

Staten Island PPS DSRIP Project Plan Application**Community Needs Assessment**

The Staten Island Performing Provider System (PPS) has conducted the following Community Needs Assessment (CNA) in order to advance the goals of the New York State Delivery System Reform Incentive Payment Program (DSRIP). This comprehensive CNA includes the following:

- A review of the Staten Island Medicaid and uninsured population to be served.
- An assessment of the population's health status and needs.
- An analysis of the healthcare resources and community-wide infrastructure available to address these needs.
- An assessment of the healthcare environment from the perspective of community stakeholders.
- The identification of the critical health challenges facing the community.

The findings of this CNA will validate the selection of the Staten Island PPS projects proposed in the DSRIP Project Plan Application.

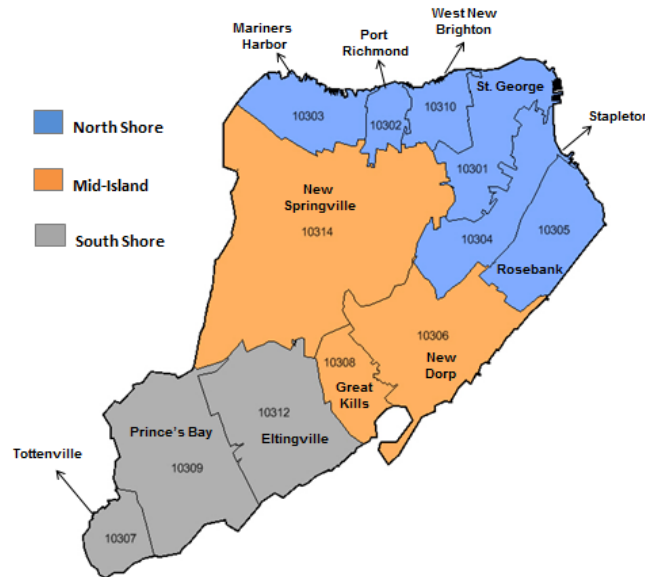
A. Description of Healthcare and Community Resources**i. Description of Healthcare Resources**

Staten Island (Richmond County) is a comparably smaller area for healthcare services in the greater New York City (NYC) metropolitan region. Being a smaller geography strengthens the healthcare infrastructure as there is a long-standing history of provider collaboration and a shared understanding of Staten Island as a community among health, social service, and community-based organizations, making Staten Island favorable to population-based healthcare.

Staten Island is a water-locked borough and is comprised of 12 contiguous zip codes. There are 3 regions in Staten Island: the North Shore, Mid-Island, and South Shore. Although the majority of the population and businesses, including healthcare organizations, are located in the North Shore and Mid-Island regions, Staten Island's health, social service, and community-based providers serve the entire borough. For Medicaid beneficiaries, based on historical Emergency Department (ED) and inpatient discharges, there is very little outmigration for care to other NYC boroughs or New Jersey. In 2013, 85.8% of all Staten Island resident Medicaid and Medicaid/Medicare dual eligible inpatient discharges were at Richmond University Medical Center (RUMC) and Staten Island University Hospital (SIUH).¹

¹ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 11/04/14.

MAP OF THE 12 STATEN ISLAND COMMUNITIES AND 3 STATEN ISLAND REGIONS



A lack of mass transit resources is a major barrier to accessing care in the borough. Staten Island is the only NYC borough without a MTA subway line (only limited light rail service is available). Patients access care primarily via car and public bus, with most of the bus stops located in the North Shore and Mid-Island areas following major routes. Although patients remain in the borough for care, transportation to and from healthcare providers is as a real issue for Staten Island. Information gathered via the Staten Island CNA focus groups, community member surveys, and PPS committee meetings and surveys identify that transportation is a barrier to accessing care in the community. Lack of ambulettes available to Medicaid populations, limited mass transit, and low car ownership among vulnerable populations are issues present in the community.

There are only two hospitals on the Island, and both are private not-for-profit, acute care hospitals (there are no Health and Hospitals Corporation acute care hospitals in the borough). The hospitals provide center of excellence services in Cardiovascular, Cancer, Women’s and Children’s Health, Neuroscience/Orthopedic Care, and Behavioral Health (BH). Both hospitals have a history of collaboration with Staten Island providers and provide screening, education, and prevention programs in collaboration with many community organizations. The hospitals are Medicaid/safety-net providers and serve all patients regardless of age, gender, race/ethnicity, religion, socioeconomic, and ability-to-pay status.

SIUH is a 714-bed tertiary teaching hospital with two campuses and is a North Shore-LIJ Health System member hospital. The North Campus, with 508 beds, is located in the North Shore of Staten Island (zip code 10305), and the South Campus, 206 beds, is located in the South Shore region (zip code 10309). As a member of one of NY’s most clinically integrated systems, SIUH has access to resources such as an extensive access to community health/patient data. In addition to comprehensive inpatient services, SIUH offers outpatient care, and short-term inpatient detox and chemical dependency rehab services.

RUMC is a 473-bed acute care hospital with two campuses both located in the North Shore of Staten Island (zip codes 10310 and 10304). RUMC has achieved NCQA Level 3 Patient Centered Medical Home status for its adult and pediatric primary care center. In addition to comprehensive inpatient and outpatient services, RUMC offers extensive behavioral health care and has a Certified Psychiatric Emergency Program (CPEP) with 10 extended observation beds for behavioral health patients. RUMC is also opening a co-located pediatric program with Staten Island Mental Health Society and offering primary care at South Beach Psychiatric Center.

According to the New York State Department of Health, Staten Island has 10 licensed skilled nursing facilities located in the North Shore and Mid-Island regions. There are 2 licensed hospice providers that can serve the borough. Lastly, there are 20 certified home health agencies that can provide care to Staten Island residents.²

SKILLED NURSING FACILITIES ON STATEN ISLAND - 2013

Skilled Nursing Facility	Total Certified Beds
Carmel Richmond Healthcare and Rehabilitation Center	300
Clove Lakes Health Care and Rehabilitation Center, Inc	576
Eger Health Care and Rehabilitation Center	378
Golden Gate Rehabilitation & Health Care Center	238
New Vanderbilt Rehabilitation and Care Center, Inc	320
Richmond Center for Rehabilitation and Specialty Healthcare	228
Sea View Hospital, Rehabilitation Center and Home	304
Silver Lake Specialized Rehabilitation and Care Center	278
Staten Island Care Center	300
Verrazano Nursing Home	120

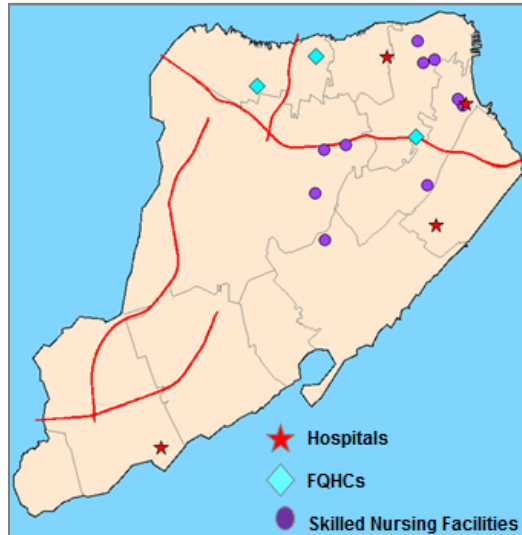
Source: New York State Department of Health, accessed 11/03/14.

Staten Island’s three federally qualified health centers (FQHCs) are located in the North Shore. Community Health Center of Richmond (CHCR) and Beacon Christian Community Health Center (BCCHC) are the two full service FQHCs operating exclusively in Staten Island. Sunrise of Staten Island is a small center limited to providing services to seniors. At the time of this CNA writing, CHCR and another provider, Children’s AIDs Society, are planning to open two additional FQHC sites in Staten Island.³

² New York State Department of Health, accessed 11/03/14.

³ US Dept of Health and Human Services - Health Resources find a FQHC, Community healthcare association of NYS, accessed 11/03/14.

MAP OF STATEN ISLAND HOSPITALS, FQHCs, AND SKILLED NURSING FACILITIES



Source: New York State Department of Health, accessed 11/03/14.

In regards to behavioral health services, there are several licensed Office of Mental Health (OMH) providers including SIUH, RUMC, Staten Island Mental Health Society, and St. Joseph's Medical Center. There is also one State OMH facility, the South Beach Psychiatric Center. Staten Island's mental health providers currently provide inpatient services, and well as outpatient assessment and treatment for adults, children and adolescents, including therapy and medication management. There are 13 Staten Island OASAS licensed treatment providers located throughout the three regions of Staten Island. Substance abuse services currently being provided include drug and alcohol outpatient treatment, outpatient intensive treatment, outpatient day rehab with alternative schooling, medication assisted treatment, opioid treatment program, residential treatment, harm reduction (syringe exchange), inpatient detox, and inpatient rehab.⁴

There is one health home in Staten Island, Coordinated Behavioral Care. Coordinated Behavioral Care is a multi-provider health home focused on individuals with a behavioral health condition. In regards to Staten Island-based providers, the health home contracts with 10 organizations that provide care management services to health home eligible populations. The health home is a Medicaid provider.⁵

At the time of this CNA writing, there are two contingently approved Certificate of Need applications for two freestanding ambulatory surgery centers in Staten Island. Both hospitals have Article 28 ambulatory surgery services, and according to the New York State Department of Health, there are 37 accredited office-based surgery practices in Staten Island.⁶

⁴ Office of Mental Health (OMH) and Office of Alcoholism and Substance Abuse Services (OASAS), accessed 11/03/14.

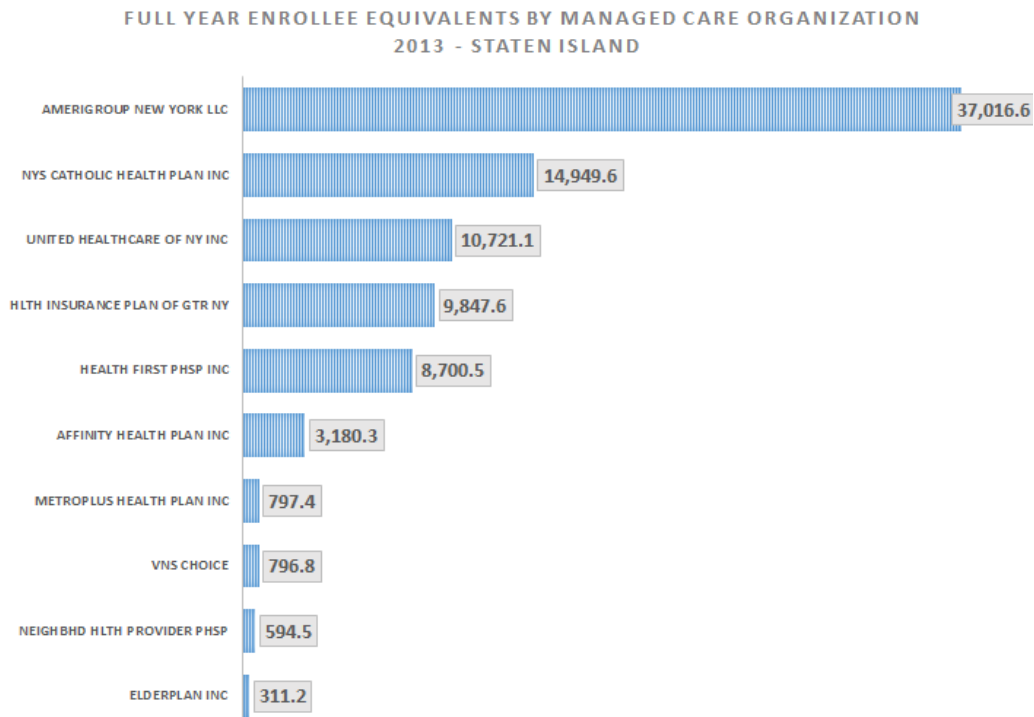
⁵ New York State Department of Health - Health Home search by county, accessed 11/03/14.

⁶ New York State Department of Health, accessed 11/03/14.

There are approximately eight urgent care centers (UCCs) with extended night/ weekend hours and walk-in appointment availability located in six of the 12 Staten Island zip codes (these six zip codes cover all three Staten Island regions). Two of the UCCs offer MRI/CT imaging services.⁷

There are 25 sites of care, including hospital-based locations, that provide MRI, CT, mammogram, and nuclear medicine imaging services in Staten Island according to the American College of Radiology. Imaging services are available in all Staten Island regions.⁸ There are 18 clinical laboratories, including hospital-based labs and private labs such as Quest or Lab Corp, located on Staten Island.⁹ There are 52 pharmacies on Staten Island, including private organizations and large national retailers such CVS.¹⁰

There are over 50 Medicaid Managed Care Organizations that serve Staten Island Medicaid enrollees. The top 10 (shown below) serve 98% of the Staten Island Medicaid Managed Care population based on 2013 Salient NYS Medicaid claims data. AmeriGroup New York is the largest provider for Staten Island.¹¹



Source: Salient New York State Medicaid Claims Database, accessed 08/28/14.

In regards to local public health departments, NYC Department of Health and Mental Hygiene serves all five boroughs including Staten Island.¹²

⁷ Urgent Care Association of America, Google, CVS Pharmacy website, accessed 11/03/14.

⁸ American College of Radiology and Google, accessed 11/03/14.

⁹ SIUH website, Quest Lab, and Lab Corp, accessed 12/17/14.

¹⁰ Yellowpages.com and Google search, accessed 12/17/14.

¹¹ Salient New York State Medicaid Claims Database, accessed 08/28/14.

In regards to an analysis of bed count, data from the Center for Health Workforce Studies' New York State Health Workforce Planning Data Guide 2013 illustrates that Staten Island has less inpatient beds per 100,000 compared to NYC and NYS rates. As previously mentioned, there are only two hospitals on Staten Island and there are no Health and Hospitals Corporation acute care facilities on the Island. However, Staten Island's nursing home bed rate is higher than both the City and State rates.¹³ The borough's healthcare infrastructure is known for its skilled nursing facility services in terms of the amount of beds available to the community.

The borough's supply of physicians compared to NYS and NYC is relatively low based on data from the Center for Health Workforce Studies data guide. Staten Island has 269.2 physicians per 100,000 residents as compared to NYC's rate of 405 per 100,000 and NYS's 348 per 100,000 residents. For primary care physicians (PCPs), the rates are as follows: Staten Island- 102.2, NYC- 134, and NYS- 120 per 100,000 residents. For specialists, the rates are: Staten Island- 167, NYC- 271, and NYS- 228 per 100,000 residents. In regards to physician assistants, Staten Island is higher compared to the City and State. The nurse practitioner rate is higher than the City rate, but lower than the State's rate. This data illustrates an historical issue the Island has faced, recruitment of physicians to establish practices in the borough. Overall, there approximately 500 primary care providers, roughly 800 specialty providers, almost 400 dental providers, and approximately 1,200 physical therapy/occupational therapy/speech therapists located on Staten Island. Of particular concern is the number of primary care physicians available to serve the community. This issue was also voiced by community members during focus groups.¹⁴

The table below also outlines the supply of other types of providers in the community. Another area to note is the supply of providers related to behavioral health and community services. The rate of general psychiatrists, social workers, and psychologists is lower compared to City and State rates. The rate for mental health counselors is comparable to the City's rate, but lower than the State.¹⁵

Overall, the locations of providers in Staten Island tend to concentrate in the North and Mid-Island communities. Providers tend to cluster around the hospital campuses located in the North Shore of Staten Island and along the major transportation routes. Historically, the South Shore has had lower access to healthcare services due to these provider trends.

¹² New York City Department of Mental Health and Hygiene, accessed 12/17/14.

¹³ Center for Health Workforce Studies' New York State Health Workforce Planning Data Guide 2013, accessed 11/03/14.

¹⁴ Center for Health Workforce Studies' New York State Health Workforce Planning Data Guide 2013, accessed 11/03/14.

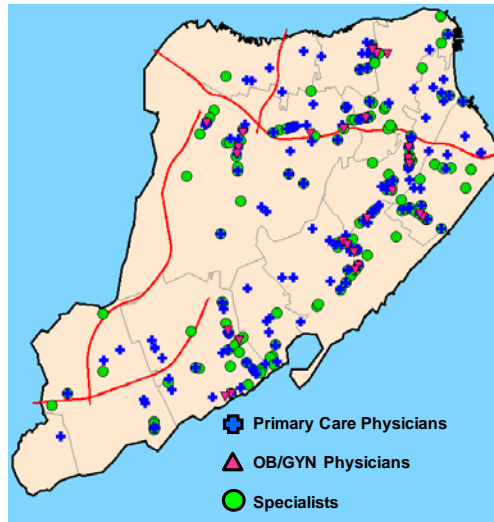
¹⁵ Center for Health Workforce Studies' New York State Health Workforce Planning Data Guide 2013, accessed 11/03/14.

**2013 STATEN ISLAND BED AND PROVIDER RATES COMPARED TO
NEW YORK CITY AND NEW YORK STATE**

	<u>Rate per 100,000</u>		
	Staten Island	New York City	New York State
<i>Bed Count</i>			
Hospital Beds	264.2	305.0	289.0
Nursing Home Beds	652.5	537.0	597.0
<i>Provider Count</i>			
Physicians	269.2	405.0	348.0
PCPs (Includes Peds and OB/GYN)	102.2	134.0	120.0
Specialists (Includes Psychiatrists)	167.0	271.0	228.0
General Psychiatrists	24.3	49.0	36.0
Dentists	76.7	74.0	78.0
Dental Hygienists	58.0	21.0	47.0
Physician Assistants	71.3	36.0	61.0
Nurse Practitioners	63.8	47.0	76.0
Midwives	2.7	Combined with NPs	Combined with NPs
Registered Nurses	1,360.7	717.0	1,093.0
Licensed Practical Nurses	222.3	176.0	332.0
Mental Health Counselors	15.3	15.0	21.0
Social Workers	181.5	231.0	234.0
Psychologists	23.2	55.0	52.0
Physical Therapist	105.3	58.0	80.0
Physical Therapist Assistants	11.8	13.0	22.0
Respiratory Therapist	23.2	17.0	25.0
Audiologists	3.1	3.0	6.0
Occupational Therapists	42.3	35.0	47.0
Occupational Therapist Assistant	7.0	12.0	19.0
Optometrists	10.2	10.0	13.0
Speech Language Pathologists	78.9	48.0	71.0
Pharmacists	122.2	69.0	91.0
Dieticians/Nutritionists	19.1	18.0	23.0

Source: Center for Health Workforce Studies' New York State Health Workforce Planning Data Guide 2013, accessed 11/03/14.

MAP OF STATEN ISLAND PRIMARY CARE, OB/GYN, AND SPECIALTY PHYSICIANS



Source: American Medical Association, accessed 10/30/14.

In regards to operating hours for the borough's healthcare providers, hospital, ED, and skilled nursing facilities are 24/7 operations. FQHCs, urgent care centers, imaging facilities, physician practices, and other ambulatory care providers offer some extended late evening hours during the week and some weekend availability for patients. CNA focus groups and surveys have identified that limited operating hours of many outpatient services is problematic. In addition to more evening and weekend hours, the community also expressed concern over the limited amount of time spent with their provider during an actual visit/ healthcare encounter.¹⁶

ii. Description of Community-based Resources

The information presented in this section of the CNA has been obtained through the Greater New York Hospital Association Health Information Tool for Empowerment (HITE). HITE is a database available for NYC that contains a comprehensive directory on existing community services/programs offered by local organizations.¹⁷

- a. Food Pantries, Community Gardens, and Farmers Markets: There are 6 food banks organizations located within Staten Island.
- b. Individual Employment Support Services: There are 10 employment support service organization on Staten Island.
- c. Housing: Staten Island has 5 housing organizations.
- d. Transportation Services: On Staten Island, there are 4 organizations that provide transportation services.

