

Toward an Integrated Rural Health System:

Building Capacity
and Promoting Value
in the North Country



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Table of Contents

North Country Health Systems Redesign Commission	3
Acknowledgement	4
Executive Summary	5
Introduction to the North Country	8
The Commission	10
The Charge	11
Working Principles	11
The North Country and Its Residents	13
Health Care in the North Country	14
Strengths of the North Country	19
Imperatives and Implications of Health Reform	22
Reforms at the Federal Level	22
Reforms at the State Level	23
The Ability to Meet Population Needs	30
Telehealth	35
Long Term Services and Supports	36
Recommendations	38
Conclusion	45
Appendices	46

North County Health Systems Redesign Commission

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Executive Summary

New Yorkers in the North Country live in one of the most beautiful regions of the U.S., one populated by high peaks, vast landscapes and scenic vistas. But residents of this far-flung region also confront the harsh reality that access to health care has become increasingly difficult.

The North Country's health care delivery system is under growing stress. Payment reform, aging of the population and workforce shortages all pose special challenges. Nominal coordination among providers and lack of a regionally integrated health care delivery system threaten the continued existence of many health care facilities. Adding to the burden are rising rates of chronic disease, which jeopardize the region's economy, workforce, and quality of life. Rural communities always have distinct health care needs due to geographic isolation and large numbers of un- and under-insured residents, but these challenges are especially striking in the North Country where the confluence of trends is magnifying the problems.

Across the North Country, the need to build capacity and promote value is critical and fast becoming a crisis. Stakeholders in the region and government officials alike need to give their urgent attention to necessary transformations in care delivery, payment, and population health while also responding with a more flexible regulatory system. Change will require timely action on all fronts.

The region's health is sub-par. By example, compared to state-wide norms, the North Country counts a higher percentage of adults without health insurance, and more diagnosed with diabetes, asthma, and obesity—as well as more smokers.

The region's health care delivery system is highly fragmented and remains centered around inpatient beds. As a result, the North Country has a higher rate of preventable hospitalizations, Emergency Department visits, and chronic lower respiratory disease (CLRD) hospitalizations compared to statewide rates. Within this region there are 16 hospitals, 21 diagnostic and treatment centers, and 29 nursing homes. There are 601 hospital beds, 1,205 nursing home beds, 279 adult home beds and 58 assisted living beds per 100,000 people. Overall, the region has too many hospital beds and an excess of nursing home beds, but preventive and primary care capacity is inadequate, and the uneven distribution of hospitals causes serious access issues.

Without question, health care employment plays a major role in these local economies. Rural hospitals are often the health care and economic foundations of their communities but face an increasing struggle as reimbursement rates decline, and care shifts from the inpatient to an ambulatory setting. In many cases, North Country hospitals and providers have yet to adapt to this change and are not prepared to deal with additional reimbursement and system adjustments that are sure to come with health care reform.

Most people in the region have longer transport times for Emergency Medical Services (EMS) than is the case elsewhere. Statewide, the average transport time for an EMS ambulance is 15 minutes, while in the North County, 40% of municipalities have transport times longer than 25 minutes.

The region's difficulty in recruiting all types of practitioners, particularly physicians, adds to the struggle. The North Country has 40% fewer active primary care physicians (86 per 100,000 population) than statewide (120 per 100,000) and 73% fewer active physician specialists. It also has correspondingly fewer dentists (45 per 100,000) than the rest of the state or upstate New York (78 and 62, respectively).

An aging population and high rates of poverty force providers in the North Country to rely heavily on Medicare and Medicaid with their relatively low reimbursement levels. Care is often fragmented as many providers have resisted mergers in an attempt to retain independence. Yet, like the rest of the state, North Country communities need integrated delivery systems to enable care coordination across the continuum of care, including preventive,

primary, acute, behavioral, and long term care services. Developing such systems should improve clinical outcomes and population health while also assuring financial viability for providers of needed services.

Thirteen of the 16 hospitals in the nine-county area had a negative operating margin in 2012 with six of these facilities experiencing losses for three or more years. In aggregate, the 16 hospitals have an operating deficit of about \$20 million dollars annually. About two-thirds of the facilities have higher long term debt to capitalization compared to similar facilities in the rest of the state. Lack of access to capital is a serious impediment that inhibits transformation.

The outlook is even worse for the area's nursing homes. Sixteen out of the 29 nursing homes¹ in the nine-county area had negative operating margins, with a combined loss of over \$27 million dollars in 2012. The fiscal strength of nursing homes in the North County is strongly affected by the fact that most nursing home residents in the area are healthier than others in the rest of the state. But the lack of alternatives such as home care and assisted living forces people who would otherwise not need nursing homes to use these services. The Medicaid program adjusts payments to nursing homes based on "case mix," which is a measure of how much care the patients in the nursing home need. The case mix index for the Medicaid patients in North County nursing homes is 10% lower than it is elsewhere in New York. With 76% of nursing home patients qualifying for Medicaid, the low case mix has a substantial impact on the facilities' bottom lines.

To ensure that New Yorkers in the North Country achieve high quality care, better health outcomes, and lower costs, both now and into the future, an integrated approach to care must be developed. We need a system that emphasizes prevention, increases primary care, builds more community-based options, strengthens coordination and communication, supports critical safety net providers, monitors and rewards quality, and builds affiliations and partnerships that achieve these goals in a cost-efficient and fiscally sound way.

The Commission recognizes the value and the importance of the State Health Innovation Plan (SHIP) that has been developed by the Department of Health as a statewide blueprint for improving the health care system and appreciates this opportunity to suggest a design for the North Country as New York's most rural and one of its most hard-pressed regions. We also appreciate the timing of this report to recommend priorities and funding that is anticipated in the state budget for the coming year and the \$8 billion award pledged by the federal Center for Medicare and Medicaid Services to invest in health system transformation.

In concert with the SHIP, the Commission recommends as a topmost priority the promotion and support of the Advanced Primary Care model across the North Country. To achieve full potential, this model will need to include integration of behavioral health services into primary care settings, development of telehealth services, and the creation and expansion of primary care training programs, including graduate medical education for family medicine physicians along both the western and eastern slopes of this mountain region.

We also recommend enfolded certain skilled nursing homes into a new design as Skilled Care Campuses (SCCs). An SCC would include, through corporate or virtual integration, a continuum of community-based long term care services with financial incentives to place residents in the least restrictive appropriate setting while at the same time enabling down-sized facilities to maintain their viability by recommitting existing space to new uses and providing sufficient reimbursement to keep the most vulnerable members of our communities reasonably close to home and family.

The Commission has taken care not to recommend the closure or merger of any specific facilities, including hospitals, while recognizing that downsizing of the acute care sector is already taking place and can be expected to accelerate. What we do recommend is the state recognize the perils and merits of individual hospitals participating in initiatives to transform and improve the system that will inevitably also serve to undermine their

¹ There are additional nursing homes in the nine county area that are affiliated with hospitals and do not submit their individual fiscal data on their institutional cost reports.

own financial prospects. To this end, we recommend that the state designate those organizations—be they hospitals, nursing homes, or other established entities—that are successfully pursuing the Triple Aim of better care, better health and lower costs through integration as Essential Community Health Networks (ECHNs). By virtue of this designation, transition funding should be extended to these distressed facilities to assure effective transformation instead of disappearance.

Finally, all the members of the Commission would like to note that our work represents an effort at regional planning at a very fast pace. We are proud of this report and the many recommendations it contains; we commend it to Commissioner Shah, to other policymakers, and to all the stakeholders in the North Country. At the same time, we recognize that this work is only a start, hopefully a head start. To realize the fruits of this endeavor will, we believe, require on-going, systematic, inclusive, and sustained planning activity such Regional Health Improvement Collaboratives (RHICs).

