigrant groups. Common immigrant-related themes from interviews with key informants and focus group discussions included some combination of:

- Gaps in language access across the spectrum of services;
- Difficulties meeting basic needs, leading to extended work hours and emotional stresses;
- Prioritization of work over health;
- Lack of sufficient information on health and health services;
- Minimal knowledge, interest, and engagement in prevention services;
- Cultural issues, including greater stigmatization of particular health conditions;
- Relatively high rates of non-insurance, due to multiple factors including ineligibility; and
- Fear of medical bills, medical debt, and deportation.

The concerns of other immigrant populations are magnified among the undocumented. Access to most services is limited, and the fear of deportation results in lower utilization of services that are available, including health services. Providers report that people who are undocumented want to avoid providing information about themselves, and avoid "the system" to the greatest extent possible.

CNA participants were consistent in their reports of very long work hours among multiple foreign born groups. Descriptions of 12 - 16 hours days, six or seven days a week were not uncommon, with people working multiple jobs (often under hazardous conditions) because pay is low. Such long work hours impact health and access to health care services:

The guy working 2 jobs, one in the morning, the other at night, he doesn't have time to take are of his health, and then it's too late. You don't have time for yourself. (focus group participant)

Concerns about language access obviously suggest concrete requirements with respect to knowledge and skills. Although many CNA participants described significant capacity among some Bronx providers for Spanish, there were complaints about use of telephonic services when a bilingual provider was not available. There was also some concern regarding training and skills of dual role interpreters (i.e., bilingual staff who are asked to interpret on an *ad hoc* basis), as well as gaps in services for groups newer to the Bronx, including Africans, South Asians, and Southeast Asians.

> *So we have heard of [Asian] folks that are living up in the Bronx, perhaps because that's where they got placed in NYCHA housing, but all of their services are in Brooklyn. So they go to the grocery in Brooklyn. Their friends are there. Their doctors are there. So that's a tremendous amount of time to be able to travel to get culturally-competent, language-accessible programs and services. So then that's a real big challenge that we're seeing across a lot of communities, in the Asian-American community* (key informant CBO)

Independent of work and language access issues, key informants and focus group participants described cultural, attitudinal, perceptual and knowledge-based barriers to care among the foreign born, including greater stigmatization of particular health conditions (including HIV and mental health issues), difficulties navigating the health insurance and care system, low prioritization of preventive care services, and fear of medical bills and deportation.

> *It's a cultural issue. Where we come from greatly impacts our behaviors, and it's clear, in Africa, health is not a priority. It's a fact. The fact that health isn't a priority and the financial difficulties, they go together, this combination is devastating for us. I have a certain level of education, but I swear, as long as I'm not caput, I won't go to the hospital.* (focus group participant)

Poverty: Given the DSRIP and CNA focus on low-income populations, the significance of poverty and its implications is unsurprising.

> *John Jones who lives in the South Bronx goes to work and is breaking his neck trying to earn a living. He's not going to worry about being screened.* (focus group participant)

However, poverty in the Bronx was unquestionably more pervasive and seen as more intractable as compared to other parts of New York City (NYC)—and its consequences for health and well-being more pronounced.

> *I think it's less about [health care] access and more about all of the other things that are hindering access: poverty, chaotic drug use, unstable housing, hunger. So that's why we*

spent so much time attacking those issues, so they can get stabilized, so then they can think about medical care. So, I think what's lacking is more commitment of resources to really addressing homelessness and hunger and those things that once they're stabilized, access becomes much, much easier. (key informant, CBO)

There could be as many as 17 people living [in a two bedroom apartment]. I mean, literally three bunk beds in the living room, two bunks in - you know, in each bedroom, you know. And people working and living in shifts, people working at day where people who can work at night can sleep. It's just unreal. And the reality of what's happening throughout the Bronx. (key informant, CBO)

It's just stunning to me the amount of hunger. We call our congregate food program an emergency food program, but the fact is even with food stamps, we've still got a lot of people coming to the program because food stamps aren't enough. (key informant, community based organization)

Multiple key informants cited the County Health Rankings, with the Bronx again ranking 62 out of 62 NYS counties.

The Bronx Health County rankings came out again a week or two ago, and that's what I brought up is we were 62 out of 62 again. (key informant, CBO)

Of survey respondents in the Bronx, 78.6% were living below the federal poverty line; in the South Bronx neighborhoods of Hunts Point-Mott Haven, High Bridge-Morrisania, and Crotona-Tremont, respondents below poverty were 87.8%, 85.9%, and 79.2, respectively. Borough-wide, 19.1% of respondents reported that they were unemployed; the comparable figures from respondents from the South Bronx were 17.0% in Hunts Point-Mott Haven, 30.3% in High Bridge-Morrisania, and 23.1% in Crotona-Tremont. Sixty-four percent (64.0%) of all respondents stated that they worried about not having enough to eat, with the percentage in Crotona-Tremont reaching 70.0% and in High Bridge-Morrisania, 66.4%.

Community members and key informants clearly connected common health conditions to the causes and repercussions of poverty, including income insecurity, lack of jobs, insufficient or hazardous housing, and unhealthy neighborhoods. They also associated poverty—and its diminished life chances and daily struggles— with depression, and likewise depression with substance abuse (including—and in some cases, especially—alcohol and tobacco). CNA participants reported concerns about jobs, housing, access to government benefits programs, and the safety of their streets. Particularly in the South Bronx, school quality is reported to be poor and dropout rates are high, impacting future opportunities for individuals as well as the strength of the community.

There are areas of the South Bronx where 7% of the adults have a college degree. That means 93 percent of adults do not have a college degree. That is like a staggering educational segregation. You know, I don't remember off the top of my head what Manhattan is like, but it's like 40 or 50 percent of adults have a college degree. So, the young people who are growing up in these areas, the odds that they meet a grown-up from their neighborhood who has a college degree is exceedingly low… If you're talking about young men in the South Bronx, I don't have the data exactly current—but it's got to be less than 50 percent [graduate from high school]. So that means the high schools are mostly creating dropouts and not successful high school graduates, and that has a huge health impact and the long-term employment impact and all of those things…You know, the school system can try as hard as it can, but it's very ill-equipped to deal with and under-resourced to deal with all the myriad of issues that young people present in high school. (key informant, government)

A dramatic indicator of poverty with obvious health implications is food insecurity, which was described as a challenge by multiple respondents in focus groups and interviews and—as mentioned above—by 64.0% of respondents in the borough-wide survey. Focus group participants and key informants described the trade-offs made in the interest of food security.

It's cheaper to eat rice and chicken. So finances have a lot to say also with food choices, because if you have a large family and you want, you know, the food to go longer or further with the number of people in the household, what is it you're buying? Is it more expensive to buy oranges, grapes, strawberries and watermelon than it is to have other items that may not be as nutritious? (Key informant, community based organization)

I would say that poverty is the main concern because people are finding it - number one, they're unemployed or they're underemployed or they're working places where they cannot get health insurance and now with the new law, they must have health insurance. So they - like I said, if - when people have to decide between having health insurance and having food in their stomach, they'd rather eat (key informant, CBO)

Environmental Conditions: Residents and service providers in the Bronx describe numerous environmental challenges, including:

- Outdoor environmental toxins coming from multiple congested highways, as well as facilities for waste transfer, waste processing, and power generation
- Indoor environmental toxins, such as pest infestation and mold, resulting from poor maintenance in public and other low income housing
- Food "deserts" (lack of healthy food) and food "swamps" (excess of unhealthy food)

- Challenging social conditions resulting from concentrated poverty and a seemingly disproportionate placement of particular services (e.g., homeless shelters, methadone clinics) in particular neighborhoods, resulting in perceived declines in safety and quality of life for community members
- Lack of affordable housing

Among survey participants, close to half (47.5%) identified affordable housing as "not very available" or "not available at all." Housing, and other environmental conditions—though in many ways dramatically improved compared to decades when the Bronx was best known for arson, violent crime and drugs—are seen to reflect decades of neglect by government, service providers, and landlords. Focus group participants and key informants are concerned that the area remains neglected, and that opportunities for change go nowhere:

> *We won a million dollars for our housing authority to upgrade our parks for the children. This was last year. They won the money but went back to another meeting and I asked them well, "Where did the money go? We won the money; you came here, and you told us that we won the money. Where is it? And what's going to happen?" We had some very damaged sidewalks in our community.* (focus group participant)

> *We try. We try to put new buildings, new everything in the community, but there's always somebody trying to drag it back down, so it's hard…The crime, the drugs... We try to fix it, and there's always something bad happening. We get no service, police, or whatever it is. We are ignored. Even health issues in that community, like I said, in that community, I know about 50 people that have cancer; don't smoke, don't do none of that. But they have cancer, and it's the community, because we're surrounded by the garbage, okay. We're surrounded by Con Edison.* (focus group participant)

> *Housing big, big need. You have individuals that are complaining that landlords are converting their buildings into shelter-like settings and offering tenants that have been there for several years $5,000, $6,000 to move out so that they can convert that building and secure city funding and reimbursement for that type of client profile or tenant profile (key informant, CBO)*

However, the legacy of activism in the Bronx, particularly around housing, was described as a strength of community:

> *The South Bronx has a pretty vibrant history of having pushed back against the bad mortgage practices and done a lot of community organizing around unfair practices and pushing for affordable housing. And I don't think the affordable housing situation is solved, but it's a lot better than it was, and there's a lot more attention put into*

affordable housing. So that's like a rich recent history that I think a lot of community-based organizations were forged during that time period, and then they came to take on health because that's sort of, you know, housing, health education, as far as kind of primitive needs that we all want. (key informant, government)

PHYSICAL HEALTH ISSUES

Overview: The five most common physical health concerns reported by survey respondents were diabetes (53.6%), drug and alcohol abuse (47.2%), high blood pressure (39.8%), asthma (38.5%), and obesity (34.5%). When asked about the health education needs of the community, the top issues were diabetes (51.5%), nutrition (43.3%), HIV and sexually transmitted infections (40.0%), and exercise and physical activity (38.2%). Cancer and cancer prevention tied with substance abuse (both 36.3%). As one service provider in the community commented:

Table 2: Health concerns

	(N=621)
Adolescent health	10.0%
Asthma	38.5%
Arrest and incarcertation	17.7%
Cancer	31.7%
Diabetes	53.6%
Disability	20.9%
Drug and alcohol abuse	47.2%
Family planning/birth control	12.2%
Hepatitis	7.4%
Heart disease	22.4%
High blood pressure	39.8%
HIV	25.8%
Maternal and child health	7.3%
Mental health (e.g. depressin, suicide)	19.5%
Obesity	34.5%
Pollution (e.g. air quality, garbage)	11.0%
Sexual transmitted infections	17.7%
Stroke	12.1%
Teen pregnancy	20.8%
Tobacco use	17.9%
Violence or injury	17.1%
Other	4.7%

You know, it's sad to see … the health conditions of the individuals that I'm seeing in the Bronx. I'm looking at obesity, I'm looking at smoking, I'm looking at and hearing as well of diabetes, hypertension. You know, we have a senior population that's also in poverty mode as well, so that's a challenge. (key informant, health provider)

Diabetes, Nutrition and Physical Activity: Overall, a little over half (56.7%) of survey respondents reported that healthy foods were available or very available in their community, and comparison across Bronx neighborhoods demonstrated the disparities between neighborhoods (see appendix for neighborhood breakout). Community members and key informants draw clear linkages between diabetes, obesity, lack of exercise, and food access. They noted the relatively high cost of healthy food choices and the travel required to purchase fresh fruit and vegetables. They also described the challenges of changing dietary behavior in general—and of losing

weight, in particular—despite obvious negative health consequences. Cultural preferences for fried and certain high caloric foods were acknowledged.

> *The biggest issue we confront is obesity and diabetes. Again, that's a function of what I just spoke about - people not getting out, kids not playing in the street, so a lack of physical activity, lack of safe places for people to interact and be together and add to that the lack of access to healthy food. That is a bad combination to try to make improvements in obesity rates and diabetes.* (key informant, FQHC)

> *The South Bronx: number one, it's a healthy food desert. I think it's getting better because of concerted efforts by a lot of people, businesses and funders and City Harvest and Food Bank have done remarkable work on that. But I think for the most part, if you walked into a bodega you wouldn't find a piece of fruit or a vegetable, and if you did, it would be like a plantain. Everything is canned. We've got people who are obese who are starving because they're eating empty calories. Chips and fried chicken and fried this and fried that. And so I think that's diet and a sedentary lifestyle and lack of access to fresh foods is a huge driver of the poor health of the Bronx, and the South Bronx in particular.* (key informant, community based organization)

> *My son lives with me, and he will go on a diet and eat vegetables and a bit of meat. But my husband, who's the fattest in the household doesn't let us because he's insatiable. He can spend all day in the kitchen. He doesn't like going on a diet because he doesn't understand why he should go hungry. We've tried but then he goes out and buys himself something.* (focus group participant)

> *You're selling stuff on the street there from seven o'clock to seven o'clock at night. You can't take a two hour break because you're gonna lose a client. Right? So then all that time you don't seem to eat anything, because you don't want to miss a dollar. You've got a bill to pay. You have to work six days in a week to get maybe less than $300.00. If you don't come to work, you don't get paid that day …. So then when you finish at night not only are you exhausted physically and mentally, but you need to eat. And guess what we do. We walk into the restaurant and get a whole plate of food. (focus group participant)*

Access to healthy foods differed according to neighborhood, with apparently better access in particular northern Bronx communities.

> *Relatively, in [Pelham Parkway], we have very good stores with plentiful vegetables or fruits. But we live in a donut. We're in the eye of that storm. Around us, we have other communities that are virtually food deserts.* (focus group participant)

I find myself going to Whole Foods a lot. So the milk you are talking about, you can get it for like a gallon or half a gallon, you can get it for like $5.49 when you pay for one. But I got to go out the area for it. But you pay car fare to go there. It's not like I can walk to the corner store and get it, or go to my local supermarkets and get it. (focus group participant)

Some providers and community members perceive a sense of resignation to the convergence of circumstances and conditions that produce disproportionately poor health outcomes in the Bronx.

In the Bronx, so many people have diabetes. The South Bronx has the highest rate for amputations as a direct result of diabetes. So a lot of people just think of it as a chronic disease and like everybody's living with diabetes. So they're not afraid of it, you know. They kinda think, "My grandmother had it and my mother had it, so I'll get it too at some point." (key informant, CBO)

However, the behavioral implications of living in poverty were clear to focus group participants and to key informants that worked closely with community members and there was frustration that many health care providers appeared to lack a similar level of understanding.

Table 3: Health Status

	(N=622)
Perceived health status	
Excellent/very good/good	73.7%
Fair/Poor	26.3%
Body mass index (Mean, SD)	28.0 (6.0)
Underweight	2.7%
Normal	30.5%
Overweight	34.8%
Obese	32.1%
Health issues faced	
Asthma	20.4%
Cancer	6.3%
Chronic pain	19.9%
Depression or anxiety	21.5%
Diabetes	16.0%
Drug or alcohol abuse	9.1%
Heart disease	9.4%
Hepatitis C	4.0%
High blood pressure	27.3%
High cholesterol	19.3%
HIV	4.3%
Mobility impairment	7.6%
Osteoporosis	7.1%

I had with a father who was there with this 12-year-old son who was already showing signs of pre-diabetes and he just, he looked at me and he says, you, there is no way you are ever going to understand my life. I said you're absolutely right. I can hear what you're telling me but I don't understand how hard it is for you to have food in your house and how hard it is for you to get your child to eat the right things and exercise which is the only way that's gonna prevent him from getting diabetes as this point. But I think that what he expressed is his frustration that the general medical community could not understand the problems of people living in poverty when their children have health problems. (key informant, provider)

Asthma: Key informants and focus group participants attribute high rates of asthma in the South Bronx to environmental conditions. These include congested truck traffic on multiple highways and private and public facilities that spew toxic chemicals into the air. Apartment buildings with low-income tenants tend to be poorly maintained and are frequently infested with insects, rodents, and mold. CNA participants recognized that melioration of poor environmental conditions cannot be the responsibility of individuals; rather systems and policy change are required.

> *It's very mind-boggling the statistics on asthma in the Bronx. And, it's mainly related to the built environment ... we call it the asthma alley because if you know the city well, you know, 87 Highway, you have the Cross Bronx, then you have 95, so there's a triangle in the South Bronx, and the number of trucks… the traffic 24/7 is jam-packed. And the inner roads, all the pollution, particulate matter, you know, all those things fairly contribute a lot. And, of course, with the environment of the housing units, you have the mold and the cockroaches, and rodents…We give care to people who come in walking through the door, we don't even do a history of them first. We just treat them in the asthma room, and then we discharge them … They go back home and they have the same triggers and they get worse.* (key informant, provider).

> *People who live in the Bronx are concerned about the amount of trucks, because of all the highways we have and particularly around the Hunts Point area where trucks are idled over there a lot because of dropping off or picking up stuff. And asthma is extremely high. The Bronx has one of the highest asthma rates in New York. And, so they're concerned about the environment, the pollution that's going around … some of the housing … is riddled with roaches, you know, and mice and they're concerned because, again, roaches also affect people's asthma.* (key informant, CBO).

> *In my neighborhood they have a lot of chemical incinerators. …. We had to do a petition to get rid of the hazardous waste on Bruckner Boulevard, because when they was incinerating needles and surgical stuff, all sorts of hazardous stuff they were burning in our area, and it caused a lot of people to have asthma. So we had to get a petition.* (focus group participant)

> *[Asthma] is a health indicator that needs to be changed, right? And the community will tell you that, but then you need to bring in government. It's not enough to have health partners and the community. But if we are serious about impacting the health outcomes of communities, why couldn't we bring government in, you know to say, "Are there things that can be done with moving the roads or whatever?" Anyway, what I'm just saying is*

that the onus cannot just be put on community. Government has a role, a role to play in these things, too. (key informant, multiservice organization)

HIV: HIV was not among the highest concerns of the survey respondents (25.8% listed HIV). However, 40.0% of respondents stated that more health education is needed on HIV and other sexually transmitted infections. According to key informants in the field, transmission of HIV among injecting drug users in the Bronx has dropped dramatically, although hepatitis C remains a concern, since it is more easily transmitted.

In '95 … the new infection rate among injection drug users was 54%, so literally one out of every two people had HIV or AIDS. Now it's under 4%. We've got very few new infections. We have a lot – we see a prevalence around hepatitis C, because it's so much more communicable, with the cotton and other stuff. (key informant, CBO)

There was a recognition among those in the HIV service world (as providers or consumers) that funding has shifted away from HIV care, that medical management—rather than addressing psychosocial issues—is considered paramount, and that HIV is increasingly seen as a manageable chronic condition. There was variability in attitudes regarding this shift.

We still have the state ADAP program that covers immigrants, the undocumented and uninsured. So the system of care for HIV is well-built. What's peeling away are some of the supportive services that keep people in care or bring them to care in the first place. I think substance use treatment services and mental health services have blossomed finally…. Community-based programs that used to provide supportive services for HIV … have been pared down, and there's more of a funder focus on medical [unclear] HIV care, putting more funding in the hospital setting for case management, HIV case management. (key informant, CBO)

I've noticed that a lot of HIV has become a controlled infection, and they don't look at it as serious as it was. We are losing a lot of funding and we're losing a lot of our specialty clinics that were there to help specifically people that are HIV. Now their clinics have opened up to the general public, and we've lost a lot of that, which I think is disgusting. Even though HIV has become a manageable disease, it is still as serious as it was in the '80s. (Focus group participant)

I could click off six organizations that probably shouldn't even exist right now, because they're more concerned with their funding than about really meeting the needs of who they're serving. They're giving away a syringe while people's toes are falling off from diabetes and not asking about the diabetes…. That was the shift. That was the light bulb for me. We were doing syringe exchange and [not] worrying about people's diabetes or

psychiatric conditions and that's what they were dying from. It's immoral, it's wrong to just focus on one thing, because that's what you're funded to do. (key informant, CBO)

Violence: Only 17.1% of survey respondents rated violence as significant health concern, and publicly available data suggest that crime has declined in the Bronx, as it has declined in other parts of NYC. However, 30.7% of respondents indicated that more education was needed on violence and 35.8% reported that education was needed on domestic violence. Focus group participants and key informants described violence as prevalent in particular neighborhoods and in public housing, with repercussions for those directly and directly involved. Domestic violence was also alluded to and was linked to the stresses of poverty and drug use.

There's a high portion of youth against youth. It's turf issues. It's, "I live over here and you live over there," or whatever it is…even though older people are not targeted, they're definitely impacted by the safety that they feel about the community. (Key informant, CBO)

The amount of gun violence that's gone on and the amount of people and kids that are shot just by stray bullets or intentional bullets … It's related to drugs, but it's also just related to gang violence, in general, you know... But the guns, the amount of guns that are just so accessible to our community is alarming. (Key informant, CBO)

I think safety is a big component that sometimes people don't think about with social determinants. Safety from violence, that your kids are going to be okay, that you can go to the park and you are going to be safe and that your kids are going to be okay playing outside. … When I grew up in the Bronx, I was just let out into the street and I played. I don't think that happens in too many places, not just in the Bronx, but also all over. (Key informant, FQHC)

Concentrated poverty, you've got a neighborhood [in the South Bronx that] has a poverty rate of about 46%. The Bronx in general is about 26%, which is still ridiculous, but that area has that concentrated poverty because of all the NYCHA housing projects. And so when you get that kind of concentrated poverty and then the violence, sexual violence, domestic violence, street violence, gang violence, drug violence, it's a perfect storm for breeding ground for spreading illness, disease, lots of psychiatric issues and lots of drugs. (Key informant, CBO)

Although not necessarily more prevalent, domestic violence issues were particularly relevant in immigrant communities, due to possibly different standards in their home country as compared to the US, stigma, lack of linguistically and culturally appropriate resources, and fear of deportation—particularly in mixed immigration status families. Immigrant groups coming from

war-torn countries may also perpetuate the violence they experienced. Focusing on immigrants from Southeast Asia, a key informant explained:

> *There are these young men in his community that the image that they have always seen when they were growing up was the way that their fathers would treat their mothers, right? And then they realized later on when they were kind of able to unpack it and get treatment was really, when you come from communities who have been just so devastated by war and by trauma, that what was happening to the fathers and their uncles is that a lot of times they didn't get treatment. They were totally traumatized, and they were taking it out on the mothers. So that's how – so these young men were growing up thinking, well, that's how you treat women*. (key informant, CBO)

BEHAVIORAL HEALTH ISSUES

Mental Health: Depression, anxiety, and other mental health issues are important to large parts of the community in the Bronx: 19.5% of survey respondents rated mental health as an area of concern, 21.5% reported depression or anxiety as issues they have personally faced, and 32.4% reported that mental health education is needed in the borough. Just 53.3% of respondents reported that the mental health services are "available" or "very available" in their community. Problems related to mental health were commonly attributed to the myriad of stresses faced by lower income residents.

> *What we see is depression, anxiety, some personality adjustment disorders. Those kinds of diagnoses that are part of the environment as well. People are smart, and they look around at their surroundings- what is there to hope for?* (Key informant, FQHC)

> *We have extremes of problems, mental health is an issue because of the complex environment they live in, the poor support. So we see a lot of depression, a lot of anxiety, and that leads to an impact on their own health. Adherence to medications, adherence to follow-up, you know, family getting separated because of that. … that's a problem in terms of - it goes across all demographics… There's no political motivation to address an issue. It's sort of like an accepted norm for the community. "Oh, Bronx, you know, it should have these elements." I feel that way after seeing this for many years. Because if we can address many other issues so, so aggressively, why is this not being addressed, I'm not so sure. So the mental health, drug use complicates medical health, medical issues a lot. A lot.* (Key informant, provider)

For low-income immigrants, stresses were exacerbated by issues of assimilation, as well as poorer access to care, due to insurance and language barriers.

> *You've got to be somebody, somebody who [was] a doctor or military for years. You come into this country and become a cashier. If you are not mentally prepared for this, this is not really a culture shock. But this is a big shock …But sometime people don't want to talk about it. People are keeping this to themselves, but at some point you'll see they'll start talking by themselves, and start doing some things.* (immigrant focus group participant)

Failure to address mental health issues was common across groups, with broad health implications.

> *Men, in general, shun medical attention – be it mental or physical. We're not examining ourselves as much. We're not seeking help to talk to a peer. When we're depressed, we internalize. When we're angry, we express ourselves and that transforms into violence.* (Focus group participant)

> *Like counseling for a lot of people in this community because we have a lot of broken families, which is single mothers, and single fathers, too. And that's why a lot of our youth have the tendency to don't continue in school, and get into drugs. And also men, you know, and women are getting into drugs. So I think that we should have more services – programs, services that they could allot for counseling regarding help about how to deal with divorce, how to deal with a parent leaving, things like that.* (focus group participant)

Substance abuse (including tobacco, alcohol, and illicit drugs): Substance abuse was the second most commonly cited health concern by survey respondents (47.2%); many (36.2%) also noted the need for education on the topic. As noted throughout this report, substance abuse was linked to many other issues related to health and well-being, including depression, violence, domestic violence, infectious disease, and inappropriate use of health care services.

> *There is high substance use. You know, heroin has come back to the Bronx very strong. Crack and cocaine never left the Bronx. It's still here. Marijuana is, you know, everywhere... I think it's probably more and more due to poverty than anything else. Poor people, you know, are so stressed out with just having a roof over their heads, having food on their plates, being able to get their child in school. And, you know, there's just so many challenges for people - for poor people to have to deal with. People being homeless. The domestic violence is just unbelievable… Many people, you know, use substances so they cannot face the reality of their lives. So they smoke crack or take heroin because it's easier not to feel the reality.* (Key informant, CBO)

Obviously drug abuse is still a big problem. Alcoholism is a huge problem, and we see a lot of admissions, a lot of patients with some sort of drug abuse or alcohol misuse (key informant, provider)

CNA participants recognized the relationship between community characteristics and substance use issues, citing both the presence of drug treatment programs that draw active users and commercial establishments that sell alcohol and cigarettes.

That building on 147th at the end of the Betances North, there's like three methadone clinics around there. And we did hear a lot from the residents that that was a big concern. (key informant, CBO)

I think our businesses in our communities play an important role. We can impact what they do or not. Outside the mouth of Co-op City, there's a Sunoco gas station. In big letters the advertisement is "lotto, beer, cigars." Big signs to get—that's a negative impact on the community. And it's not about cigars. They know that these young folk use the cigar wrappings to wrap marijuana. (focus group participant)

Focus group respondents also indicated that substance abuse can affect diverse populations. Individuals who rely on prescription medicines were described as facing increasing risk of addiction.

We're also hearing about the increase of prescription abuse with the seniors, and, you know, people are living longer and, with that said, you have a lot of chronic diseases, not a lot of pain management. So that's also another concern that we want to be able to try and address and that's why I would love to have a substance abuse program in order to meet those needs of the seniors that are experiencing that, let alone the stigma associated with that as well … (Focus group participant)

ACCESS TO RESOURCES AND SERVICES

Medical Services: Almost 76% of survey respondents reported that primary care was available or very available, 81.8%% reported that they had a primary care provider or personal doctor, and 85.5% reported that there is a place they "usually for health care, when it is not an emergency." Just under half of respondents (49.5%) went to a primary care doctor's office, 18.0% went to a hospital outpatient clinic, 14.3% went to a community/family health center, and 6.4% went to a specialist doctor's office. The overwhelming majority (85.5%) percent reported that the place they usually go is in the Bronx; 11.2% reported that it is Manhattan. Eighty-one percent reported that had a routine check-up in the last 12 months.

A relatively high number of respondents (45.7%) reported that they had been to an emergency room in the last year, and approximately one quarter (24.7%) of reported that they did not obtain healthcare when it was needed. Of these, 44.6% reported that they were not insured, 22.1% that the cost of co-pays was too high, 11.0% that they could not get a timely appointment. 8.4% were concerned with the quality of care, and 6.5% did not have transportation and had other responsibilities (same proportion for each).