¹⁶ Staten Island PPS Community Survey and Focus Group Responses.

¹⁷ Health Information Tool for Empowerment (HITE), accessed 10/17/14.

- e. Organizations for Individuals with Cognitive or Developmental Disabilities: Staten Island has 15 organizations for individuals with cognitive or developmental disabilities.
- f. Peer, Family Support, Training, and Self Advocacy Organizations: There are 28 family support and training organizations on Staten Island. In addition to the family support and training programs available on Staten Island, there are 20 peer support organizations.
- g. Youth Development Organizations: In Staten Island, there are 8 youth development organizations.
- h. Education/ Schools Community Based Education: There are 28 community based health education organizations on Staten Island. There are 18 education community organizations located within Staten Island.
- i. Local governmental social service: There are 7 local government social service organizations located on Staten Island.
- j. Re-entry and Alternatives to Incarceration: There is 1 alternative to incarceration organization located within Staten Island.
- k. HIV Prevention/Outreach and Social Services: Staten Island has 4 HIV prevention, outreach, and social service organizations.
- l. Other Community Service Organizations: There is 1 clothing and furniture bank organization in Staten Island. There are 55 community service organizations including children and family services, senior citizen centers, and volunteer services.

B. Description of the Community to be Served

i. Demographics of the Population Served

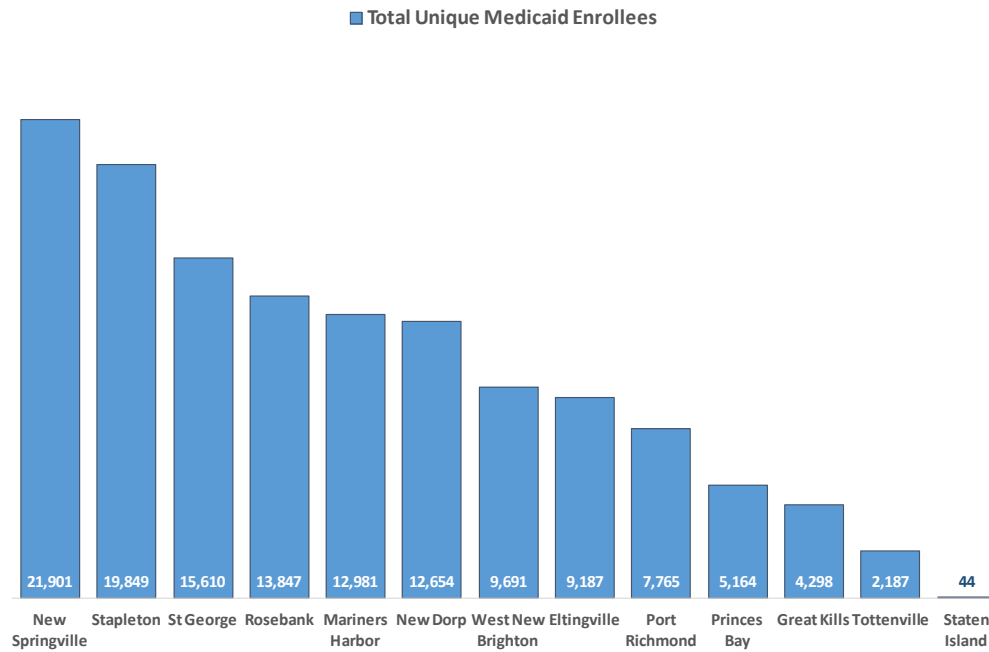
a. *Gender, Race, and Age*

Richmond County, the borough of Staten Island, is comprised of approximately 468,730 residents as of the 2010 US Census.¹⁸ Of these, approximately 135,000 (roughly 30%) are unique Medicaid enrollees based on NYS Medicaid claims data for the 2013 time period. Medicaid beneficiaries tend to be located in the Island's North Shore communities of Stapleton, St. George, Rosebank, and Mariner's Harbor.¹⁹

¹⁸ 2010 United States Census Bureau.

¹⁹ Salient New York State Medicaid Claims Database, accessed 08/28/14.

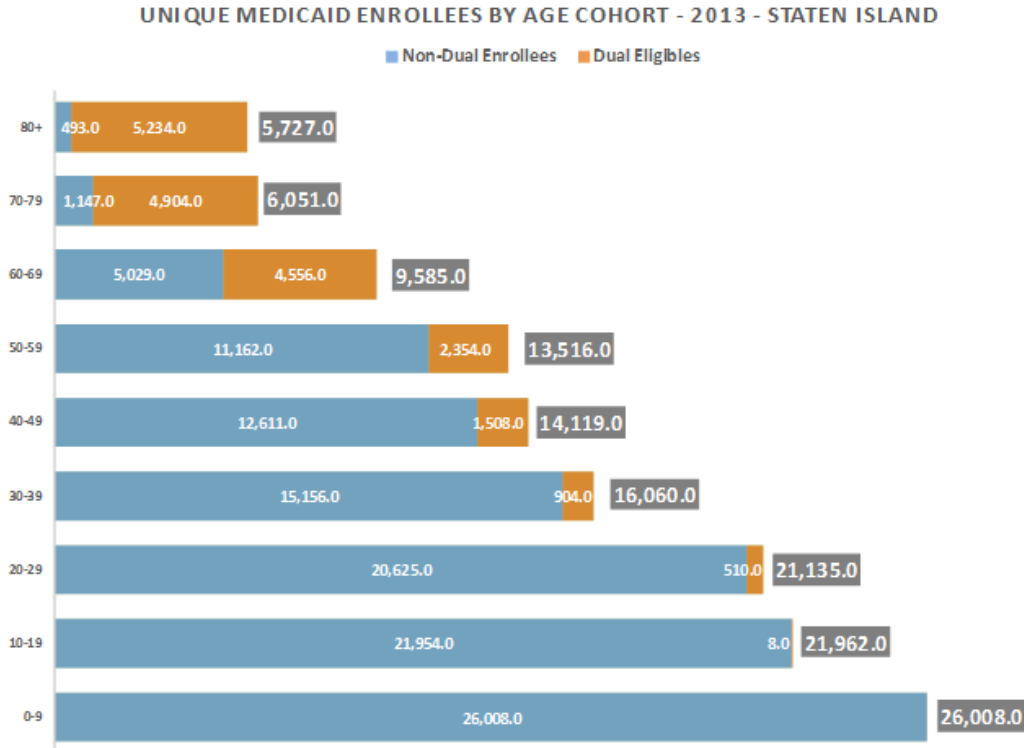
Medicaid Population by Zip Code- 2013 - Staten Island



Source: Salient New York State Medicaid Claims Database, accessed 09/08/14.

For the general Staten Island population, 13% of the total population is 65+ years old, 28% is 45-64 years old, 36% if 18-44 years old, and 23% is 00-17 years old (US Census data not shown). For the Medicaid enrollee population, 16% are 60+ years of age, 84% are under 60, and roughly half of the total Staten Island Medicaid enrollee population is 20-59 years of age. Of unique Medicaid enrollees, 5,727 are over the age of 80 and 6,051 are between the ages of 70-79, totaling to 11,778 enrollees above the age of 70.²⁰

²⁰ Salient New York State Medicaid Claims Database, accessed 09/08/14.

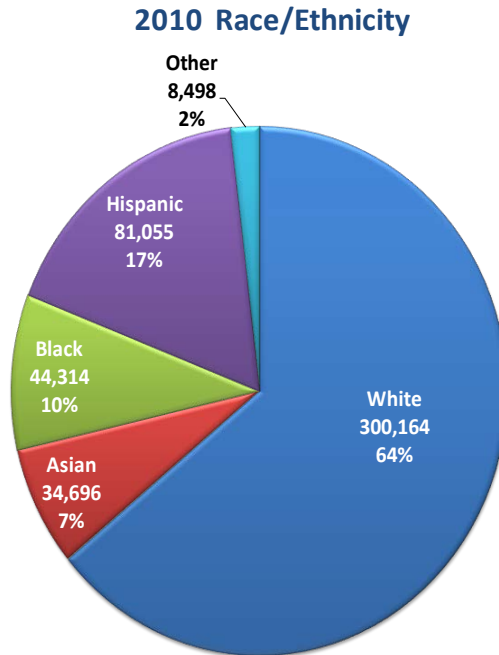


Source: Salient New York State Medicaid Claims Database, accessed 08/28/14.

As of the 2010 US Census, the racial/ethnic make-up of Staten Island as a whole is 64% White, 17% Hispanic, 10% Black, 7% Asian, and 2% “all other” races/ethnicities.²¹ Over the course of 3 years, Staten Island has added 3,891 people to its population, of which 3,718 (95.6%) were classified as being international immigrants.²²

²¹ 2010 United States Census Bureau.

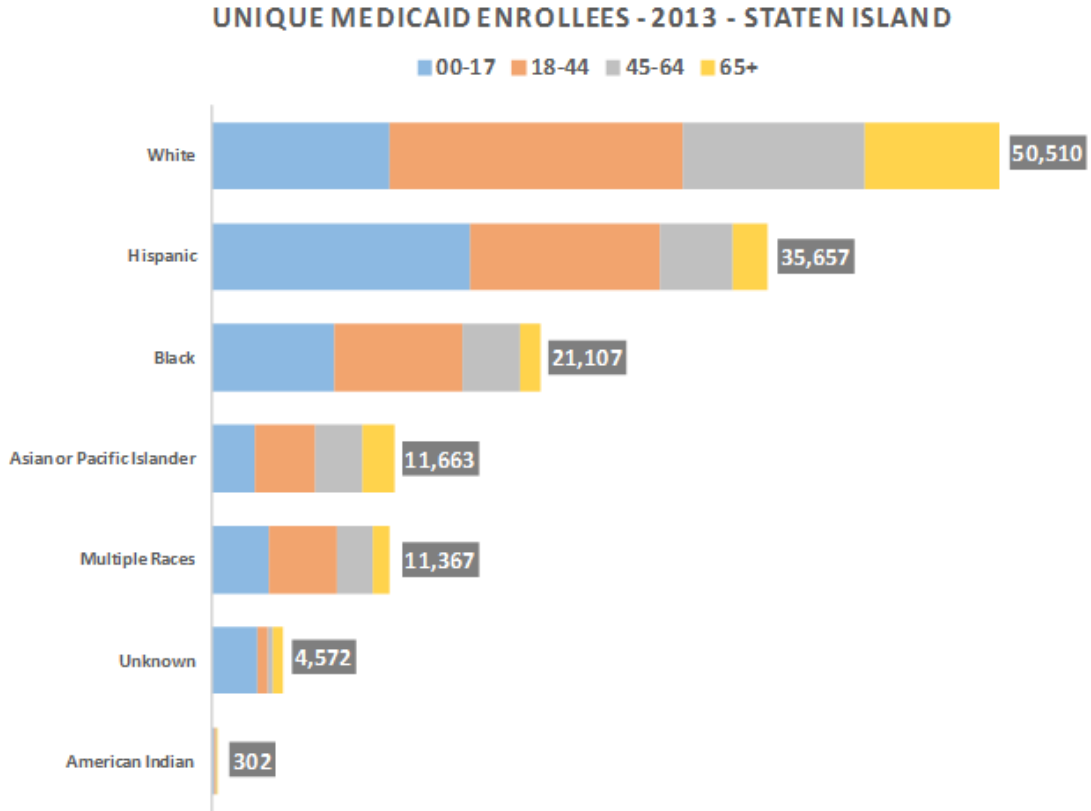
²² New York City Department of City Planning Current Population Estimates, accessed 12/02/14.



Source: 2010 United States Census for Staten Island.

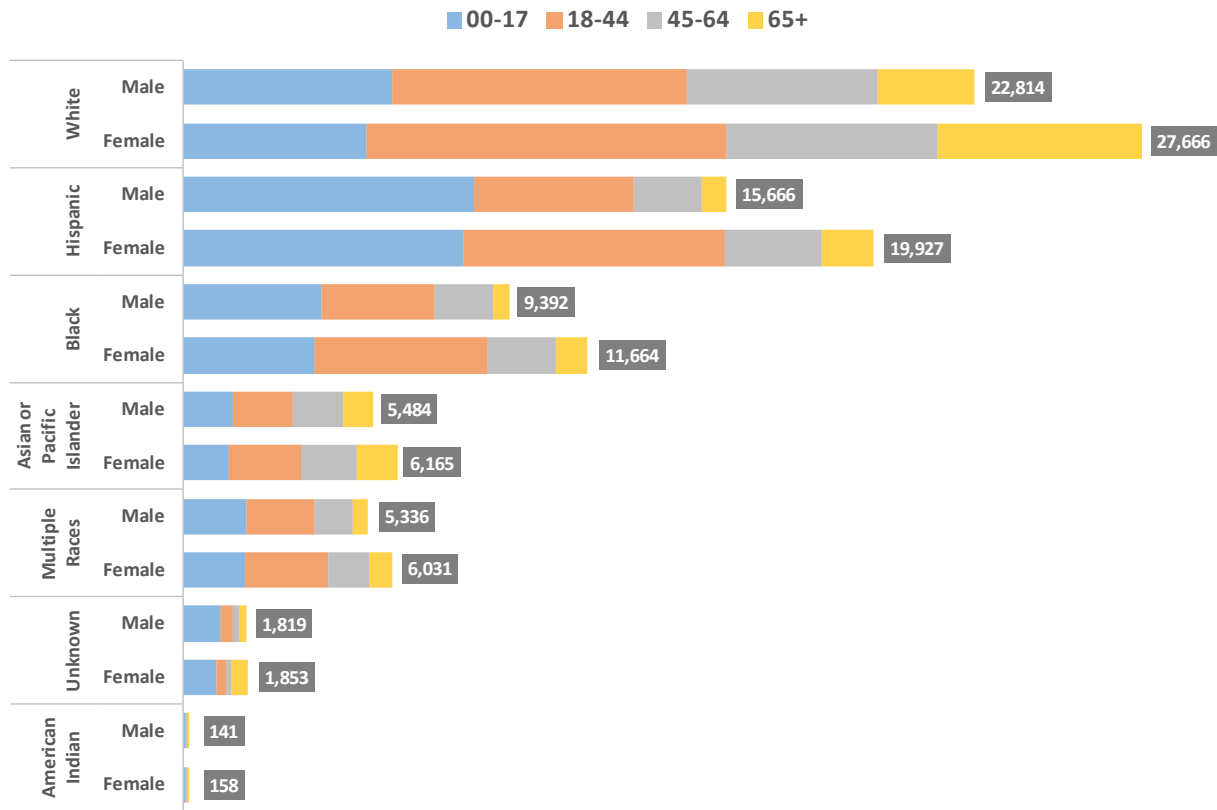
The racial/ethnic make-up of the Medicaid enrollee population is 37.6% White, 26.5% Hispanic, 15.7% Black, 8.7% Asian, and 11.4% “all other” races/ethnicities. The largest group of Medicaid enrollees in Staten Island is the White population, specifically White females between the ages of 18-44. White males between the ages of 18-44 are also one of the largest sub-populations of Medicaid enrollees in Staten Island. Black and Hispanic Medicaid enrollees primarily live in the North Shore of Staten Island.²³

²³ Salient New York State Medicaid Claims Database, accessed 08/28/14.



Source: Salient New York State Medicaid Claims Database, accessed 08/28/14.

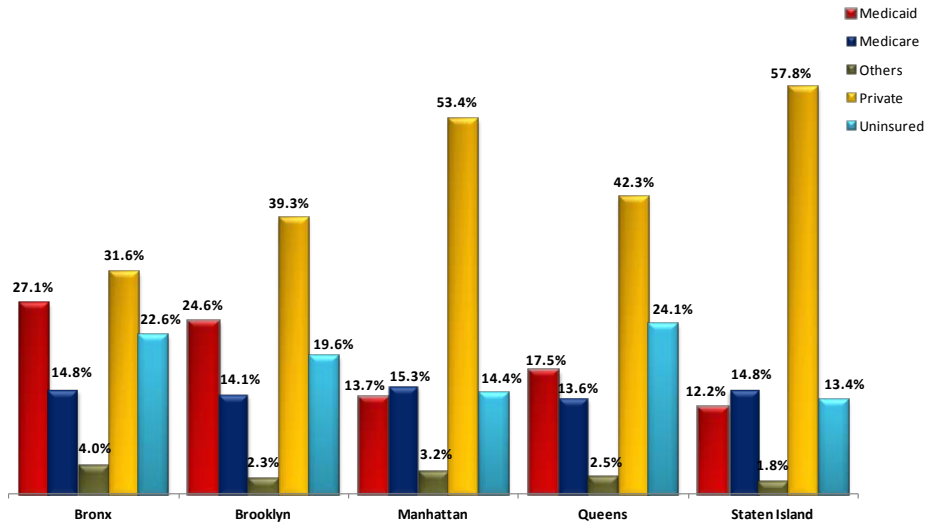
UNIQUE MEDICAID ENROLLEES - 2013 - STATEN ISLAND



Source: Salient New York State Medicaid Claims Database, accessed 08/28/14.

b. Insurance Status

Health Insurance Status by NYC Borough (2012)

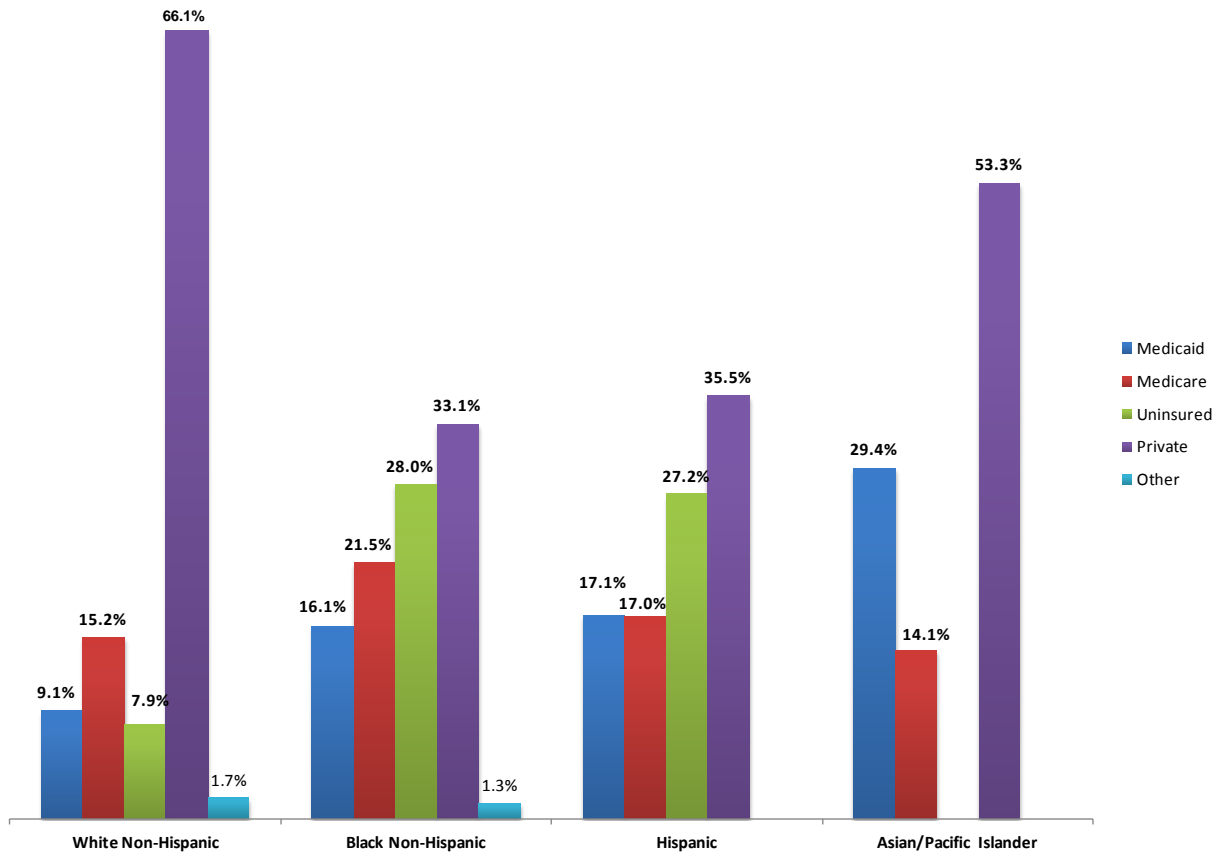


Source: New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 10/13/14.