Introduction to the North Country

Much of the bricks and mortar of “modern” health care in northern New York was developed in a different era. The acute care system evolved during those relatively optimistic days after the Second World War, when health care happened at a slower pace; 14-day stays for maternity were typical; and cataract extractions entailed days in the hospital with your head packed in sand bags. Economically, the Seaway was being developed, its electricity serving companies such as Alcoa. The paper industry was local and supported several towns; there were people and jobs in remote areas. Communities had relative prosperity. Considerable distances, not to be covered easily or quickly, separated the citizens from each other; cars were slower, roads narrower, and I-87 and I-81 were, at best, engineers' dreams. Health care delivery as it stood was a rational development for the times.

Eventually all this changed. Many companies closed or left the area and jobs evaporated. The Adirondack Park became a more popular destination, and a service and tourist-based economy became dominant. The “system” of health care delivery struggled to adapt, lacking financial resources, struggling with outdated infrastructure, absent sizable population centers, and faced with inconsistent public policy.

Long term care developed its infrastructure similarly to the rest of New York in response to the establishment of Medicare and Medicaid. In the early 70's these facilities were filled with seniors, many of who would not be, nor would want to be, admitted today. The profile of the earliest admissions to the long term care setting would better match today those considered appropriate for supportive housing, or care in the home. Chronic and acute conditions that demanded hospital admissions four decades ago are managed differently today, with dramatic shifts in what we now consider the proper use of the long term care system.

As for primary care—a term yet to be invented—medical practice was defined as a solo general practitioner working in his office.

If we look at the North Country today, it has experienced significant loss of jobs, wealth and population. The North Country has had the added difficulty of adapting an outdated infrastructure to conform to a setting that may work well in areas of stable or expanding populations, and where distance is measured in increments far less than hours of travel. Opting for services in a neighboring community that's ten minutes down the road has a far different impact when that “neighbor” is 50 miles away. This immutable fact challenges today's notion of access, choice and consumer expectations.

Even with able management and committed leadership, North Country health care providers have not thrived nor adapted easily to changing conditions; yet they must fulfill a fundamental need of the population. The relative weakness they exhibit, and likely the condition they present today, is to some extent a natural evolution of an economic cycle that has plagued this region.

New Yorkers in the North Country still live in one of the most beautiful regions of the U.S., surrounded by high peaks, vast landscapes and scenic vistas. But residents of this far-reaching region must also confront the harsh reality that access to health care has become increasingly difficult. The North Country's health care delivery system is under growing stress amid rapid changes in organization, delivery models, and public funding. Payment reform, an aging population, and workforce shortages pose additional challenges. Nominal coordination among providers and the absence of a regionally integrated health care delivery system threaten the continued existence of many health care facilities. Adding to the burden are rising rates of chronic disease, which jeopardize the region's quality of life, workforce, and the economy. Rural communities have always had unique health care needs due to accessibility issues and large percentages of un- and under insured residents. But in the North Country, the confluence of trends is magnifying the problems.

New York's North Country has nine counties: Warren, Washington, Essex, Clinton, Franklin, St Lawrence, Jefferson, Lewis, and Hamilton. The region encompasses 13,100 square miles and is home to 562,116 people. A population density of 43 people per square mile with a lack of public transportation present a difficult challenge for policy

makers and providers attempting to ensure access to high quality services for all North Country residents. The area is comprised of various sub-regions, clustering around population areas with health service catchment areas not bounded by county lines, and it is becoming more apparent that any planning must be done regionally. The North Country also has a higher number of older adults than the rest of the state. More than 15% of the population in the North Country is over age 65 compared to 13% of the population statewide and 14% in upstate New York.

As a region, North Country communities face significant struggles that affect population health and stress the health care system. The need to both build capacity and promote value is critical and fast becoming a crisis. The stakeholders in the region need to bring a sense of urgency to the transformations required in care delivery, payment and population health as well as oversight of a more flexible, timely and responsive regulatory system. Changes to address the growing crisis will be possible only if the adjustments are made on all fronts and from government, and will require greater flexibility in interpreting regulations.

The region's demographics are an inherent challenge. Poverty is a concern across the North Country. Overall, the percentage of families with income levels at or below the federal poverty level is 32% higher than the rest of the State excluding New York City². In addition, poverty among children is 37% higher than the rest of the state.

The region's health is a significant concern. This area has a higher percentage of adults (ages 18-64) without health insurance (12%), and more adults diagnosed with diabetes (10%), asthma (12.6%) and obesity (30%). The region also has more smokers (23%) than the rest of the state.

In addition, the region's health care delivery system is highly fragmented and acute care-centric. As a result, the North Country has a higher rate of preventable hospitalizations, Emergency Department visits, and chronic lower respiratory disease (CLRD) hospitalizations compared to statewide rates. Within this region there are 16 hospitals, 21 diagnostic and treatment centers, and 29 nursing homes. There are 601 hospital beds, 1,205 nursing home beds, 279 adult home beds and 58 assisted living beds per 100,000 people. There are 601 hospital beds, 1,205 nursing home beds, 279 adult home beds and 58 assisted living beds. The shortage of adult home beds is evident. The North Country region has only 49 adult home beds per 100,000 population, while the rest of the State has 228 adult home beds per 100,000 population. Overall, the region has too many inpatient hospital beds and an excess of nursing home beds, but preventive and primary care capacity is inadequate, and the uneven distribution of hospitals causes serious access issues.

The region's difficulty in recruiting all types of practitioners, particularly physicians, adds to the struggle. The North Country has 40% fewer active primary care physicians (86 per 100,000 population) than statewide (120 per 100,000) and 73% fewer active physician specialists than statewide or upstate New York. It also has 38% fewer dentists (45 per 100,000) than the rest of the state or upstate New York (78 and 62, respectively).

The region's aging population, and high rate of poverty forces providers in the North Country to rely heavily on publicly funded insurance programs. As a result, changes to reimbursement can have catastrophic results. Care is also fragmented because many providers have resisted mergers in an attempt to retain independence. But like the rest of the state, North Country providers need to develop integrated delivery systems that will allow for care coordination across the continuum of care, including preventive, primary, acute, behavioral, and long term care. Developing such a system will improve patient outcomes, provider financial stability and population health.

² Federal poverty level is about \$22,800 per year for a family of four with two children

The Commission

On December 2, 2013, New York State Health Commissioner Nirav R. Shah, M.D., M.P.H., announced the creation of the North Country Health System Redesign Commission (NCHSRC). The goal of the NCHSRC was to provide recommendations that would lead to an effective, integrated health care delivery system for preventive, medical, behavioral, and long-term care services for all communities in New York's North Country.

The NCHSRC was led by three health care experts and included representatives of business, patients, providers, and other community stakeholders that reside in the North Country. The Commission was designed to be a neutral, transparent and trusted entity (not controlled by any single stakeholder or type of stakeholder) to engage health care system stakeholders in a regional planning process. The Commission members are highly respected individuals in their communities with extensive knowledge of the region's needs. The Commission was supported by staff from three state agencies: the Department of Health (DOH), Office of Mental Health (OMH), and Office of Alcohol and Substance Abuse Services (OASAS).

Dr. Shah charged the Commission with providing recommendations designed to create a viable system of care that emphasizes prevention, increases primary care, establishes more community-based options, provides fiscal stability to critical safety-net providers, monitors and rewards quality and coordination of care, and forges innovative affiliations and partnerships. The Commission was asked to provide its report to Commissioner Shah by March 31, 2014.

The Commission set realistic goals for accomplishing this ambitious assignment in a tight timeframe. It held monthly meetings from December 2013 through March 2014, each in a different community within the region. The meetings provided a transparent public forum for providers, the public, and other stakeholders to present analyses and perspectives to the Commission. Presentations focused on the critical issues and dynamics driving the health services in this vast region.

The Commission approached its work through the prism of the State Health Innovation Plan (SHIP) with the overarching goal of achieving the "Triple Aim" for the citizens in the North Country -- better patient care, improved population health, and lower health care costs. At the heart of the SHIP is the Advanced Primary Care model, a model of care that provides timely, well-organized and integrated care and aligns payment with this care model.

The work of the NCHSRC is intended to serve as a blueprint for how the State may partner with regional and local communities to transform health care delivery in the North Country and meet the Triple Aim goals. We anticipate that the lessons learned by the NCHSRC will be able to assist other regions in the state facing similar challenges.