Independent of the actual number of health care resources described in the sections below, a strong theme that emerged from the key informant interviews and focus groups was the perception that there was an insufficient access to the high quality providers on a timely basis, including outside of regular office hours (i.e., nights and weekends). A key informant working in the South Bronx explained:

Because it's the Bronx. You know how hard it is to get [organizations] to come up here to do anything? And generally they don't get providers… The services in a lot of the outer boroughs are not at the level of quality that they should be. I'm saying that as a Bronx-based provider. (key informant, community based organization)

Table 4: Service availability

	(N=622)
Accessible transportation	90.0%
Affordable housing	47.5%
Dental services	71.5%
Healthy food	56.7%
Home health care	62.0%
Job training	34.3%
Medical specialists	59.3%
Mental health services	53.3%
Pediatric and adolescent services	64.5%
Places to exercise, walk, and play	70.6%
Primary care medicine	75.8%
Social services	63.5%
Substance abuse services	51.9%
Vision services	65.8%

*Percentage reflects participants who responded very available or available

Community members also complained about poor access to what they perceived as quality care:

When you go to a hospital for an emergency they give you a form to fill out. You sit down, and an hour later they call you. And they give you an appointment for three months to now. Three months to now, you could be dead. And when you go in three months, some of them spend 5 minutes with you. Some of them even have the nerve to have a clock. And you're not feeling well. And then you have to fill out a long sheet about why you're here. So I don't bother to go. I get my herbs. Holistic doctors is what I believe in because these doctors know nothing … They don't care nothing about you. Everything is money. If I can help it I don't even bother going. (focus group participant)

The doctor I have, she has on my thing, 15 minutes. She knows she can't tell me something in five minutes. Fifteen minutes and she has to examine me. I go and I open my

mouth for them because that's all they're doing. They think I'm crazy. (focus group participant)

Approximately sixty percent reported that medical specialists are available/very available, although there was significant variability in responses according to neighborhood (e.g., 53% in Hunts Point-Mott Haven as opposed to 72% in the Northeast Bronx). Several key informants and focus groups participants reported on relatively poor access to specialist services.

There's still a ton of people in the community that we've served that have chronic illnesses that are the result of a whole bunch of different factors that primary and preventative care are just not going to be able to address. And so there's a gap in primary care providers' ability to find specialists who are accepting Medicaid or different kinds of insurance. (key informant, health advocacy)

Sometimes now they're having programs for like younger kids that are not using it and sometimes you know, you might be older, needing of help, but you can't get it because there isn't a lot of help for the older. (focus group participant)

Behavioral Health Services: Survey respondents reported that behavioral health services are less available than other types of care: only 53.3% reported that mental health services were available/very available; 51.9% of Bronx survey respondents reported substance abuse services as available or very available. Barriers to behavioral health services include low reimbursement and provider shortages, including outside regular business hours.

The way reimbursement is being structured, it's straining programs and there are many programs right now that are trying to survive within the new payment structure. So there is a concern that, you know, they could do more, but because of constrictions within their budget, they're limited in the number of visits and services that they're able to provide, even on extended hours. And then when you look at, you know, who can truly benefit, right, from mental health services, you also have a working population, and if you're not open later in the evening or on the weekends, then that excludes another group. By the same token, I've been involved with another mental health clinic and the staff expressed grave concerns regarding extended hours during the winter because it gets dark so early and safety. (key informant, CBO)

According to some providers, services that are available might also be unknown to community organizations and residents—or they might be unaware of processes for accessing them. In addition, behavioral health issues generally carry greater stigma than other health concerns, which tends to limit use of services. Key informants and focus group participants both reported

that many affected individuals and families try to address problems internally—or not at all. A key informant emphasized the disparities in perceptions of behavioral health across NYC.

> *In New York if you're white having a therapist is a badge of honor, if you're black it's stigmatized.* (key informant, CBO)

> *When you grew up without this and you're a certain age, it's hard to accept getting the help. So I think that's part of the problem also. So even if it's open to you, if you weren't brought up to believe that you can go to someone else for help or therapy, it was never a part of our culture.* (focus group participant)

According to key informants that are themselves providers, regulatory issues promote fragmentation of services.

> *Depending upon the level of what people talk about, behavioral health can be done within the Article 28. We have psychiatrists who work within the [article] 28 and psychiatry can be in health clinics. They're really there to really confirm and confer. It's called a consultation liaison model and you know, you're really, the rule of thumb and it's hard to get answers out of Medicaid about how many times we can be seen. It's like a maximum of three times. So if someone needs more than just a simple SSRI, you know, you see the psychiatrist. The psychiatrist may say you know what, I really think you should go into [article] 31 … It's not that it's a bad thing, you know but it's just another step … We do offer short term therapy in our 28 which does not make you go through that. We have very limited slots and because of licensure, it has to be secondary to a medical issue because again, the Medicaid rules are very clear.* (key informant, CBO)

A number of providers suggested that there is even poorer integration within behavioral health services themselves than between physical and behavioral health. Behavioral health services are reported to be highly regulated by multiple agencies: Office for People with Developmental Disabilities (OPWDD), Office for Alcoholism and Substance Abuse Services (OASAS), and Office of Mental Health (OMH) with patient care being restricted according to the funding and regulatory agency—despite the frequency of co-occurring disorders. Thus, a mental health provider might be limited in the severity of illness that can be treated, the age of the patient, and other factors.

> *Historically, your systems like OMH and OASAS, up until very recently, they really worked in silos. So, if you came into a mental health clinic and in your intake appointment, you said, "You know, I smoke pot a couple times a week," a red flag would go up. You talk to your supervisor and they say, "They have to go to substance abuse." So until those doors really become integrated, I mean really become integrated in*

treatment and acceptance and a model of care, we're going to continue to run into these types of challenges because it's very fragmented. (key informant, multiservice organization)

Dental Care: Seventy-two percent of survey respondents felt that dental services are available or very available in their community:

My center facility has the WIC program and dentists and the doctors there will always refer you to specialists. (key informant, CBO)

I don't have dental insurance. I could be a little better with my dental health. I need dental work. I can't afford it. I've had a good experience with dental care at Jacobi. Thumbs up for Jacobi dental care, which is more accessible than lots of dental care. (focus group participant)

However, just 58% reported having been to the dentist in the prior 12 months. A common barrier to dental care was cost: When a focus facilitator asked, "What about dental care—do people go to the dentist each year?" responses included:

- *Nope.*
- *I don't.*
- *I don't need to, unless I break something. (Laughs - has dentures)*
- *These co-pays are ridiculous.*
- *I pay $40 every time.*
- *I pay $40, and I pay $190-something a month for the coverage.*
- *Too expensive. Just for a cleaning.*

Insurance: Focus group participants, in response to a question regarding what should change in health care, commonly cited insurance, including its expense, complications, and the limitations it places on choice. Limitations on choice were particularly problematic for individuals with special needs, including individuals with disabilities and limited English proficient individuals. A key informant explained:

So if you signed up for a plan and that doctor that takes care of your community isn't on that plan then there's not a whole lot you can do. And the other issue is you might be signed up for a provider who says he accepts this plan and then halfway through the year you're locked into the plan, [even] if the provider drops it…They do not have any commitment and so that's been – there's no accountability on the provider side in terms of staying in it. And this is particularly important for immigrants … when you talk about languages of lesser infusion, where there are not that many providers that speak those

languages or have the cultural competence. (key informant, health advocacy)

Lack of insurance was, not surprisingly, a more common problem in immigrant communities, due to limitations on immigrant eligibility for public insurance programs, as well as more limited access to employer-sponsored care (due to restricted job opportunities). However, community members and key informants also report that income restrictions for Medicaid are unrealistically low, and self-purchased coverage is felt to be too expensive for low- income populations, given the difficulties of paying for basic necessities like food and housing in NYC. Many low-income, previously uninsured, community members had been receiving free or very low cost services at FQHC's or HHC facilities; insurance is perceived to be expensive in comparison.

> *Sometimes [they] simply can't afford them 'cause not everybody's eligible for Medicaid, you know. And then there is this group of individuals that fall in between Medicaid and private health insurance. Unfortunately, that group is much larger than any of us would like to see.* (Key informant, CBO)

Lack of insurance coverage resulted in neglect of primary care, preventive services, and dentistry; limited access to prescription medications; and use of emergency care for non-urgent issues. For example:

> *I have hypertension and when I moved here from the DR [Dominican Republic] I didn't have insurance, and so I had to ask people to bring my hypertension pills from the Dominican Republic. One time, there wasn't anyone coming and so I ran out and I felt terrible. My daughter's father didn't want to take me to the doctor because he didn't want to pay, so I had to drink some water with sugar and salt and wait it out. He didn't bring me to the doctor for fear of the bill. Now I have health insurance and I get my pills here.* (community member, focus group participant)

> *So, Medicaid, if you look at Medicaid, it's a complete inverse of private insurance, lots of kids, almost no adults, lots of old people, all disabled people. Private insurance, not a lot of kids, lots of working adults, all these other folks. So, you get all these uninsured people, they get hit by a bus, they get AIDS, they get cancer, their addiction goes untreated, they immediately fall into Medicaid because they don't have insurance that's sustaining them and then they end up in one of the more catastrophic levels of Medicaid because Medicaid differentiates patients based on their needs based on their diagnosis and the DSRIP as much about that.* (Key informant, CBO provider)

Supportive Services: For populations that have difficulty accessing health care services, whether because of unfamiliarity with the system, age, language, or other factors, supportive services, including transit, health education, navigation, case management, can make a critical difference.

There was a concern that medical providers have insufficient information regarding supportive services and the benefits they offer. A hospital based physician commented:

> *Because physicians like us, we have absolutely zero knowledge of community resources, and there are plenty of community resources. (key informant, health provider)*

Community Health Workers: Several CNA participants described the significance of community health workers (CHWs), and the multiple roles they played (or could play) in promoting health and appropriate health care use, particularly with respect to complicated components of the health care system, including health insurance and hospitals. From the perspective of CNA participants, training and employment of CHWs not only benefited patients and clients but also provided important training and employment opportunities for community members.

> *A great model is the community health worker model. This cooperative idea is training, hiring people from the community to improve people's health. Who's better than someone who's next to you? And maybe not always, because of privacy and other issues. But if he looks like you, and he has family who comes from [the same place], they get trained in a way to do it. It would be great to have more community health workers around everywhere.* (key informant, health advocacy)

> *There's some work to be done on the pre, coming into the hospital … making sure that all the doctors have been pre-certified and pre-cleared, making sure that people did or did not drink or understood exactly all the instructions they needed to follow before coming into the hospital. Making sure that they know where to go when they go to the hospital, so it's not so scary and daunting and maybe so scary and so daunting that perhaps someone doesn't show up, because it just sounds a little too overwhelming.* (key informant, health advocacy)

> *We have transportation services that allow many seniors access to the centers, because otherwise they'd have no other way of getting here. We provide transportation to medical appointments. And not only do we provide the transportation, but we … launched an escort program. So in addition to providing the actual transportation, we now will assist by providing a companion to travel with the senior, because what we were finding was that both in physical frailty as well as cognitive frailty, seniors needed more assistance, because they often became disoriented or needed that help in navigating through the holes … and even in medical buildings, you know, it's very difficult. And even though you may have been there before, sometimes it looks different.* (key informant, CBO)

Particularly for immigrant communities, CHWs—whether they be health educators, navigators, or advocates—helped to ameliorate the pervasive language and cultural barriers:

I don't care where you come from, but it has to be people seeing people [in the hospital] who look like them, that are like them, who speak like them and who feel like this people are – have my interests on my – their mind. … Seriously, you need to have a program where you have people who look like me [West African], who will be there to pass along information to the people is critical. (focus group participant)

CHWs were reported to be particularly valuable and effective in ensuring that hospital discharge plans are effectively implemented, as discharge planning was seen as generally problematic:

I think one of the things we do miserably in New York City … is horrible discharge planning, horrible, horrible. And if there were these advanced primary care workers or at least community health workers, I think one of the main things I would really have them do is think about discharge planning. If [DSRIP] money is going through hospitals, I would really, No. 1, think about discharge planning and how to make that really real and follow-up calls and texts and whatever for all these folks. And making sure that there's really a system, and that the community health worker or advanced primary care worker gets a copy of that discharge plan and follows up with the patient. (key informant, health advocacy)

Care Coordination/Case Management: Across populations and conditions, care coordinator and case management models were described as highly effective approaches for improving health and reducing health care use. Multiple key informants cited research studies that demonstrated positive outcomes during implementation of care coordination programs. Responsibilities of care coordinators included linkage and serving as liaison to multiple providers, health education, assistance with accessing entitlement and supportive services, and monitoring the stability and engagement of clients. Care coordination was seen as valuable in part because of excessive fragmentation within the healthcare system, and it was emphasized that developing care coordination programs did not diminish the need for improved integration of care.

This silo specialization in medicine is a problem for everybody, but it's a particular problem for the geriatric population with, you know, 12 medications and four presenting conditions. And so that anything that can happen to not just coordinate but actually integrate care across specialties so that when you do need the interaction of the medical institution for it to deal with a whole person as a whole person, not by its individually, coded and billed body parts would be really important. Anything that could happen along those lines would help everybody, but it would particularly help our guys…All our social workers can tell you stories and we could say personally, you know, the orthopedist comes in and says, well you know, "Mrs. Smith, yeah, your hip will be great," but Mrs. Smith has dementia and Mrs. Smith is not going to recover in a great way. You know, he's solely looking at one body part. And he's not thinking what the rehab

is going to be like… and the disorientation. And the family is left standing like, "Are you kidding, what are you talking about?"(key informant, multiservice organization)

Unfortunately, funds for care coordination are limited and salaries for the positions are relatively low. Low salaries make hiring difficult and may necessitate selection of candidates that are under-qualified, particularly considering the expectations of the job, which include work with challenging populations, familiarity with multiple psychosocial and health issues (and the services available to address them), as well as the logistic and administrative aspects of the position, including use of multiple electronic health records.

We have to find people that are from the managed care world, that are from the hospital world. We have to find professionals that understand those worlds and they also have to be database professionals, they have to be able to navigate Navitar, they have to be able to navigate Dashboard, they have to be able to input information into these databases, and into our own database, and to be able to do it many times offsite. You're stuck between a rock and hard place, because people with enough skills and training to work with such a high acuity, in most cases, group of clients. But then also they'll have, like the background is more like data entry… You want them to come in with some of the skills, 50% of the skills, I mean, maybe we have to teach them the other 50%. Maybe they come in with substance abuse skills but they don't know mental health and they don't diabetes and primary healthcare concerns, or maybe it's the other way around. It feels like [it's too much to ask of a person], but you have to make it work. (key informant multiservice agency).

Lack of trust or engagement in care coordination on the part of medical providers was also considered to limit the potential effectiveness of care coordination models.

What's missing is … saying to individual providers that this is important, and you need to be responsive, and you need to talk to people, and you need to interact with care coordinators. One of the biggest problems and flaws in the system is that in all of our contracts… we're required to go to providers, individual PCP's and psychiatrists, and get information from them both about their care that they're providing to our client or their patient or the lab work that's been done, tests, reports, anything that they're doing with our patient. We need to get access to that information so that we can help to provide better care and to guide that person along in the care that they're getting. So if they get prescribed a specific medication, we can say, "Are you taking that medication? Where are you at with it? Have you filled the prescription?" Those kind of things. The problem is, on the provider's side, they don't get paid. No one's telling them – no one's saying to them from the funder level … "You must communicate with these people."… so the providers ignore us. (key informant, multiservice organization)

Finally, a electronic health records were described as challenging for agencies offering care coordination services, as they had to utilize multiple systems.

> *The State's not equipped to be able to mandate [a consistent electronic health record]. So everybody is left on their own to be able to design their own or to pick and choose an on-the-shelf or off-the-shelf package. And that's been what's causing the mess. So then not only do you have that, but you also don't have the communication between Health Homes to talk about a client, where a client is… being able to get some kind of a text message or an email saying a client is in an emergency room or a hospital. …that should be really enhanced where we have much more access to the client's status, where that client is, when the client is in crisis, so that we can intervene and help the client*. (key informant, multiservice agency)

Health Education: Health education was a common theme in interviews and focus groups, incorporating both education of the broader public and individual level education regarding management of complex health conditions. It was emphasized the education has to be comprehensive and ongoing in order to affect behavior change.

> *You have to continue to be out there every so often asking, like, 'What's going on? Who are you? You know, where you from? What do you practice?'" And that's the way it is. Education, health education has to be dynamic. It has to be ongoing. You have to constantly remind people about, "If you're gonna have sex with multiple partners, you should really use a condom."* (key informant, CBO)

> *It's been proven if we can have health educators dedicated to an individual to work with them, to see them on a regular basis, people tend to respond more, you know. So the one-on-one care works. It does.* (key informant, CBO)

> *We're gonna have to pull our forces together and unitedly, you know, present ongoing seminars, town hall meetings, presentations about various health topics, you know. We need to remind people that diabetes is directly - there's a serious, serious correlation between obesity and diabetes, you know. We need to just keep plugging that in.* (key informant, CBO)

Topics for education of the broader public included immigrant rights, sexual health, health literacy, tobacco cessation, and nutrition, as well as access and appropriate use of health care services, such as preventive health care and screening, mental health care, and emergency care.

I feel that the ER should explain to the people that if their problem is not that serious if it's not serious, because the emergency [department] is for the emergency. It's for right now. It's not because I got a common cold … that's your primary care doctor. They really need to emphasize what the ER is for and really let these people know that they need to start turning them away if it's not an emergency. (focus group participant)

Information related to general awareness and to behavior change were both considered important. Health fairs, faith based programing, and school based programming were all seen as important venues for the dissemination of information—and for health screening. School-based programming recommendations incorporated both a return to a more basic comprehensive curriculum (e.g., offering recess), as well as enhanced offerings.

We know what works. What works is being in the schools, providing quality sexual reproductive health education and not just a one-time going in there but a series of programs with the same health educator and then having the health educator based in the school building as a continual consistent presence for those kids to be able to know that they can go and talk to somebody about that … having that health educator be able to link kids who are on the verge of sexual activity with medical family planning services to help prevent pregnancy. With mental health services, to deal with issues that might lead them to having early sexual initiation or deal with whatever's going on in their house but I think the other part of that is making sure that their medical providers are giving kids private times starting at around age 11 to be able to discuss those sensitive issues without the parent present and those are the things that work … (key informant, CBO)

I believe our people need education. Schools need to get back to exercise. If our children don't have the exercise and things to make them busy, our children will not do too much and they won't help the family education themselves. Taking exercise out of the school, the gyms, and various different things is bad. (focus group participant)

Some of the communities that we know of—they do a lot of their health education at faith-based organizations. Faith-based organizations have access to space, for example, so many of them I know will open up their space. Groups can rent it out. They'll have exercise classes or dance classes. So I think they play a huge role. And this idea around shared use agreements, I think would be really fantastic to look at. And then civic – I mean civic associations, too, I mean they reach a certain community that might not necessarily be going for social services. So, definitely ways to integrate them. And then they're trusted in their community. They're leaders there, so if you can convince those members or leaders to partner with you on these projects, I think it would be a win-win. (key informant, health advocacy)

Quality of Care

Several concerns related to quality of care were repeatedly raised in focus groups and key informant interviews. Each of these were reported to contribute to delays in care, neglect of care, poor adherence to medical recommendations, and poor health outcomes.

- Wait times for appointments

  People say it's not rational to go to the emergency room for care, but when we talk to people, they would say things like, "Well, I tried to make an appointment with my doctor, and it's like four months in advance." What rational person is going to wait four months rather than go [to the ER] (key informant, health advocacy)

  I know of this one person who was afraid that she had cancer of some type, and she had an appointment that was three months away. She said after a week she was going bonkers, went to the ER, says, "Let them test me here, let them run the x-rays and all that," and that's what she did. And she got information before the three month period. She said, "I could be dead by then." (Key informant, CBO)

- Wait times on the day of a visit

  The wait [in the ER] is better than you gotta wait for clinic….when I go to clinic, I have a one o'clock appointment, this is my thing with them: if I got a one o'clock appointment, why, "Here it is two o'clock, three o'clock, you're calling, and I'm still here?" You ain't gonna see everybody at one o'clock, don't have me sit there for five or six hours. Are you kidding me? I tell them, "I'm leaving, because now I've got to go get something to eat, because now my sugar went down, and go back upstairs and wait, and sit on that hard chair, with no cushion. Are you kidding me?" Here it is six, seven o'clock at night, here I am coming home from a one o'clock appointment. Are you kidding me? Then they wonder why I don't come. (focus group participant)

- Short visits that did not allow for health needs to be appropriately addressed. Community members feel that providers do what is expedient rather than what represents the highest quality of care. Related to brief visits are poor communication skills.

  Where I go, you would think that they do not like seeing patients. Instead of feeling comfortable, you feel bad. Then you wait for so long only to be seen for 5 minutes. (focus group participant)

  I've already had cancer. I've got cancer again. I told the doctor: "I want the other breast removed." They looked at me like I had just grown another head. And she never answered me, and she never told me if it was a good idea or a bad idea. And I'm still waiting for an answer and it's been over a year. No respect. (focus group participant)

- Multiple and complicated referral pathways, that result in significant inconvenience and expense for patients. Furthermore, the possible need for multiple visits (e.g., for tests) discourages timely use of services.

  When you go [to the health center], you always got to get a referral for this, for that, and the third. So you are going to end up in a two fare zone. To get to that referral, because they never conduct it on site. They could say, 'Okay you have a problem with your left eye. Here is a referral to go 40 blocks away, and that's where you have to go, and you come back here for your results. But then I might give you a referral to go to the GYN that is 50 blocks away," and so forth and so on. So either way you look at it, you are getting on the train, while they are right around the corner. (focus group participant)

- Poor discharge planning after emergency department visits and inpatient stays. Patients are discharged without a clear understanding of their discharge plan, including medication use and follow-up visits—or confirmation that needed supports are in place. In addition, follow-up appointments are not necessarily consistent or logical. For example, patients discharged after hospital stays will be referred to other institutions due to payment concerns. Or, in contrast, ED patients that have a primary care provider will be referred to a hospital clinic for follow-up care.

  Patients that are going hungry and they don't even ask the question – is there enough food in the home or do you need a referral to a food pantry or Meals on Wheels program? And then, you know, if they're going through their treatment and there are all these other medications and you don't have food, it upsets everything and it contributes to another visit to the hospital (key informant, community based organization)

  Kids walk into the emergency room with a Medicaid card that says that they have Health First and they get prescribed the medicine in the emergency room and then they get scheduled with a follow-up appointment at that hospital's clinic even though their pediatrician is on the card Does that make sense? No. (Key informant, provider)

  If I'm hospitalized at Hospital X, and I have an outpatient service – the expectation … is that: You've had them on your inpatient service for two weeks. Have this institutional transference and pop them into your outpatient service – whether it be psych or medical. It's not happening [for homeless patients]. They're being sent to walk-in clinics. If it's a voluntary hospital, we're not seeing them take ownership. Sometimes they're sent to an HHC hospital…. The hospitals – and I say this not only about our psychiatrically ill populations but even about our Family shelters: They have no clue, for the most part, as to where these homeless people are landing, what services are in the shelters, what connection they have to medical services, what they're able and not able to do. You can't give a single adult or a street homeless person an appointment for a colonoscopy three

weeks from now. You can't. If you think that somebody needs a colonoscopy – you have to do it while you have them inpatient. (Key informant, provider)

- Lack of knowledge, sensitivity, and competency regarding diverse populations, and populations with special health needs, the foreign born and older adults

  When people with disabilities go to seek care, someone sees them in terms of their diagnosis. "Oh, you are the person with MS. You are the person with the [traumatic brain injury]. You are the person with cerebral palsy." And so you are not seen as the person who is sexually active and needs advice about that. Or who may be drinking excessively. Or who may be drugging and self-medicating. You are not seen as the person who needs vaccinations. You are not seen as the person who needs advice about smoking cessation. After all, your quality of life must be so poor that at least I could allow you smoking. So I'm not going to bother to give you smoking messages because I'm assuming that if I were you, I would feel so bad about myself. So there's also a mythology about people with disabilities, that we are all depressed as well. So why bother to counsel you about any of these other things? (key informant, health advocacy)

  Community members have reported back that doctors and health care professionals in general talk about certain illnesses, like diabetes, hypertension, heart [disease] – a lot of these things are inevitable, right? Or kind of like, "Okay, you have hypertension, here's your medication," as opposed to actually there are things that you can do, lifestyle changes that you can make. I remember we had a really well-known pastor at an organization we're working with in the Bronx, and he said that he didn't know that if you had diabetes, it didn't mean that you had to have a limb amputated, which is pretty nuts, right? That because you have diabetes it does not mean that you have to lose limbs. I think, for whatever reason, providers may feel like when they're talking with certain populations that it's not worth it to talk about what else you can do to address your needs that's not medication or that's not amputation. And there may be some cultural biases that are – there are culture biases, I think, that are built into that way of talking to the patient (key informant, health advocacy)

SPECIFIC POPULATIONS

Low income, uninsured, and immigrant populations, as described above, face a number multiple barriers to optimal health and health care use. However, within these populations, there are a number of groups for which the barriers are exacerbated. These include individuals with disabilities, as well as individuals that are lesbian, gay, and transgender (LGBT); criminal justice involved; homeless; or victims or survivors of domestic violence. A number of these groups are also high users of expensive medical services due to a combination of greater medical need and barriers to community based services.

Individuals with Disabilities: Individuals with physical and/or cognitive disabilities are disproportionately low income, unemployed, and have a high number of co-morbidities, including obesity, hypertension, and cardiovascular disease. Despite a high need for services, they reportedly delay care because of poor accommodation (e.g., absence of ramps, absence of sign language interpreters, poor transit services) and providers that are insensitive to both their capabilities and their limitations. These access barriers—and their implications— were described by CNA participants.

> *I have access-a-ride. Access-a-ride doesn't take me anywhere in the Bronx. It goes to Queens, Brooklyn and Staten Island. But I cannot use it here in the Bronx. Now the last time I called them for them to take me to [Manhattan], I went over to Fifth Avenue to the hospital. She told me "You can take this bus, and it will take you to Manhattan, and that bus will drop you off." And then I said, "so what do I do now? I have difficulty walking." And where they were gonna drop me off would have been at least two blocks and that hospital I was going to I know for a fact, two blocks is like four. I'm gonna have to walk. And I couldn't walk so I said "I have to walk there. What do you suggest I do?" "Uh, well uh ma'am." I said "You can't help me. Thank you very much."* (focus group participant)

Unfortunately, barriers are considered more significant in community as compared to hospital settings so may become more pronounced as—consistent with the goals of DSRIP—services move into the community. As explained by a key informant in the field:

> *A requirement, for example, that you come to an appointment timely, or if you miss an appointment three times, you can be dis-enrolled from a program or a provider, [is discriminatory]. If you use Access-a-Ride, for example, it is almost impossible to know when you will arrive at a location on a consistent basis. The service is simply of such poor quality that if ... you need door-to-door transportation, you need flexibility in appointment scheduling.*
>
> *In the health setting, practitioners are often listed – clinics are often listed as being wheelchair accessible in managed care program directories. But in fact, according to a survey by the Community Service Society, it was found that these practitioners have steps at their front entrance. The providers don't even know what accessibility means. And so they list themselves as accessible, but when you go to their site or you call them on the phone, they'll say, "Oh yes, we have a few [steps] at our entrance, but that's no big deal."*
>
> *They don't have exam tables that will lower so that you can transfer from a wheelchair. Or they don't provide ASL interpreters, either in person or by video phone or other*

system. …. They don't give you longer times for your appointment if it's going to take you a long time to dress and undress…

LGBT: The LGBT population has both typical and particular health concerns. Utilization of health care services—even the ER—is reported to be less than needed, due to lack of sensitivity on the part of providers. Although the lack of sensitivity is particularly pronounced with respect to transgender patients, it affects lesbian, gay and bisexual individuals, as well.

So there are health disparities that we know exist among LGBT older people. And part of this has to do with the fact that they're so much less likely to reach out for help and so much less likely to get screening. So there's a higher rate of breast and gynecological cancers among lesbian women. There are higher rates of rectal cancer and prostate cancer among gay and bisexually identified men. (key informant, CBO)

They're not willing to be forthcoming with their providers, they withhold information from their providers, they're real reluctant particularly with transgender folks to engage in health care on so many levels, and we could talk for hours about trans people like getting disrobed, "What room do you go into, what's your name on the form, why doesn't this match your insurance card, why do you have breasts and a penis, can I touch this?" (key informant, health care organization)

But even when I was in the hospital with my mother. I went there with no makeup. I clearly have boobs, have my long hair. I looked weird, and no one gave me the respect or anything. When I used to open my mouth before, I got attention and I got whatever I needed. Now it's like, "You're a freak, go away."(focus group participant)

Isolation and perceived stigma lead to mental health issues in the LGBT population.