NYC Department of Health and Mental Hygiene Epiquery statistics estimate that 13.4% of Staten Island residents are uninsured.²⁴

²⁴ New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 10/13/14.

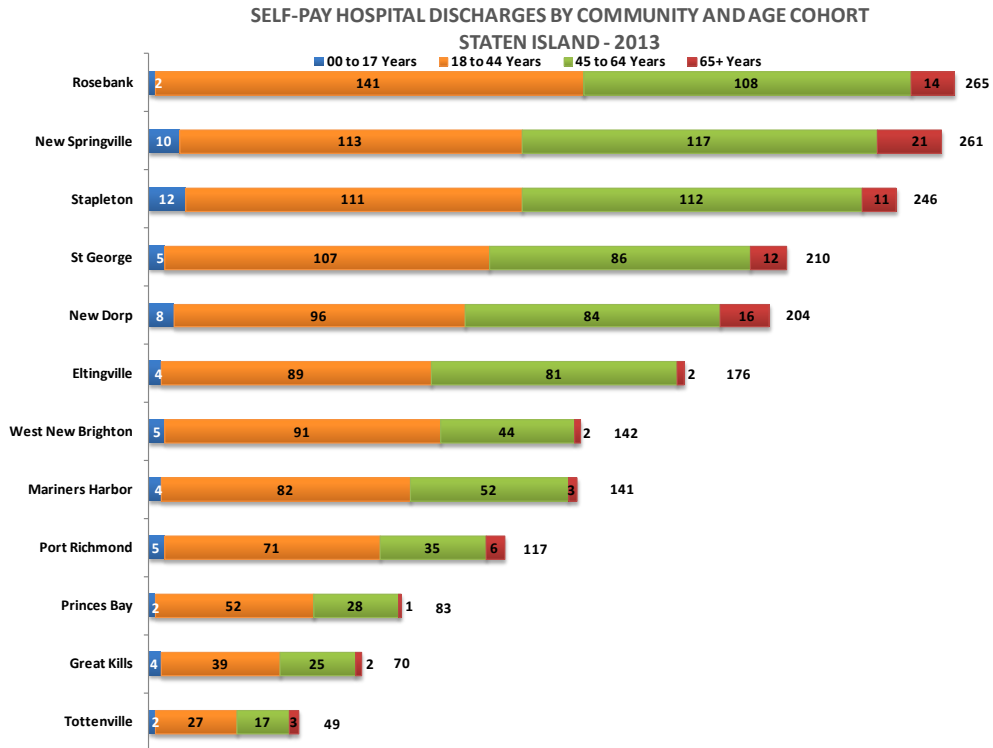
STATEN ISLAND RESIDENT HEALTH INSURANCE COVERAGE BY RACE/ETHNICITY - 2012



Source: New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 10/13/14.

Among Staten Island residents, Black Non-Hispanic and Hispanic racial/ethnic groups have the largest percentages of uninsured individuals. Within each racial/ethnic group, individuals with private insurance are among the higher percentages.²⁵

²⁵ New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 10/13/14.



Source: New York State SPARCS database, accessed 11/05/14.

In 2013, there were 1,964 self-pay hospital discharges in Staten Island.²⁶

c. Income, Education, Employment, Disability Status, Housing Status, and Citizenship

Staten Island is a predominantly middle-class area. Compared to NYS, Staten Island is comparably affluent with higher household income statistics and lower estimated poverty levels. Staten Island has lower percentages of residents with less than high school diplomas and college degrees compared to NYS. The homeownership rate for Staten Island is 69.8%, which is higher than the NYS average of 54.8%.²⁷

²⁶ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 11/05/14.

²⁷ 2010 United States Census Bureau.

STATEN ISLAND ECONOMIC/EDUCATION INDICATORS COMPARED TO NYS - 2010

Economic/Education Indicators	Staten Island	NYS
Average Household Income	\$88,221	\$82,698
Median Household Income	\$72,752	\$56,951
Per Capita Income	\$31,276	\$31,796
Estimated % Poverty	13.7%	14.5%
Less than High School Diploma (aged 25+)	12.6%	15.4%
Bachelor’s Degree or Higher (aged 25+)	29.0%	32.5%
Homeownership Rate	69.8%	54.8%

Source: 2010 United States Census.

In addition to the Census, data (not shown) from the American Community Survey for 2012 was reviewed to understand employment, education, disability, and citizenship status trends for the Staten Island community. Individuals with public health insurance (Medicaid or Medicare) are more likely to be “not in the labor force” (not actively job seeking) compared to being employed or unemployed. Conversely, individuals with no health insurance coverage are more likely to be employed versus being unemployed or not in the labor force.²⁸

Staten Island residents between the ages of 25-64 with a bachelor degree or some college or high school education are more likely to have private insurance. Staten Island residents who have less than a high school degree are more likely to have no health insurance or public coverage.²⁹

Overall, when looking at disability status, individuals with disabilities are able to access health insurance through either private or public health insurance.³⁰

²⁸ American Community Survey 2012 5 Year Estimates, accessed 11/03/14.

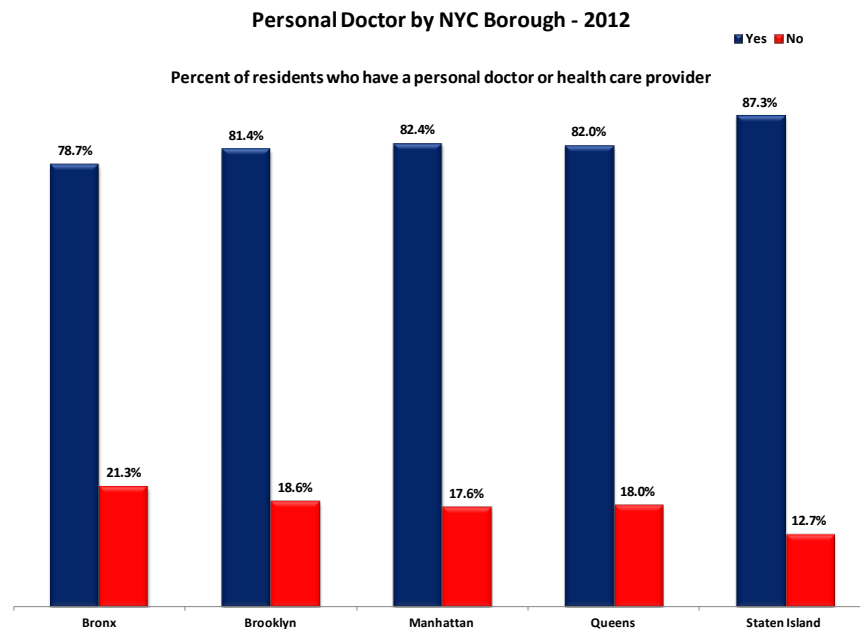
²⁹ American Community Survey 2012 5 Year Estimates, accessed 11/03/14.

³⁰ American Community Survey 2012 5 Year Estimates, accessed 11/03/14.

Staten Island residents who are native born or foreign-born naturalized are more likely to have private or public health insurance. Foreign-born non-citizens are roughly split equally among the uninsured, publically, and privately insured categories.³¹

d. Access to Regular Sources of Care

Staten Island has the highest percentage of individuals with a personal doctor or healthcare provider of all NYC boroughs. 87% of Staten Island residents indicated that they had at least one person they considered to be their personal doctor according to NYC Epiquery data for 2012.³²



Source: New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 12/04/14.

e. Language and Health Literacy

Communication has been identified as one of the barriers in the delivery of healthcare. Factors that impact communication between providers and patients are language/cultural barriers. These barriers affect residents who are not proficient in English by limiting the quantity/quality of healthcare information exchanged during an encounter.

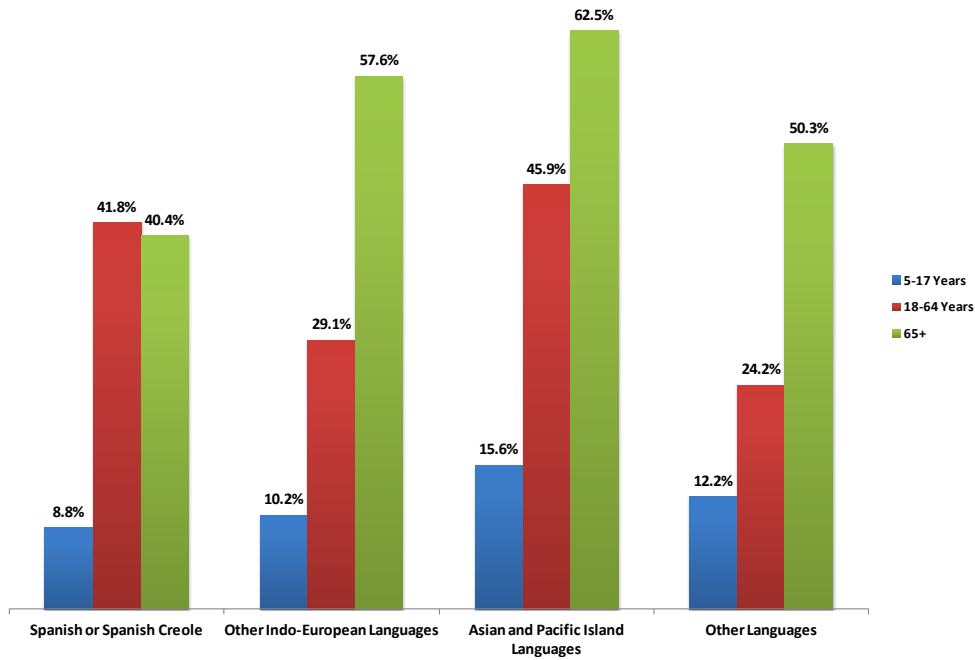
Older Staten Island residents compared to younger residents have more issues with English proficiency, and this trend can be seen across different foreign language speaking groups. Additionally, it can be

³¹ American Community Survey 2012 5 Year Estimates, accessed 11/03/14.

³² New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 12/04/14.

inferred that the Asian and Pacific Island native speakers face the largest barriers in communication across all age cohorts with the highest percentages of individuals not proficient in English.³³

Percent Not Proficient in English, Ages 5+ (2008-2012)



Source: American Community Survey, accessed 11/03/14.

ii. Health Status of the Population and the Distribution of Health Issues

a. *Mortality Rates for Staten Island Residents*

Staten Island has high household income and privately insured rates yet continues to be the borough with the highest rate of mortality in NYC (679.8 per 100,000 compared to a citywide aggregate of 622.7 per 100,000). The leading causes of death are cardiac disease and cancer in the borough. This shows a need for effective healthcare services.³⁴

Further, approximately 70% of non-Hispanic blacks are identified as being likely to die prematurely (before the age of 75) compared to the White population at roughly 40%. Among Staten Island’s Hispanic population, approximately 60% of deaths are considered premature.³⁵ (Data not shown).

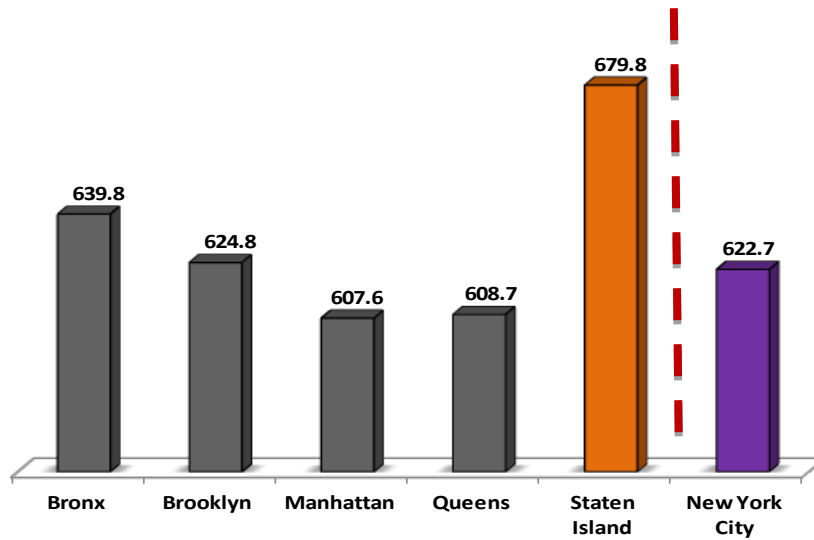
The following mortality charts help to illustrate these issues.

³³ American Community Survey 2012 1 Year Estimate, accessed 11/03/14.

³⁴ New York State Department of Health Vital Statistics, accessed 10/13/14.

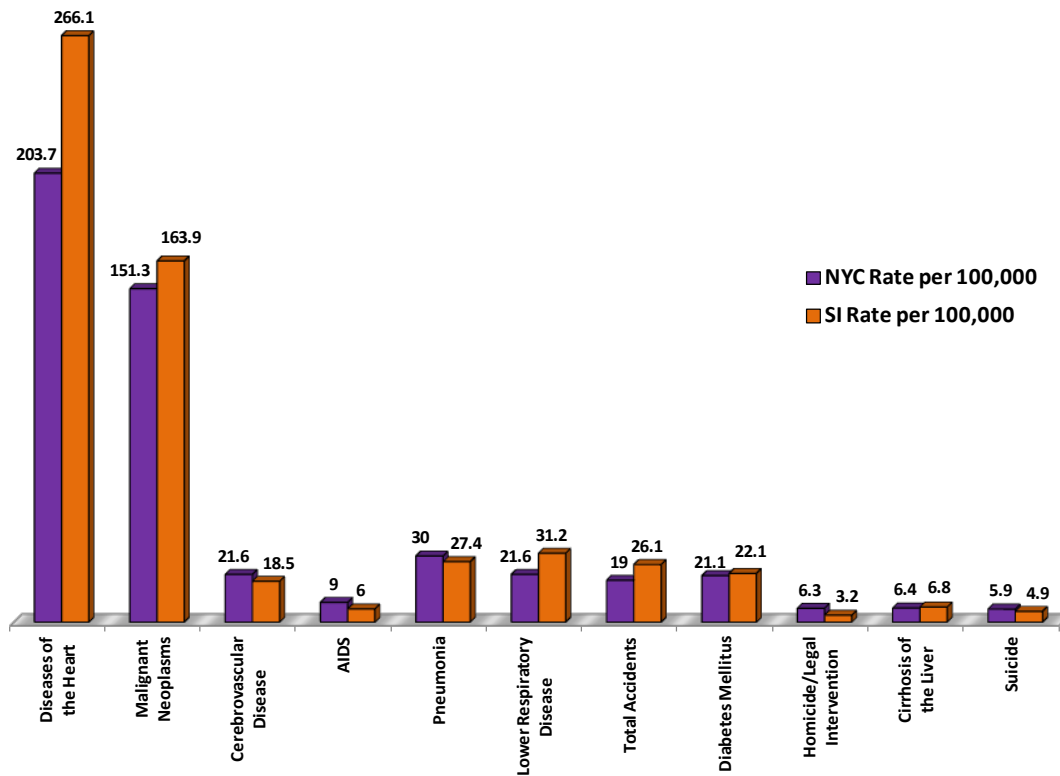
³⁵ New York State Department of Health, accessed 12/02/14.

NEW YORK CITY MORTALITY RATES - ALL CAUSES - 2011



Source: New York State Department of Health Vital Statistics, accessed 10/13/14.

STATEN ISLAND LEADING CAUSES OF DEATH COMPARED TO NEW YORK CITY - 2011



Source: New York State Department of Health Vital Statistics, accessed 10/13/14.

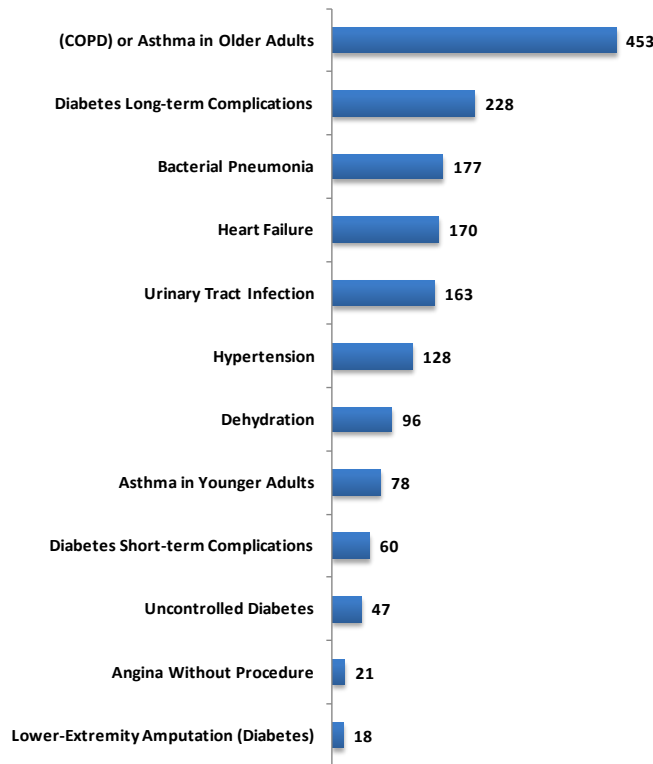
b. Hospitalization and Preventable Hospitalizations for Medicaid Enrollees

NYS Preventive Quality Indicators (PQIs) are a set of measures that can be used with hospital inpatient discharge data to identify effectiveness of care. These are conditions for which quality community health and outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.

The majority of PQI admissions for Staten Island residents are for COPD or Asthma, Diabetes, Bacterial Pneumonia, and Heart Failure. Staten Island’s African American population is three times more likely to be hospitalized for asthma and twice as likely to be hospitalized for diabetes in comparison to the White population.³⁶

PQIs were mapped into quintiles (observed rate minus expected rate) to analyze the Medicaid population data. Overall PQI composite rates for Staten Island residents in the North Shore exceed the statewide averages. Additionally, PQI analysis by disease state also illustrate that the high health need Medicaid population is located primarily in the North Shore as is evidenced by the red colored zip codes in the PQI maps. These Staten Island Medicaid “hot spots” show where the greatest need for high quality healthcare exists. The PQI maps in the Disease Prevalence subsection illustrate these “hot spots”.