The Charge

The NCHSRC is charged with:

- Assessing the total scope of care in the North Country: community and preventive care, secondary and tertiary care and long term care.
- Assessing the regional population's health care needs and the system's ability to meet them.
- Recommending ways in which to ensure that essential providers survive or that appropriate capacity is developed to replace failing providers; a restructuring and re-capitalization agenda.
- Identifying opportunities for merger, affiliation and/or partnership among providers that will maintain or improve access and quality, and financial viability and promote integrated care.
- Making specific recommendations that providers and communities can implement to improve access, coordination, outcomes and quality of care, and population health.
- Developing recommendations for the distribution of re-investment grants.

Working Principles

The Commission recommended that the following principles drive the creation of recommendations to Dr. Shah:

- The North Country Health System needs to be restructured on a base of primary care and population health to yield more efficient and effective health outcomes.
- Many North Country providers are not positioned to adequately respond to changes in the system in part because they face a unique set of circumstances due to a large geographic area, strong reliance on public Medicare and Medicaid, low population density and seasonal changes in population.
- The State Health Innovation Plan (SHIP) sets the stage for this effective transformation through the Advanced Primary Care model. The Delivery System Reform Incentive Payment Plan (DSRIP) provides an opportunity to develop incentives and programs that will control costs and keep people healthier. The Prevention Agenda provides the framework for communities to improve population health.
- It is imperative for health care providers to restructure, collaborate, integrate, and consolidate to develop new organizational models that respond to a rapidly changing payment system. We need to build, leverage and strengthen partnerships in order to achieve a smooth continuum of care that will save money, with flexibility to lower the costs of that care.
- To be effective, this transformation should not be solely government driven and needs to be achieved on an integrated regional platform.
- Systems in rural areas will need to connect to hub-based providers. Rural systems should provide high quality non-tertiary services in the community to ensure service stability and access. These systems have affiliations with larger providers but are designed to manage care in their communities.
- The Commission calls for integration and coordination of behavioral health, including mental health and substance use disorders, with primary medical care, while maintaining specialty services. Behavioral Health Integration (BHI) research and demonstrations indicate positive outcomes in terms of mental health and better treatment of medical conditions.
- Health system redesign takes years of dedicated hard work and ongoing financial support. A sustainable financing and investment model and appropriately trained workforce of sufficient size are necessary if efficient providers are to sustain continuous improvement and adaptation to change.

- We support state and regional programs that promote the transparency of quality, utilization and cost measurement across the health care system.
- We endorse and expect that person-centered planning will be a core enabler in support of collaboration.
- We support consumer engagement across the planning process and collaborations taking place throughout the North Country.
- To ensure success of health systems reform and the implementation of the SHIP, the workforce is paramount to achieving success. A quality workforce with adequate supply of key staff is a high priority for the Commission.
- The SHIP is dependent on involving a broad cross-section of the community.

The North Country and its Residents

The North Country is New York's most sparsely populated region, categorized as a rural area with intense winter weather³. Total population in the North Country is around 600,000, which accounts for 3% of the state's population (19.4 million). St. Lawrence (109,624) and Jefferson (121,712) are the most populated counties, accounting for about 40% of the total North Country population. Hamilton is the smallest (4,068). In terms of ethnicity, the population of the North Country is less diversified than the rest of the state, too: 90.5% of North Country are White Non-Hispanic.

In the North Country, 14.2% of the residents, or 85,302 people, are 65 years or older. This is higher than the total state average of 13.5% but lower than the state average (excluding New York City)⁴ of 14.5%⁵. Most people aged 65 and above live in the most sparsely populated region of the North Country: the Adirondack Park. In the future, the population is expected to increase slightly between 2013 and 2018 (0.7%), but at lower rates than the rest of the state. Population shrinkage is expected in Clinton, Essex, Hamilton and St. Lawrence counties.

At the same time, the median family income of \$35,244 in the North Country is lower than it is in the rest of the state, where median family income is 30% higher at \$46,796.

The region is also challenged by poor health. Many of the North Country counties rank among the lowest in New York State. St. Lawrence county health rankings are consistently in the bottom 10 for a variety of factors such as outcomes, morbidity and health behavior. Child obesity, smoking rates and binge drinking rates are all above the state average indicating general poor health behavioral patterns.

At the same time, Medicaid enrollment in the North Country is significantly higher than the rest of New York State. In addition to higher levels of enrollment, the average annual Medicaid expenditure per enrollee is higher in the North Country than in the rest of the state. However, the North Country seems to follow New York State in its downward trend in Medicaid expenditure set in motion by the Medicaid Redesign Team (MRT) initiatives. The amount of annual Medicaid expenditure per enrollee may differ by as much as \$5,000 between the individual counties. On the other hand, annual Medicare spend per enrollee is lower in the North Country than in the rest of the state.

The population of the North Country is expected to remain virtually stagnant over the next few years. As the population becomes older, the need for services that specifically address chronic conditions and the needs of patients with multiple age-related conditions will rise. The North Country's relatively poor health outcomes and poor health behaviors will create challenges in the region that are further strained by the region's lower socioeconomic status.

³ The North Country in Statistical Profile; 2008, CaRDI Reports

⁴ All state figures from here on exclude New York City.

⁵ The NCHSR Commission presentation from 17 December 2013, p87, data source unknown

Health Care in the North Country

Hospital Care

A total of 228 licensed entities, including 16 hospitals, provide a range of health care services in the North Country. Except for the most sparsely populated areas of the Adirondack Park, most residents live within 25 miles of a hospital, with the shortest travel distances in St. Lawrence County. For residents in the Adirondack Park, the nearest hospital facility is often more than 30 miles away. Many North Country residents must travel 30 miles or more to obtain inpatient care.

According to a study of current travel patterns, many North Country residents do not frequent a North Country hospital facility for inpatient and outpatient care. About 15% of inpatient admissions and 8% of outpatient visits by North Country residents in 2009 to 2012 occurred in hospitals outside the North Country but still within New York State.

Residents in Warren, Clinton, Jefferson and St. Lawrence counties use local county hospitals for the majority of non-tertiary care services. Travel out of the North Country and out of the state is significant, especially for subspecialty and tertiary services such as cardiac surgery, high risk perinatal care and burn care, but also for more common conditions such as acute stroke. In Franklin County for instance, 33% of all Medicaid beneficiaries that suffer a stroke are admitted to Fletcher Allen Health in Vermont, rather than a hospital in the North Country.

In 2010, the North Country had 3.4 beds for every 1,000 residents. Elsewhere in the State, the supply is lower at 3.0 beds per 1,000 residents⁶.

The above-average supply of beds and generally low occupancy rate of 45.6%⁷ on average indicates excess hospital capacity in the region. St. Lawrence county's hospitals report an excess capacity of approximately 30%, not taking into account possible reductions in length of stay and a reduction of avoidable (re)admissions. Following national trends, the numbers of admissions in the North Country have been gradually but steadily dropping over the past four to five years.

The hospital landscape in the North Country is highly fragmented. The western region for instance, has several small hospitals - one in every town with over 10,000 inhabitants. This leads to low patient volumes and significant inefficiencies. Minimum patient volumes are necessary for many services to be financially viable and to realize optimal quality of care. Take, for example, pregnancy and delivery services in St. Lawrence county, where a minimum of 1,200 deliveries per year are needed to be financially viable the three hospitals in the county -- Canton-Potsdam Hospital, Claxton-Hepburn Medical Center and Massena Memorial Hospital -- performed a combined total of only 1,030 deliveries in 2012⁸. In the east side of the North Country, consolidation and integration along service lines is on the agenda. As a part of an integrated cardiovascular service line, for example, cardiovascular surgery is being performed in Fletcher Allen Health in Vermont; Elizabethtown Community Hospital and Champlain Valley Physicians Hospital will refer those services to Fletcher Allen, and the three facilities have formed the Northern New York cardiology service.