*I think for many LGBT people, they're separate from other minority groups, the isolation from levels of support starts at a very young age and it's within the family and within the local community and so there is a lot of effective issues that people experience just from an early age onward. I wouldn't say that the prevalence of psychiatric diagnosis is greater, but there is a substantial amount of the affective issues of mood anxiety, depression and with those in particular for anxiety and depression, substances play a very key role in modulating mood. (*key informant, health care organization)

Criminal Justice Involved: Working with individuals that have been involved in the criminal justice system requires nonjudgmental staff that are familiar with the practical (e.g., deactivations of Medicaid, parole regulations), medical, and psychosocial issues faced, including

the limited economic options and high rates of trauma and mental illness. According to a key informant that works in correctional health, this population is comprised of:

> *The sickest people in the city, who are the most socioeconomically disadvantaged, the most stigmatized and the least likely to access care in a way that would be, exclusive of using the emergency room and that sort of thing….I think, honestly, with the, state emptying the psychiatric facilities, which nobody liked, but I'm not sure that jail is a better alternative. And right now we're talking about 40% of [the Rikers] population are mentally ill. And about 60 to 80% have some kind of behavioral health issue. And then we're talking about, you know, folks with chronic health conditions and the population in jails is aging, so now we've got diabetes and heart disease at much higher rates.* (key informant, government)

Bridging connections directly from jails/prisons to community based organizations and providers upon re-entry was recommended, so as to avoid emergency department use post-release:

> *[There are] increased rates of hospitalization and emergency department visits post release. We've shown both those things. So anything that we do to try to systematically reduce hospitalizations would definitely benefit from partnering with local jails to help facilitate what I call warm transitions to primary care for medical and to behavioral health treatment, including drug treatment, substance use treatment, so that we can avoid people coming to the emergency room 'cause that's what they're gonna do if they don't have - if they don't have a plan. I think it's kind of a no-brainer.* (key informant, government)

Homeless Population: The NYC Department of Homeless Services houses approximately 55,000 people per night through its shelter system; there are an estimated 3,000 people living on the street in NYC. The homeless population includes single adults and families with and without children. Although many are people that have come into the system due to particular interpersonal or economic difficulties, others have behavioral health issues that make it difficult to remain housed, and which may be, in turn, further exacerbated by homelessness. According to a key informant that works with the homeless:

> *A lot of clients have very significant mental illness; very significant substance use – largely, alcohol, but … a lot of opioids. … Our clients are not different than the highest poverty clients. (key informant, government)*

Homeless individuals are reported to be frequent users of emergency services, not only because of health conditions, but because of the instability in their lives.

[Homeless] clients use EMS all the time for things that – if one were confident that they had a medical home – they would be calling. A child has a 102 degree fever – this is not a newborn. We would call our pediatrician and ask what to do. But, they are not calling pediatricians…. I think, often feel disconnected. Maybe they've been placed in a borough that is not their home borough, and they're not connected to the doctor who was across the street. (key informant, government)

Recommendations for improved coordination of care, more efficient use of services, and improved health, focus on targeted outreach and care coordination involving multiple hospital staff persons, including social workers in the emergency department and on the inpatient service. In addition, key informants in multiple fields emphasized the importance of supportive housing for high need homeless populations.

The [supportive housing] staff is there for relapse. So, "You stop taking your meds," it's that staff that's going to know. Maybe it might be a neighbor who notices first, and it's reported to the case manager who comes up and has a relationship, and it's like, "Is everything okay? Do we need to put you in the hospital for a week?" But making sure that the main goal is housing stability, right? So doing everything they can so the person doesn't lose their apartment. Which would happen, or probably did happen in their past life, particularly with mental illness or substance abuse. You decompensate and there's nobody there to help you before you lose your apartment. So you end up in the shelter, the jail, the psych unit, before you can get back (key informant, health advocacy)

DISCUSSION

Bronx community members and other stakeholders are clearly interested in partnering with hospitals and health care providers and being part of solutions that promote good health and reduced hospitalizations. Many are wary, fearing that hospitals will not fully engage with the community going forward, as most lack experience doing so and the financial incentives of health system re-engineering are unclear. The predominant themes in the Bronx are persistent poverty, environmental hazards, and systemic neglect. Focus group and interview participants articulated specific barriers to good health and good health care, many of which were related to poverty and its consequences, including long work hours, unstable housing, unsafe neighborhoods and the need to prioritize expenditures—even among basic needs. For specific groups, including the disabled, LGBTQ, criminal justice involved, and the homeless, health-related barriers were compounded, due to both attitudinal and practical considerations.

Focus group and interview participants also articulated potential "fixes," such as increased ease of access for medical visits (e.g., reduced wait time, reduced insurance restrictions, increased integrated care); improved provider sensitivity; and a range of supportive services, including community health workers, care coordinators—particularly for difficult to manage medical conditions and high risk populations—and navigators. Health education, addressing (for example) prevention, screening, disease management, insurance, and appropriate use of health care services, was considered essential at the individual and the community level, to ensure that the population has the knowledge and skills necessary for independent action that promotes their own good health.

Table 1: Distribution of Responses (N=622)

UHF Neighborhood	UHF code	Zipcode	Frequency	%
Kingsbridge and Riverdale	101	10463, 10471	6	1.0%
Co-op City, Eastchester, Wakefield, Williamsbridge, and Woodlawn	102	10466, 10469, 10470, 10475	88	14.2%
Bedford Park, Belmont, Kingsbridge Heights, Norwood, and University Height	103	10458, 10467, 10468	105	16.9%
Castle Hill, City Island, Country Club, Morris Park, Parkchester, Pelham Bay, Soundview, and Throgs Neck	104	10461, 10462, 10464, 10465, 10472, 10473	77	12.4%
Bathgate, Bronx Park South, Crotona, Morris Heights, Mt. Hope, and Tremont	105	10453, 10457, 10460	105	16.9%
Highbridge and Morrisania	106	10451, 10452, 10456	134	21.5%
Hunts Point and Mott Haven	107	10454, 10455, 10459, 10474	107	17.2%
			622	100%

Table 2: Demographic characteristics

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=622)
Age (Mean, SD)	47.3 (18.1)	62.1 (18.8)	47.9 (18.2)	40.8 (14.3)	39.0 (15.9)	45.9 (16.1)	41.6 (15.0)	45.9 (17.9)
18-20	0.0%	0.0%	2.9%	3.9%	6.7%	5.2%	4.7%	4.0%
21-44	50.0%	18.2%	43.8%	58.4%	55.2%	41.8%	48.6%	44.4%
45-64	33.3%	21.6%	26.7%	29.9%	25.7%	42.5%	37.4%	31.5%
65-74	16.7%	25.0%	15.2%	6.5%	6.7%	7.5%	3.7%	10.5%
75-84	0.0%	21.6%	7.6%	0.0%	1.9%	0.0%	1.9%	5.0%
85 and older	0.0%	6.8%	1.0%	0.0%	0.0%	2.2%	0.0%	1.6%
Unknown	0.0%	6.8%	2.9%	1.3%	3.8%	0.8%	3.7%	3.1%
Gender								
Female	50.0%	75.6%	63.8%	56.6%	49.0%	52.6%	59.8%	58.9%
Male	50.0%	24.4%	35.2%	43.4%	49.0%	47.4%	40.2%	40.7%
Transgender	0.0%	0.0%	1.0%	0.0%	2.0%	0.0%	0.0%	0.5%
Sexual Orientation								
Heterosexual	100.0%	94.4%	92.5%	92.8%	90.8%	91.3%	93.8%	92.6%
LGBTQI	0.0%	5.6%	7.5%	7.3%	9.2%	8.7%	6.2%	7.5%
High school graduate or higher	66.7%	86.3%	81.0%	79.2%	74.3%	76.2%	72.5%	77.7%
Hispanic	40.0%	21.4%	24.0%	40.5%	29.8%	40.8%	50.5%	35.1%
Race								
White	20.0%	25.3%	6.8%	15.3%	2.9%	3.9%	6.9%	9.3%
Black or African American	40.0%	56.6%	41.8%	40.3%	64.7%	61.7%	57.4%	54.6%
Asian	20.0%	3.6%	33.0%	15.3%	10.8%	1.6%	1.0%	10.6%
American Indian or Alaskan Native	0.0%	2.4%	1.0%	1.4%	1.0%	0.8%	1.0%	1.2%
Native Hawaiian or other Pacific Islander	0.0%	0.0%	0.0%	1.4%	1.0%	0.0%	1.0%	0.5%
Other	0.0%	4.8%	12.6%	11.1%	13.7%	25.8%	21.8%	15.8%
Mixed	20.0%	1.2%	1.9%	5.6%	2.0%	3.1%	1.0%	2.5%
Unknown	0.0%	6.0%	2.9%	9.7%	3.9%	3.1%	9.9%	5.6%
Unemployed	50.0%	9.4%	8.7%	19.7%	23.1%	30.3%	17.0%	19.1%
Always/sometimes worry about not having enough money to pay for food or housing	83.3%	44.2%	65.7%	69.3%	70.0%	66.4%	63.5%	64.0%
Living below a federal poverty level	100.0%	50.0%	83.8%	75.4%	79.2%	85.9%	87.8%	78.6%

Table 3: Language

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=622)
Primary langauge spoken at home								
English	50.0%	80.7%	61.5%	71.1%	77.9%	86.1%	72.9%	75.2%
Spanish	33.3%	19.3%	11.5%	21.1%	17.3%	24.0%	28.0%	20.5%
Arabic	0.0%	0.0%	1.0%	2.6%	1.0%	1.6%	0.0%	1.0%
Chinese (Mandarin, Cantonese, or other)	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%	0.0%	0.3%
French	0.0%	0.0%	1.9%	2.6%	1.0%	0.8%	3.7%	1.6%
Haitian/French Creole	0.0%	1.1%	1.0%	0.0%	0.0%	0.8%	0.0%	0.5%
Hindi	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.2%
Italian	0.0%	0.0%	0.0%	4.0%	0.0%	0.8%	0.0%	0.7%
Korean	0.0%	1.1%	1.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Russian	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.2%
Urdu	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.2%
Yiddish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other	16.7%	0.0%	27.9%	14.5%	10.6%	1.6%	1.9%	9.1%
Multiple language	0.0%	2.3%	6.8%	14.5%	6.7%	13.3%	6.5%	8.3%
English proficiency	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Very well/well	83.3%	95.2%	84.6%	87.7%	93.1%	89.4%	83.5%	88.7%
Not well/not at all	16.7%	4.8%	15.4%	12.3%	6.9%	10.6%	16.5%	11.3%
Ever not get healthcare because of language or translation	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%	0.7%
Foreign born	50.0%	32.9%	55.3%	41.6%	45.5%	29.3%	32.7%	39.2%

* only those who indicated ever not getting healthcare when needed

Table 4: Health-related characteristics

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=622)
Perceived health status								
Excellent/very good/good	83.3%	77.1%	76.8%	82.7%	75.0%	66.9%	68.3%	73.7%
Fair/Poor	16.7%	22.9%	23.2%	17.3%	25.0%	33.1%	31.7%	26.3%
Body mass index (Mean, SD)*	27.2 (4.0)	27.6 (6.5)	27.3 (5.7)	27.4 (5.0)	28.2 (6.8)	28.6 (5.9)	28.5 (5.7)	28.0 (6.0)
Underweight	0.0%	2.7%	2.2%	2.9%	4.2%	2.4%	2.1%	2.7%
Normal	50.0%	37.3%	35.9%	27.9%	32.6%	24.4%	26.6%	30.5%
Overweight	25.0%	30.7%	33.7%	41.2%	28.4%	37.8%	37.2%	34.8%
Obese	25.0%	29.3%	28.3%	27.9%	34.7%	35.4%	34.0%	32.1%
Have health insurance								
Medicaid	83.3%	30.7%	48.6%	48.1%	57.1%	63.9%	57.9%	52.7%
Medicare	16.7%	43.2%	30.5%	11.7%	15.2%	15.0%	16.8%	21.6%
Private/commercial	0.0%	22.7%	19.1%	20.8%	14.3%	15.0%	14.0%	17.1%
VA	0.0%	1.1%	1.0%	0.0%	1.9%	0.0%	1.9%	1.0%
Other	16.7%	4.6%	7.6%	6.5%	3.8%	9.0%	5.6%	6.4%
More than one insurance	33.3%	9.2%	17.1%	4.1%	4.8%	11.5%	9.3%	9.9%
Uninsured	16.7%	5.8%	11.4%	12.3%	14.3%	6.9%	14.0%	10.8%

***BMI categories** less than 18.5 : underweight; 18.5 to 24.9 : normal; 25.0 to 29.9 : overweight; 30.0 or higher : obese

Table 4: Healthcare utilization

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=622)
Have a primary care provider/personal doctor	100.0%	88.4%	73.5%	86.3%	76.8%	82.6%	83.8%	81.8%
Have a usual place to go for non-emergency health services	100.0%	90.6%	85.3%	83.3%	78.6%	86.4%	87.6%	85.5%
Use complimentary or alternative treatments or remedies	0.0%	16.4%	28.3%	28.2%	25.3%	19.4%	17.5%	22.0%
In the past 12 months:								
Have last routine check-up	100.0%	84.0%	75.3%	72.3%	81.1%	89.2%	78.0%	81.0%
Have been to a dentist	83.3%	60.2%	55.0%	58.9%	64.1%	55.7%	53.8%	58.0%
Have gone to a hospital emergency room at least once	50.0%	39.5%	36.3%	33.3%	53.5%	55.0%	48.5%	45.7%
Need healthcare but didn't get it	33.3%	18.7%	27.2%	23.3%	28.7%	27.5%	26.2%	25.8%

Table 5: Place for non-emergency healthcare services*

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=517)
Type of place								
Primary care doctor's office	83.3%	76.6%	39.1%	61.7%	45.7%	41.2%	40.2%	49.5%
Specialist doctor's office	0.0%	15.6%	8.1%	8.3%	6.2%	3.5%	0.0%	6.4%
Community/family health center	16.7%	7.8%	14.9%	15.0%	24.7%	8.8%	16.3%	14.3%
Hospital-based clinic	0.0%	11.7%	24.1%	8.3%	12.4%	24.6%	21.7%	18.0%
Private clinic	0.0%	1.3%	6.9%	5.0%	3.7%	16.7%	6.5%	7.4%
Emergency room	0.0%	3.9%	6.9%	5.0%	11.1%	7.0%	4.4%	6.4%
Urgent care	0.0%	2.6%	3.5%	1.7%	1.2%	0.9%	0.0%	1.6%
Pharmacy	0.0%	1.3%	5.8%	5.0%	6.2%	0.9%	1.1%	3.1%
Drug treatment center	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	2.2%	1.0%
Mental health center	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	0.4%
Alternative care (e.g. herbalist, acupuncturist)	0.0%	1.3%	2.3%	0.0%	1.2%	0.0%	0.0%	0.8%
Other	0.0%	0.0%	0.0%	1.7%	2.5%	1.8%	3.3%	1.6%
Location								
Bronx	66.7%	94.5%	82.8%	78.3%	88.8%	86.6%	82.6%	85.5%
Brooklyn	0.0%	1.4%	0.0%	0.0%	0.0%	3.6%	1.1%	1.2%
Manhattan	33.3%	2.7%	12.6%	18.3%	11.3%	7.1%	15.2%	11.2%
Queens	0.0%	0.0%	2.3%	1.7%	0.0%	0.9%	1.1%	1.0%
Staten Island	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Outside of New York City	0.0%	1.4%	2.3%	1.7%	0.0%	1.8%	0.0%	1.2%

*only for those who indicated that they have a specific place they usually go for non-emergency services.

Table 6: Barrier to gettig healthcare*

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=154)
Not insured	100.0%	21.4%	39.3%	29.4%	51.7%	47.2%	39.3%	41.6%
Cost of copays	50.0%	7.1%	32.1%	11.8%	17.2%	22.2%	28.6%	22.1%
Concerns about quality of care	0.0%	7.1%	14.3%	0.0%	10.3%	11.1%	3.6%	8.4%
Did not know where to go	0.0%	7.1%	0.0%	0.0%	3.5%	5.6%	0.0%	2.6%
Had other responsibilities (e.g. work, family)	0.0%	0.0%	7.1%	5.9%	10.3%	5.6%	7.1%	6.5%
Could not get an appointment soon or at the right time	0.0%	7.1%	17.9%	5.9%	13.8%	5.6%	14.3%	11.0%
Did not have transportation	0.0%	14.3%	7.1%	0.0%	10.3%	8.3%	0.0%	6.5%
Concerns about language or translation issues	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%	0.7%
Other	0.0%	0.0%	0.0%	5.9%	3.5%	0.0%	3.6%	2.0%

*only for those who indicated that they ever not get healthcare when needed in the past 12 months.

Table 7: Reason for ER use*

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=270)
Did not have insurance	0.0%	12.5%	10.8%	13.0%	7.6%	18.1%	12.0%	12.6%
Did not have transportation to a doctor's office or clinic	0.0%	3.1%	8.1%	4.4%	3.8%	2.8%	0.0%	3.3%
Get most care at ER	0.0%	9.4%	10.8%	21.7%	13.2%	8.3%	22.0%	13.3%
Problem too serious for a doctor's office or clinic	33.3%	34.4%	43.2%	30.4%	34.0%	44.4%	32.0%	37.4%
Doctor's office or clinic was not opened	33.3%	25.0%	10.8%	4.4%	17.0%	25.0%	16.0%	18.2%
Other	0.0%	6.3%	10.8%	17.4%	15.1%	4.2%	10.0%	9.6%

*only for those who indicated that they went to the ER at least once in the past 12 months

Table 8: Health concern in the community

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=621)
Adolescent health	16.7%	8.1%	10.5%	10.4%	8.6%	6.0%	16.8%	10.0%
Asthma	66.7%	44.8%	36.2%	29.9%	33.3%	35.8%	48.6%	38.5%
Arrest and incarcertation	16.7%	12.6%	13.3%	18.2%	17.1%	22.4%	20.6%	17.7%
Cancer	16.7%	46.0%	36.2%	36.4%	30.5%	21.6%	27.1%	31.7%
Diabetes	50.0%	65.5%	58.1%	58.4%	43.8%	47.0%	54.2%	53.6%
Disability	16.7%	34.5%	23.8%	26.0%	14.3%	14.9%	17.8%	20.9%
Drug and alcohol abuse	33.3%	31.0%	46.7%	58.4%	47.6%	48.5%	51.4%	47.2%
Family planning/birth control	33.3%	8.1%	12.4%	10.4%	16.2%	12.7%	11.2%	12.2%
Hepatitis	16.7%	4.6%	4.8%	6.5%	10.5%	9.0%	7.5%	7.4%
Heart disease	50.0%	35.6%	28.6%	26.0%	21.0%	14.2%	13.1%	22.4%
High blood pressure	50.0%	65.5%	53.3%	40.3%	29.5%	28.4%	29.0%	39.8%
HIV	33.3%	13.8%	19.1%	22.1%	39.1%	26.1%	30.8%	25.8%
Maternal and child health	16.7%	9.2%	6.7%	7.8%	8.6%	5.2%	6.5%	7.3%
Mental health (e.g. depressin, suicide)	16.7%	19.5%	19.1%	29.9%	23.8%	13.4%	15.9%	19.5%
Obesity	16.7%	41.4%	34.3%	42.9%	28.6%	30.6%	34.6%	34.5%
Pollution (e.g. air quality, garbage)	16.7%	12.6%	13.3%	10.4%	9.5%	11.9%	7.5%	11.0%
Sexual transmitted infections	16.7%	11.5%	13.3%	13.0%	30.5%	13.4%	23.4%	17.7%
Stroke	16.7%	24.1%	18.1%	11.7%	11.4%	6.7%	3.7%	12.1%
Teen pregnancy	33.3%	16.1%	20.0%	19.5%	28.6%	15.7%	24.3%	20.8%
Tobacco use	50.0%	17.2%	21.9%	23.4%	20.0%	11.2%	15.0%	17.9%
Violence or injury	16.7%	11.5%	19.1%	27.3%	20.0%	12.7%	15.0%	17.1%
Other	16.7%	2.3%	4.8%	0.0%	4.8%	8.2%	4.7%	4.7%

Table 9: Health issues faced

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=622)
Asthma	16.7%	19.3%	15.5%	21.3%	27.2%	15.9%	24.8%	20.4%
Cancer	0.0%	8.4%	6.8%	6.7%	4.9%	5.3%	6.7%	6.3%
Chronic pain	16.7%	24.1%	17.5%	20.0%	18.5%	18.2%	22.9%	19.9%
Depression or anxiety	16.7%	7.2%	15.7%	20.0%	21.4%	28.8%	30.5%	21.5%
Diabetes	16.7%	21.7%	15.5%	12.0%	7.8%	19.9%	18.1%	16.0%
Drug or alcohol abuse	0.0%	6.0%	2.9%	4.1%	10.7%	13.7%	14.3%	9.1%
Heart disease	16.7%	8.4%	8.7%	9.3%	8.7%	12.1%	7.6%	9.4%
Hepatitis C	0.0%	1.2%	3.9%	1.3%	2.9%	6.8%	5.7%	4.0%
High blood pressure	33.3%	35.4%	33.0%	20.0%	19.4%	29.8%	24.8%	27.3%
High cholesterol	16.7%	23.2%	24.3%	22.7%	8.7%	16.8%	22.9%	19.3%
HIV	0.0%	3.6%	3.9%	6.7%	3.9%	6.1%	1.9%	4.3%
Mobility impairment	0.0%	4.8%	2.9%	8.1%	10.7%	10.7%	7.6%	7.6%
Osteoporosis	0.0%	10.8%	7.8%	5.4%	5.8%	7.6%	5.7%	7.1%

Table 10: Service availability

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=622)
Accessible transportation	100.0%	90.2%	94.0%	93.1%	83.7%	89.0%	90.3%	90.0%
Affordable housing	0.0%	63.5%	40.9%	45.1%	43.2%	43.8%	55.0%	47.5%
Dental services	80.0%	72.9%	75.5%	69.1%	67.7%	70.3%	72.9%	71.5%
Healthy food	83.3%	60.9%	61.3%	55.1%	54.2%	53.5%	55.5%	56.7%
Home health care	75.0%	69.8%	56.6%	59.7%	62.6%	58.6%	65.9%	62.0%
Job training	20.0%	32.7%	26.3%	27.1%	29.7%	42.2%	42.1%	34.3%
Medical specialists	80.0%	71.6%	55.1%	63.1%	60.4%	56.3%	53.3%	59.3%
Mental health services	60.0%	50.9%	48.2%	48.2%	51.1%	57.9%	58.4%	53.3%
Pediatric and adolescent services	80.0%	65.4%	65.9%	71.7%	55.1%	65.0%	65.6%	64.5%
Places to exercise, walk, and play	100.0%	75.3%	75.5%	78.9%	49.5%	73.6%	70.9%	70.6%
Primary care medicine	100.0%	82.5%	76.3%	81.5%	61.3%	77.0%	78.6%	75.8%
Social services	66.7%	70.3%	66.3%	53.2%	55.3%	69.6%	63.0%	63.5%
Substance abuse services	60.0%	40.8%	44.3%	49.1%	47.6%	67.2%	49.4%	51.9%
Vision services	80.0%	73.1%	58.8%	66.7%	62.9%	71.5%	60.5%	65.8%

*Percentage reflects participants who responded very available or available

Table 11: Health education needed in the community

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=612)
Cancer/cancer prevention	33.3%	44.2%	45.1%	41.3%	35.6%	27.3%	29.9%	36.3%
Diabetes	33.3%	64.0%	55.9%	60.0%	48.1%	42.4%	46.7%	51.5%
Domestic violence	50.0%	26.7%	29.4%	40.0%	42.3%	33.3%	42.1%	35.8%
Exercise/physical activity	33.3%	46.5%	53.9%	42.7%	43.3%	22.7%	28.0%	38.2%
Family planning	50.0%	24.4%	32.4%	30.7%	34.6%	32.6%	38.3%	32.7%
Heart disease	33.3%	44.2%	33.3%	25.3%	20.2%	18.2%	19.6%	26.0%
HIV/sexual transmitted diseases	33.3%	22.1%	39.2%	42.7%	58.7%	34.9%	42.1%	40.0%
Maternal and child health	33.3%	11.6%	20.6%	29.3%	21.2%	10.6%	19.6%	18.3%
Mental health	16.7%	32.6%	29.4%	36.0%	43.3%	27.3%	29.0%	32.4%
Nutrition	50.0%	51.2%	46.1%	45.3%	45.2%	34.1%	42.1%	43.3%
Substance abuse	16.7%	29.1%	24.5%	36.0%	41.4%	40.2%	44.9%	36.3%
Sickle cell anemia	0.0%	14.0%	8.8%	9.3%	7.7%	8.3%	5.6%	8.7%
Vaccinations	16.7%	17.4%	14.7%	13.3%	15.4%	9.9%	11.2%	13.4%
Violenece	16.7%	23.3%	26.5%	33.3%	35.6%	29.6%	36.5%	30.7%
Other	16.7%	3.5%	7.8%	4.0%	6.7%	18.9%	11.2%	9.6%

Table 12: Source of health information

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=616)
Doctor or health care provider	83.3%	62.8%	59.1%	52.0%	48.5%	65.7%	50.5%	57.1%
Family or friends	33.3%	12.8%	27.6%	27.3%	39.8%	21.6%	28.6%	26.5%
Books	33.3%	25.6%	18.1%	23.4%	20.4%	14.2%	19.1%	19.6%
Television or radio	66.7%	15.1%	18.1%	23.4%	24.3%	14.9%	11.4%	18.0%
Newspaper or magazines	33.3%	12.8%	12.4%	13.0%	6.8%	6.7%	2.9%	8.9%
Ethnic media (e.g. ethnic newspaper, TV, radio)	33.3%	8.1%	15.2%	22.1%	14.6%	6.7%	7.6%	12.0%
Internet	33.3%	16.3%	23.8%	33.8%	32.0%	23.1%	27.6%	26.0%
Library	33.3%	4.7%	5.7%	9.1%	6.8%	1.5%	2.9%	5.0%
Community-based organization	16.7%	22.1%	21.9%	6.5%	14.6%	8.2%	10.5%	13.8%
	0.0%	8.1%	14.3%	14.3%	9.7%	8.2%	2.9%	9.3%
Faith-based organization (e.g. church, temple, synogogue, mosque)								
School	16.7%	1.2%	5.7%	9.1%	8.7%	3.7%	6.7%	5.8%
Health insurance plan	33.3%	15.1%	12.4%	15.6%	6.8%	6.0%	5.7%	9.9%
Health department	0.0%	1.2%	2.9%	5.2%	8.7%	4.5%	6.7%	4.9%
Health fairs	16.7%	14.0%	7.6%	13.0%	5.8%	1.5%	9.5%	8.0%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	0.3%

Table 13: Use of technology

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=610)
Email	66.7%	52.5%	50.0%	57.9%	54.4%	46.3%	52.3%	51.8%
Internet	83.3%	48.8%	50.0%	54.0%	53.4%	46.3%	50.5%	50.5%
Smart phone (e.g. iPhone, Galaxy)	50.0%	38.8%	51.0%	50.0%	65.1%	53.7%	59.8%	53.8%
Text messaging	83.3%	35.0%	43.3%	43.4%	61.2%	53.7%	45.8%	48.4%
Twitter	33.3%	2.5%	5.8%	13.2%	8.7%	8.2%	13.1%	8.9%
Facebook	83.3%	20.0%	26.0%	36.8%	32.0%	40.3%	33.6%	32.6%

Table 14: Civic engagement

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=611)
Community center	33.3%	37.2%	24.8%	16.0%	16.5%	11.4%	20.2%	20.5%
Library	50.0%	27.9%	27.6%	29.3%	28.2%	31.1%	34.6%	30.1%
	50.0%	22.1%	43.8%	32.0%	33.0%	34.1%	27.9%	32.7%
Faith-based organization (e.g. church, temple, synogogue, mosque)								
Neighborhood association	16.7%	11.6%	2.9%	4.0%	6.8%	6.8%	16.4%	8.2%
Gym or recreational center	33.3%	11.6%	20.0%	26.7%	28.2%	19.7%	21.2%	21.3%
Political club	16.7%	3.5%	1.0%	1.3%	2.9%	0.8%	0.0%	1.6%
Senior center	16.7%	45.4%	16.2%	9.3%	1.0%	3.8%	2.9%	12.0%
School	16.7%	11.6%	18.1%	16.0%	13.6%	9.9%	13.5%	13.6%
Sport league	16.7%	0.0%	2.9%	4.0%	1.9%	2.3%	3.9%	2.6%
Other community organization	0.0%	8.1%	8.6%	6.7%	9.7%	6.8%	14.4%	9.0%

Table 15: Use of complementary or alternative treatments/remedies

	Kingsbridge Riverdale	Northeast Bronx	Fordham Bronx Park	Pelham Throgs Neck	Crotona Tremont	High Bridge Morrisania	Hunts Point Mott Haven	Bronx (N=599)
Acupunture	0.0%	5.1%	7.8%	6.7%	4.0%	7.7%	4.8%	6.0%
Chiropractic care	0.0%	2.5%	3.9%	2.7%	0.0%	3.1%	4.8%	2.8%
Herbal medicine	0.0%	5.1%	13.6%	12.0%	13.9%	8.5%	8.6%	10.2%
Homeopathy	0.0%	1.3%	1.9%	1.3%	1.0%	1.5%	1.0%	1.3%
Remedies from a botanica	0.0%	3.8%	3.9%	1.3%	5.9%	1.5%	0.0%	2.7%
Other	0.0%	2.5%	7.8%	8.0%	3.0%	0.0%	2.9%	3.7%

NEW YORK CITY COMMUNITY NEEDS ASSESSMENT APPENDIX E – NEIGHBORHOOD LEVEL GAP ANALYSIS

December 16, 2014

Prepared by New York City Health and Hospitals Corporation Corporate Planning Services

Appendix E: Neighborhood Level Gap Analysis

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Definitions

- Ambulatory Care Sensitive Conditions (ACSC) are conditions for which good outpatient care could potentially prevent the need for hospitalization or ED visit, or for which early intervention could prevent complications or more severe disease.