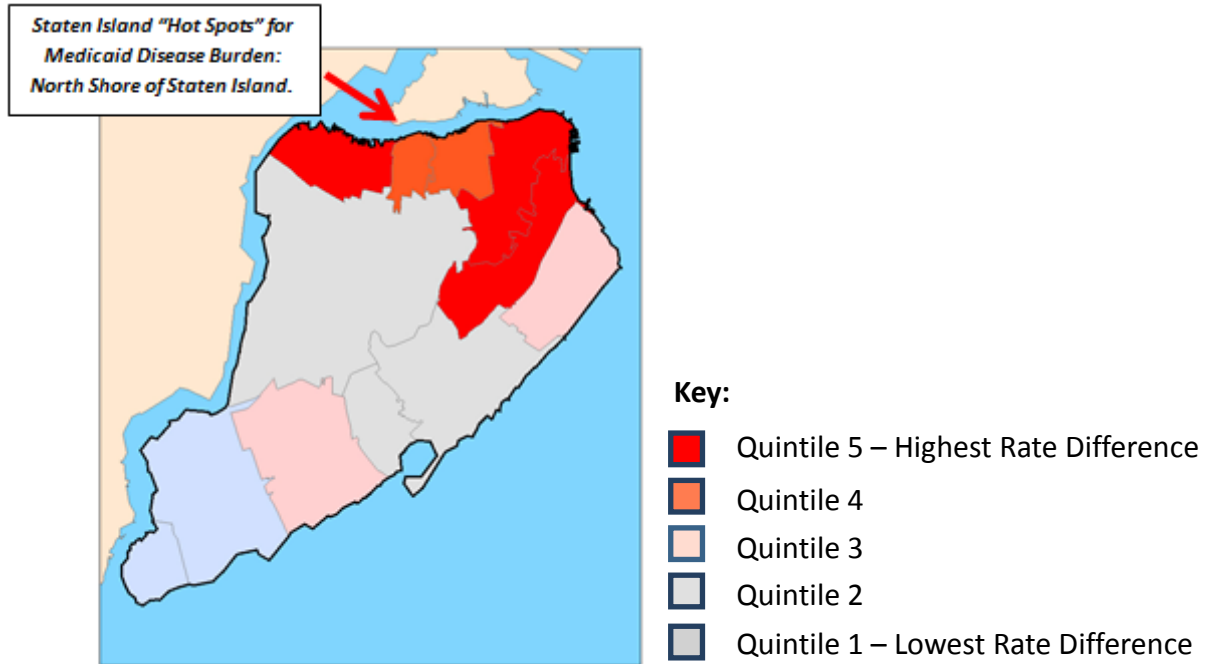
**MEDICAID PQI HOSPITALIZATIONS
STATEN ISLAND IN 2012**



Source: Health Data NY, accessed 09/18/14.

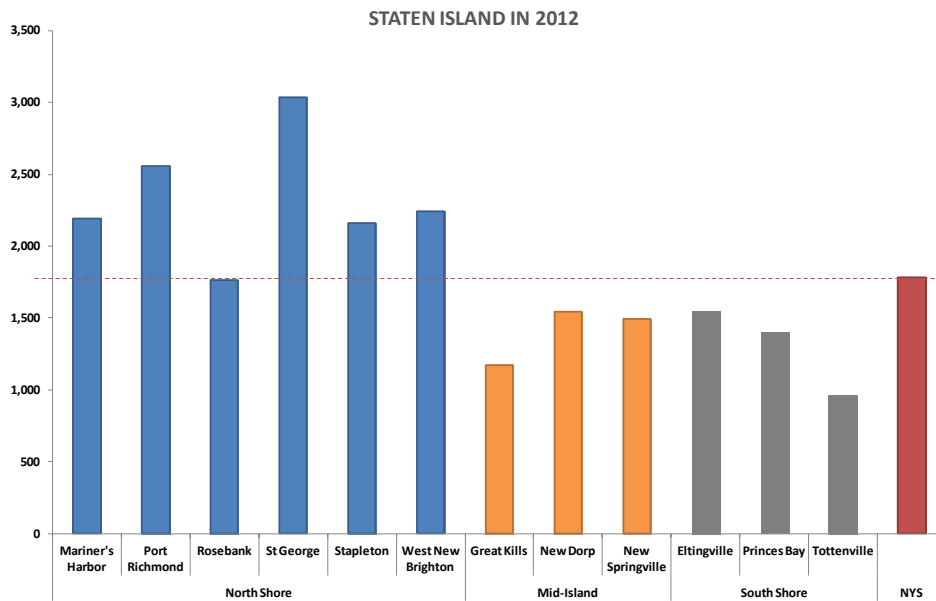
³⁶ Health Data NY, accessed 09/18/14.

**TOTAL PQI DISCHARGE RATES – MEDICAID/MEDICAID HMO
OBSERVED VERSUS EXPECTED RATE - 2012**



Source: Health Data NY, accessed 09/18/14.

MEDICAID PQI HOSPITALIZATION RATES – OVERALL COMPOSITE



Source: Health Data NY, accessed 10/13/14.

STATEN ISLAND PQI COMPOSITE RATES COMPARED TO NEW YORK STATE - 2012

Sum of Observed Rate per 100,000 People				
Community	Overall Composite	All Circulatory Composite	All Diabetes Composite	All Respiratory Composite
NYS Rate	1,784.07	407.90	364.67	481.73
North Shore				
Mariner's Harbor	2,191.43	565.53	565.53	622.08
Port Richmond	2,557.41	521.92	469.73	1,017.75
Rosebank	1,767.29	219.54	406.15	636.66
St George	3,032.55	678.61	699.82	805.85
Stapleton	2,157.79	391.57	466.55	833.13
West New Brighton	2,241.22	303.89	664.77	721.75
Mid-Island				
Great Kills	1,171.74	66.96	200.87	234.35
New Dorp	1,544.75	374.83	181.74	579.28
New Springville	1,494.68	320.78	259.35	389.03
South Shore				
Eltingville	1,549.30	266.04	297.34	672.93
Princes Bay	1,402.13	308.47	308.47	420.64
Tottenville	957.59	136.80	136.80	205.20

Source: Health Data NY, accessed 10/13/14.

STATEN ISLAND PQI ADMISSION RATES COMPARED TO NEW YORK STATE - 2012

Sum of Observed Rate per 100,000 People			
Community	Asthma and COPD	Diabetes	Hypertension
NYS Rate	913.95	311.91	101.70
North Shore			
Mariner's Harbor	1,333.72	523.12	311.04
Port Richmond	2,097.97	417.54	182.67
Rosebank	1,184.95	318.33	120.75
St George	1,499.78	561.98	180.26
Stapleton	1,615.43	383.24	141.63
West New Brighton	1,556.68	626.78	170.94
Mid-Island			
Great Kills	449.50	133.91	33.48
New Dorp	1,028.50	147.66	136.30
New Springville	729.91	197.93	116.03
South Shore			
Eltingville	1,268.91	250.39	156.49
Princes Bay	805.08	280.43	140.21
Tottenville	404.77	136.80	0.00

Source: Health Data NY, accessed 10/13/14.

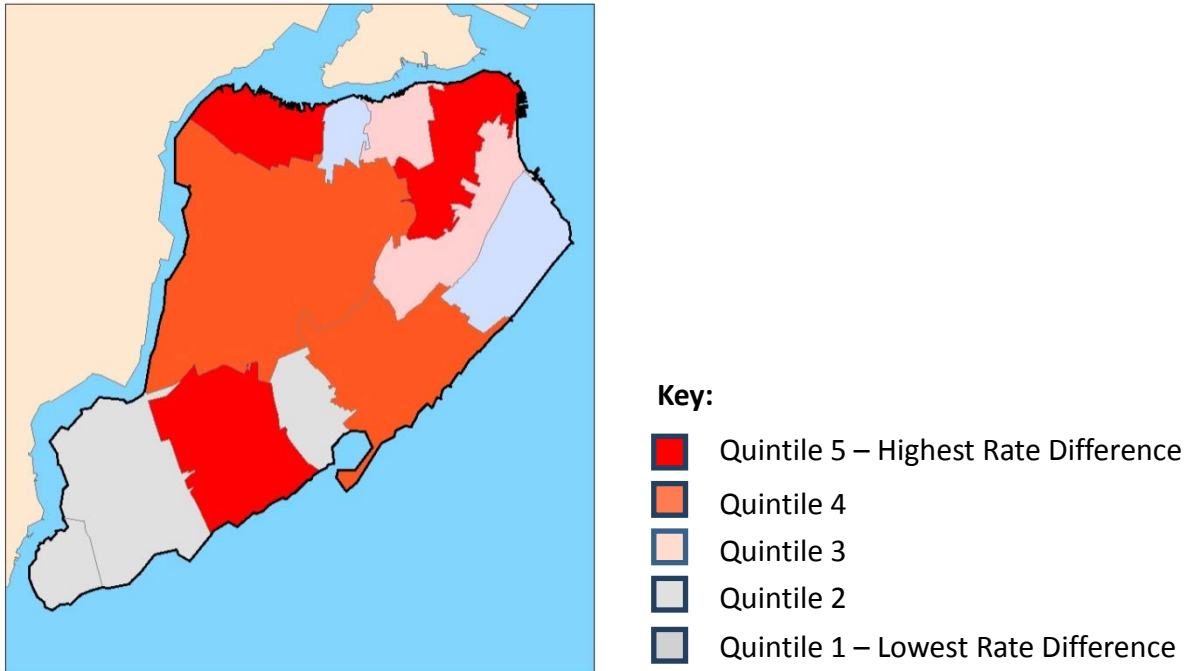
According to data provided by the 10 PPS skilled nursing facilities, Medicaid patients make up an estimated 1,500 transfers from nursing homes to acute care facilities annually, many of which may have been avoidable. Skilled nursing facility providers reported respiratory distress/shortness of breath, altered mental status, abnormality of gait, gastro-intestinal, cardiac (low blood pressure, heart failure or

chest pain), sepsis, abnormal lab tests/vitals, pneumonia, renal failure, and cerebrovascular complications as top reasons for transfers from skilled nursing facility to acute care facilities.³⁷

c. Disease Prevalence

Hypertension

HYPERTENSION MEDICAID PQI DISCHARGE RATES - 2012



Source: Health Data NY, accessed 09/18/14.

The North Shore and Mid-Island areas of Staten Island are the areas on Staten Island with the highest rate of Hypertension discharges among the entire borough. Mariners Harbor, St. George, and Eltingville communities in particular are ranked in the highest quintiles, and these are the “hot spots” for Hypertension.³⁸

Diabetes

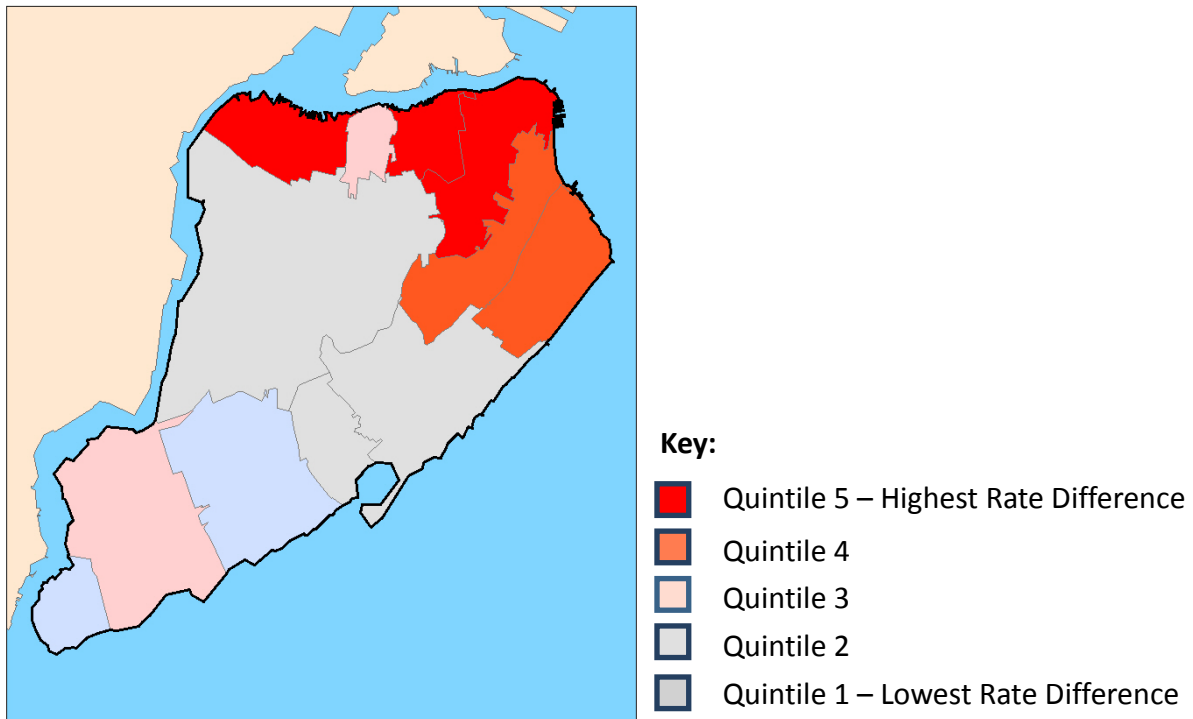
The highest rates of Diabetes PQIs are in the North Shore of Staten Island, and this area is the “hot spot” for Diabetes. Additionally, in 2013, there were over 4,000 discharges of Medicaid beneficiaries with a secondary diagnosis of Diabetes. In 2013, Diabetes was the primary cause related to 428 admissions and 91 readmissions (SPARCS data not shown).³⁹

³⁷ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

³⁸ Health Data NY, accessed 09/18/14.

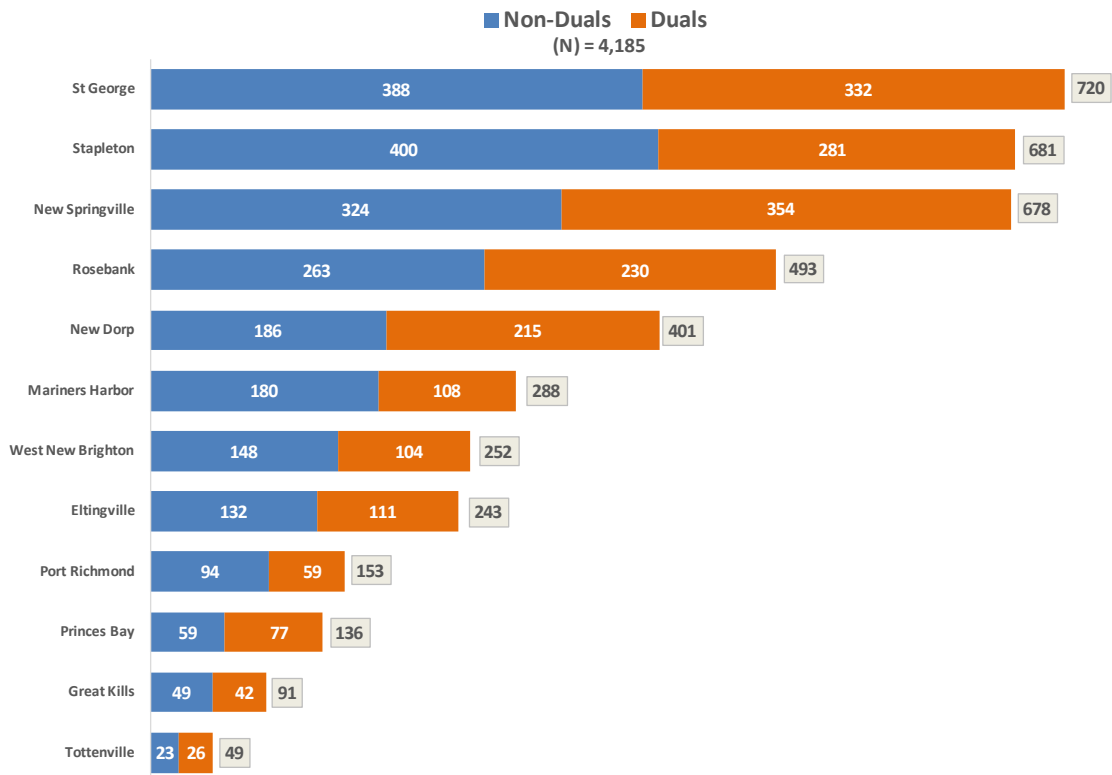
³⁹ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 10/27/14.

DIABETES MEDICAID PQI DISCHARGE RATES - 2012



Source: Health Data NY, accessed 09/18/14.

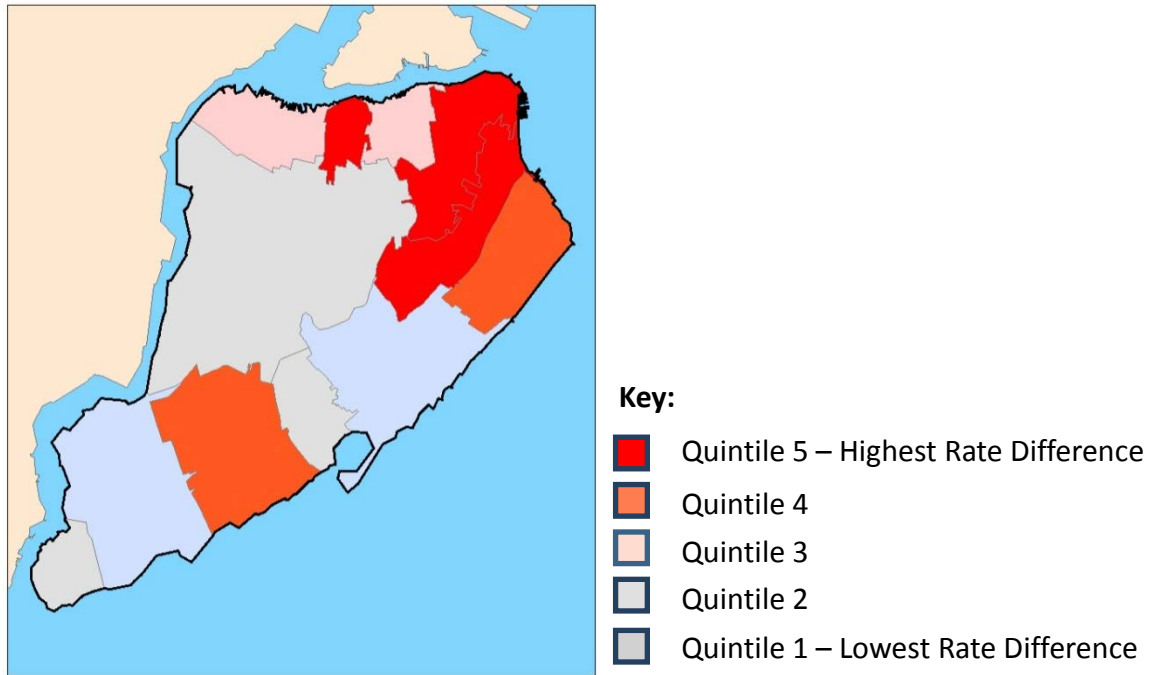
DIABETES SECONDARY DIAGNOSIS DISCHARGES - 2013 - STATEN ISLAND



Source: New York State SPARCS database, accessed 10/27/14.

Asthma and COPD

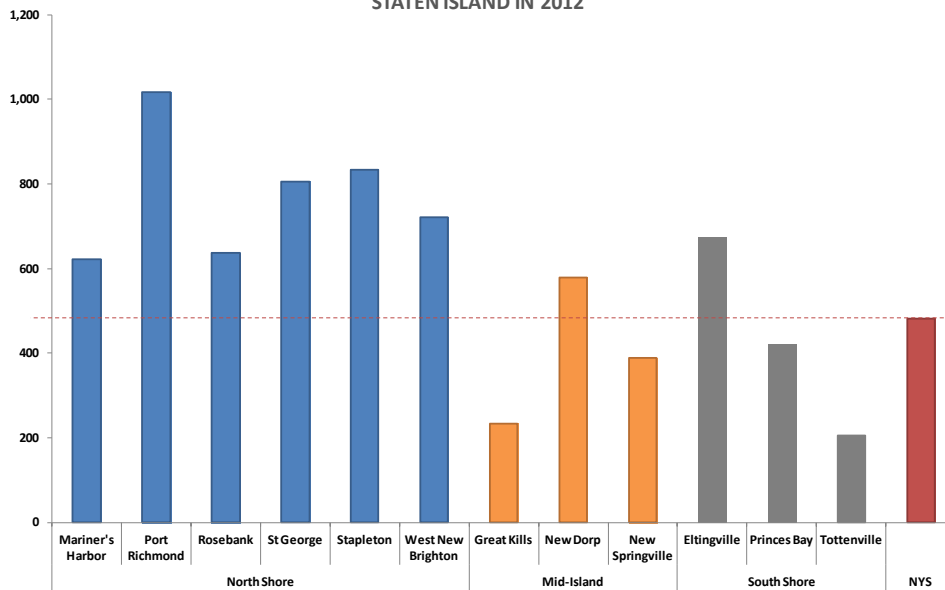
ASTHMA AND COPD MEDICAID PQI DISCHARGE RATES - 2012



Source: Health Data NY, accessed 09/18/14.