⁶ Source: [NYS DOH Hospital Profiles](#), NC Demographic Chart book

⁷ Source: KPMG calculations. Total inpatient days for 2012 inpatient stays in SPARCS data divided by number of beds in a given county times 365.

⁸ NCHSRC 2014-02-18 presentations, Page 10

Emergency Care Services

With its low numbers of certified providers, the Emergency Medical Services (EMS) system in the North Country is fragile. Many EMS providers are near retirement, and the low reimbursement rates and heavy reliance on volunteers creates concerns regarding sustainability. While these concerns are to some degree like those in other rural regions requiring driving long distances, they are especially severe within the Adirondacks where the population is especially sparse and is aging at a higher rate than elsewhere in the state.

In many acute conditions, shorter transport times increase a patient's chances for survival and positive outcomes. Most emergency patients in New York have a total EMS combined response time of 24 minutes, with an average transport time of 13 minutes. In the North Country, average response times are comparable at 11 minutes. But the average transport time is longer at 23 minutes, bringing the total combined response and travel time to 34 minutes. Transport time is the highest in Hamilton County, where an ambulance ride takes an average of 53 minutes. Combined transport and response time is lowest in Jefferson County at 26 minutes.

Although there are no official regulations regarding maximum response and transport times, being able to respond quickly to acute situations is important for increasing chances of survival and positive outcomes. In the Netherlands, the only country that has laws regarding maximum response and transport times, the maximum combined time has been set at 45 minutes. Within the North Country, Essex and Hamilton counties are above the 45-minute window for mean combined EMS response and travel times.

Primary Care Services

Primary care physicians are rare in the North Country. Many residents in the North Country have no primary care physicians in their zip code or just a few. The shortage is particularly acute in Hamilton and Essex counties, where one primary care physician serves an average of 4,835 and 3,024 residents, respectively.⁹ These patient panels are more than twice the size of the average primary care physician in New York State, who sees 1,222 patients¹⁰. The spread of physician assistants, nurse practitioners and midwives also lags far behind state averages, even when accounting for New York City.

The North Country has a disproportionate number of primary care shortage areas. Although the region is home to only 3% of total state population, the North Country contains 17% or 30, of the geographic areas in the entire State (178) that is underserved by primary care professionals.

As a result, the proportion of residents who do not have a regular health care provider is higher in the North Country than elsewhere in the State. The lack of primary care is visible in metrics that demonstrate unmet care needs, such as avoidable ED visits or potentially avoidable hospital admissions for ambulatory care sensitive conditions, problems most notable in the northwest region of the North Country. Potentially avoidable admissions for bacterial pneumonia are high throughout the North Country, while potentially avoidable admissions for urinary infections are less frequent. The Adirondack Medical Home demonstrates the impact of strengthening primary care both on the outcomes of care (readmissions and patient satisfaction) as well as on the total costs of care, both for Medicaid and commercial payers.

The lack of primary care services close to home presents a significant barrier to addressing the health care needs of the local population and to rolling out effective care management and care coordination for the chronically ill, and the frail and elderly.

⁹ Source: Year 2013 www.countyhealthrankings.com

¹⁰ Source: Year 2013 www.countyhealthrankings.com

Long Term Care Facilities

The North Country has 12 certified home health agencies (CHHA) and 29 residential health care facilities, or nursing homes. Residential health care facilities in the North Country have an average case mix index that is significantly lower than the rest of New York State. In other areas of the state, many North Country nursing home residents would not be treated at residential health care facilities.

In terms of staffing, residential health care facilities report issues when trying to attract adequately trained long term care professionals.

Palliative Care

The North Country has a higher-than-average rate of preventable admissions for serious chronic illness. A 2011 study reported in the *Journal of Palliative Medicine* found that palliative care services in four New York hospitals produced a savings of \$6,900 per person. Palliative care services have demonstrated that they reduce admissions, lower costs, and improve patient outcomes.

Outside of hospice care for people who are within six months of death, interdisciplinary palliative care programs are unavailable throughout most of the North Country. New York also spends more on care in the last year of life, and, compared to all states, ranks only above Alaska in the utilization of hospice care.

Mental Health Services

The North Country is home to 12 of the 144 areas underserved by mental health care professionals. In almost all parts of the North Country, the nearest inpatient psychiatric facility is over 30 miles away.

The region has over 200 NYS Office of Mental Health (OMH)- licensed, funded, and operated programs, including 20 outpatient clinics, eight crisis intervention programs, and five general hospital psychiatric units. There are licensed, as well as unlicensed residential programs, with different levels of treatment and supports, including approximately 400 licensed treatment beds and additional supported housing (unlicensed beds) across the region. Over 150 support and care coordination programs exist in the North Country, including recovery centers, school-based mental health, educational and vocational programs, and care management/health home. North Country residents are served by four OMH psychiatric centers: St. Lawrence, Capital District, Hutchings, and Mohawk Valley.

Fiscal Vulnerability of Facilities

Many of the health care facilities in the North Country region are in a very poor financial state. The average operating and net margins of North Country hospitals have been consistently negative over the last couple of years and are less favorable than the average of all New York state hospital. Only a handful of hospitals in the North Country have managed positive operating margins in the last year, and about half have less than a month's cash in hand. Hospitals derive about 45% of their income from inpatients covered by private payers in the North Country.

Like the hospitals, most of the nursing homes in the North Country are operating at a loss, with about half of the homes showing operating margins of -10% or worse. This performance is well below the performance of other nursing homes in the state.

Many of the hospital facilities in the North Country are struggling to stay afloat. Given the low population growth, it is unlikely that hospitals will experience any significant growth in coming years, with equally low growth expected in revenues. With projected revenues stagnant, hospitals are faced with the challenge of cutting costs and overcapacity to match current and future demand. In addition, the move toward increasing outpatient and community-based service capacity will likely further reduce hospital inpatient volume, placing additional stress on fiscal stability.

New York State is in the process of finalizing the details of its \$8 billion Medicaid waiver, which will be used in part to help stabilize safety net providers. The Commission urges that criterion for such funding specifically target safety net entities providing services in geographically isolated communities. Additionally, the Commission believes consideration of payer mix as a criterion needs to examine the impact of all public payers, not just Medicaid. The North Country, for example, has an above average senior population, but its Medicare hospital reimbursement rates are among the lowest in the nation. Other providers cite problems with public payment levels as well. As systems transform and integrate, state and federal savings will be secured in Medicaid and other public programs. They should be part of the calculations in determining transformational support.

The status of our hospitals must be carefully considered as we move forward, too. Several of the smaller hospitals in the North Country are either Critical Access Hospitals or are in the process of applying to become one. The federal subsidy of Medicare payments is usually lost when a CAH is consolidated with other hospitals. It is imperative that the status of a CAH be considered as a key financial factor when assessing potential integrations and consolidations.

Transforming the finances of the health care system in the North Country then, is about more than creating value and lowering costs. We need to create a system that is sustainable, where the adaptations become permanent. In this region of the state, transforming health care to be more efficient goes well beyond shared savings. New payment models should incentivize efficient health systems to reinvest margins, as continuous improvement is the most sustainable way forward.

Lack of Access and Gaps in Service

The rural setting of the North County affects access to services in many ways. Longer transport times for EMS are concentrated in the most sparsely populated areas of the Adirondack Park, in the counties of Hamilton, Warren, and Essex. Residents in these areas are also much farther away from hospitals than the remainder of the North Country. Additionally, patients may need to travel even further for some types of care, since the nearest hospital may be one of the smaller Critical Access Hospitals, which as defined by Medicare have fewer beds and limited stays, and provide emergency care. But when complex or intense services are required or a patient has more acute needs, these facilities refer patients to larger hospitals that are farther away.