- Prevention Quality Improvement (PQI) is a set of measures developed by the federal Agency for Healthcare Research and Quality (AHRQ) for use in assessing the quality of outpatient care for a set of ACSC conditions. The PQIs are measured as a number of discharges or a discharge rate for a specific condition or disease for a given population. See Appendix E for a list of all condition (disease) specific PQI discharges and rates by neighborhood.
    - Observed PQIs may be described as the "actual" number of discharges. The Observed PQI rate (per 100,000 people) is the number of PQI discharges divided by the population. Lower rates represent better results.
    - Expected PQIs are Observed PQI discharges adjusted for age, gender, and race / ethnicity. The expected PQI rate (per 100,000 people) is the number of PQI discharges divided by the population.
    - Risk Adjusted PQI rate (per 100,000 people) is calculated by dividing the observed PQI rate by the expected PQI rate, multiplied by the statewide PQI rate. This has the effect of adjusting for demographic and case mix factors.
    - Observed to Risk Adjusted Expected gap quantifies the gap in absolute numbers of potentially avoidable hospital encounters.
    - Observed / Risk Adjusted Expected rate ratio is the ratio of "actual" PQI discharges to expected discharges, adjusted for age, sex, and race/ethnicity. Lower number is better.

  This CNA report and appendix E focus on the following types of PQI indicators:

  1. Adult Overall Conditions Composite (PQI 90)
  2. Adult Acute Conditions Composite (PQI 91)
  3. Adult Chronic Conditions Composite (PQI 92)
  4. Adult All Diabetes Composite (PQI S01)
  5. Adult All Circulatory Conditions Composite (PQI S02)
     a. Adult Hypertension (PQI 07)
     b. Adult Heart Failure (PQI 08)
  6. Adult Respiratory Conditions Composite (PQI S03)
     a. COPD and Asthma in Older Adults (PQI 05)
     b. Asthma in Younger Adults (PQI 15)
     c. Pediatric Asthma ages 2-17 (PDI 14)

- Potentially Preventable Visits (PPVs), based on proprietary 3M software, are emergency visits for ambulatory care sensitive conditions (ACSC) that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or eliminated with adequate patient monitoring and follow up. Unlike with PQIs, which can be disease specific, there is only one PPV indicator which represents all potentially avoidable ED visit regardless of condition or disease.
    - PPV Events are observed or "actual" ED visits that meet the criteria of an ACSC visit as defined by the 3M software. The Observed Rate is the number of PPV events divided by the population.
    - Risk Adjusted Expected Visits are PPV visits adjusted by age, gender and race/ethnicity. The Expected rate is the number of Expected visits divided by the population.
    - Risk Adjusted Expected Rate is the observed PPV rate divided by the expected PPV rate, multiplied by the statewide PPV rate. A lower number is better.

Measuring the gap between community resources and needs

The Gap between community resources (provider and non-provider) and the needs of the Medicaid community, or unmet need, is represented in this CNA report by the number of ED visits and admissions that are potentially avoidable given adequate access to primary care and other community resources (PPV visits and PQI admissions, respectively). The Gap is quantified as the ratio of the Risk Adjusted Actual / Expected rate of ED visits and admissions. Neighborhoods with the highest ratios have the greatest gap between community needs and resources.

The Gap or unmet need for Medicaid beneficiaries with substance abuse and/or mental illness, conditions for which there is no PQI indicator, is measured by the percent of diagnosed Beneficiaries with one or more ED visit or inpatient admission in a 12 month period.

This definition allows for neighborhoods with greater challenges such as poverty that may require a greater level of resources and perhaps different mix of resources. A limitation is that it does not identify the type of gap, such as additional primary care physicians, better access to quality food, or patient education.

Source:
New York State DOH Office of Quality and Patient Safety Bureau of Health Informatics, Medicaid Claims Extract, 2012.

Data Update

The PQI and PPV data used in this Appendix E reflects the most current updates, November 26, 2014 and may not match exactly comparable statistics in the report, which used original data as of June and August, 2014. Any changes resulting from the November update have not affected the findings of the report.

Table 1. Medicaid Beneficiaries by Age Group (by Region)

		Medicaid Population	Dual Eligible Population	%	Pediatric Population	%
NYS		5,835,794	853,866	14.6%	1,979,039	33.9%
NYC		3,595,868	469,516	13.1%	1,182,673	32.9%
HHC PPS Service Area		3,317,300	422,057	12.7%	1,097,856	33.1%
Bronx		821,339	93,324	11.4%	298,329	36.3%
Brooklyn		1,237,587	154,195	12.5%	426,149	34.4%
Manhattan		485,833	93,255	19.2%	124,183	25.6%
Queens		923,576	110,852	12.0%	290,660	31.5%
Staten Island		127,533	17,890	14.0%	43,352	34.0%
UHF Neighborhoods						
Queens	West Queens	229,888	21,682	9.4%	83,911	36.5%
Brooklyn	Borough Park	195,830	20,249	10.3%	74,612	38.1%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	18,387	11.0%	58,719	35.1%
Bronx	Fordham/Bronx Park	159,182	16,735	10.5%	58,737	36.9%
Bronx	Crotona/Tremont	158,601	14,799	9.3%	59,673	37.6%
Bronx	Highbridge/Morrisania	157,071	15,977	10.2%	58,035	36.9%
Manhattan	Washington Hgts/Inwood	143,590	23,746	16.5%	40,041	27.9%
Bronx	Pelham/Throgs Neck	139,194	17,236	12.4%	49,093	35.3%
Brooklyn	Coney Island/Sheepshead Bay	136,160	29,600	21.7%	35,495	26.1%
Brooklyn	Flatbush/E. Flatbush	135,688	15,124	11.1%	46,716	34.4%
Queens	Jamaica	134,473	14,221	10.6%	45,452	33.8%
Brooklyn	Williamsburg/Bushwick	128,474	14,051	10.9%	49,789	38.8%
Queens	Southwest Queens	124,306	12,336	9.9%	39,961	32.1%
Brooklyn	East New York	117,543	10,878	9.3%	43,295	36.8%
Queens	Flushing/Clearview	116,769	16,077	13.8%	26,384	22.6%
Bronx	Hunts Point/Mott Haven	102,165	11,065	10.8%	38,673	37.9%
Brooklyn	Sunset Park	99,554	7,309	7.3%	35,170	35.3%
Manhattan	Union Sq./Lower Eastside	81,093	16,041	19.8%	18,490	22.8%
Manhattan	Central Harlem/Morningside Hgt	80,466	10,529	13.1%	25,598	31.8%
Brooklyn	Bensonhurst/Bay Ridge	80,271	12,740	15.9%	22,428	27.9%
Queens	Ridgewood/Forest Hills	76,645	11,878	15.5%	22,194	29.0%
Bronx	Northeast Bronx	75,167	10,864	14.5%	25,759	34.3%
Queens	Long Island City/Astoria	71,850	9,004	12.5%	21,621	30.1%
Brooklyn	Canarsie/Flatlands	68,906	10,578	15.4%	20,974	30.4%
Manhattan	East Harlem	65,008	10,574	16.3%	20,194	31.1%
Queens	Southeast Queens	60,254	7,382	12.3%	18,239	30.3%
Brooklyn	Downtown/Heights/Slope	58,124	9,679	16.7%	19,094	32.9%
Queens	Rockaway	52,664	9,529	18.1%	18,233	34.6%
Brooklyn	Greenpoint	49,127	5,453	11.1%	19,677	40.1%
Staten Island	Stapleton/St. George	46,686	6,790	14.5%	16,336	35.0%
Queens	Fresh Meadows	34,868	4,882	14.0%	9,810	28.1%
Manhattan	Chelsea/Clinton	33,022	8,803	26.7%	4,460	13.5%
Staten Island	South Beach/Tottenville	31,799	5,092	16.0%	8,634	27.2%
Manhattan	Upper West Side	31,499	9,193	29.2%	6,208	19.7%
Bronx	Kingsbridge/Riverdale	29,957	6,648	22.2%	8,358	27.9%
Staten Island	Port Richmond	28,478	2,540	8.9%	12,322	43.3%
Staten Island	Willowbrook	20,550	3,465	16.9%	6,058	29.5%
Queens	Bayside/Little Neck	19,922	3,465	17.4%	4,458	22.4%
Manhattan	Greenwich Village/Soho	14,273	3,583	25.1%	2,346	16.4%
Manhattan	Upper East Side	13,206	4,454	33.7%	2,163	16.4%
Manhattan	Lower Manhattan	12,054	3,091	25.6%	2,800	23.2%
Manhattan	Gramercy Park/Murray Hill	9,839	2,546	25.9%	1,645	16.7%

Table 2. Potentially Preventable ED Visits (PPV) (by Region)

		Medicaid Population	PPV Total (Observed)	PPV Total (Risk-Adjusted Expected)	Rate per 100 ED Visits (Observed)	Rate per 100 ED Visits (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		5,852,016	2,111,517	2,069,915	36.08			(41,602)
NYC		3,600,712	1,192,918	1,184,340	33.13	32.89	1.01	(8,578)
HHC PPS Service Area		3,321,558	1,097,973	1,090,154	33.06	32.82	1.01	(7,819)
Bronx		822,108	346,837	313,978	42.19	38.19	1.10	(32,859)
Brooklyn		1,238,819	347,695	340,714	28.07	27.50	1.02	(6,981)
Manhattan		486,765	203,340	202,029	41.77	41.50	1.01	(1,311)
Queens		925,041	248,753	281,874	26.89	30.47	0.88	33,121
Staten Island		127,979	46,293	45,746	36.17	35.74	1.01	(547)
UHF Neighborhoods								
Brooklyn	Bedford/Stuy/Crown Heights	167,295	74,035	62,671	44.25	37.46	1.18	(11,364)
Manhattan	Central Harlem/Morningside Hgt	80,517	44,215	37,872	54.91	47.04	1.17	(6,343)
Brooklyn	Flatbush/E. Flatbush	135,879	44,131	37,935	32.48	27.92	1.16	(6,196)
Bronx	Highbridge/Morrisania	157,126	67,220	59,232	42.78	37.70	1.13	(7,988)
Bronx	Crotona/Tremont	158,677	68,998	60,948	43.48	38.41	1.13	(8,050)
Brooklyn	East New York	117,951	47,135	41,721	39.96	35.37	1.13	(5,414)
Bronx	Hunts Point/Mott Haven	102,277	44,460	39,547	43.47	38.67	1.12	(4,913)
Bronx	Northeast Bronx	75,259	31,979	28,647	42.49	38.06	1.12	(3,332)
Brooklyn	Canarsie/Flatlands	68,942	18,647	16,896	27.05	24.51	1.10	(1,751)
Bronx	Fordham/Bronx Park	159,307	71,626	65,539	44.96	41.14	1.09	(6,087)
Manhattan	East Harlem	65,233	35,244	32,424	54.03	49.70	1.09	(2,820)
Staten Island	Port Richmond	28,494	13,493	12,448	47.35	43.68	1.08	(1,045)
Brooklyn	Williamsburg/Bushwick	128,546	52,742	48,737	41.03	37.91	1.08	(4,005)
Queens	Rockaway	52,726	18,553	17,206	35.19	32.63	1.08	(1,347)
Manhattan	Washington Hgts/Inwood	143,654	45,340	42,657	31.56	29.69	1.06	(2,683)
Bronx	Pelham/Throgs Neck	139,468	53,267	50,796	38.19	36.42	1.05	(2,471)
Manhattan	Chelsea/Clinton	33,364	20,526	19,607	61.52	58.77	1.05	(919)
Brooklyn	Downtown/Heights/Slope	58,328	23,408	22,661	40.13	38.85	1.03	(747)
Staten Island	Stapleton/St. George	46,913	19,397	18,980	41.35	40.46	1.02	(417)
Queens	Southeast Queens	61,114	16,199	16,107	26.51	26.36	1.01	(92)
Bronx	Kingsbridge/Riverdale	29,994	9,287	9,270	30.96	30.91	1.00	(17)
Manhattan	Upper West Side	31,538	15,536	15,657	49.26	49.64	0.99	121
Queens	Jamaica	134,719	45,813	46,355	34.01	34.41	0.99	542
Manhattan	Gramercy Park/Murray Hill	9,909	4,922	4,996	49.67	50.42	0.99	74
Staten Island	South Beach/Tottenville	31,842	8,390	8,728	26.35	27.41	0.96	338
Brooklyn	Greenpoint	49,140	9,112	9,485	18.54	19.30	0.96	373
Queens	Ridgewood/Forest Hills	76,683	17,730	19,134	23.12	24.95	0.93	1,404
Queens	Long Island City/Astoria	71,860	21,041	22,873	29.28	31.83	0.92	1,832
Staten Island	Willowbrook	20,710	5,004	5,581	24.16	26.95	0.90	577
Manhattan	Upper East Side	13,219	4,674	5,224	35.36	39.52	0.89	550
Queens	West Queens	229,929	68,271	77,793	29.69	33.83	0.88	9,522
Queens	Southwest Queens	124,369	33,190	38,415	26.69	30.89	0.86	5,225
Manhattan	Lower Manhattan	12,194	5,744	6,673	47.11	54.72	0.86	929
Brooklyn	Coney Island/Sheepshead Bay	136,183	23,227	27,800	17.06	20.41	0.84	4,573
Brooklyn	Borough Park	195,905	26,744	33,459	13.65	17.08	0.80	6,715
Brooklyn	Bensonhurst/Bay Ridge	80,319	11,180	14,859	13.92	18.50	0.75	3,679
Queens	Fresh Meadows	34,877	7,591	10,201	21.77	29.25	0.74	2,610
Manhattan	Union Sq./Lower Eastside	81,104	22,872	30,851	28.20	38.04	0.74	7,979
Brooklyn	Sunset Park	99,590	16,971	24,170	17.04	24.27	0.70	7,199
Manhattan	Greenwich Village/Soho	14,323	3,334	5,174	23.28	36.12	0.64	1,840
Queens	Bayside/Little Neck	19,932	2,236	3,724	11.22	18.68	0.60	1,488
Queens	Flushing/Clearview	116,900	17,342	29,251	14.83	25.02	0.59	11,909

Table 3. Medicaid Prevention Quality Indicator (PQI) Overall Composite (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	69,084	67,128	1,801			(1,956)
NYC		2,416,600	45,036	42,456	1,864	1,757	1.06	(2,580)
HHC PPS Service Area		2,223,072	41,600	39,330	1,871	1,769	1.06	(2,270)
Bronx		523,724	13,447	12,240	2,568	2,337	1.10	(1,207)
Brooklyn		812,531	14,175	13,217	1,745	1,627	1.07	(958)
Manhattan		361,806	7,375	5,970	2,038	1,650	1.24	(1,405)
Queens		633,964	8,409	9,346	1,326	1,474	0.90	937
Staten Island		84,575	1,630	1,683	1,927	1,990	0.97	53
UHF Neighborhoods								
Manhattan	Upper West Side	25,217	708	480	2,808	1,902	1.48	(228)
Manhattan	Upper East Side	11,056	321	218	2,903	1,974	1.47	(103)
Manhattan	Chelsea/Clinton	28,901	818	581	2,830	2,011	1.41	(237)
Brooklyn	Flatbush/E. Flatbush	89,157	1,700	1,301	1,907	1,460	1.31	(399)
Brooklyn	Canarsie/Flatlands	47,966	909	700	1,895	1,459	1.30	(209)
Bronx	Kingsbridge/Riverdale	21,615	538	418	2,489	1,934	1.29	(120)
Queens	Rockaway	34,482	476	371	1,380	1,077	1.28	(105)
Manhattan	Gramercy Park/Murray Hill	8,258	156	122	1,889	1,479	1.28	(34)
Manhattan	Central Harlem/Morningside Hgt	54,915	1,397	1,101	2,544	2,004	1.27	(296)
Bronx	Northeast Bronx	49,494	1,427	1,137	2,883	2,297	1.26	(290)
Brooklyn	Bedford/Stuy/Crown Heights	108,547	2,988	2,416	2,753	2,225	1.24	(572)
Manhattan	Washington Hgts/Inwood	103,609	1,728	1,403	1,668	1,354	1.23	(325)
Manhattan	East Harlem	45,030	1,343	1,102	2,982	2,447	1.22	(241)
Brooklyn	Downtown/Heights/Slope	39,233	1,162	996	2,962	2,539	1.17	(166)
Queens	Southeast Queens	42,736	639	572	1,495	1,339	1.12	(67)
Bronx	Highbridge/Morrisania	99,090	2,603	2,360	2,627	2,381	1.10	(243)
Bronx	Hunts Point/Mott Haven	63,600	1,797	1,656	2,825	2,603	1.09	(141)
Brooklyn	East New York	74,649	1,578	1,460	2,114	1,956	1.08	(118)
Manhattan	Lower Manhattan	9,246	185	171	2,001	1,854	1.08	(14)
Brooklyn	Williamsburg/Bushwick	78,742	1,851	1,720	2,351	2,184	1.08	(131)
Bronx	Crotona/Tremont	98,999	2,500	2,341	2,525	2,364	1.07	(159)
Brooklyn	Coney Island/Sheepshead Bay	100,684	1,733	1,622	1,721	1,611	1.07	(111)
Bronx	Fordham/Bronx Park	100,560	2,536	2,396	2,522	2,382	1.06	(140)
Bronx	Pelham/Throgs Neck	90,366	2,046	1,934	2,264	2,140	1.06	(112)
Queens	Jamaica	89,240	1,578	1,517	1,768	1,700	1.04	(61)
Staten Island	Stapleton/St. George	30,544	706	680	2,311	2,225	1.04	(26)
Queens	Ridgewood/Forest Hills	54,485	814	830	1,494	1,524	0.98	16
Brooklyn	Greenpoint	29,461	320	330	1,086	1,120	0.97	10
Staten Island	Willowbrook	14,652	219	231	1,495	1,575	0.95	12
Queens	Long Island City/Astoria	50,238	793	856	1,578	1,704	0.93	63
Staten Island	Port Richmond	16,170	371	406	2,294	2,508	0.91	35
Staten Island	South Beach/Tottenville	23,209	334	367	1,439	1,583	0.91	33
Manhattan	Greenwich Village/Soho	11,977	136	151	1,136	1,258	0.90	15
Manhattan	Union Sq./Lower Eastside	62,613	541	616	864	984	0.88	75
Queens	West Queens	146,000	1,744	2,085	1,195	1,428	0.84	341
Queens	Southwest Queens	84,363	1,182	1,414	1,401	1,677	0.84	232
Queens	Fresh Meadows	25,066	257	324	1,025	1,291	0.79	67
Brooklyn	Bensonhurst/Bay Ridge	57,891	451	569	779	984	0.79	118
Queens	Bayside/Little Neck	15,474	121	158	782	1,023	0.76	37
Brooklyn	Borough Park	121,292	1,157	1,533	954	1,264	0.75	376
Queens	Flushing/Clearview	90,483	773	1,190	854	1,315	0.65	417
Brooklyn	Sunset Park	64,418	313	561	486	870	0.56	248

Table 4. Medicaid Prevention Quality Indicator (PQI) Acute Composite (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	20,521	20,207	535			(314)
NYC		2,416,600	12,353	12,485	511	517	0.99	132
HHC PPS Service Area		2,223,072	11,316	11,568	509	520	0.98	252
Bronx		523,724	3,384	3,434	646	656	0.99	50
Brooklyn		812,531	3,727	3,762	459	463	0.99	35
Manhattan		361,806	2,140	1,859	591	514	1.15	(281)
Queens		633,964	2,666	2,995	421	472	0.89	329
Staten Island		84,575	436	434	516	513	1.00	(2)
UHF Neighborhoods								
Manhattan	Upper East Side	11,056	118	73	1,067	658	1.62	(45)
Manhattan	Upper West Side	25,217	219	147	868	584	1.49	(72)
Bronx	Kingsbridge/Riverdale	21,615	173	127	800	586	1.37	(46)
Manhattan	Gramercy Park/Murray Hill	8,258	58	46	702	553	1.27	(12)
Brooklyn	Coney Island/Sheepshead Bay	100,684	518	421	514	418	1.23	(97)
Manhattan	Chelsea/Clinton	28,901	275	223	952	773	1.23	(52)
Queens	Rockaway	34,482	145	118	421	344	1.22	(27)
Manhattan	Washington Hgts/Inwood	103,609	499	429	482	414	1.16	(70)
Brooklyn	Canarsie/Flatlands	47,966	254	222	530	463	1.14	(32)
Bronx	Northeast Bronx	49,494	352	308	711	623	1.14	(44)
Brooklyn	Downtown/Heights/Slope	39,233	309	282	788	719	1.10	(27)
Queens	Ridgewood/Forest Hills	54,485	294	269	540	493	1.09	(25)
Manhattan	East Harlem	45,030	305	279	677	619	1.09	(26)
Staten Island	Willowbrook	14,652	77	71	526	485	1.08	(6)
Manhattan	Lower Manhattan	9,246	71	67	768	722	1.06	(4)
Brooklyn	Flatbush/E. Flatbush	89,157	427	403	479	452	1.06	(24)
Staten Island	South Beach/Tottenville	23,209	96	91	414	393	1.05	(5)
Manhattan	Central Harlem/Morningside Hgt	54,915	342	330	623	600	1.04	(12)
Staten Island	Stapleton/St. George	30,544	182	176	596	576	1.03	(6)
Manhattan	Greenwich Village/Soho	11,977	58	56	484	471	1.03	(2)
Brooklyn	Greenpoint	29,461	88	87	299	294	1.02	(1)
Queens	Southeast Queens	42,736	155	155	363	363	1.00	0
Brooklyn	Bedford/Stuy/Crown Heights	108,547	642	645	591	595	0.99	3
Bronx	Pelham/Throgs Neck	90,366	487	493	539	546	0.99	6
Bronx	Fordham/Bronx Park	100,560	680	709	676	705	0.96	29
Bronx	Hunts Point/Mott Haven	63,600	435	454	684	714	0.96	19
Brooklyn	Williamsburg/Bushwick	78,742	405	427	514	542	0.95	22
Bronx	Highbridge/Morrisania	99,090	627	661	633	667	0.95	34
Queens	Long Island City/Astoria	50,238	237	253	472	503	0.94	16
Brooklyn	Bensonhurst/Bay Ridge	57,891	177	191	306	330	0.93	14
Bronx	Crotona/Tremont	98,999	630	681	636	687	0.93	51
Queens	Jamaica	89,240	417	456	467	511	0.91	39
Brooklyn	East New York	74,649	422	469	565	628	0.90	47
Queens	Bayside/Little Neck	15,474	46	51	297	332	0.89	5
Manhattan	Union Sq./Lower Eastside	62,613	176	197	281	315	0.89	21
Brooklyn	Borough Park	121,292	387	449	319	371	0.86	62
Queens	Fresh Meadows	25,066	78	91	311	362	0.86	13
Staten Island	Port Richmond	16,170	81	96	501	593	0.85	15
Queens	West Queens	146,000	650	774	445	530	0.84	124
Queens	Southwest Queens	84,363	342	414	405	491	0.83	72
Queens	Flushing/Clearview	90,483	296	407	327	449	0.73	111
Brooklyn	Sunset Park	64,418	95	164	147	255	0.58	69

Table 5. Medicaid Prevention Quality Indicator (PQI) Chronic Composite (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	48,568	46,746	1,266			(1,822)
NYC		2,416,600	32,687	29,917	1,353	1,238	1.09	(2,770)
HHC PPS Service Area		2,223,072	30,288	27,705	1,362	1,246	1.09	(2,583)
Bronx		523,724	10,063	8,775	1,921	1,676	1.15	(1,288)
Brooklyn		812,531	10,451	9,449	1,286	1,163	1.11	(1,002)
Manhattan		361,806	5,236	4,110	1,447	1,136	1.27	(1,126)
Queens		633,964	5,743	6,333	906	999	0.91	590
Staten Island		84,575	1,194	1,250	1,412	1,478	0.96	56
UHF Neighborhoods								
Manhattan	Chelsea/Clinton	28,901	543	366	1,879	1,267	1.48	(177)
Manhattan	Upper West Side	25,217	489	332	1,939	1,317	1.47	(157)
Brooklyn	Flatbush/E. Flatbush	89,157	1,273	903	1,428	1,013	1.41	(370)
Manhattan	Upper East Side	11,056	203	146	1,836	1,321	1.39	(57)
Manhattan	Central Harlem/Morningside Hgt	54,915	1,055	772	1,921	1,405	1.37	(283)
Brooklyn	Canarsie/Flatlands	47,966	655	484	1,366	1,009	1.35	(171)
Brooklyn	Bedford/Stuy/Crown Heights	108,547	2,349	1,752	2,164	1,614	1.34	(597)
Queens	Rockaway	34,482	331	253	960	733	1.31	(78)
Bronx	Northeast Bronx	49,494	1,075	821	2,172	1,659	1.31	(254)
Manhattan	Gramercy Park/Murray Hill	8,258	98	75	1,187	914	1.30	(23)
Manhattan	East Harlem	45,030	1,039	818	2,307	1,816	1.27	(221)
Manhattan	Washington Hgts/Inwood	103,609	1,229	973	1,186	939	1.26	(256)
Bronx	Kingsbridge/Riverdale	21,615	365	291	1,689	1,346	1.25	(74)
Brooklyn	Downtown/Heights/Slope	39,233	853	712	2,174	1,814	1.20	(141)
Bronx	Highbridge/Morrisania	99,090	1,976	1,690	1,994	1,706	1.17	(286)
Brooklyn	East New York	74,649	1,156	999	1,549	1,338	1.16	(157)
Queens	Southeast Queens	42,736	484	420	1,133	982	1.15	(64)
Bronx	Hunts Point/Mott Haven	63,600	1,362	1,195	2,142	1,879	1.14	(167)
Brooklyn	Williamsburg/Bushwick	78,742	1,446	1,279	1,836	1,625	1.13	(167)
Bronx	Crotona/Tremont	98,999	1,870	1,658	1,889	1,675	1.13	(212)
Bronx	Fordham/Bronx Park	100,560	1,856	1,685	1,846	1,676	1.10	(171)
Queens	Jamaica	89,240	1,161	1,057	1,301	1,184	1.10	(104)
Bronx	Pelham/Throgs Neck	90,366	1,559	1,434	1,725	1,587	1.09	(125)
Manhattan	Lower Manhattan	9,246	114	105	1,233	1,137	1.08	(9)
Staten Island	Stapleton/St. George	30,544	524	504	1,716	1,649	1.04	(20)
Brooklyn	Coney Island/Sheepshead Bay	100,684	1,215	1,214	1,207	1,206	1.00	(1)
Brooklyn	Greenpoint	29,461	232	244	787	828	0.95	12
Staten Island	Port Richmond	16,170	290	307	1,793	1,898	0.94	17
Queens	Ridgewood/Forest Hills	54,485	520	556	954	1,020	0.94	36
Queens	Long Island City/Astoria	50,238	556	605	1,107	1,204	0.92	49
Staten Island	Willowbrook	14,652	142	159	969	1,086	0.89	17
Manhattan	Union Sq./Lower Eastside	62,613	365	415	583	664	0.88	50
Staten Island	South Beach/Tottenville	23,209	238	281	1,025	1,209	0.85	43
Queens	Southwest Queens	84,363	840	998	996	1,183	0.84	158
Manhattan	Greenwich Village/Soho	11,977	78	93	651	778	0.84	15
Queens	West Queens	146,000	1,094	1,309	749	896	0.84	215
Queens	Fresh Meadows	25,066	179	234	714	933	0.77	55
Brooklyn	Bensonhurst/Bay Ridge	57,891	274	374	473	645	0.73	100
Queens	Bayside/Little Neck	15,474	75	106	485	684	0.71	31
Brooklyn	Borough Park	121,292	770	1,087	635	897	0.71	317
Queens	Flushing/Clearview	90,483	477	776	527	858	0.61	299
Brooklyn	Sunset Park	64,418	218	396	338	615	0.55	178