MEDICAID PQI HOSPITALIZATION RATES – ALL RESPIRATORY COMPOSITE

STATEN ISLAND IN 2012



Source: Health Data NY, accessed 10/13/14.

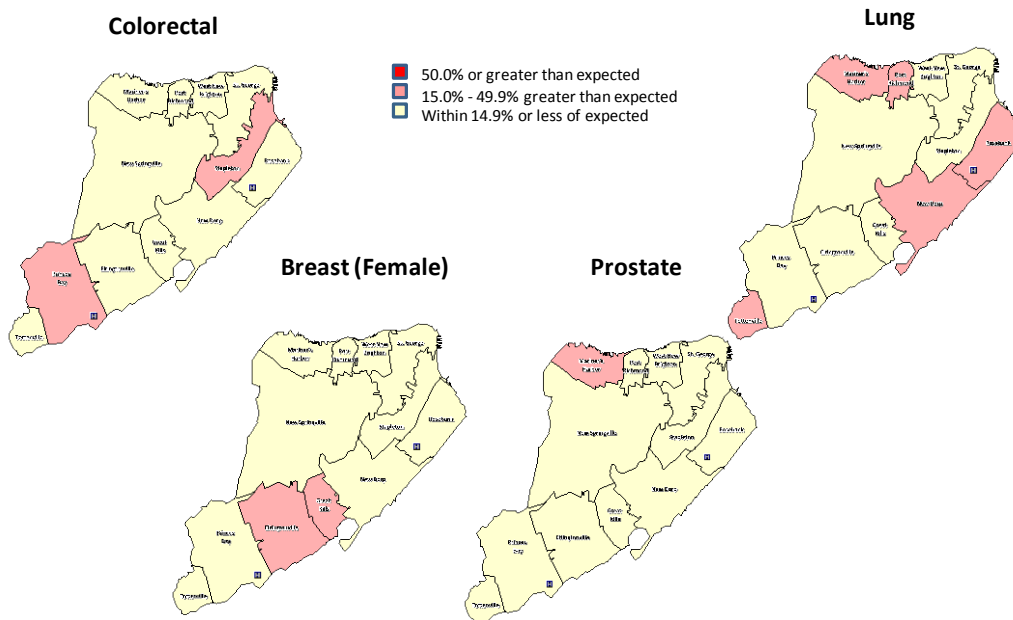
The North Shore of Staten Island has the highest rate of Asthma/COPD discharges among the entire borough and the NYS average. The communities in the highest quintiles are Port Richmond, St. George, and Stapleton and these are the “hot spots” for Asthma/COPD. There are also significantly higher rates

in the Mid-Island community of New Dorp and the South Shore community of Eltingville. This shows that certain disease states are not exclusively correlated with economic status.⁴⁰

Cancer Incidence

The NYS Cancer Registry provides data on individuals living in Staten Island who developed Colorectal, Female Breast, Prostate, or Lung cancer. Based on expected incidence rates compared to observed incidence rates of cancer, Staten Island residents are largely within the 14.9% or less range.⁴¹ This is another example that disease prevalence is not necessarily correlated with economic status.

STATEN ISLAND CANCER INCIDENCE RATES – TOTAL POPULATION
Observed vs. Expected Cases (2005 - 2009)

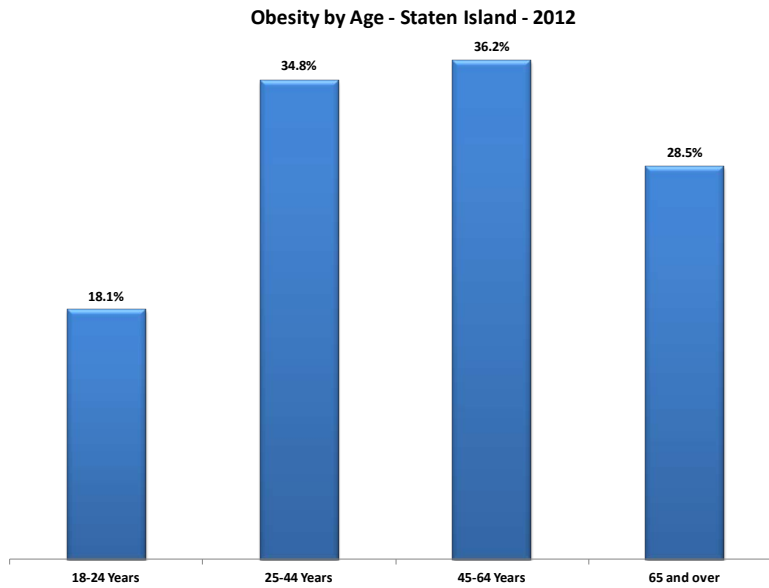


Source: New York State Department of Health Cancer Registry, accessed 11/03/14.

⁴⁰ Health Data NY, accessed 10/13/14.

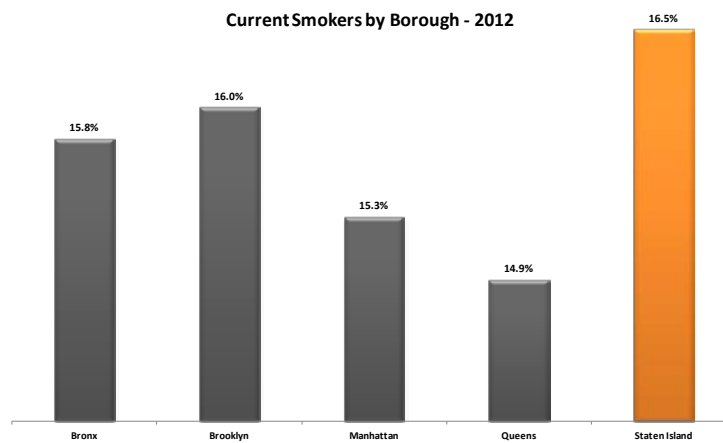
⁴¹ New York State Cancer Registry, accessed 11/03/14.

d. Health Risk Factors (Obesity, Smoking, Drinking, Drug Overdose, Mental Health, and Physical Inactivity, etc.)



Source: New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 12/02/14.

New York City 2012 Epiquery statistics state that 36.2% of Staten Island residents who are between the ages of 45 and 64 years old have a body mass index greater than 30, which is considered obese. 34.8% of Staten Island residents who are between the ages of 25 and 44 years old are identified as being obese.⁴²



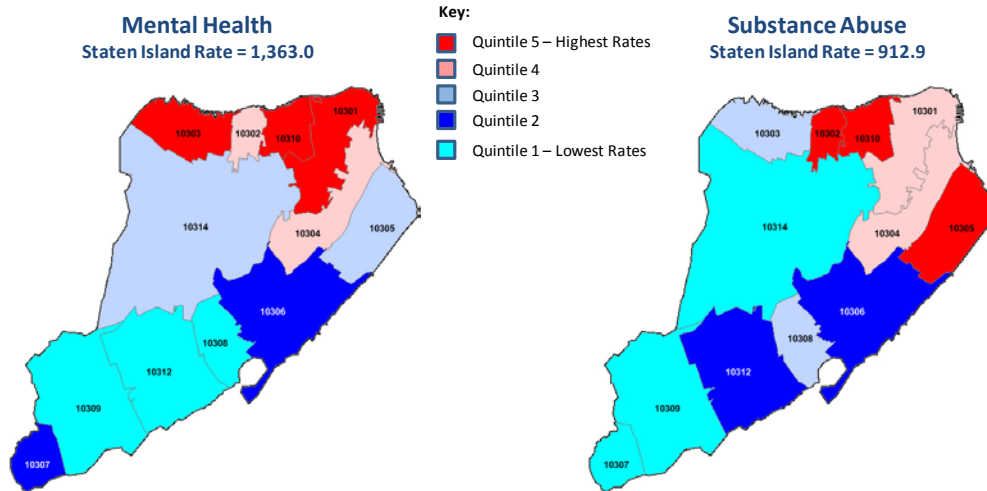
Source: New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed 12/02/14.

New York City 2012 Epiquery statistics identify Staten Island as the borough with the highest percentage of current smokers. The percentage of current smokers on Staten Island is 16.5. Staten Island estimates

⁴² New York City Epiquery Statistics, accessed 12/02/14.

may be lower than actual smoking status due to high confidence intervals inherent to the statistical sampling methodology used by New York City Department of Health and Mental Hygiene.

MENTAL HEALTH AND SUBSTANCE ABUSE RATES – TOTAL POPULATION
Emergency Department T & R Visits Per 100,000 Population
(2013)



Source: New York State SPARCS database, accessed 11/04/14.

The 2013 rate of mental health emergency department treat-and-release visits is 1,363.0 per 100,000, and the rate of substance abuse emergency department visits is 912.9 per 100,000.⁴³

Additionally, Staten Island overall has a large volume of Medicaid mental health hospital admissions and emergency department visits with 10,640 Medicaid mental health hospital admissions and 14,108 Medicaid mental health emergency department visits in 2012. In 2012, Staten Island had 6,826 substance abuse admissions and 6,172 substance abuse related emergency department visits.⁴⁴ (Data not shown).

Moreover, substance abuse has shown to be an area of need with Staten Island being the second highest borough for binge and heavy drinking.⁴⁵ Behavioral health issues are consistently more predominant in the North Shore of Staten Island.⁴⁶ (Data not shown).

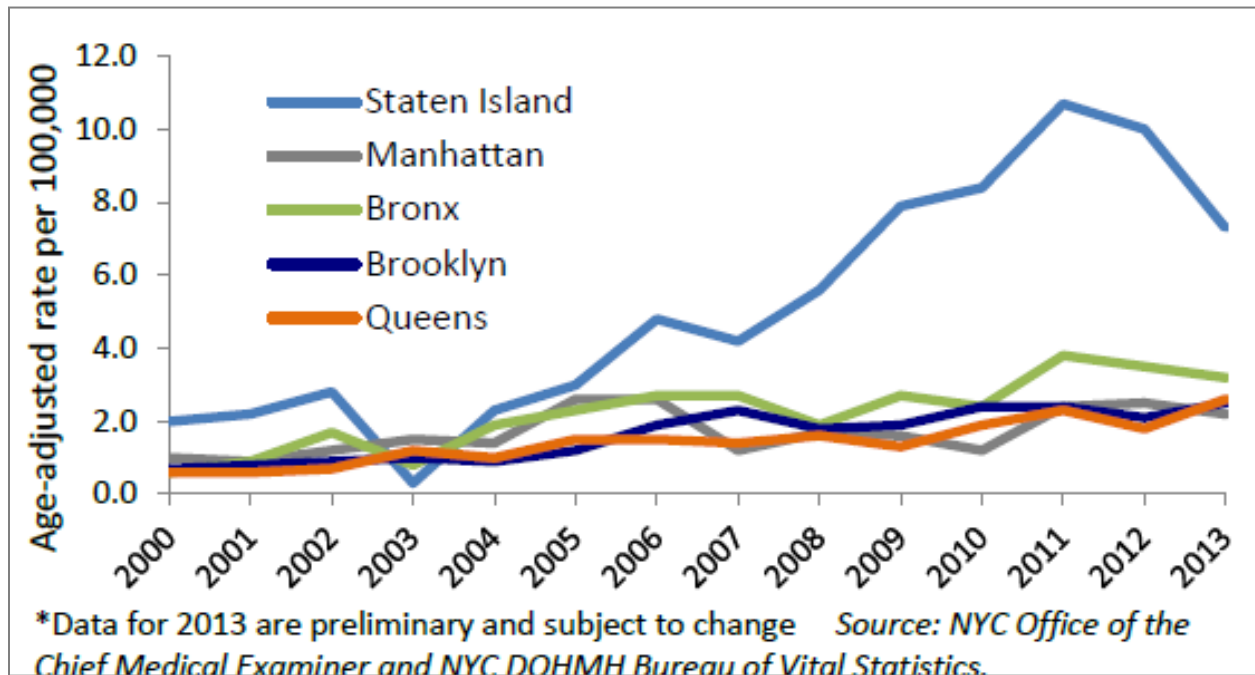
⁴³ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS) and Truven 2013-2018 population forecast data, accessed 11/04/14.

⁴⁴ Health Data NY, accessed 09/23/14.

⁴⁵ New York City Epiquery Statistics, accessed 12/02/14.

⁴⁶ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS) and Truven 2013-2018 population forecast data, accessed 11/04/14.

UNINTENTIONAL OVERDOSE DEATH RATES INVOLVING OPIOID ANALGESICS, BY BOROUGH OF RESIDENCE, NEW YORK CITY, 2000-2013*



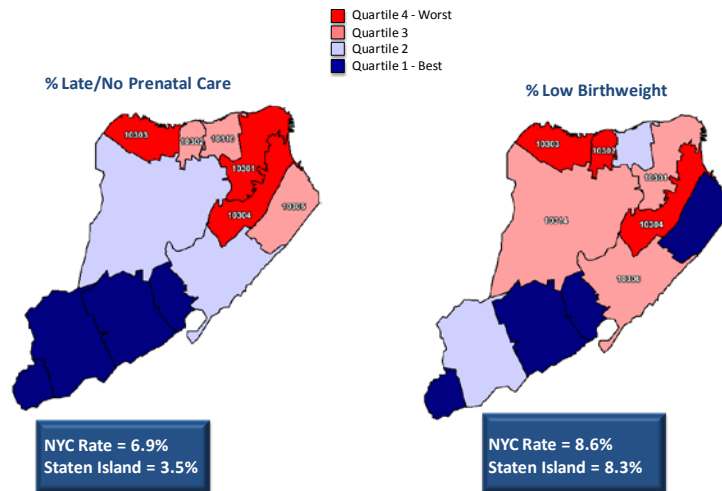
Source: New York City Department of Health and Mental Hygiene Epi Brief, accessed 11/04/14.

In 2012, the Staten Island rate of deaths per 100,000 from drug overdoses was 20.1, far exceeding the Bronx at 16.5 and all of the five boroughs (data not shown). Further, Staten Island’s overdose mortality rate has increased by 8 percentage points from 12.0 per 100,000 in 2010 to 20.1 per 100,000 in 2012. In 2011, the rate of opioid analgesic overdose deaths were four times higher than Manhattan’s rate (2.3/100,000), Queens’ rate (2.3/100,000), and Brooklyn’s rate (2.5/100,000), and was 3.5 times higher than the Bronx’s rate (3.7/100,000). While the latest data shows declining rates since 2011, Staten Island’s rate of unintentional death from opioid and heroin use is still double that of other NYC boroughs (see chart above). Further, Staten Island has the highest rate of youth substance use of any City borough for opioid analgesics and other prescription drugs (data not shown). The rate and amount of prescriptions for opioid analgesics, is dispensed at double or triple the rate of other boroughs for drugs including Oxycodone and Hydrocodone. In 2011, Staten Island residents had the highest median day supply (25 days) of high dose opioid analgesic prescriptions, compared with 15 days.⁴⁷

⁴⁷ New York State Department of Health Vital Statistics, accessed 10/13/14.

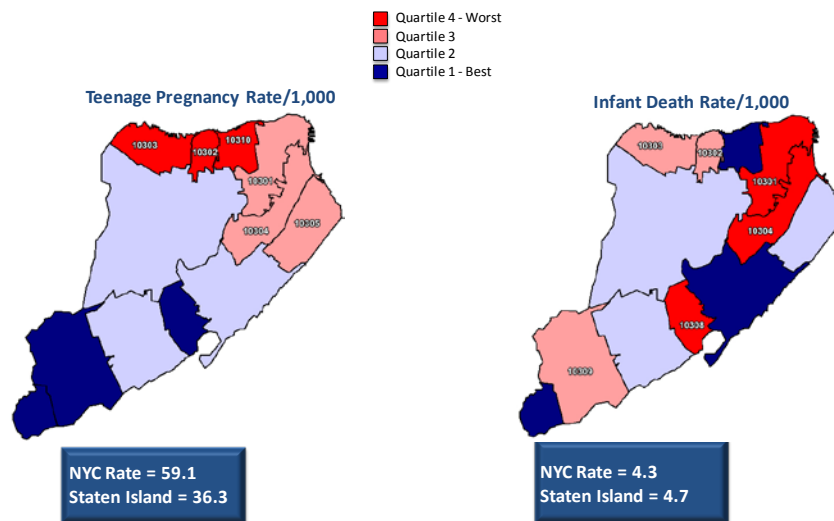
e. Maternal and Child Health Outcomes

Perinatal Indicator Quintile Maps: Staten Island
2009-2011



Source: Health Data NY, accessed 10/16/14

Perinatal Indicator Quintile Maps: Staten Island
2009-2011 (cont.)



Source: Health Data NY, accessed 10/16/14

Women in the North Shore of Staten Island are within the borough’s highest quartile for not obtaining timely pre-natal care and having babies with low birth rates. High infant and neonatal mortality rates on

Staten Island highlight the need for additional targeted women’s health and prenatal care for residents.⁴⁸

f. Healthcare Infrastructure

Staten Island has a primary care network providing preventive care services to adults, children and adolescents; chronic disease management; as well as management of acute illnesses including RUMC and SIUH (inpatient and ambulatory providers); the two federally qualified health centers, two large physician groups, and Article 28 clinics. Additional disease management services and medication management services are provided by Staten Island’s care management and home care providers including Visiting Nurse Services of NY and North Shore-LIJ Care Solutions. Disease management services are also provided by Staten Island’s health home, Coordinated Behavioral Health.