Our data reveals sizable areas lacking key health and behavioral services, with a lack of transportation, and significant geographic and socio-demographic factors exacerbating problems of access. Service providers in these communities are the safety net for the health care of the people as well as cornerstones of the economy in the region. Health care is essential to the economic vitality and viability of the North Country. As some of the largest employers in the region, hospitals not only drive money into the economy but are a source for steady employment as well. Eight hospitals within Jefferson, Lewis and St. Lawrence counties pumped \$777,658,000 into the local economy, according to 2010 data. Long-term care providers play a significant role as well and accounted for more than \$322 million in 2010. Health care facilities are also a significant employer in the North Country, supporting 3,677 jobs. The services and supplies providers purchase and the wages they pay create a ripple effect in local economies and support other businesses as well. The Commission recognizes that reductions in inpatient hospital and nursing home beds will likely have an economic impact. But we anticipate that increases in other community-based services starting with primary care, will ultimately offset those losses and diminish the adverse effect on the regional economy.

Strengths of the North Country

While the North Country is faced with challenges, we believe it is also important to recognize its existing strengths. Since its first meeting in December, the NCHSRC heard numerous presentations from providers that already engaged in varying degrees of coordination, collaboration and integration of systems of care. As a guiding principle, the NCHSRC was not prepared to endorse any particular initiative, but recognizes and applauds the remarkable work already underway. The Commission's recommendations are intended to build upon and support those efforts.

Another asset in the North Country is the \$81.3 million in economic development funding from the State as part of Governor Andrew M. Cuomo's strategy to jumpstart the economy and create jobs. The North Country Regional Economic Development Council is moving full-speed ahead with transformative projects. In 2013, their strategies reflected the region's diversity with several priorities, including helping farmers and small business owners to improve productivity, addressing the need for more hotel rooms in the region to take advantage of the tourism economy, and growing jobs and investing in high-tech industries.

By the time the Commission began its work last fall, some local initiatives were already underway. We need to promote and support those efforts, which demonstrate the extraordinary work of government, and community and provider planning at all levels. The Commission did not have the time to review and assess every good initiative in the North County, but some notable collaborative efforts are already working towards increasing access, gaining efficiencies, increasing quality and lowering costs.

Adirondack Health Institute

The Adirondack Health Institute's (AHI) mission is to promote, sponsor, and coordinate initiatives and programs that improve health care quality, access, and service delivery in the Adirondack region by expanding regional collaboration among health care and social service providers. The AHI addresses rapid changes and challenges to the health care industry by working with local providers and organizations through the coordination of planning, recruiting, clinical activities, outreach and managing of grant-supported programs. Challenges the AHI faces include a continued threat of physician and primary care provider shortages, fragmented and widely dispersed services, as well as the need to transition medical, behavioral and long term care services to outpatient settings.

Adirondack Medical Home Demonstration Pilot

The Adirondack Region Medical Home Pilot was created in 2010 as a first step to transforming the health care delivery system in this region. The project was a collaborative effort that involved both providers and public and private insurers. The goal is to improve quality, ensure access and contain costs for health care. Because of the enormous size of the region – 7,000 square miles – the pilot is divided up into three geographic regions. Its goals are aligned with those of the Triple Aim.

Unlike traditional fee-for-service health care, the Adirondack Region Medical Home shifts the focus from acute care to preventive care and emphasizes better management of chronic conditions. The pilot creates funding incentives that reward providers for keeping people as healthy as possible rather than paying for procedures without regard to effectiveness. This approach helps keep patients healthy and frees up doctors to focus on the quality of care rather than volume of care. Patients also enjoy more contact with their primary care doctors, which

will enable earlier diagnoses for problems and better maintenance of existing conditions. Early diagnosis results in early treatment, which in turn, leads to lower costs.

According to early data, the Adirondack project is moving in the right direction. In the Glens Falls-Queensbury region for instance, the numbers of diabetic patients receiving a low-density lipoprotein (LDL) test has gone up from 80% to 89% between the end of 2012 and 2013. In that time, the percentage of people who have lowered their LDL to the recommended level below 100 mg/dL, has gone up from 49% to 53%. The same region has also seen increases in preventive screenings such as Pap smears, mammograms and colonoscopies.

In the Plattsburgh area, pediatric patients, especially teenagers, have experienced significant weight loss. By giving patients the tools for weight loss such as nutrition education and information on venues for physical activity, the region has seen a decline in the numbers of overweight youths. In 2012, 4% of children ages birth to 19 lowered their BMIs from above 85% (considered overweight) to below that. In the second quarter of 2013, 14% had done the same.

Across the Adirondack region, more patients with diabetes improved their control over blood sugar levels and reduced their blood pressure to below 140/90. Some hospitals are also starting to lower their readmission rates. At Champlain Valley Physicians Hospital for example, readmission rates have declined, thanks largely to the installation of a transitional care support team that follows up with patients, pre- and post-discharge. The Adirondack Medical Home project demonstrates what is possible when the focus is on prevention, not treatment.

Fort Drum

Located just 30 miles from the Canadian border and about 90 miles from Syracuse, Fort Drum is a military community, with almost 20,000 active duty military and their families. The Fort Drum Regional Health Planning Organization's (FDRHPO) mission is to analyze the existing health care system available to Fort Drum soldiers, their families, and the surrounding civilian community. The FDRHPO identifies gaps in care, and leverages additional health care resources to fill those gaps. The organization has created partnerships with providers to strengthen and coordinate health services and is working to develop a high-quality, value-driven regional healthcare system.

More specifically, the FDRHPO is in the process of developing the region's health information technology (IT) to enable the use of electronic health records (EHRs), and to create a health information exchange, disease registry, and telehealth services. The FDRHPO is also helping primary care providers achieve level II or level III meaningful use; building local capacity to educate health care workers, including nurse practitioners and licensed social workers; developing the North Country Health Compass, a web-based source of population data and community health information for three Jefferson, Lewis and St. Lawrence counties; and forming a physician-led Clinically Integrated Network to improve quality and reduce costs.

North Country Behavioral Health Network

The North Country Behavioral Health Network (NCBHN) is a network of behavioral health and chemical dependency providers who collaborate on issues that impact these providers and provide support to strengthen the health care delivery system. The network was incorporated in 1997 as the Northern New York Rural Health Institute, (doing business as North Country Behavioral Healthcare Network), and continues today as a leading voice for Northern New York's behavioral health care continuum.

The network is currently engaged in the Regional Behavioral Health Alignment Project (RAP), which is working to assist our members with transitioning to patient-centered Medicaid managed care. Members of the network will be better able to collect, report on, and manage cost, quality, and outcome data to meet the needs of managed

care organizations and evolving primary care networks. RAP is providing public policy education and advocacy to ensure both providers and policy makers are aware of issues around the implementation of health care reform. The network is also working to reduce and end homelessness, prevent suicides and advance the state's Prevention Agenda, especially the promotion of behavioral health. In addition, the NCBHN is working to implement health IT and EHRs in behavioral health; develop partnerships with primary care providers, increase access to behavioral health care in the primary care setting using telehealth; facilitate development and adoption of best-practice protocols for rural behavioral health treatment both in primary care and in behavior and substance abuse clinics; and coordinate behavioral health care between inpatient, emergency, primary care and outpatient mental health services.

North Country Healthcare Providers

North Country Healthcare Providers (NCHP) is made up of a group of hospitals based in the four counties in the northernmost part of the state. The NCHP was formed in 1998 to address management, administrative, quality of care, and community health issues in order to improve the delivery of healthcare in Northern New York. The region is spread out over 8,410 square miles and is home to over 400,000 people. The region has a population density of 47.7 people/square mile compared to the state average of 411.2 people/square mile. In 2010, the member hospitals had nearly 40,000 inpatient cases and almost 189,000 outpatient cases.

The mission of the NCHP is to lead health care organizations in transforming the regional health care system through collaboration, engagement, planning, and development. NCHP has identified current capacity and gaps, assessed opportunities and associated costs, and is providing a return on investment in telehealth, professional development, and voiceover internet protocol services. The NCHP is working to link primary care to behavioral health as well as specialty and critical care to medical centers, and to increase the use of home telehealth for chronic disease management.