Table 6. Medicaid Prevention Quality Indicator (PQI) Respiratory Composite (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	18,654	17,902	486			(752)
NYC		2,416,600	12,244	11,306	507	468	1.08	(938)
HHC PPS Service Area		2,223,072	11,273	10,404	507	468	1.08	(869)
Bronx		523,724	4,116	3,578	786	683	1.15	(538)
Brooklyn		812,531	3,686	3,414	454	420	1.08	(272)
Manhattan		361,806	1,991	1,611	550	445	1.24	(380)
Queens		633,964	1,920	2,159	303	341	0.89	239
Staten Island		84,575	531	545	628	644	0.97	14
UHF Neighborhoods								
Manhattan	Chelsea/Clinton	28,901	212	151	734	522	1.40	(61)
Manhattan	Upper West Side	25,217	168	120	666	475	1.40	(48)
Manhattan	Upper East Side	11,056	87	64	787	577	1.36	(23)
Brooklyn	Flatbush/E. Flatbush	89,157	391	301	439	337	1.30	(90)
Manhattan	Central Harlem/Morningside Hgt	54,915	398	309	725	563	1.29	(89)
Brooklyn	Canarsie/Flatlands	47,966	190	148	396	308	1.29	(42)
Queens	Rockaway	34,482	104	81	302	236	1.28	(23)
Manhattan	Washington Hgts/Inwood	103,609	406	318	392	307	1.28	(88)
Bronx	Kingsbridge/Riverdale	21,615	143	115	662	531	1.25	(28)
Bronx	Northeast Bronx	49,494	324	260	655	526	1.24	(64)
Brooklyn	Bedford/Stuy/Crown Heights	108,547	855	687	788	633	1.24	(168)
Manhattan	Gramercy Park/Murray Hill	8,258	40	32	484	392	1.24	(8)
Manhattan	East Harlem	45,030	437	354	970	787	1.23	(83)
Bronx	Highbridge/Morrisania	99,090	786	670	793	676	1.17	(116)
Bronx	Crotona/Tremont	98,999	737	640	744	646	1.15	(97)
Bronx	Hunts Point/Mott Haven	63,600	649	564	1,020	887	1.15	(85)
Brooklyn	Downtown/Heights/Slope	39,233	340	297	867	758	1.14	(43)
Brooklyn	East New York	74,649	429	381	575	511	1.13	(48)
Bronx	Fordham/Bronx Park	100,560	810	723	805	719	1.12	(87)
Brooklyn	Williamsburg/Bushwick	78,742	596	535	757	680	1.11	(61)
Bronx	Pelham/Throgs Neck	90,366	667	607	738	671	1.10	(60)
Queens	Southeast Queens	42,736	144	138	337	322	1.05	(6)
Staten Island	Stapleton/St. George	30,544	234	225	766	737	1.04	(9)
Queens	Jamaica	89,240	356	343	399	385	1.04	(13)
Manhattan	Lower Manhattan	9,246	53	51	573	554	1.03	(2)
Brooklyn	Coney Island/Sheepshead Bay	100,684	404	391	401	388	1.03	(13)
Queens	Ridgewood/Forest Hills	54,485	190	194	349	355	0.98	4
Brooklyn	Greenpoint	29,461	68	70	231	236	0.98	2
Staten Island	Port Richmond	16,170	121	126	748	782	0.96	5
Queens	Long Island City/Astoria	50,238	237	253	472	504	0.94	16
Staten Island	Willowbrook	14,652	57	62	389	424	0.92	5
Staten Island	South Beach/Tottenville	23,209	119	131	513	564	0.91	12
Manhattan	Union Sq./Lower Eastside	62,613	144	166	230	265	0.87	22
Manhattan	Greenwich Village/Soho	11,977	33	38	276	319	0.86	5
Queens	West Queens	146,000	390	452	267	310	0.86	62
Queens	Southwest Queens	84,363	233	275	276	325	0.85	42
Queens	Fresh Meadows	25,066	65	84	259	337	0.77	19
Brooklyn	Bensonhurst/Bay Ridge	57,891	95	129	164	222	0.74	34
Brooklyn	Borough Park	121,292	245	342	202	282	0.72	97
Queens	Bayside/Little Neck	15,474	23	34	149	217	0.68	11
Queens	Flushing/Clearview	90,483	172	300	190	331	0.57	128
Brooklyn	Sunset Park	64,418	71	131	110	204	0.54	60

Table 7. Medicaid Beneficiaries with a Respiratory Clinical Risk Grouping Condition (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	558,700	9.6%	35.3%	47.3%
NYC		3,595,868	348,955	9.7%	36.0%	44.9%
HHC PPS Service Area		3,317,300	320,240	9.7%	35.8%	45.0%
Bronx		821,339	98,825	12.0%	38.4%	50.7%
Brooklyn		1,237,587	114,076	9.2%	35.8%	41.4%
Manhattan		485,833	52,419	10.8%	38.2%	48.7%
Queens		923,576	70,576	7.6%	31.0%	39.6%
Staten Island		127,533	13,059	10.2%	37.3%	45.5%
UHF Neighborhoods						
Queens	Rockaway	52,664	8,148	15.5%	43.8%	44.0%
Manhattan	East Harlem	65,008	9,304	14.3%	40.2%	55.6%
Bronx	Hunts Point/Mott Haven	102,165	14,577	14.3%	35.7%	50.4%
Manhattan	Chelsea/Clinton	33,022	4,432	13.4%	49.6%	51.2%
Manhattan	Upper West Side	31,499	3,860	12.3%	44.0%	48.4%
Bronx	Highbridge/Morrisania	157,071	19,125	12.2%	38.7%	52.1%
Bronx	Crotona/Tremont	158,601	18,698	11.8%	37.5%	53.4%
Manhattan	Central Harlem/Morningside Hgt	80,466	9,465	11.8%	39.9%	59.3%
Staten Island	Stapleton/St. George	46,686	5,435	11.6%	41.3%	48.6%
Brooklyn	Coney Island/Sheepshead Bay	136,160	15,846	11.6%	34.9%	25.3%
Bronx	Pelham/Throgs Neck	139,194	16,181	11.6%	36.4%	47.9%
Bronx	Fordham/Bronx Park	159,182	18,340	11.5%	39.1%	51.8%
Bronx	Kingsbridge/Riverdale	29,957	3,408	11.4%	43.7%	42.7%
Bronx	Northeast Bronx	75,167	8,496	11.3%	44.5%	48.9%
Brooklyn	Downtown/Heights/Slope	58,124	6,507	11.2%	42.1%	48.7%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	18,349	11.0%	41.3%	55.0%
Manhattan	Upper East Side	13,206	1,428	10.8%	49.6%	33.9%
Brooklyn	East New York	117,543	12,412	10.6%	36.8%	53.5%
Staten Island	Port Richmond	28,478	2,926	10.3%	33.9%	55.1%
Brooklyn	Williamsburg/Bushwick	128,474	13,152	10.2%	35.8%	52.3%
Manhattan	Gramercy Park/Murray Hill	9,839	994	10.1%	42.2%	52.0%
Manhattan	Union Sq./Lower Eastside	81,093	7,890	9.7%	33.9%	40.4%
Brooklyn	Canarsie/Flatlands	68,906	6,594	9.6%	39.2%	40.9%
Queens	Ridgewood/Forest Hills	76,645	7,060	9.2%	28.5%	32.7%
Brooklyn	Bensonhurst/Bay Ridge	80,271	7,316	9.1%	29.8%	23.7%
Staten Island	Willowbrook	20,550	1,871	9.1%	33.7%	34.2%
Manhattan	Washington Hgts/Inwood	143,590	12,911	9.0%	31.2%	44.1%
Staten Island	South Beach/Tottenville	31,799	2,827	8.9%	35.7%	37.4%
Manhattan	Lower Manhattan	12,054	1,006	8.3%	38.6%	45.7%
Queens	Jamaica	134,473	10,759	8.0%	34.2%	48.5%
Manhattan	Greenwich Village/Soho	14,273	1,129	7.9%	33.5%	25.2%
Queens	Fresh Meadows	34,868	2,713	7.8%	25.9%	33.7%
Brooklyn	Flatbush/E. Flatbush	135,688	10,306	7.6%	40.7%	47.8%
Queens	Long Island City/Astoria	71,850	5,436	7.6%	31.2%	39.6%
Brooklyn	Sunset Park	99,554	7,460	7.5%	25.5%	31.1%
Queens	Southwest Queens	124,306	8,733	7.0%	27.0%	42.1%
Queens	Flushing/Clearview	116,769	8,003	6.9%	30.6%	28.8%
Brooklyn	Borough Park	195,830	12,978	6.6%	29.9%	27.0%
Queens	West Queens	229,888	15,193	6.6%	26.2%	39.2%
Brooklyn	Greenpoint	49,127	3,114	6.3%	33.0%	39.2%
Queens	Southeast Queens	60,254	3,511	5.8%	33.4%	44.5%
Queens	Bayside/Little Neck	19,922	952	4.8%	25.6%	25.2%

Table 8. Medicaid Pediatric Quality Indicator (PDI) - Asthma (by Region)

		Medicaid Population	PDI Total (Observed)	PDI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		1,530,412	5,384	4,620	352			(764)
NYC		1,004,480	4,285	3,478	427	346	1.23	(807)
HHC PPS Service Area		932,852	4,128	3,339	443	358	1.24	(789)
Bronx		256,910	1,865	1,431	726	557	1.30	(434)
Brooklyn		359,367	1,278	1,037	356	288	1.23	(241)
Manhattan		105,098	490	390	466	371	1.26	(100)
Queens		245,735	565	542	230	221	1.04	(23)
Staten Island		37,370	87	77	233	207	1.12	(10)
UHF Neighborhoods								
Brooklyn	Bedford/Stuy/Crown Heights	50,231	335	232	667	461	1.45	(103)
Brooklyn	Flatbush/E. Flatbush	39,488	210	145	532	368	1.45	(65)
Brooklyn	Canarsie/Flatlands	17,733	86	60	485	338	1.44	(26)
Manhattan	Central Harlem/Morningside Hgt	21,988	181	130	823	592	1.39	(51)
Bronx	Northeast Bronx	22,079	154	111	697	504	1.38	(43)
Brooklyn	East New York	37,500	209	153	557	409	1.36	(56)
Bronx	Highbridge/Morrisania	50,006	371	276	742	552	1.34	(95)
Bronx	Hunts Point/Mott Haven	33,506	331	248	988	739	1.34	(83)
Queens	Rockaway	15,579	18	14	116	87	1.32	(4)
Bronx	Crotona/Tremont	51,462	334	253	649	492	1.32	(81)
Queens	Southeast Queens	15,602	49	38	314	241	1.31	(11)
Queens	Jamaica	38,430	106	81	276	212	1.30	(25)
Manhattan	East Harlem	17,446	123	96	705	550	1.28	(27)
Staten Island	Port Richmond	10,638	39	31	367	288	1.27	(8)
Bronx	Fordham/Bronx Park	50,209	318	250	633	498	1.27	(68)
Manhattan	Upper West Side	5,299	27	22	510	411	1.24	(5)
Staten Island	Stapleton/St. George	14,046	33	27	235	191	1.23	(6)
Bronx	Pelham/Throgs Neck	42,485	327	268	770	630	1.22	(59)
Manhattan	Gramercy Park/Murray Hill	1,174	7	6	596	489	1.22	(1)
Manhattan	Lower Manhattan	2,311	8	7	346	285	1.21	(1)
Bronx	Kingsbridge/Riverdale	7,163	30	25	419	348	1.20	(5)
Brooklyn	Williamsburg/Bushwick	42,669	220	183	516	429	1.20	(37)
Manhattan	Washington Hgts/Inwood	34,260	104	87	304	253	1.20	(17)
Queens	West Queens	70,698	139	125	197	177	1.11	(14)
Manhattan	Chelsea/Clinton	3,728	18	17	483	453	1.07	(1)
Brooklyn	Downtown/Heights/Slope	16,251	62	58	382	358	1.07	(4)
Queens	Long Island City/Astoria	18,601	39	39	210	212	0.99	0
Queens	Ridgewood/Forest Hills	18,533	53	54	286	291	0.98	1
Queens	Southwest Queens	34,540	102	106	295	307	0.96	4
Manhattan	Upper East Side	1,228	3	3	244	255	0.96	0
Brooklyn	Sunset Park	27,970	30	34	107	122	0.88	4
Brooklyn	Coney Island/Sheepshead Bay	30,047	39	45	130	150	0.86	6
Manhattan	Union Sq./Lower Eastside	15,773	17	21	108	131	0.82	4
Staten Island	Willowbrook	5,222	8	10	153	187	0.82	2
Queens	Fresh Meadows	8,245	16	22	194	261	0.74	6
Brooklyn	Bensonhurst/Bay Ridge	18,993	18	25	95	133	0.71	7
Brooklyn	Greenpoint	16,322	16	23	98	141	0.69	7
Staten Island	South Beach/Tottenville	7,464	7	10	94	136	0.69	3
Queens	Flushing/Clearview	21,610	35	51	162	235	0.69	16
Brooklyn	Borough Park	62,127	53	78	85	125	0.68	25
Queens	Bayside/Little Neck	3,856	8	13	207	340	0.61	5
Manhattan	Greenwich Village/Soho	1,839	1	2	54	122	0.45	1

Table 9. Medicaid Prevention Quality Indicator (PQI) - Asthma among Younger Adults (18-39 years) (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		1,770,018	2,410	2,195	136			(215)
NYC		1,077,387	1,733	1,441	161	134	1.20	(292)
HHC PPS Service Area		996,863	1,606	1,315	161	132	1.22	(291)
Bronx		250,692	733	544	292	217	1.35	(189)
Brooklyn		380,018	450	382	118	101	1.18	(68)
Manhattan		137,326	262	206	191	150	1.27	(56)
Queens		270,168	210	225	78	83	0.93	15
Staten Island		39,183	78	84	199	214	0.93	6
UHF Neighborhoods								
Bronx	Highbridge/Morrisania	48,324	164	117	339	243	1.40	(47)
Bronx	Hunts Point/Mott Haven	31,513	136	98	432	310	1.39	(38)
Bronx	Crotona/Tremont	48,921	109	78	223	160	1.39	(31)
Manhattan	Central Harlem/Morningside Hgt	25,225	68	49	270	196	1.38	(19)
Brooklyn	Canarsie/Flatlands	21,894	19	14	87	64	1.36	(5)
Brooklyn	Bedford/Stuy/Crown Heights	54,658	120	88	220	161	1.36	(32)
Bronx	Northeast Bronx	22,917	62	46	271	200	1.35	(16)
Brooklyn	Flatbush/E. Flatbush	42,840	45	34	105	78	1.34	(11)
Brooklyn	East New York	37,839	59	44	156	116	1.34	(15)
Manhattan	Washington Hgts/Inwood	41,435	54	41	130	98	1.33	(13)
Bronx	Fordham/Bronx Park	48,300	141	107	292	221	1.32	(34)
Brooklyn	Williamsburg/Bushwick	38,918	122	93	313	240	1.31	(29)
Queens	Rockaway	14,488	5	4	35	27	1.29	(1)
Manhattan	East Harlem	19,237	78	60	405	314	1.29	(18)
Bronx	Kingsbridge/Riverdale	8,019	9	7	112	87	1.29	(2)
Manhattan	Chelsea/Clinton	8,958	23	18	257	205	1.25	(5)
Bronx	Pelham/Throgs Neck	42,698	112	90	262	211	1.24	(22)
Manhattan	Upper West Side	7,971	19	16	238	202	1.18	(3)
Staten Island	Port Richmond	8,762	19	16	217	184	1.18	(3)
Queens	Jamaica	42,201	62	53	147	126	1.17	(9)
Queens	Southeast Queens	18,944	16	14	84	73	1.16	(2)
Brooklyn	Downtown/Heights/Slope	17,470	28	25	160	143	1.12	(3)
Manhattan	Gramercy Park/Murray Hill	2,524	3	3	119	109	1.09	(0)
Manhattan	Upper East Side	2,923	2	2	68	64	1.07	(0)
Staten Island	Stapleton/St. George	13,822	34	33	246	242	1.02	(1)
Queens	Ridgewood/Forest Hills	22,389	19	19	85	85	1.00	(0)
Manhattan	Lower Manhattan	3,041	4	4	132	139	0.95	0
Queens	Long Island City/Astoria	22,286	19	20	85	92	0.93	1
Queens	Southwest Queens	37,178	34	37	91	99	0.93	3
Queens	West Queens	64,017	29	32	45	50	0.91	3
Manhattan	Union Sq./Lower Eastside	22,093	9	11	41	48	0.85	2
Brooklyn	Greenpoint	14,913	4	5	27	33	0.81	1
Brooklyn	Coney Island/Sheepshead Bay	36,995	24	30	65	82	0.79	6
Staten Island	Willowbrook	6,187	13	17	210	278	0.76	4
Staten Island	South Beach/Tottenville	10,412	12	17	115	165	0.70	5
Queens	Fresh Meadows	10,127	11	16	109	156	0.70	5
Brooklyn	Sunset Park	32,551	5	8	15	23	0.65	3
Brooklyn	Bensonhurst/Bay Ridge	22,529	5	8	22	36	0.62	3
Brooklyn	Borough Park	59,256	19	33	32	56	0.58	14
Queens	Bayside/Little Neck	5,071	4	7	79	141	0.56	3
Queens	Flushing/Clearview	32,973	10	23	30	70	0.43	13
Manhattan	Greenwich Village/Soho	3,748	-	-	-	-	-	-

Table 10. Medicaid Prevention Quality Indicator (PQI) - Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults (40 years or older) (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		2,066,375	16,244	15,545	786	752	1.04	(699)
NYC		1,339,213	10,511	9,983	785	745	1.05	(528)
HHC PPS Service Area		1,226,209	9,667	9,158	788	747	1.06	(509)
Bronx		273,032	3,383	2,933	1,239	1,074	1.15	(450)
Brooklyn		432,513	3,236	2,986	748	690	1.08	(250)
Manhattan		224,480	1,729	1,572	770	700	1.10	(157)
Queens		363,796	1,710	2,032	470	559	0.84	322
Staten Island		45,392	453	459	998	1,011	0.99	6
UHF Neighborhoods								
Brooklyn	Flatbush/E. Flatbush	46,317	346	260	747	561	1.33	(86)
Brooklyn	Bedford/Stuy/Crown Heights	53,889	735	563	1,364	1,045	1.31	(172)
Manhattan	Central Harlem/Morningside Hgt	29,690	330	259	1,111	874	1.27	(71)
Bronx	Northeast Bronx	26,577	262	211	986	793	1.24	(51)
Brooklyn	Canarsie/Flatlands	26,072	171	138	656	531	1.24	(33)
Bronx	Highbridge/Morrisania	50,766	622	524	1,225	1,032	1.19	(98)
Queens	Rockaway	19,994	99	84	495	419	1.18	(15)
Bronx	Crotona/Tremont	50,078	628	534	1,254	1,067	1.17	(94)
Brooklyn	East New York	36,810	370	315	1,005	856	1.17	(55)
Bronx	Hunts Point/Mott Haven	32,087	513	437	1,599	1,363	1.17	(76)
Manhattan	Washington Hgts/Inwood	62,174	352	301	566	485	1.17	(51)
Manhattan	Upper West Side	17,246	149	128	864	741	1.17	(21)
Manhattan	East Harlem	25,793	359	308	1,392	1,195	1.16	(51)
Brooklyn	Williamsburg/Bushwick	39,824	474	415	1,190	1,043	1.14	(59)
Bronx	Fordham/Bronx Park	52,260	669	596	1,280	1,140	1.12	(73)
Manhattan	Chelsea/Clinton	19,943	189	168	948	845	1.12	(21)
Brooklyn	Downtown/Heights/Slope	21,763	312	280	1,434	1,285	1.12	(32)
Bronx	Pelham/Throgs Neck	47,668	555	507	1,164	1,064	1.09	(48)
Brooklyn	Greenpoint	14,548	64	59	440	403	1.09	(5)
Bronx	Kingsbridge/Riverdale	13,596	134	123	986	905	1.09	(11)
Manhattan	Upper East Side	8,133	85	81	1,045	996	1.05	(4)
Staten Island	Port Richmond	7,408	102	97	1,377	1,313	1.05	(5)
Queens	Jamaica	47,039	294	283	625	602	1.04	(11)
Manhattan	Gramercy Park/Murray Hill	5,734	37	36	645	629	1.03	(1)
Staten Island	Stapleton/St. George	16,722	200	195	1,196	1,168	1.02	(5)
Queens	Southeast Queens	23,792	128	132	538	554	0.97	4
Queens	Ridgewood/Forest Hills	32,096	171	182	533	568	0.94	11
Brooklyn	Coney Island/Sheepshead Bay	63,689	380	410	597	644	0.93	30
Staten Island	South Beach/Tottenville	12,797	107	117	836	912	0.92	10
Queens	Long Island City/Astoria	27,952	218	239	780	856	0.91	21
Staten Island	Willowbrook	8,465	44	50	520	587	0.89	6
Manhattan	Lower Manhattan	6,205	49	56	790	902	0.88	7
Queens	West Queens	81,983	361	437	440	533	0.83	76
Queens	Southwest Queens	47,185	199	247	422	523	0.81	48
Brooklyn	Borough Park	62,036	226	297	364	479	0.76	71
Manhattan	Union Sq./Lower Eastside	40,520	135	179	333	443	0.75	44
Manhattan	Greenwich Village/Soho	8,229	33	46	401	556	0.72	13
Queens	Fresh Meadows	14,939	54	75	361	505	0.72	21
Brooklyn	Bensonhurst/Bay Ridge	35,362	90	133	255	376	0.68	43
Queens	Bayside/Little Neck	10,403	19	33	183	314	0.58	14
Brooklyn	Sunset Park	31,867	66	115	207	360	0.57	49
Queens	Flushing/Clearview	57,510	162	315	282	548	0.51	153

Table 11. Medicaid Beneficiaries with an Asthma Condition Diagnosis (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	375,170	6.4%	26.8%	50.3%
NYC		3,595,868	240,241	6.7%	27.6%	48.3%
HHC PPS Service Area		3,317,300	222,172	6.7%	27.5%	48.3%
Bronx		821,339	73,135	8.9%	29.9%	52.4%
Brooklyn		1,237,587	74,590	6.0%	27.2%	45.8%
Manhattan		485,833	36,699	7.6%	30.2%	52.0%
Queens		923,576	47,526	5.1%	22.4%	43.0%
Staten Island		127,533	8,291	6.5%	28.1%	48.6%
UHF Neighborhoods						
Bronx	Hunts Point/Mott Haven	102,165	11,506	11.3%	28.4%	50.7%
Manhattan	East Harlem	65,008	6,959	10.7%	32.3%	58.5%
Bronx	Highbridge/Morrisania	157,071	14,265	9.1%	29.9%	53.6%
Bronx	Crotona/Tremont	158,601	14,384	9.1%	30.0%	54.3%
Manhattan	Central Harlem/Morningside Hgt	80,466	7,004	8.7%	32.3%	61.5%
Queens	Rockaway	52,664	4,547	8.6%	29.8%	50.8%
Bronx	Pelham/Throgs Neck	139,194	12,006	8.6%	28.1%	49.3%
Bronx	Fordham/Bronx Park	159,182	13,254	8.3%	30.7%	53.6%
Manhattan	Chelsea/Clinton	33,022	2,712	8.2%	40.9%	53.8%
Manhattan	Upper West Side	31,499	2,511	8.0%	34.5%	52.6%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	13,314	8.0%	32.2%	57.5%
Brooklyn	East New York	117,543	9,259	7.9%	28.9%	55.9%
Brooklyn	Williamsburg/Bushwick	128,474	9,968	7.8%	28.9%	53.9%
Brooklyn	Downtown/Heights/Slope	58,124	4,438	7.6%	33.7%	52.1%
Staten Island	Port Richmond	28,478	2,142	7.5%	28.1%	56.8%
Bronx	Northeast Bronx	75,167	5,622	7.5%	33.9%	53.9%
Staten Island	Stapleton/St. George	46,686	3,304	7.1%	30.6%	51.9%
Bronx	Kingsbridge/Riverdale	29,957	2,098	7.0%	32.8%	47.4%
Manhattan	Gramercy Park/Murray Hill	9,839	662	6.7%	34.4%	56.0%
Manhattan	Union Sq./Lower Eastside	81,093	5,343	6.6%	27.6%	44.1%
Manhattan	Washington Hgts/Inwood	143,590	9,273	6.5%	23.2%	46.1%
Manhattan	Lower Manhattan	12,054	727	6.0%	35.8%	51.4%
Brooklyn	Coney Island/Sheepshead Bay	136,160	7,899	5.8%	24.7%	31.3%
Queens	Jamaica	134,473	7,760	5.8%	25.6%	50.7%
Brooklyn	Canarsie/Flatlands	68,906	3,968	5.8%	28.2%	46.1%
Manhattan	Upper East Side	13,206	757	5.7%	35.5%	45.4%
Queens	Ridgewood/Forest Hills	76,645	4,392	5.7%	22.4%	37.2%
Staten Island	Willowbrook	20,550	1,118	5.4%	23.3%	37.7%
Staten Island	South Beach/Tottenville	31,799	1,727	5.4%	26.2%	39.3%
Queens	Long Island City/Astoria	71,850	3,830	5.3%	23.3%	42.6%
Manhattan	Greenwich Village/Soho	14,273	751	5.3%	28.8%	28.4%
Queens	Southwest Queens	124,306	6,469	5.2%	20.7%	43.7%
Queens	Fresh Meadows	34,868	1,807	5.2%	20.8%	36.9%
Brooklyn	Bensonhurst/Bay Ridge	80,271	4,157	5.2%	19.7%	25.3%
Brooklyn	Flatbush/E. Flatbush	135,688	6,962	5.1%	30.3%	50.3%
Brooklyn	Sunset Park	99,554	5,057	5.1%	19.2%	33.8%
Queens	West Queens	229,888	10,636	4.6%	18.2%	42.7%
Queens	Southeast Queens	60,254	2,650	4.4%	27.5%	46.1%
Brooklyn	Greenpoint	49,127	2,091	4.3%	25.5%	43.3%
Queens	Flushing/Clearview	116,769	4,706	4.0%	19.4%	31.1%
Brooklyn	Borough Park	195,830	7,435	3.8%	19.2%	29.6%
Queens	Bayside/Little Neck	19,922	661	3.3%	19.2%	27.5%

Table 12. Medicaid Prevention Quality Indicator (PQI) Circulatory Composite (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	15,795	15,370	412			(425)
NYC		2,416,600	11,140	10,185	461	421	1.09	(955)
HHC PPS Service Area		2,223,072	10,383	9,504	467	428	1.09	(879)
Bronx		523,724	3,173	2,873	606	549	1.10	(300)
Brooklyn		812,531	3,694	3,316	455	408	1.11	(378)
Manhattan		361,806	1,759	1,312	486	363	1.34	(447)
Queens		633,964	2,195	2,339	346	369	0.94	144
Staten Island		84,575	319	344	377	407	0.93	25
UHF Neighborhoods								
Manhattan	Upper West Side	25,217	178	107	706	424	1.67	(71)
Manhattan	Upper East Side	11,056	60	37	543	338	1.60	(23)
Manhattan	Chelsea/Clinton	28,901	165	105	571	363	1.57	(60)
Brooklyn	Flatbush/E. Flatbush	89,157	478	315	536	354	1.52	(163)
Brooklyn	Canarsie/Flatlands	47,966	254	174	530	362	1.46	(80)
Manhattan	Central Harlem/Morningside Hgt	54,915	353	248	643	451	1.42	(105)
Manhattan	Gramercy Park/Murray Hill	8,258	36	26	436	310	1.40	(10)
Brooklyn	Bedford/Stuy/Crown Heights	108,547	743	537	684	495	1.38	(206)
Bronx	Northeast Bronx	49,494	367	266	742	538	1.38	(101)
Queens	Rockaway	34,482	109	80	316	231	1.37	(29)
Bronx	Kingsbridge/Riverdale	21,615	117	87	541	403	1.34	(30)
Manhattan	East Harlem	45,030	303	231	673	513	1.31	(72)
Brooklyn	Downtown/Heights/Slope	39,233	262	206	668	525	1.27	(56)
Manhattan	Washington Hgts/Inwood	103,609	480	378	463	365	1.27	(102)
Queens	Southeast Queens	42,736	223	178	522	416	1.25	(45)
Manhattan	Lower Manhattan	9,246	39	34	422	365	1.16	(5)
Queens	Jamaica	89,240	446	386	500	432	1.16	(60)
Brooklyn	East New York	74,649	346	307	464	412	1.13	(39)
Bronx	Highbridge/Morrisania	99,090	641	576	647	581	1.11	(65)
Brooklyn	Williamsburg/Bushwick	78,742	445	408	565	518	1.09	(37)
Bronx	Hunts Point/Mott Haven	63,600	367	341	577	537	1.07	(26)
Brooklyn	Coney Island/Sheepshead Bay	100,684	524	488	520	485	1.07	(36)
Bronx	Pelham/Throgs Neck	90,366	488	462	540	511	1.06	(26)
Staten Island	Stapleton/St. George	30,544	131	125	429	408	1.05	(6)
Bronx	Crotona/Tremont	98,999	612	584	618	590	1.05	(28)
Bronx	Fordham/Bronx Park	100,560	581	557	578	554	1.04	(24)
Manhattan	Union Sq./Lower Eastside	62,613	126	129	201	205	0.98	3
Queens	Ridgewood/Forest Hills	54,485	188	201	345	370	0.93	13
Staten Island	Willowbrook	14,652	47	51	321	351	0.91	4
Queens	Long Island City/Astoria	50,238	174	191	346	380	0.91	17
Brooklyn	Greenpoint	29,461	91	100	309	340	0.91	9
Manhattan	Greenwich Village/Soho	11,977	14	16	117	132	0.89	2
Staten Island	Port Richmond	16,170	76	88	470	544	0.86	12
Queens	Southwest Queens	84,363	379	453	449	537	0.84	74
Queens	West Queens	146,000	378	459	259	314	0.82	81
Queens	Bayside/Little Neck	15,474	31	38	200	243	0.82	7
Queens	Fresh Meadows	25,066	50	61	199	242	0.82	11
Staten Island	South Beach/Tottenville	23,209	65	80	280	346	0.81	15
Brooklyn	Bensonhurst/Bay Ridge	57,891	120	152	207	263	0.79	32
Queens	Flushing/Clearview	90,483	201	282	222	312	0.71	81
Brooklyn	Borough Park	121,292	357	501	294	413	0.71	144
Brooklyn	Sunset Park	64,418	69	125	107	195	0.55	56