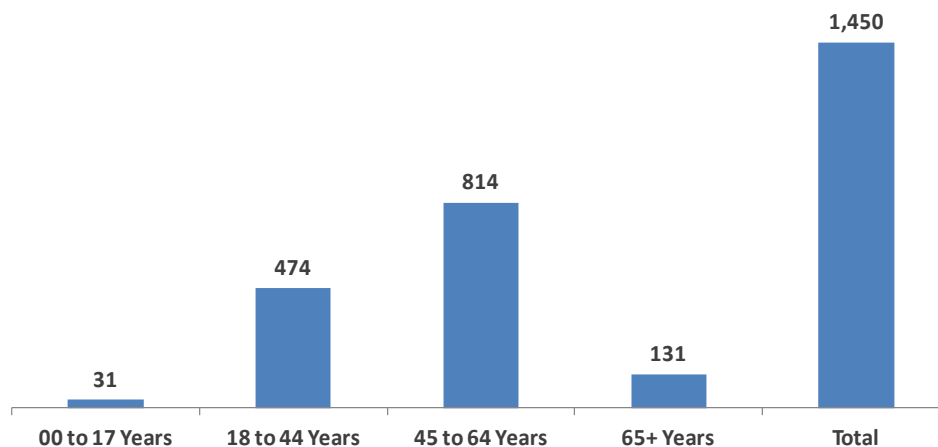
Although a network of providers exists, there is strong evidence for the need for additional chronic disease prevention and management programs given the severe risk factors for chronic and preventable diseases on Staten Island, in comparison to the average rate across New York State as well as New York City.

iii. Domain Metrics

a. Utilization Trends: Inpatient Utilization, PMPM Costs, Avoidable ED Visits, and Readmissions

In 2013, there were 1,450 Staten Island resident Medicaid discharges that had a primary diagnosis of behavioral health with a chronic medical condition (Diabetes, Asthma/COPD, and Hypertension) as their secondary diagnosis. Conversely, there were 630 discharges with a chronic medical condition as a primary diagnosis and behavioral health as a secondary diagnosis.⁴⁹

MEDICAID/DUAL ELIGIBLE HOSPITALIZATIONS - 2013 STATEN ISLAND - BEHAVIORAL HEALTH AS A PRIMARY DIAGNOSIS WITH A CHRONIC CONDITION* SECONDARY DIAGNOSIS

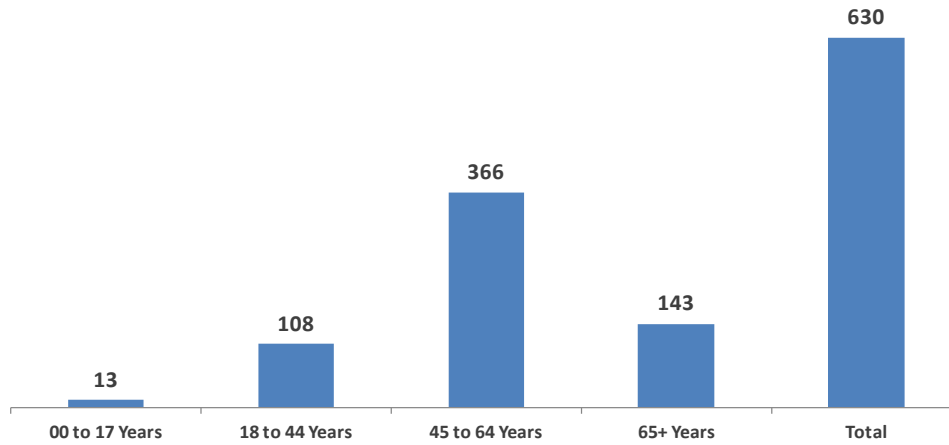


⁴⁸ Health Data NY, accessed 10/16/14.

⁴⁹ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 11/04/14.

Source: New York State SPARCS database, accessed 11/04/14.

**MEDICAID/DUAL ELIGIBLE HOSPITALIZATIONS - 2013 STATEN ISLAND -
CHRONIC DISEASE* AS A PRIMARY DIAGNOSIS WITH A BEHAVIORAL
HEALTH SECONDARY DIAGNOSIS**

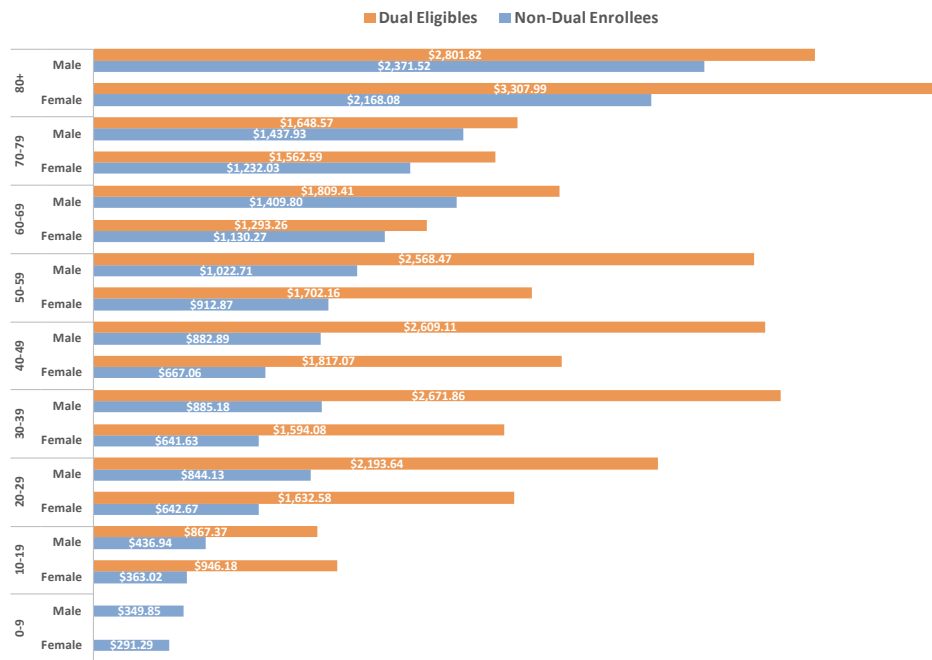


Source: New York State SPARCS database, accessed 11/04/14.

Based on Salient NYS Medicaid claims data, per-member-per-month (PMPM) Medicaid costs are highest for Staten Island residents older than the age of 80. Males over 80 years old incur the highest PMPM cost at \$2,801.82.⁵⁰

⁵⁰ Salient New York State Medicaid Claims Database, accessed 08/28/14.

TOTAL MEDICAID PMPM COSTS - 2013 - STATEN ISLAND

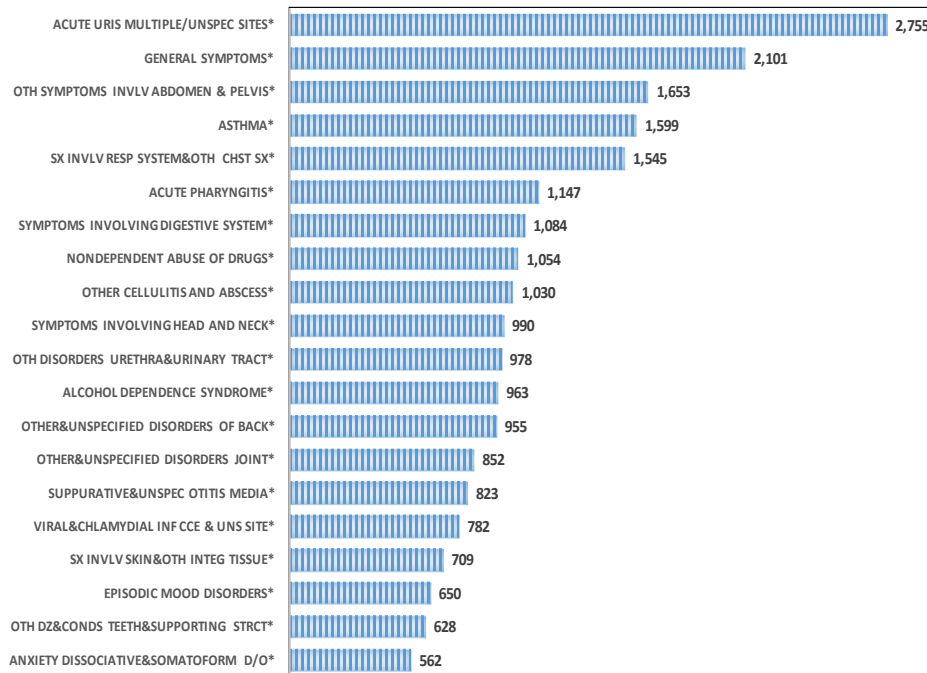


Source: Salient New York State Medicaid Claims Database, accessed 08/28/14.

The overwhelming majority of potentially avoidable ER visits are for general medical conditions, respiratory conditions, and behavioral health conditions.⁵¹

⁵¹ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 09/01/14.

NON-DUAL AVOIDABLE ED VISITS - STATEN ISLAND - 2013 (NYU ALGORITHM)
 TOP 20 ICD-9 DIAGNOSIS "ROLLUPS" FOR AVOIDABLE VISITS



Source: New York State SPARCS database, accessed 09/01/14.

To assess Medicaid inpatient potentially preventable readmissions (PPRs) at the hospital/facility level, State health data based on the 3M Health Information Systems methodology was obtained for SIUH and RUMC. The data showed there were 1,171 PPRs for SIUH and RUMC combined in 2012.⁵²

In regards to understanding readmissions at the disease level for all Staten Island Medicaid residents, SPARCS data was analyzed to estimate 30-day readmissions and the diagnoses associated with them. Psychiatric readmissions are more than double any other readmission diagnosis. In 2013, Staten Island residents had a total of 1,133 psychiatric disorder 30-day readmissions which accounted for approximately 30% of all readmissions. Additionally, circulatory, respiratory, endocrine related diagnosis (e.g. diabetes) and other chronic diseases drive readmissions. Readmissions have been classified under the initial admission diagnosis.⁵³

For the dual-eligible Medicaid population, 30-day readmissions were associated with septicemia (sepsis), chronic bronchitis, respiratory illness, mood disorders, acute kidney failure, general symptoms, and anemia, among others (data not shown).⁵⁴

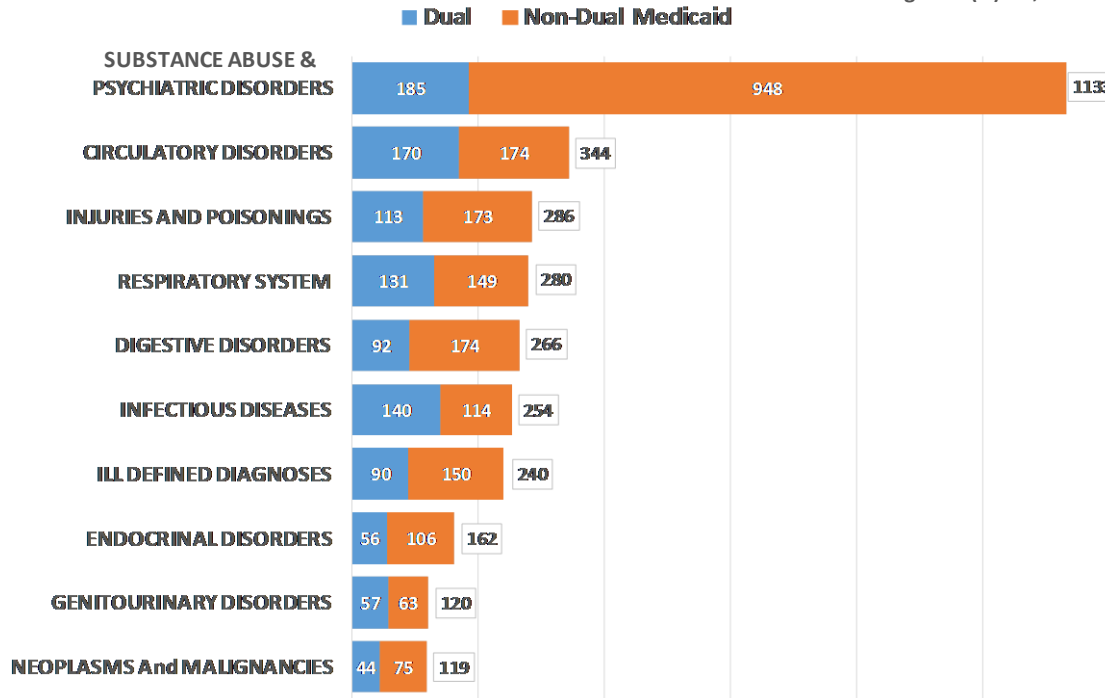
⁵² Health Data NY, accessed 12/11/14.

⁵³ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 10/27/14.

⁵⁴ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 10/27/14.

**30-DAY READMISSIONS - NO RESTRICTIONS - 2013 - STATEN ISLAND
TOP 10 DIAGNOSIS CLASSES FOR READMISSION (INDEX ADMIT)**

All Diagnosis (N) = 3,915



Source: New York State SPARCS database, accessed 10/27/14.

Home care agencies surveyed in the PPS reported an estimated 600 30-day readmissions annually for Medicaid patients discharged to home care. Home care providers reported top reasons for transfer to acute care facilities include other/unknown reasons, respiratory conditions (including pneumonia or bronchitis), wound infection, deterioration, uncontrolled pain, and dehydration or malnutrition.⁵⁵

The following table profiles unique Staten Island Medicaid recipients (utilizers of care- any type of care) by diagnosis category during the 3/2013-2/2014 time period. Staten Island Medicaid patients are burdened by chronic disease as is evidenced by the high numbers of patients with asthma, diabetes, hypertension, and behavioral health conditions among other issues.⁵⁶

⁵⁵ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

⁵⁶ Salient New York State Medicaid Claims Database, accessed 11/28/14.

UNIQUE STATEN ISLAND MEDICAID RECIPIENTS BY DIAGNOSIS CATEGORY - 2013

Diagnosis Category	Primary Diagnosis	Any Diagnosis Level
Chronic Obstructive Pulmonary Disease and Bronchiectasis	4,118 unique Staten Island Medicaid recipients	6,272 unique Staten Island Medicaid recipients
Congestive Heart Failure	1,693	2,842
Chronic Kidney Disease	2,773	4,641
Ischemic Heart Disease	4,293	7,055
Asthma	6,962	12,659
Diabetes	9,566	14,025
Hypertension	12,939	22,408
Behavioral Health (Mental Health and Substance Abuse)	22,207	28,868
Cancer	2,777	3,430

Source: Salient New York State Medicaid Claims Database, accessed 11/28/14.

In regards to inpatient care utilization, the following table profiles unique Staten Island Medicaid recipients by diagnosis category during the 3/2013-2/2014 time period. Behavioral health is one of the leading primary and secondary diagnoses for inpatient admission.⁵⁷

⁵⁷ Salient New York State Medicaid Claims Database, accessed 11/28/14.

UNIQUE STATEN ISLAND INPATIENT MEDICAID RECIPIENTS BY DIAGNOSIS CATEGORY - 2013

Diagnosis Category	Primary Diagnosis
Chronic Obstructive Pulmonary Disease and Bronchiectasis	228 unique Staten Island Medicaid recipients
Congestive Heart Failure	176
Chronic Kidney Disease	266
Ischemic Heart Disease	424
Asthma	343
Diabetes	299
Hypertension	97
Behavioral Health (Mental Health and Substance Abuse)	2,264
Cancer	418

Source: Salient New York State Medicaid Claims Database, accessed 11/28/14.

In regards to the low-utilizing Medicaid population in Staten Island, there were 8,240 Staten Island Medicaid enrollees who were continuously enrolled for 12 months and did not utilize care (no claims generated during 12 month period).⁵⁸ Additionally, Medicaid managed care PPS partners estimate that 11,000 enrollees had 1-3 claims or are “low utilizers” of care.⁵⁹

C. Identification of Health and Health Service Challenges Facing the Community

Significant health issues are present in Staten Island. Leading causes of death, over NYC rates, relate to cardiac, cancer, and respiratory diseases.⁶⁰ Additionally, Staten Island has the highest rate for both heroin and opioid overdose among NYC boroughs.⁶¹ Furthermore, Staten Island’s leading Medicaid PQI hospitalizations are attributed to COPD or asthma in older adults, pneumonia, hypertension, long-term complications related to diabetes, and heart failure.⁶² Approximately 25% of Staten Island’s Medicaid

⁵⁸ Salient New York State Medicaid Claims Database, accessed 11/21/14.

⁵⁹ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

⁶⁰ New York State Department of Health Vital Statistics, accessed 03/06/14.

⁶¹ New York City Department of Health and Mental Hygiene Epi Brief, accessed 11/04/14.

⁶² Health Data NY, accessed 09/18/14.

enrollees who utilize healthcare services have a behavioral health diagnosis and 10% have a diabetes diagnosis. Medicaid readmissions were attributed to behavioral health and chronic conditions.⁶³

There are many factors influencing the poor health status of the community. Staten Island has historically had a high smoking rate among the NYC boroughs. Compared to other NYC areas, Staten Island has the highest rate of current and former smokers. Moreover, the obesity epidemic is very much present in Staten Island with almost 20-40% of Staten Island age cohorts reporting being obese.⁶⁴

In addition to behavioral risk factors, significant barriers to care were identified through the CNA focus groups, surveys, and provider meetings. Results from a community health survey, that was distributed to Staten Island community members (including Medicaid patients and the uninsured), found that mental illness, depression, and drug and substance abuse were among the top five reported health conditions leading individuals to seek healthcare treatment.⁶⁵

Further, the lack of ambulettes available to Medicaid populations, lack of a subway system in Staten Island, and low car ownership among vulnerable populations are issues present in the community. These transportation barriers impact patients' ability to travel as needed for regular and follow-up care.⁶⁶

Low English proficiency levels present in Staten Island are also a critical issue as community members have expressed their preference to communicate in English with their providers.⁶⁷

Lack of extended day/weekend hours in physician offices and long wait times up to three months for appointments are also reported problems in the community. Community members feel these issues impact their utilization of ED services as it is easier and quicker to get care in the hospital ED setting than in their physician's office. Community members stated that they in fact use the ED for non-urgent conditions because: hospitals have to treat patients that come to the ED, it is too hard to get an appointment at the doctor/clinic, many doctors have limited hours, offices are too crowded when open, wait times in an office can be longer than in the ED, and the ED can provide all tests and prescriptions at once without having to come back or go somewhere else.⁶⁸

Additionally, when they are able to see their provider, they expressed that the time they had with the provider is limited and not sufficient. Community members feel that more time is needed to better understand their health status and diagnosis and their provider's instructions for care.⁶⁹

Lack of health coaches, patient education and outreach, and community based healthcare (wellness centers, mobile health vans, low-cost exercise facilities, etc.) are also issues that the community feels should be addressed in order to improve health status. Community members feel that some residents

⁶³ New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), accessed 10/27/14.

⁶⁴ New York City Department of Health and Mental Hygiene Epiquery Statistics, accessed: 12/02/14.

⁶⁵ Staten Island PPS Community Survey Results.

⁶⁶ Staten Island PPS Community Survey Results.

⁶⁷ American Community Survey 2012 1 Year Estimate, accessed 11/03/14.

⁶⁸ Staten Island PPS Community Survey and Focus Group Responses.

⁶⁹ Staten Island PPS Community Survey and Focus Group Responses.

are not aware of healthcare resources such as disease support groups and wellness programs, and that healthcare providers can do more to inform, educate, and engage the public.⁷⁰

During various provider engagement activities including data requests, provider workgroup meetings, and a PPS provider survey, PPS partners have identified the following gaps in Staten Island's healthcare system.

With regard to accessibility issues, providers have cited the lack of transportation, existing language barriers, the lack of outreach personal and staff to provide patient education, limited provider practice hours, and long appointment wait times as posing issues for the population to receive appropriate care. Similarly, providers also recognize that it is easier to get quick access to care from a hospital ED setting versus in a private practice.⁷¹

In addition to accessibility issues, providers identified the following service and care gaps as contributing to health issues in the community. Home care providers identified that many of the reported readmissions may have been avoided with proper medication management, enhanced home care services or proper connection to outpatient services and cited that reasons for patient readmissions include the status of the care giver and socioeconomic conditions of the patient and/or care giver.⁷²

Behavioral providers indicated that their patients could benefit from primary care services but often do not follow up with appointments and referrals. Concurrently, primary care providers voiced the need for behavioral health resources at their locations to effectively manage the behavioral health populations' mental health/substance abuse needs along with their medical/primary care needs. Co-location or rapid referral to behavioral health and medical care is needed to better serve their patients and improve health status. PPS providers consistently reported that a lack of appropriate ambulatory detox capacity on Staten Island is a significant gap in the current delivery system, as well as regulatory restrictions to provide adolescent inpatient detoxification on the Island.⁷³

Providers recognized the need for more health coaches and care managers to progressively monitor and positively impact patients' health status. Providers identified the lack of home health aides on Staten Island in addition to current home health regulations as being potential barriers for at-risk home health patients attempting to access care. With regard to care transitions, multiple providers reported the need for comprehensive care transition plans and information sharing among providers to assist patients in navigating the care continuum.⁷⁴

PPS providers also cited the need for better interagency/provider communication and collaboration which can be largely achieved through the integration of health information technology systems to provide care management and telehealth services as well as complete population-wide analytics to proactively risk stratify the population and identify at-risk patients. With regard to skilled nursing

⁷⁰ Staten Island PPS Community Survey and Focus Group Responses.