Blue Line Group

The recently formed Blue Line Group (BLG) consists of the four private, non-profit nursing homes in the eastern Adirondacks. BLG was formed on the premise that nursing homes face a shared set of challenges that can best be met through collaboration. The goal of the BLG is to ensure that people who choose to live a long and full life in the Adirondacks have access to a mix of traditional and new community-based alternatives for care, delivered by a financially stable system and well-trained workforce. The BLG is working to create a formal governance structure for its members, increase quality, and develop efficiencies, and coordinate care on a regional basis.

St. Lawrence Health System

The relatively new St. Lawrence Health System (SLHS) was formed to create a diverse system of high quality providers and currently includes two hospitals in the county. The SLHS is working to increase its members' financial strength, so that operating margins are consistently positive and balance sheets are strong; make investments in health IT; achieve advances in quality and ensure that quality ratings improve annually; and continue to be nationally recognized in patient safety and process improvement initiatives.

Fletcher Allen Health Partners

Although its members are based primarily in Vermont, Fletcher Allen Health Partners (FAHP) is a collaboration that includes two hospitals in New York. It is affiliated or partnering with three others in Vermont and has a regional network of services, including specialist clinics, continuing medical education workshops, and a communication exchange of clinical information and best practices. The goal of FAHP is to develop an integrated delivery system that provides high-value health care to the members' respective communities.

Imperatives and Implications of Health Reform

The geography and demographics of the North Country are both breathtaking and appealing for residents in this vast region of upstate New York. But concerns about the delivery of health care services in this area have intensified in recent years amid sweeping changes in the nation's health care delivery system, at both the federal and state levels. Experts agree that radical reforms have become necessary to transform the U.S. health care system, which despite its high costs, has produced a lackluster system that delivers at best, mediocre care. To frame the changes that are needed, most health care leaders and governmental policy makers – including New York State – have adopted the Institute for Healthcare Improvement's Triple Aim as the governing principles for these reforms: better patient care, improved population health and lower health care costs. Experts contend that for transformation to occur, all three goals must be pursued with equal rigor and simultaneously.

Reforms at the Federal Level

Overhauling the world's costliest health care system has been an enormous task and a difficult process, one fraught with controversy, debate and setbacks. The process took a momentous leap in 2010, when President Barack Obama signed the Patient Protection and Affordable Care Act (ACA) into law. One of the key goals of the ACA was to expand health insurance coverage to more Americans. The law extended health coverage for adult children to age 26; prohibited insurance companies from refusing to cover preexisting conditions; barred health plans from imposing a lifetime limit on the amount of money spent to cover medical costs for an individual; and required insurers to offer health coverage to an individual regardless of that person's health status. These new measures have helped to guarantee access to health insurance coverage for more people, especially for populations that often lacked or lost coverage due to job loss or illness.

Perhaps the most visible and controversial change implemented by the ACA so far has been the creation of the online health marketplaces or exchanges, which went live on October 1, 2013. All states, either on their own or with assistance from the federal government, were required to offer health insurance plans to individuals and small businesses through these online health marketplaces. The exchanges gave the nation's estimated 48 million uninsured individuals an opportunity to obtain health insurance from a source other than an employer. While paving the way for these Americans to gain access to health care, the ACA has created new pressures on the health care system build a work force to deliver that care.

The law has also given rise to new models of funding that emphasize value-based purchasing over volume-based reimbursement. In place of a fee-for-service structure, the health care system of tomorrow will have financial incentives to keep a patient well by delivering high quality care, the kind of care that will prevent that patient from being admitted to a hospital in the first place.

One way to do that is with bundled payments in which a single payment covers an episode of care. As a corollary effort, the ACA is also testing and implementing accountable care organizations comprised of hospitals, physicians and other providers who assume responsibility for the health care needs of a given population and are held financially accountable for the cost and quality of that population's care. Providers in these arrangements are motivated to invest in preventive and wellness care to keep patients healthy, thereby lowering costs and allowing the providers to share in the cost savings. Of the 606 Medicare ACOs operating around the country in 2014, 18 are located in New York; two of these programs are located in New York's North Country. Shifting the focus from volume of service to one of value, will undoubtedly pose significant challenges for ACOs in rural regions, where sparse populations already place a burden on health care entities.

Changes in payment structure are taking place at the same time the landscape of health care delivery is undergoing a rapid metamorphosis. New models of care designed to make health care more efficient, more effective and less costly are emerging even as care increasingly shifts to an outpatient setting. At the forefront are patient-centered medical homes (PCMHs), in which a primary care doctor serves as a patient's care coordinator and leads a team of specialists based on the patient's needs. The ACA also created the Medicaid State Plan Benefit to encourage states to establish health homes as a way to coordinate care for people who have complex and multiple health conditions. Eligible health home patients have two or more chronic conditions; one chronic condition and be at risk for another; or one serious and persistent mental health condition. In a health home, patients receive comprehensive and coordinated care from a team of providers who also encourage self-care, oversee transitional care or follow-up services, and provide referrals to community and social support services.

For health homes and PCMHs to succeed, providers require health IT to link providers electronically across health information exchanges. That's why the federal government has been pressing for the adoption of health IT such as electronic health records (EHRs). The American Recovery and Reinvestment Act ARRA included the Health Information Technology for Economic and Clinical Health (HITECH) Act, which was the federal government's attempt to spur the adoption of and use of health IT, and in particular electronic health records. HITECH included \$30 billion in incentives as well punitive measures in the future for failure to adopt EHRs. Eligible hospitals and health care professionals received these incentives by demonstrating "meaningful use" of EHRs, which in essence, meant applying the technology to improve care and lower costs. Examples include electronic prescribing of medications and providing patients with access to their digital records.

For rural communities like the North Country, the ACA presents opportunities as well as challenges. Among them is the potential to develop place-based policies in which funding and policy decisions are based on the systems in a geographic location, not on specific programs. Experts believe that place-based policies have greater potential for integrating health care services in a region and are more adept at meeting broader goals such as improving population health.¹¹ Place-based policies require greater involvement of public health, which by its very nature, involves more components of any community.

Reforms at the State Level

Federal initiatives are only part of the reforms taking place in health care. New York has been at the forefront of promoting health care reforms and aggressively pursuing initiatives that are directly aligned with what's happening at the national level. Like many other governmental entities, New York State has made the Triple Aim the centerpiece of its reform initiatives. Several initiatives have started to bear fruit, demonstrating substantial changes in care quality and costs. Below are some of the most notable.

Revamping Medicaid

Among the first and biggest challenges the state undertook was New York's enormous and costly Medicaid system. When Governor Andrew M. Cuomo began implementing reforms in early 2011, New York's Medicaid program cost \$53.5 billion and was responsible for 40% of the state's health care expenditures. It was also growing at the unsustainable rate of 13% each year, while providing substandard care. According to the Commonwealth Fund's 2009 state scorecard, New York's health care system was 22nd in the country for quality and last in readmissions, while expending more than twice per recipient on average compared to the rest of the country.

¹¹ Mueller, KJ and MacKinney, AC. Place-based policies and public health: the road to healthy rural people and places. Rural Policy Research Institute. March 2011.

Within days of taking office, Governor Cuomo created the Medicaid Redesign Team to draft a first year Medicaid budget proposal and develop a multiyear reform plan. He assembled key Medicaid stakeholders from across the state in a collaborative forum to see what could be achieved collectively to reduce Medicaid spending, while at the same time improving the quality of care. Unlike other states that eliminated benefits or cut provider payment rates as their primary cost-cutting measures, the MRT action plan launched a series of innovative solutions designed to better manage care and reward providers that help keep people healthy. The strategy ensured that the focus wasn't simply on controlling costs, but also on improving patient care and population health. In all, New Yorkers across the state submitted more than 4,000 ideas; the Legislature ultimately approved 78 of them as part of the enacted budget.