Table 13. Medicaid Beneficiaries with a Cardiovascular Clinical Risk Grouping Condition (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	1,543,129	26.4%	40.0%	31.3%
NYC		3,595,868	1,085,013	30.2%	40.4%	28.1%
HHC PPS Service Area		3,317,300	996,381	30.0%	40.3%	28.0%
Bronx		821,339	221,109	26.9%	45.2%	35.3%
Brooklyn		1,237,587	393,763	31.8%	40.5%	25.3%
Manhattan		485,833	162,980	33.5%	41.6%	31.5%
Queens		923,576	271,388	29.4%	35.6%	23.9%
Staten Island		127,533	35,773	28.0%	42.4%	30.7%
UHF Neighborhoods						
Brooklyn	Coney Island/Sheepshead Bay	136,160	78,135	57.4%	37.0%	14.4%
Queens	Rockaway	52,664	23,924	45.4%	47.7%	30.1%
Manhattan	Upper East Side	13,206	5,741	43.5%	46.0%	24.2%
Bronx	Kingsbridge/Riverdale	29,957	12,509	41.8%	47.9%	26.7%
Manhattan	Upper West Side	31,499	13,133	41.7%	48.0%	33.2%
Brooklyn	Bensonhurst/Bay Ridge	80,271	31,357	39.1%	32.8%	15.3%
Brooklyn	Canarsie/Flatlands	68,906	26,818	38.9%	43.2%	25.2%
Manhattan	Chelsea/Clinton	33,022	12,615	38.2%	48.2%	39.0%
Queens	Ridgewood/Forest Hills	76,645	27,747	36.2%	35.5%	20.2%
Manhattan	Union Sq./Lower Eastside	81,093	28,702	35.4%	34.2%	22.8%
Brooklyn	Downtown/Heights/Slope	58,124	19,812	34.1%	50.7%	34.6%
Manhattan	Greenwich Village/Soho	14,273	4,788	33.5%	30.8%	15.5%
Manhattan	Washington Hgts/Inwood	143,590	47,415	33.0%	37.4%	28.1%
Bronx	Northeast Bronx	75,167	24,796	33.0%	51.3%	33.1%
Manhattan	East Harlem	65,008	21,434	33.0%	50.2%	40.2%
Staten Island	Willowbrook	20,550	6,763	32.9%	39.2%	22.9%
Manhattan	Lower Manhattan	12,054	3,951	32.8%	34.6%	25.5%
Queens	Flushing/Clearview	116,769	37,374	32.0%	29.0%	16.6%
Staten Island	Stapleton/St. George	46,686	14,414	30.9%	46.4%	34.2%
Queens	Fresh Meadows	34,868	10,718	30.7%	28.7%	19.9%
Queens	Bayside/Little Neck	19,922	5,924	29.7%	24.7%	13.2%
Brooklyn	Borough Park	195,830	57,387	29.3%	34.5%	17.5%
Staten Island	South Beach/Tottenville	31,799	9,293	29.2%	38.0%	25.4%
Queens	Jamaica	134,473	38,881	28.9%	41.2%	30.8%
Queens	Southwest Queens	124,306	35,914	28.9%	35.5%	25.9%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	47,741	28.6%	49.0%	37.7%
Queens	Long Island City/Astoria	71,850	20,511	28.5%	37.5%	26.7%
Manhattan	Gramercy Park/Murray Hill	9,839	2,745	27.9%	42.1%	34.5%
Manhattan	Central Harlem/Morningside Hgt	80,466	22,268	27.7%	46.5%	42.5%
Brooklyn	Flatbush/E. Flatbush	135,688	37,531	27.7%	42.7%	30.5%
Bronx	Pelham/Throgs Neck	139,194	37,536	27.0%	43.1%	33.2%
Brooklyn	East New York	117,543	31,027	26.4%	44.8%	36.4%
Bronx	Highbridge/Morrisania	157,071	40,636	25.9%	44.4%	36.9%
Bronx	Fordham/Bronx Park	159,182	40,823	25.6%	44.8%	35.2%
Queens	Southeast Queens	60,254	15,411	25.6%	37.4%	28.7%
Brooklyn	Williamsburg/Bushwick	128,474	32,841	25.6%	45.0%	37.0%
Bronx	Crotona/Tremont	158,601	40,131	25.3%	44.0%	37.9%
Bronx	Hunts Point/Mott Haven	102,165	24,678	24.2%	44.5%	38.0%
Queens	West Queens	229,888	54,707	23.8%	32.1%	21.3%
Brooklyn	Greenpoint	49,127	10,796	22.0%	40.5%	25.0%
Brooklyn	Sunset Park	99,554	20,214	20.3%	31.7%	21.2%
Staten Island	Port Richmond	28,478	5,303	18.6%	43.2%	40.3%

Table 14. Medicaid Prevention Quality Indicator (PQI) - Hypertension (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	3,938	3,720	103			(218)
NYC		2,416,600	3,000	2,650	124	110	1.13	(350)
HHC PPS Service Area		2,223,072	2,752	2,407	124	108	1.14	(345)
Bronx		523,724	969	797	185	152	1.22	(172)
Brooklyn		812,531	862	775	106	95	1.11	(87)
Manhattan		361,806	475	343	131	95	1.39	(132)
Queens		633,964	566	588	89	93	0.96	22
Staten Island		84,575	128	147	151	173	0.87	19
UHF Neighborhoods								
Brooklyn	Flatbush/E. Flatbush	89,157	113	69	127	78	1.63	(44)
Manhattan	Upper West Side	25,217	42	27	167	105	1.58	(15)
Manhattan	Central Harlem/Morningside Hgt	54,915	105	68	191	124	1.54	(37)
Brooklyn	Canarsie/Flatlands	47,966	62	40	129	84	1.54	(22)
Manhattan	Chelsea/Clinton	28,901	50	33	173	113	1.54	(17)
Brooklyn	Bedford/Stuy/Crown Heights	108,547	154	101	142	93	1.52	(53)
Bronx	Northeast Bronx	49,494	118	81	238	164	1.45	(37)
Manhattan	Upper East Side	11,056	18	13	163	117	1.39	(5)
Manhattan	East Harlem	45,030	74	53	164	118	1.39	(21)
Queens	Southeast Queens	42,736	64	47	150	111	1.35	(17)
Manhattan	Washington Hgts/Inwood	103,609	128	95	124	92	1.34	(33)
Brooklyn	Downtown/Heights/Slope	39,233	55	41	140	105	1.33	(14)
Manhattan	Gramercy Park/Murray Hill	8,258	10	8	121	91	1.33	(2)
Queens	Rockaway	34,482	21	16	61	46	1.32	(5)
Bronx	Kingsbridge/Riverdale	21,615	25	19	116	89	1.30	(6)
Queens	Jamaica	89,240	103	82	115	92	1.25	(21)
Bronx	Highbridge/Morrisania	99,090	216	173	218	175	1.25	(43)
Brooklyn	East New York	74,649	79	63	106	85	1.25	(16)
Brooklyn	Williamsburg/Bushwick	78,742	108	90	137	114	1.21	(18)
Bronx	Hunts Point/Mott Haven	63,600	108	90	170	141	1.20	(18)
Manhattan	Lower Manhattan	9,246	7	6	76	64	1.18	(1)
Bronx	Crotona/Tremont	98,999	203	172	205	174	1.18	(31)
Bronx	Fordham/Bronx Park	100,560	188	164	187	163	1.14	(24)
Bronx	Pelham/Throgs Neck	90,366	111	97	123	108	1.14	(14)
Manhattan	Union Sq./Lower Eastside	62,613	34	33	54	53	1.02	(1)
Staten Island	Stapleton/St. George	30,544	45	45	147	147	1.01	(0)
Staten Island	Port Richmond	16,170	38	41	235	251	0.93	3
Queens	Long Island City/Astoria	50,238	42	45	84	90	0.93	3
Brooklyn	Coney Island/Sheepshead Bay	100,684	157	174	156	173	0.90	17
Queens	Southwest Queens	84,363	80	89	95	106	0.90	9
Brooklyn	Greenpoint	29,461	14	16	48	54	0.89	2
Queens	Ridgewood/Forest Hills	54,485	50	56	92	104	0.89	6
Queens	West Queens	146,000	132	153	90	105	0.86	21
Queens	Fresh Meadows	25,066	12	15	48	59	0.81	3
Staten Island	Willowbrook	14,652	17	21	116	143	0.81	4
Manhattan	Greenwich Village/Soho	11,977	5	6	42	52	0.81	1
Queens	Bayside/Little Neck	15,474	7	9	45	57	0.79	2
Brooklyn	Bensonhurst/Bay Ridge	57,891	21	29	36	51	0.71	8
Queens	Flushing/Clearview	90,483	52	73	57	81	0.71	21
Staten Island	South Beach/Tottenville	23,209	28	40	121	173	0.70	12
Brooklyn	Borough Park	121,292	82	123	68	101	0.67	41
Brooklyn	Sunset Park	64,418	15	26	23	41	0.57	11

Table 15. Medicaid Beneficiaries with a Hypertension Condition Diagnosis (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	846,221	14.5%	23.1%	30.2%
NYC		3,595,868	564,716	15.7%	22.0%	26.4%
HHC PPS Service Area		3,317,300	518,323	15.6%	21.8%	26.3%
Bronx		821,339	120,257	14.6%	25.3%	33.4%
Brooklyn		1,237,587	190,195	15.4%	21.8%	24.1%
Manhattan		485,833	87,767	18.1%	23.4%	29.6%
Queens		923,576	148,171	16.0%	18.6%	21.6%
Staten Island		127,533	18,326	14.4%	24.4%	28.4%
UHF Neighborhoods						
Brooklyn	Coney Island/Sheepshead Bay	136,160	31,992	23.5%	20.2%	13.7%
Manhattan	Upper East Side	13,206	2,872	21.7%	29.4%	25.0%
Queens	Rockaway	52,664	10,886	20.7%	30.5%	29.2%
Manhattan	Upper West Side	31,499	6,433	20.4%	28.4%	32.8%
Manhattan	Chelsea/Clinton	33,022	6,666	20.2%	30.7%	36.7%
Bronx	Kingsbridge/Riverdale	29,957	5,811	19.4%	27.9%	26.5%
Manhattan	Washington Hgts/Inwood	143,590	27,107	18.9%	18.5%	26.0%
Manhattan	Lower Manhattan	12,054	2,232	18.5%	23.9%	26.7%
Brooklyn	Bensonhurst/Bay Ridge	80,271	14,800	18.4%	16.3%	13.6%
Queens	Bayside/Little Neck	19,922	3,667	18.4%	13.5%	11.4%
Manhattan	Greenwich Village/Soho	14,273	2,598	18.2%	19.0%	15.2%
Brooklyn	Canarsie/Flatlands	68,906	12,519	18.2%	23.3%	23.9%
Manhattan	Union Sq./Lower Eastside	81,093	14,665	18.1%	18.8%	20.2%
Queens	Flushing/Clearview	116,769	20,930	17.9%	14.6%	14.0%
Queens	Ridgewood/Forest Hills	76,645	13,450	17.5%	19.7%	18.6%
Queens	Fresh Meadows	34,868	6,033	17.3%	15.1%	17.9%
Manhattan	Gramercy Park/Murray Hill	9,839	1,658	16.9%	28.9%	34.3%
Manhattan	East Harlem	65,008	10,841	16.7%	29.1%	38.0%
Staten Island	Willowbrook	20,550	3,301	16.1%	20.3%	19.8%
Bronx	Northeast Bronx	75,167	12,070	16.1%	29.3%	32.2%
Queens	Southwest Queens	124,306	19,839	16.0%	17.2%	23.0%
Brooklyn	Downtown/Heights/Slope	58,124	9,189	15.8%	29.4%	32.7%
Queens	Long Island City/Astoria	71,850	11,175	15.6%	19.5%	24.9%
Manhattan	Central Harlem/Morningside Hgt	80,466	12,507	15.5%	26.4%	39.8%
Queens	Jamaica	134,473	20,884	15.5%	21.3%	28.7%
Staten Island	South Beach/Tottenville	31,799	4,876	15.3%	22.1%	24.1%
Staten Island	Stapleton/St. George	46,686	7,066	15.1%	27.0%	31.7%
Queens	Southeast Queens	60,254	9,077	15.1%	19.7%	26.0%
Brooklyn	Flatbush/E. Flatbush	135,688	20,204	14.9%	22.6%	28.0%
Bronx	Pelham/Throgs Neck	139,194	20,209	14.5%	22.8%	31.7%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	24,227	14.5%	27.3%	35.6%
Bronx	Highbridge/Morrisania	157,071	22,764	14.5%	25.1%	34.3%
Bronx	Crotona/Tremont	158,601	22,652	14.3%	25.3%	34.7%
Bronx	Fordham/Bronx Park	159,182	22,418	14.1%	24.6%	33.4%
Bronx	Hunts Point/Mott Haven	102,165	14,333	14.0%	26.1%	36.0%
Brooklyn	East New York	117,543	16,479	14.0%	24.4%	34.2%
Queens	West Queens	229,888	31,953	13.9%	16.3%	19.1%
Brooklyn	Borough Park	195,830	26,819	13.7%	17.0%	15.4%
Brooklyn	Williamsburg/Bushwick	128,474	16,906	13.2%	25.1%	35.5%
Brooklyn	Sunset Park	99,554	11,574	11.6%	15.1%	17.1%
Brooklyn	Greenpoint	49,127	5,382	11.0%	20.6%	24.0%
Staten Island	Port Richmond	28,478	3,083	10.8%	26.7%	36.6%

Table 16. Medicaid Prevention Quality Indicator (PQI) - Heart Failure (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	10,902	10,697	284			(205)
NYC		2,416,600	7,441	6,908	308	286	1.08	(533)
HHC PPS Service Area		2,223,072	6,978	6,511	314	293	1.07	(467)
Bronx		523,724	2,013	1,897	384	362	1.06	(116)
Brooklyn		812,531	2,598	2,350	320	289	1.11	(248)
Manhattan		361,806	1,190	896	329	248	1.33	(294)
Queens		633,964	1,470	1,588	232	251	0.93	118
Staten Island		84,575	170	177	201	210	0.96	7
UHF Neighborhoods								
Manhattan	Upper East Side	11,056	39	22	353	203	1.74	(17)
Manhattan	Upper West Side	25,217	130	75	516	299	1.73	(55)
Manhattan	Chelsea/Clinton	28,901	107	67	370	231	1.60	(40)
Brooklyn	Flatbush/E. Flatbush	89,157	334	224	375	251	1.49	(110)
Brooklyn	Canarsie/Flatlands	47,966	184	126	384	263	1.46	(58)
Manhattan	Gramercy Park/Murray Hill	8,258	21	15	254	178	1.43	(6)
Queens	Rockaway	34,482	79	57	229	165	1.39	(22)
Manhattan	Central Harlem/Morningside Hgt	54,915	230	166	419	302	1.38	(64)
Bronx	Kingsbridge/Riverdale	21,615	89	65	412	300	1.37	(24)
Bronx	Northeast Bronx	49,494	236	173	477	350	1.36	(63)
Brooklyn	Bedford/Stuy/Crown Heights	108,547	539	402	497	371	1.34	(137)
Manhattan	East Harlem	45,030	209	163	464	361	1.28	(46)
Brooklyn	Downtown/Heights/Slope	39,233	185	147	472	374	1.26	(38)
Manhattan	Washington Hgts/Inwood	103,609	330	266	319	257	1.24	(64)
Queens	Southeast Queens	42,736	148	122	346	284	1.22	(26)
Manhattan	Lower Manhattan	9,246	30	26	324	277	1.17	(4)
Brooklyn	Coney Island/Sheepshead Bay	100,684	348	305	346	303	1.14	(43)
Queens	Jamaica	89,240	318	283	356	317	1.12	(35)
Brooklyn	East New York	74,649	237	220	317	294	1.08	(17)
Staten Island	Stapleton/St. George	30,544	80	75	262	244	1.07	(5)
Bronx	Highbridge/Morrisania	99,090	375	355	378	358	1.06	(20)
Brooklyn	Williamsburg/Bushwick	78,742	299	286	380	364	1.04	(13)
Bronx	Pelham/Throgs Neck	90,366	341	333	377	369	1.02	(8)
Bronx	Hunts Point/Mott Haven	63,600	237	232	373	366	1.02	(5)
Bronx	Fordham/Bronx Park	100,560	362	362	360	360	1.00	(0)
Bronx	Crotona/Tremont	98,999	373	377	377	381	0.99	4
Manhattan	Union Sq./Lower Eastside	62,613	84	87	134	140	0.96	3
Queens	Ridgewood/Forest Hills	54,485	113	118	207	217	0.96	5
Staten Island	Willowbrook	14,652	25	26	171	179	0.95	1
Manhattan	Greenwich Village/Soho	11,977	7	7	58	61	0.95	0
Brooklyn	Greenpoint	29,461	68	74	231	252	0.92	6
Queens	Long Island City/Astoria	50,238	117	131	233	260	0.90	14
Staten Island	South Beach/Tottenville	23,209	34	40	146	170	0.86	6
Staten Island	Port Richmond	16,170	31	37	192	228	0.84	6
Queens	Bayside/Little Neck	15,474	22	26	142	170	0.84	4
Queens	Fresh Meadows	25,066	32	39	128	156	0.82	7
Brooklyn	Bensonhurst/Bay Ridge	57,891	95	117	164	202	0.81	22
Queens	Southwest Queens	84,363	278	346	330	410	0.80	68
Queens	West Queens	146,000	216	270	148	185	0.80	54
Brooklyn	Borough Park	121,292	260	358	214	295	0.73	98
Queens	Flushing/Clearview	90,483	135	188	149	208	0.72	53
Brooklyn	Sunset Park	64,418	48	91	75	140	0.53	43

Table 17. Medicaid Beneficiaries with a Congestive Heart Failure Condition Diagnosis (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence (Per 100,000)	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	90,070	1,543	61.2%	30.2%
NYC		3,595,868	62,821	1,747	61.6%	28.1%
HHC PPS Service Area		3,317,300	57,786	1,742	61.5%	28.2%
Bronx		821,339	13,258	1,614	67.7%	33.6%
Brooklyn		1,237,587	25,180	2,035	58.0%	24.6%
Manhattan		485,833	8,964	1,845	65.0%	33.0%
Queens		923,576	13,625	1,475	60.1%	26.0%
Staten Island		127,533	1,794	1,407	63.2%	28.2%
UHF Neighborhoods						
Brooklyn	Coney Island/Sheepshead Bay	136,160	6,063	4,453	48.0%	13.4%
Bronx	Kingsbridge/Riverdale	29,957	1,109	3,702	60.7%	23.0%
Manhattan	Upper East Side	13,206	464	3,514	61.9%	17.2%
Queens	Rockaway	52,664	1,795	3,408	65.2%	29.1%
Manhattan	Upper West Side	31,499	941	2,987	64.3%	29.9%
Bronx	Northeast Bronx	75,167	2,033	2,705	67.4%	30.3%
Brooklyn	Canarsie/Flatlands	68,906	1,859	2,698	60.3%	24.3%
Manhattan	Chelsea/Clinton	33,022	832	2,520	69.2%	38.9%
Brooklyn	Downtown/Heights/Slope	58,124	1,333	2,293	68.5%	32.7%
Brooklyn	Bensonhurst/Bay Ridge	80,271	1,829	2,279	51.8%	16.2%
Queens	Ridgewood/Forest Hills	76,645	1,703	2,222	52.1%	20.7%
Manhattan	East Harlem	65,008	1,374	2,114	68.0%	40.5%
Brooklyn	Borough Park	195,830	3,580	1,828	51.3%	17.6%
Staten Island	Willowbrook	20,550	368	1,791	56.3%	20.4%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	2,935	1,756	68.0%	36.4%
Queens	Jamaica	134,473	2,255	1,677	62.4%	30.7%
Brooklyn	Flatbush/E. Flatbush	135,688	2,269	1,672	64.8%	29.9%
Brooklyn	Williamsburg/Bushwick	128,474	2,130	1,658	65.4%	38.2%
Manhattan	Central Harlem/Morningside Hgt	80,466	1,290	1,603	69.5%	43.2%
Bronx	Pelham/Throgs Neck	139,194	2,230	1,602	64.4%	31.4%
Staten Island	Stapleton/St. George	46,686	736	1,576	64.3%	31.4%
Manhattan	Greenwich Village/Soho	14,273	224	1,569	57.1%	16.1%
Manhattan	Washington Hgts/Inwood	143,590	2,245	1,563	64.8%	29.0%
Queens	Bayside/Little Neck	19,922	310	1,556	50.3%	14.8%
Manhattan	Lower Manhattan	12,054	187	1,551	56.1%	30.5%
Manhattan	Union Sq./Lower Eastside	81,093	1,255	1,548	59.3%	28.8%
Manhattan	Gramercy Park/Murray Hill	9,839	152	1,545	63.2%	36.8%
Queens	Fresh Meadows	34,868	534	1,531	52.4%	23.0%
Queens	Southeast Queens	60,254	884	1,467	59.8%	29.8%
Bronx	Fordham/Bronx Park	159,182	2,326	1,461	70.9%	33.5%
Brooklyn	East New York	117,543	1,706	1,451	66.2%	37.0%
Staten Island	South Beach/Tottenville	31,799	459	1,443	64.9%	24.2%
Bronx	Highbridge/Morrisania	157,071	2,242	1,427	68.6%	37.4%
Queens	Flushing/Clearview	116,769	1,646	1,410	56.7%	22.0%
Bronx	Crotona/Tremont	158,601	2,063	1,301	70.3%	39.3%
Queens	Long Island City/Astoria	71,850	916	1,275	64.1%	28.4%
Brooklyn	Greenpoint	49,127	614	1,250	64.7%	26.1%
Queens	Southwest Queens	124,306	1,533	1,233	62.4%	28.6%
Bronx	Hunts Point/Mott Haven	102,165	1,255	1,228	68.8%	36.2%
Queens	West Queens	229,888	2,049	891	62.3%	23.6%
Brooklyn	Sunset Park	99,554	862	866	56.7%	25.9%
Staten Island	Port Richmond	28,478	231	811	67.1%	38.5%

Table 18. Medicaid Prevention Quality Indicator (PQI) Diabetes Composite (by Region)

		Medicaid Population	PQI Total (Observed)	PQI Total (Risk-Adjusted Expected)	Rate per 100,000 population (Observed)	Rate per 100,000 population (Risk-Adjusted Expected)	Observed (/) Risk Adjusted Expected Ratio	Observed (-) Risk-Adjusted Expected Gap Total
NYS		3,836,393	14,121	13,437	368			(684)
NYC		2,223,072	8,634	7,793	388	351	1.11	(841)
HHC PPS Service Area		2,416,600	9,305	8,417	385	348	1.11	(888)
Bronx		523,724	2,775	2,338	530	446	1.19	(437)
Brooklyn		812,531	3,072	2,701	378	332	1.14	(371)
Manhattan		361,806	1,486	1,202	411	332	1.24	(284)
Queens		633,964	1,628	1,820	257	287	0.89	192
Staten Island		84,575	344	356	407	421	0.97	12
UHF Neighborhoods								
Manhattan	Chelsea/Clinton	28,901	166	113	574	392	1.46	(53)
Brooklyn	Flatbush/E. Flatbush	89,157	404	281	453	315	1.44	(123)
Brooklyn	Bedford/Stuy/Crown Heights	108,547	751	530	692	488	1.42	(221)
Manhattan	Central Harlem/Morningside Hgt	54,915	304	215	554	392	1.41	(89)
Manhattan	Upper West Side	25,217	143	107	567	423	1.34	(36)
Brooklyn	Canarsie/Flatlands	47,966	211	158	440	330	1.33	(53)
Bronx	Northeast Bronx	49,494	384	292	776	590	1.32	(92)
Manhattan	Gramercy Park/Murray Hill	8,258	22	17	266	205	1.30	(5)
Queens	Rockaway	34,482	118	92	342	266	1.29	(26)
Manhattan	East Harlem	45,030	299	234	664	521	1.28	(65)
Brooklyn	East New York	74,649	381	309	510	414	1.23	(72)
Manhattan	Washington Hgts/Inwood	103,609	343	278	331	269	1.23	(65)
Bronx	Highbridge/Morrisania	99,090	549	448	554	453	1.22	(101)
Brooklyn	Downtown/Heights/Slope	39,233	251	209	640	534	1.20	(42)
Bronx	Hunts Point/Mott Haven	63,600	346	289	544	454	1.20	(57)
Brooklyn	Williamsburg/Bushwick	78,742	406	342	516	434	1.19	(64)
Bronx	Crotona/Tremont	98,999	521	440	526	445	1.18	(81)
Queens	Southeast Queens	42,736	117	101	274	237	1.16	(16)
Manhattan	Upper East Side	11,056	56	49	507	444	1.14	(7)
Bronx	Fordham/Bronx Park	100,560	466	410	463	408	1.14	(56)
Bronx	Kingsbridge/Riverdale	21,615	105	93	486	429	1.13	(12)
Manhattan	Lower Manhattan	9,246	22	19	238	210	1.13	(3)
Queens	Jamaica	89,240	359	322	402	361	1.11	(37)
Bronx	Pelham/Throgs Neck	90,366	404	365	447	404	1.11	(39)
Staten Island	Stapleton/St. George	30,544	159	153	521	501	1.04	(6)
Staten Island	Port Richmond	16,170	93	91	575	565	1.02	(2)
Brooklyn	Greenpoint	29,461	73	75	248	256	0.97	2
Queens	Long Island City/Astoria	50,238	145	160	289	318	0.91	15
Brooklyn	Coney Island/Sheepshead Bay	100,684	287	327	285	325	0.88	40
Queens	Ridgewood/Forest Hills	54,485	142	162	261	297	0.88	20
Queens	Southwest Queens	84,363	228	269	270	319	0.85	41
Staten Island	Willowbrook	14,652	38	45	259	310	0.84	7
Staten Island	South Beach/Tottenville	23,209	54	66	233	284	0.82	12
Queens	West Queens	146,000	326	398	223	273	0.82	72
Manhattan	Union Sq./Lower Eastside	62,613	95	122	152	195	0.78	27
Manhattan	Greenwich Village/Soho	11,977	31	43	259	355	0.73	12
Brooklyn	Borough Park	121,292	168	242	139	199	0.70	74
Queens	Fresh Meadows	25,066	64	93	255	370	0.69	29
Brooklyn	Bensonhurst/Bay Ridge	57,891	59	88	102	152	0.67	29
Queens	Bayside/Little Neck	15,474	21	34	136	222	0.61	13
Queens	Flushing/Clearview	90,483	104	185	115	204	0.56	81
Brooklyn	Sunset Park	64,418	78	139	121	216	0.56	61