⁷¹ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

⁷² PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

⁷³ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

⁷⁴ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

facilities, providers reported having the ability to track reasons for transfers from skilled nursing facilities to acute care. However, they reported inconsistencies in receiving follow-up documentation from hospitals, and as a result had difficulty performing root cause analyses for transfers. Further, skilled nursing facilities reported a need for standardized data exchange processes.⁷⁵

PPS providers attributed the costs of care and insufficient reimbursement for specific services (home care, chronic disease management, treatment programs, and palliative care) and the cost of medications as barriers to accessing appropriate care.⁷⁶

PPS providers also reported that there may be cultural barriers and other factors that inhibit patients from properly navigating the healthcare system. Specifically, providers found that cultural barriers exist for patients with diabetes or at risk for diabetes from managing their own health and for patients and their families with regard to perception of palliative care.⁷⁷

D. Succinct Summary of Asset and Resources that can be Mobilized/Employed to Address DSRIP Strategies/Projects and Those that Need to be Developed

RUMC and SIUH are the only two acute care hospitals located in Staten Island. RUMC and SIUH are long established hospitals who provide a full range of inpatient and outpatient medical and behavioral services. The two hospitals meet DSRIP safety net qualifications as do the majority of the Staten Island PPS collaborating organizations.

In addition to RUMC and SIUH, the Staten Island PPS is comprised of 13 behavioral health providers (including mental health and substance abuse providers), five home health agencies, two FQHCs, two large physician groups and numerous physician providers, 10 skilled nursing facilities, 3 MCOs, one health home (comprised of multiple agencies), hospice providers, and multiple community based organizations. The New York City Department of Health and Mental Hygiene is also part of the Staten Island PPS. Additionally, the PPS may leverage existing relationships and ongoing partnerships with other key stakeholders including the Department of Education, the New York City Housing Authority, the New York State Office of Substance Abuse Services, the Staten Island Community Board, as well as the two Colleges on Staten Island, the College of Staten Island and Wagner College.

Long Term Care

All 10 skilled nursing facilities on Staten Island are members of the PPS and will be participating in the implementation of related DSRIP projects. Currently, a majority have electronic health records, and a number of skilled nursing facilities have partially implemented INTERACT, are familiar with the principles of INTERACT, and are utilizing components of the INTERACT toolkit. In addition, participating skilled nursing facilities have developed staff training programs, facility specific INTERACT tools, and processes around the INTERACT program that the PPS will leverage to implement the program.

⁷⁵ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

⁷⁶ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

⁷⁷ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

Between 2013 and 2014, 5,233 SI Medicaid recipients received home care services.⁷⁸ The Staten Island PPS has certified home health agencies which utilize evidence-based practices oriented to prevent unnecessary ER utilization and 30-day readmissions, including telehealth, transitions of care models, and interdisciplinary teams. These may be leverage and shared across the partners to help advance the implementation of project INTERACT across the PPS.

On Staten Island, 283 Staten Island Medicaid recipients received skilled nursing facility care for palliative-related diagnosis (e.g. cancer, liver disease, dementia, CHF, etc.) during the 2013-2014 time period.⁷⁹ A number of participating nursing homes report that they offer palliative care services in their facilities, but that there is an opportunity to significantly expand palliative care services through the DSRIP projects. The Staten Island PPS will build upon existing resources to increase access to palliative care programs in nursing homes. Additionally, nursing home providers across Staten Island reported providing minimal levels of palliative care services that may also be leveraged and expanded.

Behavioral Health & Substance Abuse

In addition to SIUH and RUMC behavioral health ambulatory programs, the PPS has seven organizations providing outpatient/inpatient substance abuse treatment including drug and alcohol outpatient treatment, outpatient intensive treatment, outpatient day rehab with alternative schooling, medication assisted treatment, opioid treatment program, residential treatment, and harm reduction. Additionally, various mental health providers on Staten Island (in addition to SIUH and RUMC) provide programs for adolescents, adults and older adults including inpatient and outpatient evaluation, referral and treatment, crisis services, and residential services. These programs will be leveraged and expanded upon in the implementation of the three projects chosen to better serve the behavioral health community.

Chronic Disease and Care Coordination

Staten Island PPS has two participating primary care providers who have National Committee for Quality Assurance (NCQA) 2011 Patient-Centered Medical Home (PCMH) certification. Some primary care providers are currently in the end stages of gaining certification, and plan to have this certification by DSRIP year 1. Primary care providers have committed to gaining PCMH Level 3 NCQA 2014 standards by the end of DSRIP year 3.

Staten Island FQHCs will be an important resource in the transformation of the healthcare delivery system. The two FQHCs on Staten Island also have plans to expand capacity to serve additional patients that will be critical to the needs of the PPS as the non/low-utilizing Medicaid population and uninsured population, not currently connected to services, begin to seek preventive care and disease management.

Staten Island's only health home, Coordinated Behavioral Care (CBC), contracts through multiple agencies within the borough. According to data provided by CBC, the health home provides care coordination to approximately 1,900 patients and conducts outreach and other services to patients that

⁷⁸ Salient New York State Medicaid Claims Database, accessed 11/21/14.

⁷⁹ Salient New York State Medicaid Claims Database, accessed 11/21/14.

do not currently qualify for health home.⁸⁰ The PPS plans to leverage CBC's current model, experience and resources to build upon existing health home infrastructure to serve additional patients identified through the DSRIP projects as high risk. CBC's health home has the ability to provide care management services to additional patients under the existing model, as well as expand capacity through additional care management staff to serve more at risk patients.

The PPS has additional care management providers, including the Visiting Nurse Services of New York and Care Solutions, North Shore-LIJ's Care Management organization. These organizations have the ability to risk stratify patients, and provide population health management services. The Staten Island PPS will build upon existing care management / IT infrastructure and create additional care management capacity.

Staten Island currently has multiple programs and organizations centered on chronic disease preventive care and management in both clinical and community settings including chronic disease/diabetes self-management programs, health education and prevention programs, cancer screening, and smoking cessation.

Existing Provider Programs

Through provider engagement activities including meetings, provider surveys and data request, the PPS has identified a number of ongoing programs being offered by PPS providers that will be incorporated into the DSRIP project plans.

- Community Health Action of Staten Island
 - Chronic Disease Self-Management Program
 - HIV Case Management Program
 - Strong Steps Program
 - Return to Recovery Program
 - Sandy Mobile Integrated Health Team
- Community Health Center of Richmond
 - Navigator Program
 - Maternal and Infant Community Health Collaborative
 - Connecting Kids Program
- Richmond University Medical Center
 - In partnership with the Substance Abuse and Mental Health Association's Northeast Addiction Transfer Technology Center, the program focuses on developing co-occurring treatment capabilities (substance abuse and mental health)
 - In partnership with Staten Island Mental Health Society, developed a program to screen and treat patients under an initiative approved by the Office of Mental Health.
- South Beach Psychiatric Center
 - Provides integrated primary and behavioral health services in Brooklyn (this program may be extend to Staten Island under the DSRIP Program)
- Staten Island Mental Health Society
 - Sandy Mobile Integrated Health Team

⁸⁰ PPS Partner Internal Data obtained through PPS committee meetings and PPS provider survey.

- Staten Island University Hospital
 - Existing pilot program that provides primary care services to behavioral health patients
 - Existing heart failure and COPD care transition protocols and care transition initiative with North Shore Home Care can be leveraged and serve as models for other disease care transition programs
- Victory Internal Medicine
 - American Diabetes Association Certified Self-Management Program
- Visiting Nurse Services of New York
 - Rockaway Wellness Partnership Program
 - Nursing Home Transition and Diversion Program
 - Lombardi Program
 - Health Watch Lifeline Program
- YMCA
 - Certified Diabetes Prevention Program

Existing Community Based Programs Outside the PPS

Through provider engagement activities including meetings, provider surveys and data request, the PPS has identified a number of ongoing community based programs that will be incorporated into the DSRIP project plans, including the Staten Island Partnership for Community Wellness' program and Tackling Youth Substance Abuse Collective Impact in Action initiative.

E. Summary Chart of Projects to be Implemented

Please see "Section E- CNA Table" excel file attachment.

F. CNA Methodology, Data Sources, and Community Engagement

The Staten Island CNA was conducted over three months, from September 2014 through the end of November. The Staten Island PPS partners, under the co-leadership of SIUH and RUMC, conducted the assessment following the NYSDOH Guidance for Conducting Community Needs Assessment. BDO Consulting, LLC, the consulting firm hired by the PPS to assist in the DSRIP application development, also provided support during the comprehensive CNA process. Primary and secondary data was assessed to gather information and identify critical community health issues that needed to be addressed to achieve DSRIP goals.

A critical part of the CNA was stakeholder and community engagement. Primary data was collected via a 47-question PPS partner survey, a 37-question multilingual community CNA survey, four community focus groups, three PPS steering committee meetings, and 15 PPS subcommittee meetings. The PPS survey was distributed to all PPS partners to assess the provider network's resources and capabilities. The community survey, developed by the PPS, was distributed to more than 1,000 patients/clients at 19 organizations/locations on Staten Island including hospitals, substance abuse and BH providers, skilled nursing facilities, primary care providers, clinics, health home, food pantries, community organizations, and faith-based organizations. 1,015 surveys were completed. The community survey assessed respondents' demographics, education level, domestic/social circumstances, insurance status,

healthcare utilization, health status, and satisfaction with healthcare services. Focus groups, PPS steering committee meetings, and PPS subcommittee meetings were used as forums to discuss the Staten Island healthcare environment (current resources and gaps) from the prospective of the community members and PPS partners. Focus group participants ranged in age and represented individuals with chronic diseases, behavioral health conditions, providers, pharmacists, and wellness organizations. PPS committee attendees included members from the Staten Island hospitals, FQHCs, skilled nursing facilities, home health agencies, managed care organizations, community-based providers, and behavioral health providers among others.

Other data used in the CNA analysis was obtained from publically available demographic/health data. US Federal Census, American Community Survey, New York State Department of Health and New York City Department of Health and Mental Hygiene data (including Epiquery statistics), New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), Salient New York State Medicaid Claims Database, American Medical Association, Center for Health Workforce Studies' New York State Health Workforce Planning Data, Greater New York Hospital Association Health Information Tool for Empowerment (HITE), and Staten Islander provider websites were leveraged to conduct the CNA.

The analysis contained within this CNA was documented and shared publically with the community and PPS partners at focus group and PPS steering committee meetings.

Community CNA Survey Distribution
<ul style="list-style-type: none"> • Community Health Action of Staten Island (HIV Prevention, Care Coordination Services for Chronic Illness, Education for Inmates and Re-entry Support for Parolees, Addiction Treatment and Opioid Overdose Prevention, Food Pantry) • Staten Island Community Friendship Clubs (Assisted Living, Senior Community) • Staten Island Mental Health Society (Substance Abuse and Behavioral Health Provider) • Staten Island Jewish Community Center (Community Center) • Children’s Aid Society (Community-Based Organization) • Camelot of Staten Island – Outpatient Services (Substance Abuse Provider) • Bridge Back to Life, Staten Island (Substance Abuse Provider) • Cerebral Palsy Association of New York State, Staten Island (Developmental Disabilities Provider) • Sea View Hospital Rehabilitation Center and Home (Skilled Nursing Facility) • YMCA of Greater New York – Counseling Services - (Substance Abuse Provider) • St. Joseph’s Medical Center (Behavioral Health Provider, Residential Services) • Chait House (Health Home, Behavioral health) • Golden Gate Rehabilitation and Health Center (Skilled Nursing Facility) • Richmond University Medical Center - Outpatient Behavioral & Substance Abuse Department (Substance Abuse and Behavioral Health Provider) • Richmond University Medical Center - Outpatient Medical Clinics (Clinic) • Staten Island University Hospital • Stapleton UAME Church (Faith-Based Organization/Food Pantry) • Jewish Community Center, Staten Island (Community-Based Organization, Community Health ED, Employment Support Services, Family Support Services)

Community Focus Groups
<ol style="list-style-type: none"> 1. SIUH Community Advisory Board Meeting: 33 attendees from SIUH, local gym, pharmacy, Borough President's Office, Community Health Center of Richmond (FQHC), and a physician practice. 2. Staten Island Addiction Treatment Program: 6 attendees. 3. Community Health Action of Staten Island Addiction Treatment Program: 8 attendees. 4. Eger Health Care and Rehabilitation Center: 8 attendees.
<p>Focus Group Questions:</p> <ul style="list-style-type: none"> ➤ Do you feel there are services available to you to promote wellness and maintain good health? If there are services available do you feel they are effective? What additional services do you feel would be most helpful to maintain your health? ➤ For you, what are the "barriers" that keep you from getting health care services? Barriers can include cost, availability of transportation, the ability to make an appointment see a doctor, the ability to speak the same language as your doctor, etc. ➤ Do you feel when you see a doctor, do you receive, and have enough time to understand, the information needed to treat your or a family member's illness? For example, when you see a doctor, does the doctor or their staff clearly explain to you why you are sick, the medications you are asked to take, the next steps you need to take to get better, etc? ➤ Do you feel you, or are there people you know, who have had difficulty accessing health care because of their race, sex, or religious beliefs? ➤ What are the top three things that would most improve your (or your family's) health care on Staten Island? ➤ If you or a family member have been to a hospital or emergency room, are there any other health services that you could have used instead, if they were available (such as evening hours at a doctor's office or urgent care center, a health information phone or internet service, etc).

Domain	Project	DSRIP Measure	DSRIP Measure Preliminary Baseline Finding	Other Population Findings	Rationale for Choice	Plan Goal
3	3.a.i - Integration of behavioral health and primary care services	1) PPV (for persons with BH diagnosis) 2)Antidepressant Medication Management 3)Diabetes Monitoring for People with Diabetes and Schizophrenia 4)Diabetes Screening for People with Schizophrenia./BPD Using Antipsychotic Med. 5)Cardiovascular Monitoring for People with CVD and Schizophrenia. 6)Follow-up care for Children Prescribed ADHD Medications 7)Follow-up after hospitalization for Mental Illness 8)Screening for Clinical Depression and follow-up 9)Adherence to Antipsychotic Medications for People with Schizophrenia 10)Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET)	1) 10,640 visits (3M Data) 2) 297 Medicaid recipients; 46% of patients with recommended care (below NYS average of 50%) 3) 201 Medicaid recipients; 60% of patients with recommended care (below NYS average of 68%) 4) 635 Medicaid recipients; 78% of patients with recommended care (below NYS average of 79%) 5) Not available 6)266 Medicaid recipients; 58% of patients with recommended care (above NYS average of 56%) 7)1,016 Medicaid recipients; 59% of patients with recommended care (above NYS average of 55%) 8) Not available 9) 780 Medicaid recipients, 71% of patients with recommended care (above NYS average of 64%) 10)2,186 Medicaid recipients; 75% of patients with recommended care (below NYS average of 78%)	A) 28,868 Medicaid recipients with a BH d(x) (Salient claims data) B)1,639 Medicaid PQJ admissions (3M data) C) 14,108 MCD MH ER Visits (3M data) D) 3,915 30-day readmissions at SIUH and RUMC (Provider Data)	Behavioral health & substance abuse (BH&SA) providers in the PPS indicate that either all, or a large percentage of their current patients would benefit from access to primary care/medical services and that although they may provide referrals to PCP and encourage follow-up, most patients have either no or inconsistent medical follow-up, and have difficulty with compliance. Additionally, medical provider's including participating PCPs/clinics believe that the co-location of BH&SA and primary care would ensure better coordination of care among providers, help to identify BH diagnoses in PCP patients and ensure treatment is provided quickly and without the stigmatizes associated with referral to an BH&SA provider in another setting. This clearly indicates the need for enhanced services to further support patients with BH&SA diagnosis who also have medical needs.	SI PPS will integrate behavioral and primary care services by co-locating behavioral health services at primary care sites and co-locating primary care services at behavioral health sites in order to provide a broad range of care to the SI population.
3	3.a.iv - Development of Withdrawal Management	1) PPV (for persons with BH diagnosis) 2)Antidepressant Medication Management 3)Diabetes Monitoring for People with Diabetes and Schizophrenia 4)Diabetes Screening for People with Schizophrenia./BPD Using Antipsychotic Med. 5)Cardiovascular Monitoring for People with CVD and Schizophrenia. 6)Follow-up care for Children Prescribed ADHD Medications 7)Follow-up after hospitalization for Mental Illness 8)Screening for Clinical Depression and follow-up 9)Adherence to Antipsychotic Medications for People with Schizophrenia 10)Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET)	1) 10,640 visits (3M Data) 2) 297 Medicaid recipients; 46% of patients with recommended care (below NYS average of 50%) 3) 201 Medicaid recipients; 60% of patients with recommended care (below NYS average of 68%) 4) 635 Medicaid recipients; 78% of patients with recommended care (below NYS average of 79%) 5) Not available 6)266 Medicaid recipients; 58% of patients with recommended care (above NYS average of 56%) 7)1,016 Medicaid recipients; 59% of patients with recommended care (above NYS average of 55%) 8) Not available 9) 780 Medicaid recipients, 71% of patients with recommended care (above NYS average of 64%) 10)2,186 Medicaid recipients; 75% of patients with recommended care (below NYS average of 78%)	A) 28,868 Medicaid recipients with a BH d(x) (Salient claims data) B) 6,826 SA admissions(3M data) C) 6,172 SA ER visits (3M data) D) Rate per 100,000 for unintentional drug poisoning overdose = 19.9 (NYC DOHMH Epi Data) E) 653 SI Medicaid patients that has an inpatient discharge and a substance abuse diagnosis (OASAS definition of inpatient and residential detox) (Salient Claims data)	SI has 7 ambulatory providers currently providing comprehensive substance abuse treatment in addition to RUMC's and SIUH ambulatory substance abuse treatment with only limited ambulatory detox services currently being provided at these sites. Participating PPS providers consistently reported that a lack of appropriate ambulatory detox capacity on Staten Island (SI) is a significant gap in the current delivery system, as well as no adolescent detox on SI.	The PPS's plan goal is to expand and improve upon existing withdrawal management services in order to treat the growing opioid population in SI.
4	4.a.iii - Strengthen MH and SA Infrastructure across Systems (Focus Area 3)	Promote Mental Health and Prevent Substance Abuse 1)Percentage of premature death (before age 65 years) 1a)Ratio of Black non-Hispanics to White non-Hispanics 1b)Ratio of Hispanics to White non-Hispanics 2)Age-adjusted preventable hospitalizations rate per 10,000 - Aged 18+ years 2a)Ratio of Black non-Hispanics to White non-Hispanics 2b)Ratio of Hispanics to White non-Hispanics 3)Percentage of adults with health insurance - Aged 18-64 years 4)Age-adjusted percentage of adults who have a regular health care provider - Aged 18+ years 5)Age-adjusted percentage of adults with poor mental health for 14 or more days in the last month 6)Age-adjusted percentage of adult binge drinking during the past month 7)Age-adjusted suicide death rate per 100,000	1a) 294:2757 = 0.11 black to white ratio (http://www.health.ny.gov/statistics/vital_statistics/2011/table37.htm) 1b)264:2757 = 0.10 hispanics to white ratio (http://www.health.ny.gov/statistics/vital_statistics/2011/table37.htm) 2a)Not available 2b)Not available 3)87.2% of adults between 18-64yrs that responded have health insurance (NYC Epiquery) 4)Not available. Information only available for NYC and not Richmond County. 5)Not available. Information only available for NYC and not Richmond County. 6)Not available. Information only available for NYC and not Richmond County. 7)Not available	A) SI unique Medicaid beneficiaries is 135,178 (Salient NYS Medicaid Claims) B) SI uninsured individuals is 53,428 (2008 Census Bureau Estimates of Uninsured) C) 2,080 hospital d/c have medical and bh, primary and secondary d(x) (SPARCS) D) 10,640 Medicaid Mental Health hospital admissions (2012 3M data) E) 14,108 Medicaid Mental Health ED visits (2012 3M Data) F) In 2012, the SI rate of deaths per 100,000 from drug overdoses was 20.1 (DOHMH)	While the community of Staten Island has several ongoing programs and a range of providers currently in the community, there is not enough capacity to take on the increasing number of individuals, as mentioned above, in need of mental health or substance abuse services. Additionally, there is a large gap which will need to be filled in order to provide prevention and educational services that are culturally sensitive and addresses the problems of the ethnically diverse population, specifically in relation to the North Shore. The current infrastructure on SI for behavioral health and substance abuse is unable to provide ongoing support to this growing population in need of these services. Hence, the PPS chooses to implement projects 3.a.i and 3.a.iv in addition to this project to help strengthen the infrastructure to support this population.	In order to successfully implement Projects 3.a.i and 3.a.iv, the Staten Island community needs to have a stronger infrastructure to support the behavioral health and substance abuse population. SI PPS's plan goal is to strengthen the infrastructure in order to better support the population and achieve success in treating the targeted patient populations for Project 3.a.i and 3.a.iv.