The Medicaid reforms have proved to be a success on many levels. Changes in coverage, reductions in inappropriate services and a tight focus on the cost of care resulted in significant savings. The reforms saved the state and federal governments a combined \$4.6 billion in the first year alone. Over the next five years, they are estimated to save \$34 billion in all. The federal government recently awarded New York an \$8 billion Medicaid waiver, using funds from those savings. The reductions in cost came even as Medicaid 217,000 members in CY2012, a 4.35 percent increase in enrollment.¹²

In addition to containing costs, the MRT reforms launched several important programs targeting quality improvement. One million additional Medicaid members are now utilizing NCQA-accredited primary care providers, and health homes are now available in almost every county in the state with more than 121,000 members receiving health home services.¹³ Data from early health home enrollees suggest the program is driving down both inpatient utilization and ER use.¹⁴ Another important quality reform is the integration of physical and behavioral health services for high needs populations, a move that will transition behavioral health services into a managed care environment. The change will impact approximately 695,000 beneficiaries and will be managed by a new specialty needs managed care product called Health and Recovery Plans.¹⁵

Prevention as a Priority

New York State accounts for approximately 7.8% of the nation's total \$2.7 trillion health bill, the second highest in the nation, behind California.¹⁶ Yet, in spite of those expenditures 10.4% of New Yorkers have diabetes, and 30% have prediabetes. In addition, 25% of the state's population is obese and 36% is overweight.¹⁷ Like the rest of the country, the growing prevalence of chronic disease has placed a significant burden on health care costs and has surpassed acute disease as the primary driver of these high costs. New York is well aware of these issues and has taken dramatic steps toward making prevention of disease a bigger priority than the treatment of disease.

To address the issue, the Public Health and Health Planning Council formed an ad hoc committee in 2012 made up of 140 stakeholder organizations, who drafted and adopted the Prevention Agenda 2013-2017. The agenda has the ambitious goal of making New York the healthiest state in the nation and aims to achieve that goal by focusing on five priorities: reducing chronic disease; promoting healthy women, infants and children; promoting healthy and safe environments; promoting mental health and preventing substance abuse; and preventing HIV, vaccine-preventable diseases, sexually transmitted diseases, and hospital-acquired infections. No doubt, it will require a significant effort to achieve that goal, given that New York was ranked the 18th healthiest state in the nation in

¹² New York's Pathway to Achieving the Triple Aim: Reducing Avoidable Hospital Use through Delivery System Reform.

¹³ Ibid

¹⁴ Ibid

¹⁵ From legislative testimony background materials.

¹⁶ Kaiser Health Facts. <http://kff.org/other/state-indicator/total-health-spending-2/>

¹⁷ "Prevention for a Healthier America," Trust for America's Health, Feb. 2009.

2012 by the United Health Fund.¹⁸ By setting the bar high, New York hopes to make a major impact on improving the health and well-being of its citizens.

The Prevention Agenda also serves a practical purpose. It gave local health departments and hospitals a roadmap on how to get involved in prevention efforts in their community. New York has in place new state mandates that require local health departments and hospitals to work together to develop, respectively, Community Health Assessments and Community Service Plans that address at least two priorities in the agenda and one health disparity, based on identified community needs. These partnerships are encouraged to involve other community stakeholders, including schools, businesses, social service agencies and community health organizations.

Housing as Health Care

The growing emphasis on prevention has given public health a bigger role in health care. Studies show that health care accounts for just 10% of our longevity, while social factors such as environment and behavior impact 60%.¹⁹ According to a recent article in the *New England Journal of Medicine*, the United States ranks 1st among Organization for Economic and Co-operative Development (OECD) countries in health care spending, but is 25th in spending on social services.²⁰ Research shows that the high costs of health care may be a direct consequence of spending too little on the “social determinants” of health, which include safe housing, healthy food, and opportunities for education and employment, all factors that have a significant impact on health.²¹ In general, countries that spend more on social services tend to spend less on health care.²²

New York is taking steps to make public health a bigger player in the health care system. As the only state in the country investing its own money in supportive housing, New York has established itself as a trailblazer in the Medicaid Supportive Housing arena. Supportive housing provides affordable apartments and access to individual-based health services to populations that often struggle to remain safely housed. This innovative model of care offers an integrated solution to a group that has significant health care needs, and who often struggle to meet them as a result of inadequate housing. Too often, they wind up using costly health services such as emergency room care, which could be avoided if they were properly housed. To address the complex health and social needs of this fragile population, New York has invested \$75 million to build 12 new buildings in the next 24 to 36 months, which will create 483 supportive housing units. The investment will provide affordable housing for more than 5,000 individuals and give them access to the services and health care they need.²³

State Health Innovation Plan

New York State is meeting the goals of the Triple Aim head on with the State Health Innovation Plan (SHIP), our roadmap to better care, improved population health and lower costs. The goal’s plans are ambitious: aim to achieve top quartile performance among state for adoption of best practices and outcomes in disease prevention

¹⁸ “America’s Health Rankings: United States Overview 2012,” by the United Health Foundation. Available at: <http://www.americashealthrankings.org/rankings>.

¹⁹ Schroeder, SA. We can do better – improving the health of the American people. *New England Journal of Medicine*. Sept. 20, 2007; 357:1221-1228.

²⁰ Bradley EH, Elkins BR, Herrin J, Elbel B. Health and social services expenditures: associations with health outcomes. *BMJ Qual Saf*. 2011;20:826-31.

²¹ Doran KM, Misa EJ & Shah, NR. Housing as health care – New York’s boundary crossing experiment. *N Engl J Med* 2013; 369:2374-2377 .

²² Bradley EH, Elkins BR, Herrin J, Elbel B. Health and social services expenditures: associations with health outcomes. *BMJ Qual Saf*. 2011;20:826-31

²³ NYS Legislative Budget Hearing background. Need original source.

and health improvement within five years; achieve high standards for quality and consumer experience, including at least a 20% reduction in avoidable hospital admissions and readmissions within five years; and generate \$5 to \$10 billion in cumulative savings by reducing unnecessary care, shifting care to appropriate settings, and curbing increases in unit prices for health care products and services not tied to quality within five years.

A key feature of the SHIP is Advanced Primary Care (APC), a model of care that elevates the current NCQA standards for PCMH recognition and challenges all PCMHs in New York to attain APC status by integrating behavioral health care services into the primary care setting, and participating in initiatives that focus on improving community health. Becoming an APC will occur on a three-tier process, and each practice will advance to the premium level based on the practice's ability to manage population health, integrate care and adopt more sophisticated health technologies that support the practice.

The SHIP has several other goals as well. It aims to improve access to health care by enhancing coverage and promoting the state's primary care workforce. It intends to bolster health data transparency, so consumers, providers and payers can make better informed decisions about the quality and costs of the care they receive. It will encourage payers and insurers to incorporate value-based payment arrangements by rewarding those who help patients stay healthy and achieve quality health care outcomes. And it will bolster population health by connecting primary care providers to community organizations and promoting regional planning through Regional Health Improvement Collaboratives (RHICs). These are lofty goals, but if achieved, promise to transform health care throughout New York State.

Prime Time for Primary Care

A health system centered on prevention requires a strong primary care workforce, which has become a priority for New York's reform efforts as growing numbers of New Yorkers gain access to health insurance. New York currently has a shortage of 1,100 primary care practitioners, based on a patient panel of 2,000 patients for every physician. The shortage is especially acute in the North Country, but is also found in urban areas of the state. Through its workforce incentive programs, the state is working to reduce that shortage. Last fall, the Doctors Across New York loan repayment program gave out \$2.2 million in awards to 16 physicians who in exchange, will work in underserved communities. The state also doled out \$3 million in Practice Support awards to help 32 physicians start or join practices in these underserved communities.

But New York isn't just looking to increase the numbers of primary care doctors. The state is actively encouraging primary care physicians to embrace the patient-centered medical home model (PCMH). PCMHs are now regarded as the best model for delivering primary care. It involves a primary care doctor at the helm of a patient's care, working in partnership with specialists, nurses and other care providers to oversee that patient's health. The American College of Physicians recently defined team-based care: "A clinical care team for a given patient consists of the health professionals – physicians, advanced practice registered nurses, other registered nurses, physician assistants, clinical pharmacist, and other health care professionals – with the training and skills needed to provide high-quality, coordinated care specific to the patient's clinical needs and circumstances."