Table 19. Medicaid Beneficiaries with a Diabetes Clinical Risk Grouping Condition (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	562,637	9.6%	32.5%	31.2%
NYC		3,595,868	409,227	11.4%	32.3%	28.6%
HHC PPS Service Area		3,317,300	378,499	11.4%	32.1%	28.5%
Bronx		821,339	91,442	11.1%	37.3%	35.6%
Brooklyn		1,237,587	139,781	11.3%	32.5%	26.4%
Manhattan		485,833	60,619	12.5%	33.5%	31.8%
Queens		923,576	105,074	11.4%	26.5%	23.2%
Staten Island		127,533	12,311	9.7%	35.2%	30.8%
UHF Neighborhoods						
Brooklyn	Coney Island/Sheepshead Bay	136,160	23,603	17.3%	30.0%	15.4%
Queens	Rockaway	52,664	8,424	16.0%	42.0%	29.8%
Manhattan	Upper West Side	31,499	4,461	14.2%	37.9%	33.7%
Brooklyn	Canarsie/Flatlands	68,906	9,754	14.2%	36.0%	24.9%
Manhattan	East Harlem	65,008	8,958	13.8%	40.4%	38.6%
Manhattan	Chelsea/Clinton	33,022	4,420	13.4%	38.3%	37.6%
Bronx	Kingsbridge/Riverdale	29,957	4,001	13.4%	40.7%	28.1%
Bronx	Northeast Bronx	75,167	9,869	13.1%	41.3%	33.6%
Manhattan	Union Sq./Lower Eastside	81,093	10,391	12.8%	27.5%	23.8%
Manhattan	Washington Hgts/Inwood	143,590	18,374	12.8%	29.7%	27.9%
Brooklyn	Downtown/Heights/Slope	58,124	7,416	12.8%	39.7%	34.7%
Queens	Southwest Queens	124,306	15,534	12.5%	23.6%	23.9%
Queens	Jamaica	134,473	16,526	12.3%	28.9%	29.6%
Manhattan	Upper East Side	13,206	1,582	12.0%	40.4%	25.2%
Queens	Ridgewood/Forest Hills	76,645	9,134	11.9%	27.7%	19.7%
Bronx	Pelham/Throgs Neck	139,194	16,221	11.7%	34.0%	33.4%
Brooklyn	Bensonhurst/Bay Ridge	80,271	9,282	11.6%	24.1%	15.4%
Staten Island	Stapleton/St. George	46,686	5,310	11.4%	39.5%	34.6%
Brooklyn	Flatbush/E. Flatbush	135,688	15,416	11.4%	34.4%	30.0%
Staten Island	Willowbrook	20,550	2,319	11.3%	29.9%	21.9%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	18,715	11.2%	40.3%	36.9%
Queens	Fresh Meadows	34,868	3,902	11.2%	21.2%	18.6%
Queens	Flushing/Clearview	116,769	12,964	11.1%	21.4%	15.8%
Queens	Long Island City/Astoria	71,850	7,959	11.1%	27.2%	25.9%
Manhattan	Central Harlem/Morningside Hgt	80,466	8,774	10.9%	36.9%	41.8%
Bronx	Hunts Point/Mott Haven	102,165	11,020	10.8%	35.9%	37.8%
Bronx	Fordham/Bronx Park	159,182	17,130	10.8%	37.3%	35.8%
Bronx	Highbridge/Morrisania	157,071	16,834	10.7%	37.7%	36.8%
Brooklyn	East New York	117,543	12,580	10.7%	35.4%	35.7%
Manhattan	Lower Manhattan	12,054	1,262	10.5%	32.3%	31.1%
Brooklyn	Williamsburg/Bushwick	128,474	13,297	10.3%	35.2%	36.8%
Bronx	Crotona/Tremont	158,601	16,367	10.3%	38.1%	37.8%
Manhattan	Greenwich Village/Soho	14,273	1,438	10.1%	25.3%	16.9%
Queens	Southeast Queens	60,254	6,003	10.0%	25.5%	27.1%
Queens	West Queens	229,888	22,717	9.9%	24.9%	20.6%
Brooklyn	Borough Park	195,830	18,996	9.7%	24.6%	17.8%
Manhattan	Gramercy Park/Murray Hill	9,839	929	9.4%	35.6%	38.0%
Queens	Bayside/Little Neck	19,922	1,795	9.0%	20.9%	13.8%
Staten Island	South Beach/Tottenville	31,799	2,673	8.4%	32.6%	24.7%
Brooklyn	Greenpoint	49,127	3,642	7.4%	29.7%	27.1%
Brooklyn	Sunset Park	99,554	7,054	7.1%	26.5%	21.7%
Staten Island	Port Richmond	28,478	2,009	7.1%	33.4%	39.4%

Table 20. Medicaid Beneficiaries with a Mental Health Clinical Risk Grouping Condition (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	1,328,558	22.8%	30.9%	45.8%
NYC		3,595,868	702,585	19.5%	32.3%	42.3%
HHC PPS Service Area		3,317,300	634,219	19.1%	32.0%	42.4%
Bronx		821,339	188,467	22.9%	33.0%	47.1%
Brooklyn		1,237,587	219,397	17.7%	31.3%	38.3%
Manhattan		485,833	130,069	26.8%	35.1%	46.5%
Queens		923,576	133,250	14.4%	30.2%	37.6%
Staten Island		127,533	31,402	24.6%	33.9%	44.9%
UHF Neighborhoods						
Manhattan	Chelsea/Clinton	33,022	16,610	50.3%	41.4%	49.9%
Manhattan	Gramercy Park/Murray Hill	9,839	3,642	37.0%	38.9%	47.1%
Manhattan	Upper West Side	31,499	11,028	35.0%	36.5%	45.1%
Queens	Rockaway	52,664	17,488	33.2%	43.4%	40.2%
Manhattan	Lower Manhattan	12,054	3,994	33.1%	37.1%	48.2%
Manhattan	Upper East Side	13,206	4,158	31.5%	37.6%	38.3%
Manhattan	East Harlem	65,008	20,410	31.4%	37.6%	52.2%
Bronx	Kingsbridge/Riverdale	29,957	9,026	30.1%	37.5%	36.9%
Staten Island	South Beach/Tottenville	31,799	8,714	27.4%	30.3%	40.6%
Brooklyn	Downtown/Heights/Slope	58,124	15,868	27.3%	36.9%	46.0%
Staten Island	Stapleton/St. George	46,686	12,408	26.6%	39.0%	48.8%
Brooklyn	Coney Island/Sheepshead Bay	136,160	34,703	25.5%	28.2%	24.6%
Bronx	Hunts Point/Mott Haven	102,165	25,701	25.2%	31.7%	48.6%
Manhattan	Central Harlem/Morningside Hgt	80,466	19,986	24.8%	36.7%	53.6%
Manhattan	Greenwich Village/Soho	14,273	3,381	23.7%	38.3%	40.4%
Bronx	Crotona/Tremont	158,601	36,406	23.0%	34.1%	50.0%
Staten Island	Willowbrook	20,550	4,703	22.9%	29.5%	35.3%
Bronx	Fordham/Bronx Park	159,182	35,728	22.4%	33.1%	47.9%
Bronx	Pelham/Throgs Neck	139,194	30,833	22.2%	28.9%	43.6%
Bronx	Highbridge/Morrisania	157,071	34,754	22.1%	32.9%	49.0%
Bronx	Northeast Bronx	75,167	16,019	21.3%	37.5%	44.3%
Manhattan	Union Sq./Lower Eastside	81,093	16,891	20.8%	32.3%	42.9%
Manhattan	Washington Hgts/Inwood	143,590	29,748	20.7%	28.2%	40.1%
Queens	Ridgewood/Forest Hills	76,645	15,446	20.2%	25.1%	30.0%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	32,956	19.7%	37.6%	50.6%
Staten Island	Port Richmond	28,478	5,577	19.6%	31.8%	51.2%
Brooklyn	East New York	117,543	22,969	19.5%	33.6%	47.6%
Brooklyn	Williamsburg/Bushwick	128,474	24,881	19.4%	30.3%	48.5%
Brooklyn	Bensonhurst/Bay Ridge	80,271	14,138	17.6%	27.2%	27.8%
Brooklyn	Canarsie/Flatlands	68,906	11,728	17.0%	33.0%	35.4%
Queens	Fresh Meadows	34,868	5,652	16.2%	24.6%	34.2%
Brooklyn	Greenpoint	49,127	7,325	14.9%	27.3%	35.9%
Queens	Jamaica	134,473	19,784	14.7%	32.7%	44.2%
Queens	Long Island City/Astoria	71,850	10,432	14.5%	27.9%	39.5%
Brooklyn	Borough Park	195,830	26,941	13.8%	24.0%	24.1%
Brooklyn	Flatbush/E. Flatbush	135,688	17,611	13.0%	36.5%	43.0%
Queens	Flushing/Clearview	116,769	14,390	12.3%	29.9%	32.7%
Queens	Bayside/Little Neck	19,922	2,400	12.0%	24.9%	27.2%
Queens	Southwest Queens	124,306	14,752	11.9%	25.3%	38.6%
Queens	West Queens	229,888	26,313	11.4%	26.3%	36.2%
Queens	Southeast Queens	60,254	6,509	10.8%	37.2%	46.3%
Brooklyn	Sunset Park	99,554	10,227	10.3%	26.5%	35.9%

Table 21. Medicaid Beneficiaries with a Substance Abuse Clinical Risk Grouping Condition (by Region)

		Medicaid Population	Population with a Diagnosis	Diagnosed Prevalence	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	370,898	6.4%	59.6%	59.9%
NYC		3,595,868	222,198	6.2%	65.0%	58.4%
HHC PPS Service Area		3,317,300	202,634	6.1%	65.1%	58.4%
Bronx		821,339	68,140	8.3%	64.9%	57.8%
Brooklyn		1,237,587	63,171	5.1%	64.4%	58.5%
Manhattan		485,833	54,266	11.2%	68.1%	60.8%
Queens		923,576	26,264	2.8%	60.2%	54.0%
Staten Island		127,533	10,357	8.1%	65.9%	59.6%
UHF Neighborhoods						
Manhattan	Chelsea/Clinton	33,022	10,401	31.5%	71.6%	59.2%
Manhattan	Upper West Side	31,499	5,374	17.1%	63.9%	58.1%
Manhattan	Gramercy Park/Murray Hill	9,839	1,659	16.9%	69.5%	65.4%
Manhattan	East Harlem	65,008	9,878	15.2%	68.3%	61.2%
Manhattan	Lower Manhattan	12,054	1,603	13.3%	73.8%	66.0%
Manhattan	Central Harlem/Morningside Hgt	80,466	10,093	12.5%	66.2%	63.3%
Bronx	Hunts Point/Mott Haven	102,165	12,551	12.3%	61.5%	57.0%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	16,159	9.7%	65.8%	61.3%
Bronx	Crotona/Tremont	158,601	15,141	9.5%	67.0%	59.2%
Brooklyn	Downtown/Heights/Slope	58,124	5,464	9.4%	68.5%	63.7%
Staten Island	Stapleton/St. George	46,686	4,329	9.3%	70.7%	60.6%
Staten Island	South Beach/Tottenville	31,799	2,948	9.3%	61.3%	57.9%
Bronx	Highbridge/Morrisania	157,071	14,126	9.0%	65.5%	57.5%
Manhattan	Union Sq./Lower Eastside	81,093	6,788	8.4%	69.4%	62.1%
Manhattan	Greenwich Village/Soho	14,273	1,172	8.2%	71.6%	62.6%
Brooklyn	East New York	117,543	8,911	7.6%	64.3%	59.4%
Bronx	Fordham/Bronx Park	159,182	11,575	7.3%	66.3%	60.6%
Brooklyn	Williamsburg/Bushwick	128,474	8,983	7.0%	64.3%	60.6%
Manhattan	Upper East Side	13,206	910	6.9%	61.9%	55.7%
Staten Island	Port Richmond	28,478	1,885	6.6%	64.2%	62.7%
Queens	Rockaway	52,664	3,386	6.4%	62.8%	58.3%
Bronx	Pelham/Throgs Neck	139,194	8,820	6.3%	61.9%	52.2%
Bronx	Northeast Bronx	75,167	4,430	5.9%	66.2%	60.2%
Staten Island	Willowbrook	20,550	1,195	5.8%	62.4%	55.2%
Queens	Jamaica	134,473	7,496	5.6%	59.7%	56.6%
Brooklyn	Greenpoint	49,127	2,588	5.3%	70.4%	57.1%
Bronx	Kingsbridge/Riverdale	29,957	1,497	5.0%	68.1%	58.1%
Brooklyn	Flatbush/E. Flatbush	135,688	6,193	4.6%	65.9%	57.5%
Manhattan	Washington Hgts/Inwood	143,590	6,388	4.4%	65.7%	58.0%
Brooklyn	Coney Island/Sheepshead Bay	136,160	5,393	4.0%	62.1%	52.2%
Brooklyn	Canarsie/Flatlands	68,906	2,428	3.5%	62.9%	52.1%
Queens	Southeast Queens	60,254	2,045	3.4%	68.4%	62.0%
Queens	Fresh Meadows	34,868	1,115	3.2%	71.1%	53.3%
Queens	Ridgewood/Forest Hills	76,645	2,294	3.0%	53.4%	46.2%
Brooklyn	Bensonhurst/Bay Ridge	80,271	2,159	2.7%	56.3%	50.5%
Queens	Long Island City/Astoria	71,850	1,909	2.7%	56.1%	56.6%
Queens	Southwest Queens	124,306	2,488	2.0%	57.6%	53.8%
Brooklyn	Sunset Park	99,554	1,888	1.9%	56.3%	54.0%
Queens	West Queens	229,888	3,664	1.6%	60.0%	47.7%
Brooklyn	Borough Park	195,830	3,005	1.5%	58.4%	52.6%
Queens	Flushing/Clearview	116,769	1,617	1.4%	59.4%	47.6%
Queens	Bayside/Little Neck	19,922	250	1.3%	54.4%	47.6%

Table 22. Medicaid Beneficiaries with a HIV/AIDS Condition Diagnosis (by Region)

		Medicaid Population	Population with a Diagnosis	Weighted Prevalence (Per 100,000)	% With At least 1 All Cause Admission	% With At least 1 All Cause ED Visit
NYS		5,835,794	53,901	924	25.3%	36.4%
NYC		3,595,868	49,984	1,390	25.1%	35.4%
HHC PPS Service Area		3,317,300	47,477	1,431	25.1%	35.2%
Bronx		821,339	15,674	1,908	30.2%	40.7%
Brooklyn		1,237,587	16,263	1,314	22.6%	33.4%
Manhattan		485,833	10,018	2,062	25.9%	35.7%
Queens		923,576	6,984	756	17.7%	27.0%
Staten Island		127,533	1,045	819	29.0%	42.6%
UHF Neighborhoods						
Manhattan	Chelsea/Clinton	33,022	1,378	4,173	26.1%	35.6%
Manhattan	Gramercy Park/Murray Hill	9,839	290	2,947	29.0%	36.9%
Manhattan	Upper West Side	31,499	900	2,857	31.9%	43.6%
Brooklyn	Bedford/Stuy/Crown Heights	167,161	4,199	2,512	26.8%	41.8%
Manhattan	Central Harlem/Morningside Hgt	80,466	1,902	2,364	27.3%	42.0%
Manhattan	Union Sq./Lower Eastside	81,093	1,902	2,345	19.3%	25.0%
Manhattan	Greenwich Village/Soho	14,273	321	2,249	19.6%	23.4%
Bronx	Hunts Point/Mott Haven	102,165	2,271	2,223	31.8%	43.2%
Manhattan	East Harlem	65,008	1,373	2,112	31.2%	41.4%
Bronx	Crotona/Tremont	158,601	3,292	2,076	32.1%	41.1%
Bronx	Highbridge/Morrisania	157,071	3,255	2,072	33.1%	39.8%
Bronx	Fordham/Bronx Park	159,182	3,111	1,954	27.5%	40.5%
Brooklyn	Flatbush/E. Flatbush	135,688	2,450	1,806	25.9%	37.2%
Bronx	Northeast Bronx	75,167	1,303	1,733	29.2%	42.9%
Brooklyn	Sunset Park	99,554	1,654	1,661	12.0%	9.8%
Brooklyn	East New York	117,543	1,870	1,591	26.7%	41.6%
Manhattan	Upper East Side	13,206	208	1,575	24.5%	30.8%
Bronx	Pelham/Throgs Neck	139,194	2,186	1,570	26.0%	37.9%
Brooklyn	Downtown/Heights/Slope	58,124	833	1,433	26.7%	40.1%
Brooklyn	Williamsburg/Bushwick	128,474	1,840	1,432	24.1%	42.1%
Queens	Rockaway	52,664	658	1,249	27.2%	43.3%
Staten Island	Stapleton/St. George	46,686	573	1,227	31.2%	41.5%
Manhattan	Washington Hgts/Inwood	143,590	1,624	1,131	25.4%	35.5%
Queens	Flushing/Clearview	116,769	1,273	1,090	9.4%	9.6%
Manhattan	Lower Manhattan	12,054	120	996	20.0%	25.8%
Queens	Jamaica	134,473	1,337	994	24.6%	39.3%
Staten Island	Port Richmond	28,478	280	983	27.9%	49.6%
Brooklyn	Canarsie/Flatlands	68,906	595	863	24.0%	32.6%
Bronx	Kingsbridge/Riverdale	29,957	256	855	28.5%	39.8%
Brooklyn	Bensonhurst/Bay Ridge	80,271	576	718	12.5%	9.7%
Queens	West Queens	229,888	1,501	653	13.7%	18.8%
Queens	Fresh Meadows	34,868	220	631	13.2%	16.8%
Queens	Bayside/Little Neck	19,922	125	627	8.8%	8.8%
Brooklyn	Borough Park	195,830	1,221	623	12.4%	15.8%
Queens	Southeast Queens	60,254	366	607	23.2%	37.7%
Queens	Ridgewood/Forest Hills	76,645	462	603	17.5%	29.4%
Brooklyn	Coney Island/Sheepshead Bay	136,160	798	586	17.2%	24.8%
Queens	Long Island City/Astoria	71,850	395	550	20.8%	30.6%
Queens	Southwest Queens	124,306	647	520	17.9%	34.9%
Staten Island	Willowbrook	20,550	98	477	26.5%	37.8%
Brooklyn	Greenpoint	49,127	227	462	24.2%	33.5%
Staten Island	South Beach/Tottenville	31,799	94	296	21.3%	33.0%

Table 23. Rates of HIV Diagnoses, Persons Living with HIV/AIDS (PWHA), and Death among PWHA (by Region)

		HIV diagnoses (Per 100,000)	% Persons Living With HIV/AIDS	Age-Adjusted death rate per 1,000 PWHA	Total Population (2010)
NYC		41.6	1.4	14.7	8,175,133
Bronx		47.9	1.7	18.6	1,382,480
Brooklyn		39.2	1.1	17.7	2,504,700
Manhattan		54.9	2.2	12.5	1,577,279
Queens		22.6	0.7	12.3	2,235,260
Staten Island		9.2	0.4	21.0	468,730
UHF Neighborhoods					
Manhattan	Chelsea Clinton	126.3	4.5	10.0	144,896
Manhattan	Central Harlem Morningside Heights	92.8	2.9	16.4	162,652
Brooklyn	Bedford/Stuyvesant Crown Heights	77.1	2.2	20.1	318,898
Manhattan	East Harlem	76.4	2.9	24.8	109,972
Brooklyn	Williamsburg Bushwick	73.2	1.8	20.0	210,468
Bronx	Hunts Point Mott Haven	71.7	2.4	20.3	136,591
Bronx	High Bridge Morrisania	69.8	2.4	21.5	207,631
Brooklyn	East Flatbush Flatbush	60.7	1.6	13.5	296,583
Manhattan	Washington Heights Inwood	56.3	1.7	14.4	248,508
Bronx	Crotona Tremont	50.0	2.3	19.8	206,116
Bronx	Fordham Bronx Park	47.9	1.7	17.9	252,655
Brooklyn	East New York	46.8	1.5	18.6	187,855
Manhattan	Greenwich Village SoHo	46.6	2.7	5.9	83,749
Manhattan	Union Square Lower East Side	45.3	1.7	12.6	198,781
Manhattan	Gramercy Park Murray Hill	40.1	1.7	8.8	134,520
Brooklyn	Canarsie Flatlands	38.5	0.7	12.9	195,027
Bronx	Northeast Bronx	38.3	1.0	15.1	190,668
Brooklyn	Downtown Heights Park Slope	37.9	1.4	16.6	224,199
Queens	Jamaica	36.3	1.0	14.9	289,314
Queens	West Queens	35.8	1.0	10.7	480,501
Bronx	Pelham Throgs Neck	34.2	1.3	16.2	297,927
Manhattan	Upper West Side	30.9	1.5	11.9	220,080
Brooklyn	Greenpoint	29.9	0.8	22.7	127,051
Queens	Long Island City Astoria	29.3	1.0	8.2	204,715
Queens	Rockaway	23.5	0.8	24.9	114,978
Brooklyn	Sunset Park	23.5	0.7	10.20	127,863
Manhattan	Lower Manhattan	22.6	1.0	6.30	53,159
Bronx	Kingsbridge Riverdale	22.0	0.6	8.30	90,892
Staten Island	Stapleton St. George	21.0	0.7	32.3	123,648
Queens	Southeast Queens	16.4	0.6	11.6	189,171
Queens	Southwest Queens	16.1	0.6	14.6	266,265
Manhattan	Upper East Side	15.8	0.7	8.6	220,962
Staten Island	Port Richmond	15.6	0.6	18.50	70,387
Queens	Ridgewood Forest Hills	13.8	0.4	10.6	245,746
Brooklyn	Bensonhurst Bay Ridge	13.5	0.3	22.2	199,271
Brooklyn	Coney Island Sheepshead Bay	9.1	0.4	21.1	285,502
Brooklyn	Borough Park	8.7	0.3	14.8	331,983
Queens	Fresh Meadows	8.30	0.3	17.20	96,831
Queens	Bayside Little Neck	8.00	0.2	-	87,972
Queens	Flushing Clearview	6.9	0.3	16.7	259,767
Staten Island	Willowbrook	2.30	0.2	6.90	85,510
Staten Island	South Beach Tottenville	2.10	0.2	10.60	189,185

Source: New York City HIV/AIDS Annual Surveillance Statistics. New York: New York City Department of Health and Mental Hygiene, 2011.

Table 24: Chronic Diseases Prevalence and Potentially Avoidable Utilization

	Prevalence Medicaid Beneficiaries	Percent w/ Hospitalization	Percent w/ ED Visit	Observed PQI Hospitalizations per 100,000 Beneficiaries
NYS				
Respiratory	9.6%	35.3%	47.3%	486
CVD/Circulatory	26.4%	40.0%	31.3%	412
Diabetes	9.6%	32.5%	31.2%	368
Mental Health	22.8%	30.9%	45.8%	n/a
Substance Abuse	6.4%	59.6%	59.9%	n/a
NYC				
Respiratory	9.7%	35.3%	47.3%	507
CVD/Circulatory	30.2%	40.4%	28.1%	461
Diabetes	11.4%	32.3%	28.6%	388
Mental Health	19.5%	32.3%	42.3%	n/a
Substance Abuse	6.2%	65.0%	58.4%	n/a
Queens service area				
Respiratory	7.5%	30.6%	41.6%	2,155
CVD/Circulatory	28.4%	35.7%	24.9%	2,341
Diabetes	11.2%	26.5%	24.2%	1,856
Mental Health	14.2%	29.1%	39.0%	n/a
Substance Abuse	3.3%	61.2%	55.0%	n/a
Bronx				
Respiratory	12.0	38.4	50.7	786
CVD/Circulatory	26.9	45.2	35.3	606
Diabetes	11.1	37.3	35.6	530
Mental Health	22.9	33.0	47.1	n/a
Substance Abuse	8.3	64.9	57.8	n/a
Brooklyn				
Respiratory	9.2	35.8	41.4	454
CVD/Circulatory	31.8	40.5	25.3	455
Diabetes	11.3	32.5	26.4	378
Mental Health	17.7	31.3	38.3	n/a
Substance Abuse	5.1	64.4	58.5	n/a
Manhattan				
Respiratory	10.8	38.2	48.7	550
CVD/Circulatory	33.5	41.6	31.5	486
Diabetes	12.5	33.5	31.8	411
Mental Health	26.8	35.1	46.5	n/a
Substance Abuse	11.2	68.1	60.8	n/a

Table 25. Maternal and Child Health Indicators (by Region)

		% Low Birth Weight	% Preterm Birth	% Medicaid or Self Pay Payer	% Late or No Prenatal Care	Teen Birth per 1000	Infant Death per 1000	Neonatal Death per 1000
NYS		8.1%	11.1%	50.0%	5.5%	24.4	4.8	3.3
NYC		8.5%	11.3%	59.5%	7.0%	25.3	4.4	2.9
HHC PPS Service Area		8.5%	11.4%	63.0%	7.4%	26.6	4.4	2.9
Bronx		9.5%	12.1%	75.4%	10.8%	37.9	5.3	3.5
Brooklyn		8.2%	11.3%	65.9%	6.0%	25.7	4.2	2.6
Manhattan		8.6%	10.7%	37.6%	5.2%	18.4	3.4	2.2
Queens		8.1%	10.9%	55.8%	7.4%	21.7	4.5	3.0
Staten Island		8.0%	11.3%	42.0%	3.3%	16.4	5.1	3.9
UHF Neighborhoods								
Brooklyn	Bedford/Stuy/Crown Heights	11.7%	14.7%	69.5%	8.6%	31.7	6.4	3.7
Manhattan	Central Harlem/Morningside Hgt	11.3%	14.1%	62.2%	9.8%	30.4	8.0	5.4
Queens	Jamaica	11.3%	13.7%	54.0%	9.1%	27.4	7.5	4.8
Brooklyn	Canarsie/Flatlands	10.7%	14.8%	55.9%	8.3%	19.6	6.1	4.0
Brooklyn	Flatbush/E. Flatbush	10.6%	14.4%	69.2%	9.8%	21.5	4.9	3.3
Manhattan	East Harlem	10.4%	13.1%	72.5%	9.1%	40.9	4.9	3.8
Brooklyn	East New York	10.4%	14.7%	72.3%	9.0%	40.9	7.1	4.3
Queens	Southeast Queens	10.4%	13.0%	43.2%	7.1%	13.8	6.5	5.4
Bronx	Northeast Bronx	10.3%	12.4%	64.2%	12.9%	29.2	5.4	3.6
Bronx	Highbridge/Morrisania	9.8%	12.4%	82.2%	11.4%	45.6	5.5	3.2
Bronx	Hunts Point/Mott Haven	9.6%	12.7%	84.9%	11.3%	47.4	7.1	3.9
Queens	Southwest Queens	9.6%	11.8%	43.5%	6.3%	20.0	3.7	2.1
Bronx	Fordham/Bronx Park	9.5%	12.1%	80.5%	10.2%	36.8	4.8	3.3
Bronx	Pelham/Throgs Neck	9.3%	11.8%	66.1%	10.6%	29.4	3.9	2.5
Bronx	Crotona/Tremont	9.3%	12.3%	83.1%	11.3%	45.9	6.4	4.6
Staten Island	Port Richmond	8.9%	13.5%	62.3%	4.1%	36.4	6.0	2.9
Manhattan	Upper West Side	8.7%	10.1%	12.3%	3.0%	8.6	2.2	1.5
Manhattan	Chelsea/Clinton	8.6%	10.1%	18.0%	4.1%	14.3	4.2	2.5
Manhattan	Gramercy Park/Murray Hill	8.5%	10.0%	6.5%	2.9%	3.9	3.0	2.0
Queens	Rockaway	8.4%	11.6%	56.4%	9.4%	32.4	6.1	4.0
Staten Island	Stapleton/St. George	8.2%	11.4%	54.1%	4.5%	21.2	6.5	5.7
Brooklyn	Coney Island/Sheepshead Bay	8.0%	11.1%	62.2%	5.8%	23.6	4.1	2.2
Manhattan	Upper East Side	8.0%	8.7%	6.2%	2.7%	4.6	1.5	1.2
Manhattan	Washington Hgts/Inwood	7.9%	11.0%	69.6%	7.4%	33.5	4.1	2.0
Staten Island	Willowbrook	7.9%	10.3%	33.8%	2.5%	9.1	3.9	2.8
Manhattan	Lower Manhattan	7.8%	9.8%	11.7%	3.1%	3.4	0.7	0.7
Brooklyn	Williamsburg/Bushwick	7.8%	11.7%	80.2%	7.3%	37.5	5.5	3.3
Queens	Long Island City/Astoria	7.7%	10.6%	50.6%	10.9%	18.0	3.7	2.3
Bronx	Kingsbridge/Riverdale	7.7%	10.2%	43.1%	5.3%	17.5	3.5	3.2
Manhattan	Union Sq./Lower Eastside	7.5%	10.4%	54.1%	4.3%	17.9	2.1	1.1
Staten Island	South Beach/Tottenville	7.4%	10.6%	23.8%	2.1%	4.5	4.0	3.4
Manhattan	Greenwich Village/Soho	7.1%	8.3%	15.5%	1.7%	2.1	1.1	1.1
Brooklyn	Bensonhurst/Bay Ridge	6.9%	10.6%	55.7%	5.2%	15.2	4.5	2.7
Queens	Ridgewood/Forest Hills	6.9%	9.3%	44.9%	5.1%	15.4	3.3	2.6
Queens	Fresh Meadows	6.8%	8.7%	42.0%	3.9%	9.6	2.9	1.6
Brooklyn	Downtown/Heights/Slope	6.8%	9.0%	28.8%	2.6%	18.6	2.8	1.8
Queens	West Queens	6.8%	10.8%	78.1%	8.9%	33.3	4.3	3.0
Queens	Bayside/Little Neck	6.7%	8.7%	27.5%	2.6%	4.1	2.0	2.0
Brooklyn	Borough Park	6.2%	8.6%	72.5%	3.5%	20.1	2.3	1.4
Queens	Flushing/Clearview	6.2%	8.4%	61.3%	5.2%	10.1	2.8	1.9
Brooklyn	Sunset Park	5.8%	8.5%	90.0%	4.0%	37.5	2.1	1.7
Brooklyn	Greenpoint	5.4%	8.2%	62.1%	3.4%	16.6	2.5	1.8

Source: 2010-2012 New York State Vital Statistics County/ZIP Code Perinatal Data Profile as of March, 2014, accessed December, 6 2014, http://www.health.ny.gov/statistics/chac/perinatal/index.htm.