Domain	Project	DSRIP Measure	DSRIP Measure Preliminary Baseline Finding	Other Population Findings	Rationale for Choice	Plan Goal
2	2.b.viii - Hospital-Home Care Collaboration Solutions	1) Potentially Avoidable Emergency Room Visits 2) Potentially Avoidable Readmissions 3) PQI Suite – Composite of all measures 4) Percent of total Medicaid provider reimbursement received through sub-capitation or other forms of non-FFS reimbursement 5) Percent of Eligible Providers with participating agreements with RHIO's; meeting MU Criteria and able to participate in bidirectional exchange 6) Percent of PCP meeting PCMH (NCQA)/ Advance Primary Care (SHIP) 7) CAHPS Measures including usual source of care Patient Loyalty (Is doctor/clinic named the place you usually go for care? How long have you gone to this doctor/clinic for care?) 8) HEDIS Access/Availability of Care; Use of Services 9)H-CAHPS – Care Transition Metrics 10)CAHPS Measures – Care Coordination with provider up-to-date about care received from other providers	1) 93,431 avoidable visits; Visits per 100 recipients rate of 37 (above NYS rate of 38) 2)1,171 (https://health.data.ny.gov/Health/Medicaid-Hospital-Inpatient-Potentially-Preventabl/ckvf-rbyn) 3)1639 Medicaid PQI admissions (3M data) 4)Not available 5)Not available 6)Not available 7)Not available 8)Not available 9)Not available 10)Not available	A) 600 Medicaid readmissions for patients d/c to home care (SI PPS Provider Data Request) B)5,233 SI Medicaid recipients with a home care services claim (NYS Salient Medicaid Database)	Utilizing data provided by the Home care agencies in SI PPS there are an estimated 600 readmissions for patients discharged to home care within 30 days on Staten Island annually, many of which may be avoidable. Home care providers reported in the SI PPS that the top reasons for transfer to acute include: other or unknown, respiratory conditions including pneumonia or bronchitis), wound infection, deterioration, uncontrolled pain, and dehydration or malnutrition (Home care Provider Data Request). Many of the reported reasons for admissions might have been better controlled with in-home medical care management, home care services or proper connection to outpatient services.	By the end of the DSRIP program, SI PPS will have reduced readmissions by appropriately managing patient's in-home medical care management, home care services and proper coordination of outpatient services.
2	2.b.iv - Care Transitions	1) Potentially Avoidable Emergency Room Visits 2) Potentially Avoidable Readmissions 3) PQI Suite – Composite of all measures 4) Percent of total Medicaid provider reimbursement received through sub-capitation or other forms of non-FFS reimbursement 5) Percent of Eligible Providers with participating agreements with RHIO's; meeting MU Criteria and able to participate in bidirectional exchange 6) Percent of PCP meeting PCMH (NCQA)/ Advance Primary Care (SHIP) 7) CAHPS Measures including usual source of care Patient Loyalty (Is doctor/clinic named the place you usually go for care? How long have you gone to this doctor/clinic for care?) 8) HEDIS Access/Availability of Care; Use of Services 9)H-CAHPS – Care Transition Metrics 10)CAHPS Measures – Care Coordination with provider up-to-date about care received from other providers	1) 93,431 avoidable visits; Visits per 100 recipients rate of 37 (above NYS rate of 38) 2)1,171 (https://health.data.ny.gov/Health/Medicaid-Hospital-Inpatient-Potentially-Preventabl/ckvf-rbyn) 3)1,639 Medicaid PQI admissions (3M data) 4)Not available 5)Not available 6)Not available 7)Not available 8)Not available 9)Not available 10)Not available	A) 9,765 Medicaid enrollees with Inpatient Discharge (IP D/C) and a chronic disease d(x) (Salient NYS Medicaid Claims Data) B) 228 Medicaid enrollees with IP D/C with primary diagnosis COPD (Salient NYS Medicaid Claims Data) C) 266 Medicaid enrollees with IP D/C with primary diagnosis CKD (Salient NYS Medicaid Claims Data) D) 424 Medicaid enrollees with IP D/C with primary diagnosis heart disease (Salient NYS Medicaid Claims Data) E) 343 Medicaid enrollees with IP D/C with primary diagnosis asthma (Salient NYS Medicaid Claims Data) F) 229 Medicaid enrollees with IP D/C with primary diagnosis diabetes (Salient NYS Medicaid Claims Data) G) 2,264 Medicaid enrollees with IP D/C with primary diagnosis BH or SA (Salient NYS Medicaid Claims Data) H) 418 Medicaid enrollees with IP D/C with primary diagnosis cancer (Salient NYS Medicaid Claims Data) I) 97 Medicaid enrollees with IP D/C with primary diagnosis hypertension (Salient NYS Medicaid Claims Data)	SI's PQI admissions are higher than the NYC and New York State averages. Among the top causes of PQI admissions are chronic diseases including COPD, diabetes, heart failure and hypertension among others. The Medicaid patients most at-risk for readmission include patients with substance abuse and behavioral health disorders as well as patients with chronic diseases.	SI PPS plans to reduce readmissions by focusing on patients who are most at-risk for readmissions with chronic diseases by developing/expanding on existing care management/care coordination services.
2	2.d.i (Project 11) - PAM	1) Interval change in PAM 2) Use of primary and preventive care services 3) ED use by Uninsured persons 4) CG-CAHPS done by the PPS documenting the Uninsured Experience within the PPS	1)Not available 2)Not available 3)Not available 4)Not available	A) SI uninsured individuals is 53,428 (2008 Census Bureau Estimates of Uninsured) B) 8,240 Medicaid non-utilizing (NYS Salient Data) C) 11,000 Medicaid low-utilizing (estimating based on dated provided by MCOs Amerigroup and Healthfirst) D) SI added 3,891 people to the population over a period of 3 years of which 3,718 were classified as international immigrants (http://www.nyc.gov/html/dcp/html/census/popcur.shtml) E) SI's per capita income is \$31,276 which is lower than the NYS average (2010 US Census data) F) 1,964 uninsured hospital d/c of which 1,198 male and 766 female (SPARCS)	This project was selected in an effort to better serve its uninsured population of approximately 53,428 and low/non-utilizing Medicaid population which makes up approximately 15% of the SI's total population. The SI PPS will develop a comprehensive program to engage the uninsured and low/non-utilizing Medicaid population including engaging those who do not properly utilize SI's primary and preventative care services through the implementation of Patient Activation Measures (PAM).	SI PPS's plan goal for project 2.d.i is to successfully actively engage the uninsured, low-utilizing Medicaid and non-utilizing Medicaid populations so that they are more informed and understand the medical system and seek care at the right time, at the right place, for the right cost.
3	3.c.i - Diabetes Management	1) PQI # 1 (DM Short term complications) 2) Comprehensive Diabetes screening (HbA1c, lipid profile, dilated eye exam, nephropathy) 3) Medical Assistance with Smoking Cessation 4) Flu Shots for Adults Ages 50 – 64 5) 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)	1)117 Medicaid recipients 2011-2012, or 58.5 annual; Admission rate per 100,00 recipients of 72 (below NYS average of 113) 2)4,748 Medicaid recipients; 75% of patients with recommended care (below NYS average of 80%) 3)Not available. Information only available for NYC and not Richmond County. 4)Not available. Information only available for NYC and not Richmond County. 5)Not available. Information only available for NYC and not Richmond County.	A) 1,639 Medicaid PQI hospitalizations (3M Data) B) 4,185 admissions on SI in 2013 with DM d(x) (SPARCS) C) 14,025 Medicaid recipients with a diabetes diagnosis (any level) (NYS Salient Medicaid Data)	Of the 1,639 Medicaid PQI hospitalizations on SI in 2012, 335 (20%) were due to Diabetes Mellitus (DM) related complications. A further breakdown of the admissions indicates that the zip codes in the north shore of SI (North Shore), a more financially disadvantaged population, has even greater DM burden than the rest of SI. Therefore, by improving the care of DM and by training patients and families in self-management, with a particular emphasis on serving the patients on the North Shore of SI, there are significant opportunities to improve health status and longevity on SI.	The PPS plans to reduce avoidable readmissions related to patients with diabetes by providing programs and services that will allow for the diabetic population to better manage their treatment.

Domain	Project	DSRIP Measure	DSRIP Measure Preliminary Baseline Finding	Other Population Findings	Rationale for Choice	Plan Goal
4	4.b.ii - Chronic Conditions Managements	Prevent Chronic Disease 1)Percentage of premature death (before age 65 years) 1a)Ratio of Black non-Hispanics to White non-Hispanics 1b)Ratio of Hispanics to White non-Hispanics 2)Age-adjusted preventable hospitalizations rate per 10,000 - Aged 18+ years 2a)Ratio of Black non-Hispanics to White non-Hispanics 2b)Ratio of Hispanics to White non-Hispanics 3)Percentage of adults with health insurance - Aged 18-64 years 4)Age-adjusted percentage of adults who have a regular health care provider - Aged 18+ years 5)Percentage of adults who are obese 6)Percentage of children and adolescents who are obese 7)Percentage of cigarette smoking among adults 8) Percentage of adults who receive a colorectal cancer screening based on the most recent guidelines - Aged 50-75 years 9)Asthma emergency department visit rate per 10,000 10)Asthma emergency department visit rate per 10,000 - Aged 0-4 years 11)Age-adjusted heart attack hospitalization rate per 10,000 12)Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 6-17 years 13)Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 18+ years	1a) 294:2757 = 0.11 black to white ratio (http://www.health.ny.gov/statistics/vital_statistics/2011/table37.htm) 1b)264:2757 = 0.10 hispanics to white ratio (http://www.health.ny.gov/statistics/vital_statistics/2011/table37.htm) 2a)Not available 2b)Not available 3)432,907 (468,374 minus 35,467 uninsured) (US Census Bureau ACS data files) 4)Not available. Information only available for NYC and not Richmond County. 5)32.6% of survey respondents are adults who are obese in SI (NYC Epiquery) 6)Not available. Information only available for NYC and not Richmond County. 7)16.5% of survey respondents are current smokers in SI (NYC Epiquery) 8)Not available. Information only available for NYC and not Richmond County. 9) Not available 10) Not available 11)Not available 12) Not available 13) Not available	A) The leading causes of death are cardiac disease and cancer in the borough. B) PQL hospitalizations are admissions related to COPD or asthma (453 or 28% of the population) and hypertension (128 or 8% of the population) C) Highest mortality rate (679.8 compared to a citywide aggregate of 622.7 per 100,000) D) 36.2% of SI residents between the ages of 45 and 64 years are considered obese as well as 34.8% of residents between the ages of 25 and 44. E) Borough with the highest percentage of current smokers, 16.5% (estimates may be lower than actual smoking status due to low sampling sizes).	The North Shore hot spots will be the focus areas for clinical and community based chronic disease prevention and management where it is revealed that the population to be at the highest risk and to have the greatest challenges in accessing care. SI PPS expects to target the patients with chronic diseases on SI including those with: Chronic Obstructive Pulmonary Disease and Bronchiectasis (COPD), Congestive Heart Failure (CHF), Chronic Kidney Disease, Heart Disease, Asthma, and Cancer as well as patients at risk for chronic diseases, including smokers. The PPS will begin with targeted efforts around specific diseases and expand over the course of five years.	The Staten Island community has a large population with chronic conditions. The SI PPS hopes to provide a care management program and services that will enable this population to better prevent and manage their care and reduce avoidable admissions.
2	2.b.vii - Implementing INTERACT	1) Potentially Avoidable Emergency Room Visits 2) Potentially Avoidable Readmissions 3) PQL Suite – Composite of all measures 4) Percent of total Medicaid provider reimbursement received through sub-capitation or other forms of non-FFS reimbursement 5) Percent of Eligible Providers with participating agreements with RHIO's; meeting MU Criteria and able to participate in bidirectional exchange 6) Percent of PCP meeting PCMH (NCQA)/ Advance Primary Care (SHIP) 7) CAHPS Measures including usual source of care Patient Loyalty (Is doctor/clinic named the place you usually go for care? How long have you gone to this doctor/clinic for care?) 8) HEDIS Access/Availability of Care; Use of Services 9)H-CAHPS – Care Transition Metrics 10)CAHPS Measures – Care Coordination with provider up-to-date about care received from other providers	1) 93,431 avoidable visits; Visits per 100 recipients rate of 37 (above NYS rate of 38) 2)1,171 (https://health.data.ny.gov/Health/Medicaid-Hospital-Inpatient-Potentially-Preventabl/ckvf-rbyn) 3)1,639 Medicaid PQL admissions (3M data) 4)Not available 5)Not available 6)Not available 7)Not available 8)Not available 9)Not available 10)Not available	A) 1,500 transfers from Nursing Homes to Acute Care facilities (Provider Data) B)Respiratory distress/shortness of breath, altered mental status, abnormality of gait, gastro-intestinal, cardiac, sepsis, abnormal lab tests/vitals, pneumonia, renal failure and cerebrovascular complications as top reasons for transfers from SNF to AC (Provider Data)	SI's leading Medicaid PQL Hospitalizations are attributed to COPD or asthma in older adults, pneumonia, hypertension, long-term complications related to diabetes, and heart failure, among others. These findings align with the SI NH's reported reasons for transfer and reflect Project 2.b.vii's goals.	With the implementation of INTERACT, SI PPS plans to better manage the acute changes in a SNF resident's condition in order to stabilize the patient and avoid transfers to an acute care facility.
2	2.a.iii - Health Home At-Risk Intervention Program	Created Integrated Delivery System 1) Potentially Avoidable Emergency Room Visits 2) Potentially Avoidable Readmissions 3) PQL Suite – Composite of all measures 4) Percent of total Medicaid provider reimbursement received through sub-capitation or other forms of non-FFS reimbursement 5) Percent of Eligible Providers with participating agreements with RHIO's; meeting MU Criteria and able to participate in bidirectional exchange 6) Percent of PCP meeting PCMH (NCQA)/ Advance Primary Care (SHIP) 7) CAHPS Measures including usual source of care Patient Loyalty (Is doctor/clinic named the place you usually go for care? How long have you gone to this doctor/clinic for care?) 8) HEDIS Access/Availability of Care; Use of Services	1) 93,431 avoidable visits; Visits per 100 recipients rate of 37 (above NYS rate of 38) 2)1,171 (https://health.data.ny.gov/Health/Medicaid-Hospital-Inpatient-Potentially-Preventabl/ckvf-rbyn) 3)1,639 Medicaid PQL admissions (3M data) 4)Not available 5)Not available 6)Not available 7)Not available 8)Not available	SI Medicaid recipients with primary diagnosis of: A) Asthma (6,962) B) Diabetes (9,566) C) Hypertension (12,939) D) CHF 1,693 E) COPD 4,118 (NYS Salient data).	A number of high risk patients on SI do not qualify for care management services from Health Homes (HH) under the current New York State (NYS) HH standards (e.g. patients that have a single chronic condition and are at risk for developing another), but would benefit from comprehensive care management services. Under current NYS HH requirements, eligible patients must have two or more chronic conditions. This DSRIP project will expand HH care on SI to patients with one chronic condition if they are at risk of developing a second condition, in alignment with federal HH standards created by Section 2703 of the Affordable Care Act.	SI PPS plans to expand access to community primary care services and develop integrated care teams that will meet the individual needs of high risk patients who do not qualify for care management services from Health Homes under the current NYS HH standards but whose health is decreasing with an increasing likelihood of becoming HH eligible in the near future. The plan goal is to preemptively intervene which may result in stabilization and reduction in health risk and avoidable service utilization.

Domain	Project	DSRIP Measure	DSRIP Measure Preliminary Baseline Finding	Other Population Findings	Rationale for Choice	Plan Goal
3	3.g.ii - Integration of palliative care into nursing homes	<p>1) Risk-Adjusted percentage of members who remained stable or demonstrated improvement in pain.</p> <p>2) Risk-Adjusted percentage of members who had severe or more intense daily pain</p> <p>3) Risk-adjusted percentage of members whose pain was not controlled.</p> <p>4) Advanced Directives – Talked about Appointing for Health Decisions</p> <p>5) Depressive feelings - percentage of members who experienced some depression feeling</p>	<p>1) Not available</p> <p>2) Not available</p> <p>3) Not available</p> <p>4) Not available</p> <p>5) Not available</p>	<p>A) SI overall mortality rate is 679.8 deaths per 1,000 residents (NYC mortality rate is 622.7) (http://www.health.ny.gov/statistics/vital_statistics/2011/table39.htm)</p> <p>B) 283 Medicaid recipients eligible for palliative care (Salient claims data)</p> <p>B) Leading causes of death on SI (same source as above):</p> <ul style="list-style-type: none"> -266.1 per 100,000 residents (Heart Disease) -163.0 per 100,000 residents (Cancer) <p>C) PMPM costs for females 80yrs+ is \$3,307.99 for duals and \$2,168.08 for non duals (Salient Claims Data)</p> <p>D) PMPM costs for males 80yrs+ is \$2,801.82 for duals and \$2,371.52 for non duals (Salient Claims Data)</p> <p>E) (1) 283 Medicaid recipients received nursing home care for palliative-related diagnosis (e.g. cancer, liver disease, dementia, CHF, etc.) during the 2010-2012 time period (NYS Salient Medicaid Database)</p>	<p>US Census data shows that the SI population is aging as the baby boomer generation reaches senior citizen status. It is anticipated that that the number of frail elderly will triple or quadruple in the next 30 years. As the number of persons living with severe, debilitating illnesses increases over the coming decade, so too will the numbers living and dying in nursing homes. A growing number of nursing facility residents today are seriously ill or are actively dying. The SI PPS's target population for Project 3.g.ii is comprised of patients with serious illnesses that would benefit from receiving palliative care services at participating sites.</p>	<p>The integration of palliative care into nursing homes provides an extra layer of support to the patients and their families. SI PPS plans to increase access to palliative care programs for those individuals with serious illness and are at the end of life to ensure care and end of life planning needs are understood, addressed and met prior to decisions to seek further aggressive care or hospital. The goal is to assist with ensuring pain and other comfort issues are managed and further health changes are planned for accordingly.</p>