** Preterm Births –prior to 37 weeks of gestation; Low Birth Weight– weight between 100-2499 grams; Late or No Prenatal care– initiated during the third trimester of pregnancy or not at all; Teen Birth – Births to females ages 15-19; Infant Deaths –occurred at less than twelve months of age; Neonatal Deaths –occurred at less than 28 days of age. Total Births are over three year time period.*

NEW YORK CITY COMMUNITY NEEDS ASSESSMENT APPENDIX F – KEY DEMOGRAPHIC FACTORS AT NEIGHBORHOOD LEVEL

December 16, 2014

Prepared by New York City Health and Hospitals Corporation Corporate Planning Services

Appendix F: Key Demographic Factors at Neighborhood Level

Table of Contents

Table 1. Key Demographic Factors (by Region)

		% Population below 100% Federal Poverty Level	% Population Non-US Citizen	% Population ≥ 25 years with Less than HS Education	% Population Speaking English "Less than Well"	Average Jail Rate (Per 100,000)	% Population Living with a Disability
NYS		14.9%	10.5%	15.1%	13.4%	382	10.7%
NYC		19.8%	17.7%	20.5%	23.2%	868	10.3%
HHC PPS Service Area		20.9%	18.6%	22.0%	24.6%	914	10.4%
Bronx		29.3%	18.7%	30.6%	25.3%	1,382	13.4%
Brooklyn		22.7%	16.8%	21.9%	24.3%	967	9.7%
Manhattan		17.5%	15.3%	14.4%	16.4%	858	9.9%
Queens		14.1%	21.7%	19.9%	27.8%	507	9.5%
Staten Island		11.3%	7.6%	12.4%	11.5%	637	9.7%
UHF Neighborhoods							
Bronx	Hunts Point/Mott Haven	43.1%	19.2%	44.4%	36.3%	2,219	17.3%
Bronx	Crotona/Tremont	39.3%	23.8%	38.7%	32.2%	1,903	14.6%
Bronx	Highbridge/Morrisania	38.3%	22.4%	39.1%	32.8%	2,107	15.4%
Kings	East New York	32.8%	16.0%	27.0%	14.0%	1,907	8.9%
Kings	Williamsburg/Bushwick	32.5%	19.9%	37.2%	32.2%	1,793	10.5%
New York	East Harlem	31.8%	16.4%	32.2%	23.6%	2,250	14.1%
Bronx	Fordham/Bronx Park	31.3%	23.0%	31.3%	28.2%	1,320	13.4%
Kings	Greenpoint	28.5%	12.2%	18.6%	23.9%	540	7.2%
Kings	Sunset Park	28.4%	34.3%	45.7%	51.8%	482	8.1%
New York	Central Harlem/Morningside Hgt	27.7%	13.3%	19.8%	12.7%	2,124	12.9%
Kings	Bedford/Stuy/Crown Heights	27.1%	13.7%	20.0%	7.0%	2,129	10.6%
New York	Washington Hgts/Inwood	25.8%	26.0%	30.9%	37.9%	1,135	11.9%
Kings	Borough Park	25.2%	20.1%	24.4%	37.5%	225	9.4%
Bronx	Pelham/Throgs Neck	21.8%	14.3%	26.2%	21.3%	911	11.1%
Richmond	Port Richmond	21.6%	12.7%	16.6%	14.1%	1,302	9.4%
Queens	Rockaway	21.4%	11.3%	21.4%	14.1%	1,277	12.7%
New York	Union Sq./Lower Eastside	21.4%	14.3%	21.6%	22.5%	705	11.1%
Kings	Coney Island/Sheepshead Bay	18.2%	14.6%	18.6%	40.3%	567	14.5%
Queens	West Queens	18.2%	35.1%	29.5%	47.0%	400	8.0%
Kings	Flatbush/E. Flatbush	18.1%	20.4%	17.2%	14.0%	926	7.9%
Richmond	Stapleton/St. George	17.0%	12.0%	17.3%	16.1%	1,068	10.5%
Kings	Downtown/Heights/Slope	16.3%	9.3%	11.7%	10.4%	851	8.0%
Queens	Long Island City/Astoria	16.1%	21.6%	18.1%	27.8%	475	9.3%
Bronx	Northeast Bronx	15.4%	13.4%	19.7%	8.9%	761	11.7%
Queens	Jamaica	15.3%	18.5%	20.1%	16.4%	1,118	10.9%
Bronx	Kingsbridge/Riverdale	15.1%	12.0%	17.5%	20.1%	402	12.0%
Kings	Bensonhurst/Bay Ridge	14.7%	15.7%	21.8%	34.3%	283	10.0%
Queens	Fresh Meadows	14.1%	15.9%	12.9%	25.7%	300	9.8%
Queens	Flushing/Clearview	13.0%	25.8%	20.0%	40.8%	200	9.5%
Kings	Canarsie/Flatlands	12.9%	12.6%	13.4%	13.4%	616	9.3%
New York	Lower Manhattan	12.4%	18.1%	9.3%	12.7%	527	6.1%
Queens	Ridgewood/Forest Hills	12.4%	17.8%	14.5%	25.3%	273	9.1%
New York	Upper West Side	12.0%	11.2%	6.2%	7.7%	446	9.4%
Queens	Southwest Queens	11.9%	18.6%	20.9%	18.5%	442	10.0%
New York	Chelsea/Clinton	11.7%	14.3%	6.6%	9.1%	601	8.7%
New York	Greenwich Village/Soho	10.5%	12.5%	9.3%	12.4%	299	6.7%
New York	Gramercy Park/Murray Hill	8.7%	12.6%	2.5%	6.9%	283	6.8%
Richmond	Willowbrook	8.2%	6.3%	10.7%	11.1%	282	10.0%
Queens	Bayside/Little Neck	7.9%	13.3%	10.5%	27.0%	141	9.1%
Queens	Southeast Queens	7.4%	13.2%	13.2%	12.1%	507	9.1%
New York	Upper East Side	6.9%	11.2%	3.5%	5.7%	162	6.8%
Richmond	South Beach/Tottenville	5.6%	3.5%	8.8%	7.8%	294	9.2%

Sources: U.S. Census American Community Survey (ACS), 2008-2012; New York City Department of Corrections Jail Admissions, 2007-2012, Via Gothamist.

Table 2. Household Income (HHI) by Category (by Region)

		% HHI $0-24,999	% HHI $25-49,999	% HHI ≥$50,000	% HHI $0-10,000	% HHI $10-14,999	% HHI $15-24,999	% HHI $25-34,999	% HHI $35-49,999
NYS		23.0%	21.2%	55.8%	7.8%	5.2%	9.9%	9.1%	12.0%
NYC		27.2%	21.2%	51.6%	10.5%	6.1%	10.6%	9.4%	11.9%
HHC PPS Service Area		28.7%	22.1%	49.2%	11.1%	6.4%	11.1%	9.8%	12.3%
Bronx		39.4%	24.8%	35.7%	16.1%	8.9%	14.4%	11.3%	13.6%
Brooklyn		30.4%	23.2%	46.4%	11.9%	6.9%	11.5%	10.3%	12.9%
Manhattan		23.6%	16.0%	60.4%	9.8%	5.4%	8.4%	7.2%	8.8%
Queens		21.4%	22.5%	56.2%	6.9%	4.5%	9.9%	9.6%	12.9%
Staten Island		17.8%	17.4%	64.8%	6.3%	4.0%	7.5%	7.2%	10.2%
UHF Neighborhoods									
Bronx	Hunts Point/Mott Haven	55.7%	24.4%	19.9%	25.7%	13.1%	16.8%	12.4%	12.0%
Bronx	Crotona/Tremont	50.6%	26.1%	23.3%	22.0%	11.6%	17.0%	12.5%	13.6%
Bronx	Highbridge/Morrisania	49.9%	26.9%	23.2%	20.7%	11.9%	17.4%	12.1%	14.8%
New York	East Harlem	44.1%	22.4%	33.5%	18.2%	11.6%	14.2%	11.5%	10.9%
Bronx	Fordham/Bronx Park	42.2%	25.7%	32.1%	17.3%	9.7%	15.3%	11.6%	14.1%
Kings	Williamsburg/Bushwick	40.3%	25.1%	34.6%	16.8%	8.5%	15.0%	11.4%	13.8%
Kings	East New York	39.9%	25.6%	34.5%	19.9%	7.6%	12.5%	10.8%	14.7%
New York	Central Harlem/Morningside Hgt	38.1%	22.7%	39.2%	17.4%	8.5%	12.2%	10.9%	11.8%
Kings	Bedford/Stuy/Crown Heights	36.3%	24.2%	39.6%	16.4%	8.3%	11.6%	10.5%	13.6%
New York	Washington Hgts/Inwood	34.0%	25.7%	40.3%	13.1%	7.7%	13.2%	11.8%	13.9%
Kings	Sunset Park	33.6%	27.0%	39.4%	10.8%	7.8%	15.0%	12.3%	14.8%
Kings	Coney Island/Sheepshead Bay	32.9%	23.8%	43.3%	12.9%	7.8%	12.1%	10.8%	13.0%
Kings	Borough Park	31.0%	24.6%	44.4%	9.5%	7.8%	13.7%	11.7%	12.9%
Bronx	Pelham/Throgs Neck	30.8%	23.9%	45.3%	11.4%	6.8%	12.5%	10.1%	13.8%
Queens	Rockaway	30.5%	20.4%	49.1%	14.0%	6.5%	10.1%	9.3%	11.0%
Kings	Greenpoint	29.9%	19.6%	50.5%	11.3%	8.1%	10.5%	8.9%	10.7%
New York	Union Sq./Lower Eastside	29.6%	16.2%	54.2%	12.4%	7.3%	10.0%	7.6%	8.6%
Kings	Flatbush/E. Flatbush	28.5%	26.1%	45.4%	10.4%	6.4%	11.7%	11.2%	14.9%
Richmond	Port Richmond	26.2%	19.6%	54.2%	10.8%	5.8%	9.6%	8.8%	10.8%
Bronx	Northeast Bronx	26.0%	24.3%	49.7%	9.5%	5.4%	11.1%	10.9%	13.4%
Queens	Long Island City/Astoria	25.0%	22.5%	52.4%	8.8%	5.4%	10.8%	9.6%	12.9%
Kings	Bensonhurst/Bay Ridge	23.9%	24.7%	51.4%	7.2%	5.9%	10.8%	11.1%	13.6%
Queens	West Queens	23.9%	27.2%	48.9%	7.0%	5.2%	11.6%	11.8%	15.4%
Richmond	Stapleton/St. George	23.6%	21.2%	55.2%	9.6%	4.9%	9.0%	8.8%	12.4%
Bronx	Kingsbridge/Riverdale	23.3%	20.9%	55.8%	8.4%	4.6%	10.3%	9.3%	11.6%
Queens	Fresh Meadows	22.9%	21.8%	55.3%	8.2%	4.9%	9.7%	9.1%	12.7%
Queens	Flushing/Clearview	22.4%	22.7%	54.9%	7.6%	4.4%	10.5%	10.3%	12.4%
Queens	Ridgewood/Forest Hills	21.6%	20.6%	57.8%	7.0%	4.6%	10.0%	8.7%	11.9%
Queens	Jamaica	21.6%	23.8%	54.6%	7.0%	4.4%	10.2%	9.9%	13.9%
Kings	Canarsie/Flatlands	21.1%	21.4%	57.5%	8.4%	3.9%	8.8%	8.6%	12.8%
Kings	Downtown/Heights/Slope	19.2%	14.5%	66.3%	7.9%	4.3%	7.0%	6.3%	8.2%
New York	Chelsea/Clinton	19.0%	14.8%	66.2%	7.2%	4.5%	7.3%	7.0%	7.8%
New York	Upper West Side	18.9%	12.9%	68.2%	8.5%	4.2%	6.3%	5.6%	7.4%
Queens	Southwest Queens	17.8%	22.0%	60.2%	4.9%	3.8%	9.1%	9.0%	13.0%
New York	Greenwich Village/Soho	17.4%	13.7%	68.9%	7.1%	4.0%	6.3%	5.4%	8.2%
Queens	Bayside/Little Neck	15.8%	17.6%	66.6%	4.5%	2.8%	8.4%	7.8%	9.8%
New York	Lower Manhattan	15.4%	9.3%	75.3%	7.0%	3.7%	4.7%	4.4%	4.9%
Richmond	Willowbrook	14.2%	16.5%	69.3%	4.1%	3.2%	6.9%	6.5%	10.0%
New York	Gramercy Park/Murray Hill	14.1%	10.9%	75.0%	6.1%	2.7%	5.3%	4.3%	6.6%
Richmond	South Beach/Tottenville	12.8%	14.6%	72.6%	3.7%	3.1%	6.0%	6.0%	8.6%
New York	Upper East Side	12.5%	10.9%	76.6%	4.9%	2.5%	5.1%	4.2%	6.6%
Queens	Southeast Queens	11.3%	17.8%	70.9%	2.8%	2.7%	5.8%	6.7%	11.1%

Sources: U.S. Census American Community Survey (ACS), 2008-2012.

Table 3. Disability by Numbers of Disability and Type (by Region)

		% ≥Two Disability	% One Disability	% Self Care	% Indep-endent Living	% Cognitive	% Ambulatory	% Vision	% Hearing
NYS		5.3%	5.6%	2.5%	5.3%	4.2%	6.5%	1.9%	4.0%
NYC		5.4%	5.0%	2.7%	5.4%	4.1%	6.8%	2.1%	3.4%
HHC PPS Service Area		5.4%	5.1%	2.7%	5.5%	4.2%	6.9%	2.2%	3.3%
Bronx		6.8%	6.7%	3.0%	6.6%	6.3%	8.6%	2.8%	3.3%
Brooklyn		5.4%	4.3%	2.9%	5.8%	4.0%	6.6%	2.2%	3.2%
Manhattan		4.9%	5.0%	2.4%	4.5%	3.7%	6.4%	1.9%	3.5%
Queens		4.9%	4.7%	2.4%	5.0%	3.4%	6.2%	1.9%	3.6%
Staten Island		4.9%	4.9%	2.4%	5.5%	3.3%	6.3%	1.3%	3.3%
UHF Neighborhoods									
Kings	Coney Island/Sheepshead Bay	9.6%	5.0%	5.6%	10.2%	6.6%	10.7%	3.8%	6.0%
Bronx	Hunts Point/Mott Haven	8.6%	8.8%	3.6%	8.4%	8.9%	11.1%	3.8%	3.3%
Bronx	Highbridge/Morrisania	7.7%	7.7%	3.3%	7.1%	7.5%	10.1%	3.1%	2.9%
Bronx	Crotona/Tremont	7.6%	7.1%	3.2%	7.5%	7.5%	9.1%	2.8%	3.2%
New York	East Harlem	7.5%	6.8%	3.6%	7.1%	6.7%	9.2%	3.3%	3.6%
Queens	Rockaway	6.6%	6.5%	3.6%	7.4%	5.6%	8.3%	3.2%	3.9%
New York	Central Harlem/Morningside Hgt	6.3%	6.7%	2.9%	5.9%	4.8%	9.0%	2.6%	2.6%
Bronx	Fordham/Bronx Park	6.3%	7.2%	2.5%	6.1%	6.6%	8.2%	2.6%	2.8%
New York	Washington Hgts/Inwood	6.2%	5.8%	3.1%	5.9%	4.6%	8.0%	2.4%	2.8%
New York	Union Sq./Lower Eastside	6.2%	5.0%	2.9%	5.5%	4.5%	7.4%	2.2%	4.2%
Bronx	Northeast Bronx	6.1%	5.8%	2.8%	5.8%	4.6%	7.8%	2.8%	3.8%
Bronx	Pelham/Throgs Neck	5.9%	5.2%	2.7%	6.1%	4.6%	7.3%	2.3%	3.5%
Bronx	Kingsbridge/Riverdale	5.9%	6.5%	3.1%	5.7%	5.1%	7.3%	2.2%	4.3%
Kings	Williamsburg/Bushwick	5.7%	4.8%	2.9%	5.9%	4.8%	7.3%	2.3%	2.3%
Kings	Bensonhurst/Bay Ridge	5.7%	4.4%	3.1%	6.5%	3.7%	6.6%	1.7%	4.4%
Richmond	Stapleton/St. George	5.5%	5.1%	3.0%	6.6%	3.8%	6.8%	1.7%	3.3%
Kings	Borough Park	5.5%	3.9%	3.2%	6.5%	4.0%	6.7%	2.0%	3.3%
Queens	Jamaica	5.5%	5.5%	2.7%	5.5%	3.9%	7.0%	2.6%	3.3%
Kings	Bedford/Stuy/Crown Heights	5.2%	5.4%	2.6%	5.3%	3.9%	6.9%	3.0%	2.6%
Queens	Southwest Queens	5.2%	4.8%	2.7%	5.6%	3.6%	6.3%	2.3%	3.7%
Queens	Flushing/Clearview	5.2%	4.4%	2.6%	5.0%	3.1%	6.5%	1.4%	4.4%
Richmond	Willowbrook	5.1%	5.0%	2.6%	6.0%	3.2%	6.9%	1.0%	3.5%
Kings	Canarsie/Flatlands	5.1%	4.2%	2.9%	5.5%	3.5%	6.3%	2.2%	3.3%
Queens	Fresh Meadows	4.9%	5.0%	2.3%	4.9%	3.1%	6.8%	1.9%	4.1%
Queens	Long Island City/Astoria	4.8%	4.5%	2.3%	4.8%	3.1%	6.2%	1.3%	3.3%
Queens	Ridgewood/Forest Hills	4.8%	4.4%	2.5%	5.3%	3.2%	6.3%	1.7%	3.9%
Queens	Bayside/Little Neck	4.7%	4.5%	2.2%	4.9%	2.8%	5.6%	1.8%	4.2%
Kings	East New York	4.5%	4.3%	2.4%	5.2%	3.7%	6.0%	2.2%	2.2%
Richmond	South Beach/Tottenville	4.5%	4.7%	2.1%	4.8%	2.9%	6.0%	1.1%	3.3%
Richmond	Port Richmond	4.5%	5.0%	2.1%	4.8%	3.9%	5.8%	1.3%	2.8%
Kings	Sunset Park	4.4%	3.8%	2.3%	4.8%	4.0%	5.2%	1.8%	2.5%
New York	Upper West Side	4.4%	5.1%	2.4%	4.2%	3.3%	5.9%	1.7%	4.3%
Queens	Southeast Queens	4.3%	4.9%	2.2%	4.8%	3.4%	5.4%	1.5%	3.4%
Kings	Downtown/Heights/Slope	4.2%	4.0%	1.8%	3.8%	3.3%	5.1%	1.6%	2.6%
Kings	Greenpoint	4.2%	3.1%	2.5%	4.4%	3.4%	5.0%	1.9%	2.6%
Queens	West Queens	4.0%	4.2%	1.9%	3.8%	2.9%	5.1%	1.7%	2.9%
Kings	Flatbush/E. Flatbush	3.9%	4.0%	2.0%	4.2%	3.0%	5.2%	1.6%	2.5%
New York	Chelsea/Clinton	3.9%	4.8%	1.7%	3.1%	2.9%	4.9%	1.9%	3.5%
New York	Lower Manhattan	3.3%	2.9%	1.8%	3.4%	2.9%	4.1%	1.0%	2.4%
New York	Gramercy Park/Murray Hill	3.1%	3.8%	1.4%	3.1%	2.5%	3.7%	1.3%	3.4%
New York	Upper East Side	3.0%	3.8%	1.6%	3.0%	2.1%	4.5%	1.1%	4.1%
New York	Greenwich Village/Soho	3.0%	3.8%	1.5%	3.0%	2.2%	3.8%	1.1%	3.6%

Sources: U.S. Census American Community Survey (ACS), 2008-2012.

**Self-Care – Difficulty bathing or dressing; Independent Living – Difficulty with errands; Cognitive – Difficulty remembering, concentrating, making decisions; Ambulatory – Difficulty walking or climbing stairs; Vision – Blind or serious difficulty seeing; Hearing – Deaf of having serious difficulty hearing*

Table 4. Population Living in Group Quarters by Type (by Region)

		Total in Group Quarters	% in Group Quarters	Adult Correct-ional	Juvenile Facilities	Nursing/Skilled Nursing	Other Health Care	Non-institutional
NYC		134,369	1.6%	18,056	2,107	45,516	4,362	64,328
Estimated DSRIP Service Area		122,048	1.6%	17,132	1,800	38,364	4,362	60,390
BX		40,292	2.9%	12,076	442	11,734	1,185	14,855
BK		31,069	1.2%	2,353	372	9,461	1,111	17,772
MN		32,040	2.0%	2,038	743	8,214	1,086	19,959
QN		24,634	1.1%	665	317	13,402	980	9,270
SI		6,334	1.4%	924	233	2,705	-	2,472
PUMA Neighborhoods								
BX CDs 1 & 2	Hunts Point, Longwood & Melrose	15,239	9.9%	11,945	148	189	-	2,957
MN CD 11	East Harlem	5,718	4.7%	-	202	1,158	684	3,674
QN CD 14	Far Rockaway, Breezy Point & Broad Channel	5,203	4.5%	-	57	3,951	-	1,195
BK CD 2	Brooklyn Heights & Fort Greene	4,851	4.0%	8	9	1,004	-	3,830
MN CD 10	Central Harlem	4,227	3.4%	213	233	220	42	3,519
BX CD 8	Riverdale, Fieldston & Kingsbridge	3,487	3.3%	-	42	2,933	-	512
MN CD 3	Chinatown & Lower East Side	5,101	3.1%	1,539	84	864	-	2,614
BX CD 11	Pelham Parkway, Morris Park & Laconia	3,455	2.7%	-	-	2,452	670	333
BX CDs 3 & 6	Belmont, Crotona Park East & East Tremont	4,095	2.6%	127	12	428	370	3,158
BK CD 16	Brownsville & Ocean Hill	2,940	2.5%	136	74	35	-	2,695
BX CD 5	Morris Heights, Fordham South & Mount Hope	3,222	2.4%	-	30	237	-	2,955
BX CD 7	Bedford Park, Fordham North & Norwood	2,689	2.2%	-	60	1,417	-	1,212
MN CDs 4 & 5	Chelsea, Clinton & Midtown Business District	2,933	2.1%	165	34	135	57	2,542
SI CD 2	New Springville & South Beach	2,658	2.0%	-	74	1,758	-	826
BX CD 4	Concourse, Highbridge & Mount Eden	2,719	1.9%	-	15	850	32	1,822
BX CD 10	Co-op City, Pelham Bay & Schuylerville	2,173	1.9%	-	-	1,629	-	544
BK CD 8	Crown Heights North & Prospect Heights	2,241	1.9%	-	42	482	8	1,709
QN CD 13	Queens Village, Cambria Heights & Rosedale	3,546	1.8%	234	54	965	894	1,399
MN CD 8	Upper East Side	3,824	1.8%	-	11	2,857	8	948
QN CD 12	Jamaica, Hollis & St. Albans	3,874	1.7%	-	25	1,011	-	2,838
MN CD 7	Upper West Side & West Side	3,354	1.7%	-	-	1,185	55	2,114
BK CD 13	Brighton Beach & Coney Island	1,738	1.7%	-	12	1,318	-	408
MN CD 9	Hamilton Heights, Manhattanville & West Harlem	2,142	1.7%	-	96	473	-	1,573
BK CD 7	Sunset Park & Windsor Terrace	2,435	1.6%	2,089	6	137	-	203
BK CD 9	Crown Heights South, Prospect Lefferts & Wingate	1,779	1.6%	-	26	966	445	342
BK CD 3	Bedford-Stuyvesant	1,971	1.5%	93	20	288	-	1,570
MN CD 6	Murray Hill, Gramercy & Stuyvesant Town	2,063	1.4%	-	83	233	10	1,737
SI CD 1	Port Richmond, Stapleton & Mariner's Harbor	2,441	1.4%	6	159	923	-	1,353
QN CD 8	Briarwood, Fresh Meadows & Hillcrest	2,121	1.4%	7	34	1,464	55	561
BK CD 4	Bushwick	1,830	1.4%	-	52	244	-	1,534
BX CD 12	Wakefield, Williamsbridge & Woodlawn	1,852	1.3%	-	118	961	113	660
BK CD 6	Park Slope, Carroll Gardens & Red Hook	1,391	1.2%	-	31	337	509	514
BK CD 5	East New York & Starrett City	1,785	1.2%	27	13	713	17	1,015
QN CD 7	Flushing, Murray Hill & Whitestone	2,730	1.1%	-	21	2,492	-	217
QN CD 3	Jackson Heights & North Corona	1,523	0.9%	-	-	762	-	761
QN CD 2	Sunnyside & Woodside	1,086	0.8%	414	-	200	-	472
BK CD 17	East Flatbush, Farragut & Rugby	1,103	0.8%	-	19	441	18	625
MN CD 12	Washington Heights, Inwood & Marble Hill	1,641	0.8%	121	-	924	188	408
BK CD 15	Sheepshead Bay, Gerritsen Beach & Homecrest	1,111	0.8%	-	-	671	-	440
SI CD 3	Tottenville, Great Kills & Annadale	1,235	0.8%	918	-	24	-	293
BX CD 9	Castle Hill, Clason Point & Parkchester	1,361	0.7%	4	17	638	-	702
MN CDs 1 & 2	Battery Park City, Greenwich Village & Soho	1,037	0.7%	-	-	165	42	830
BK CD 1	Greenpoint & Williamsburg	1,031	0.7%	-	8	177	-	846
BK CD 12	Borough Park, Kensington & Ocean Parkway	1,143	0.7%	-	36	673	74	360
BK CD 14	Flatbush & Midwood	1,077	0.7%	-	9	511	4	553
QN CD 4	Elmhurst & South Corona	945	0.7%	10	20	578	31	306
QN CD 11	Bayside, Douglaston & Little Neck	784	0.7%	-	17	496	-	271
BK CD 18	Canarsie & Flatlands	1,143	0.6%	-	15	500	36	592
BK CD 11	Bensonhurst & Bath Beach	970	0.5%	-	-	688	-	282
QN CD 6	Forest Hills & Rego Park	495	0.4%	-	-	438	-	57
QN CD 1	Astoria & Long Island City	730	0.4%	-	13	282	-	435
QN CD 5	Ridgewood, Glendale & Middle Village	720	0.4%	-	31	544	-	145
BK CD 10	Bay Ridge & Dyker Heights	530	0.4%	-	-	276	-	254
QN CD 9	Richmond Hill & Woodhaven	537	0.4%	-	23	219	-	295
QN CD 10	Howard Beach & Ozone Park	340	0.3%	-	22	-	-	318

Source: U.S. Census Bureau, 2010 Census Advance Group Quarters Summary File, Population Division - New York City Department of City Planning.

**Ex. Student Housing. Other Health Care: patients w/o home, inpatient hospice, psychiatric, military treatment; Non-institutional: shelter, group home, residential treatment, religious, worker*