Governor Cuomo has created incentives to spur the establishment of more PCMHs in New York. These new laws give financial incentives for providers to become NCQA-recognized PCMHs, expanded the PCMH concept to the state's Child Health Plus health insurance program for low-income children, and created a multi-payer medical home demonstration in six upstate counties called the Adirondack Region Medical Home Pilot that transformed providers in the northern part of the state into NCQA-recognized PCMHs.

The incentives have succeeded in raising the number of PCMHs in New York. Since 2010, the number of PCMH providers in New York has risen from 633 to 4,461 in 2013.²⁴ As of mid -2012, more than 1.4 million Medicaid and Child Health Plus enrollees are assigned to PCMH providers.²⁵ New York is home to one-sixth of all PCMHs in the U.S., with 17% of the nation's PCMHs working in the state.²⁶ New York is working to advance the sophistication of the PCMH model by making it the centerpiece of its SHIP.

Oversight for Outpatient Services

For more than a century, hospitals have prevailed as centers of health care in most communities. Today, that is changing. While hospitals remain essential to the health system, growing numbers of patients are getting health care in ambulatory care settings. The shift has given rise to new models of health care delivery, including retail clinics and urgent care centers.

Health care delivered in these new settings are certainly creating challenges. But these new kinds of facilities also present opportunities for making health care more accessible. New York recognized the rapid growth of these facilities and recently established oversight of ambulatory care facilities, both as a way to ensure patient safety and to encourage innovation in the field. The new regulations defined and outlined the functions of limited services clinics (formerly called retail clinics), urgent care centers and freestanding emergency departments, and established new regulations for office-based surgery. The services delivered in these ambulatory care settings will both complement and support the care provided by primary care doctors.

The Role of Health IT

A robust network of health information technology is essential to a redesigned health care system that seeks to integrate and coordinate care. Both PCMHs and health homes will be fully functional only if the technology exists to connect providers, patients and health care settings. On that front, New York has made significant progress in recent years, beginning with the Statewide Healthcare Information Network of New York, or SHIN-NY.

The SHIN-NY is an interoperable health information exchange that enables the secure exchange of health information across participating entities and provides doctors with the medical information they need to deliver appropriate care to individual patients. Electronic health records are stored and accessed through regional health information organizations known as RHIOs, which manage the local networks and serve as health information exchanges.

Once patients give consent to make their records available on the RHIOs, any provider on the RHIO can access that information. For example, doctors operating on an unconscious patient in an emergency room in Buffalo will have access to the patient's electronic health records in Brooklyn, which provides essential information about the patient's medications, allergies and pre-existing conditions to providers unfamiliar with the patient. This connectivity will allow doctors to better coordinate care and care transitions while also enabling patients to take on more responsibility for their own care through a patient portal.

²⁴ "The Patient-Centered Medical Home Initiative in New York State Medicaid," report to the Legislature, April 2013. NYS Department of Health.

²⁵ Ibid.

²⁶ "Advancing Patient-Centered Medical Homes in New York, United Hospital Fund report, 2013.

A second part of New York's technology initiative is the state's All-Payer Database, which will house claims data from all major public and private payers, such as insurance carriers, health plans, third-party administrators, pharmacy benefit managers, Medicaid, and Medicare. The APD will also include Statewide Planning and Research Cooperative System, or SPARCS, data (facility discharge data), and data from public health repositories (e.g. cancer registry, immunization registry). The APD will provide a better understanding of New York's health care costs by evaluating the charges and expenditures across payers, providers, and communities. When this data is publicly available, consumers will have the knowledge they need to compare cost and quality for important health care decisions. In addition, feedback to providers can lead to improvement in performance and quality. Integrating the data in the SHIN-NY with the data in the APD will provide population level information so that public health efforts can be better aligned with care delivery needs.

New York has made the development of this network a priority. The SHIP is striving to achieve 80% participation in the APD and health information exchange while engaging 20 % of consumers in active use of their patient portal. Funds in the recent 2014-15 budget will allow the state to turn the SHIN-NY/APD effort into a public utility, on par with companies that provide electricity, natural gas and telecommunications.

The push for more patient engagement will involve developing a statewide patient portal that uses the Blue Button technology from the Veterans Administration. By the end of 2014, patients will have ready access to all their health records on a user-friendly, secure and easy-to-navigate portal that provides information on everything from the start date of a medication to results of the most recent cholesterol test. New Yorkers will be able to share those records with their providers, so that medical decisions are made with the most up-to-date information. The portal will enable patients to become more actively engaged and involved with their own care.

Regional Health Improvement Collaboratives

State and federal governments can set the tone and the agenda, and enact rules and regulations, but tangible health reforms often take place on a regional level. To that end, the Executive Budget proposed to establish Regional Health Improvement Collaboratives (RHICs) to spearhead regional health planning. On February 19, 2014, the Commission heard a presentation in Watertown about this initiative. RHICs are neutral entities that will convene key stakeholders in a region for the purpose of furthering the Triple Aim. RHICs will develop consensus on actionable strategies that align public health and health strategies and resources with the needs of a population that area. In accordance with PHHPC recommendations, RHICs will:

- Convene stakeholders;
- Gather, analyze and report data;
- Make recommendations about regional needs;
- Develop strategies to align health care resources with population need; and
- Lead and coordinate regional initiatives.

The Department's presentation emphasized that RHICs would be expected to focus on both population health and health care, including behavioral health, and address health and health care disparities. Moreover, the work of the RHICs will help advance priority initiatives including the SHIP, the New York State Prevention Agenda 2013-2017, the MRT Waiver/Delivery System Reform Incentive Program (DSRIP) Plan, and the New York State of Health. RHICs are also expected to promote Executive Budget initiatives such as the Capital Financing Restructuring Program, described in further detail below.

The budget proposes that one RHIC will be established in each of the 11 geographic regions of the state. Ten will be selected through a request for applications. The existing Finger Lakes Health System Agency (FLHSA) will serve as the 11th RHIC and assist the state in coordinating the activities of the other RHICs, and provide technical

assistance and dissemination of best practices. The FLHSA has achieved several significant outcomes in its region, including scoring in the top 10 percent nationwide on health system performance as measured by the Commonwealth Fund's local report card. However, the FLHSA is not the only successful model of regional planning. For example, the Fort Drum Regional Health Planning Organization presented a comprehensive overview of its work to the Commission demonstrating its regional approach and commitment to linking soldiers, their families and the local community with high quality health care. Among its projects, the FDRHPO is examining the behavioral health needs of returning military, working to recruit and retain health care providers to the region and developing the technology that will result in more coordinated care. The Department intends to review other models in developing the RHIC solicitation. Additionally, the Department will confer with a broad range of stakeholders in creating the RHICs.

The nine counties of the North Country are divided into regions, and each will have its own RHIC: the Tug Hill Seaway (Jefferson, Lewis and St. Lawrence counties) and the North Country RHIC (Clinton, Essex, Franklin, Hamilton, Warren and Washington counties). The two regions have many common concerns, and are increasingly partnering across traditional east-west lines as evidenced by the work of the North Country Regional Economic Development Council as well as explorations of health care collaborations across the northern tier. The two RHICs will need to coordinate some of their efforts and strategies, and seek to reflect and support appropriate opportunities for cross regional cooperation and partnership.

Ultimately, regional health planning is an important initiative that, like the work of the Commission, is designed to promote strategies that respond to the unique needs of each region. In addition, the establishment of two RHICs will provide the North Country with more planning resources. The Commission strongly recommends each of the two RHICs commit to regularly consult with each other in order to identify opportunities for collaborative cross-boundary opportunities. Regular discussions with various stakeholders will aid in that process.

The Ability to Meet Population Needs

What are the health care needs of the people in the North Country, and what is the current system's ability to meet these needs? To answer these questions fully would have required more time and resources than were available for this Commission. In addition, even if time and resources were abundant, the necessary data were not always available. The data analyzed includes Medicaid data and (in- and outpatient) all-payer hospital data, as well as provider's financial reports, public health data and a host of more dedicated, separate data sources.

The framework starts with a focus on *populations* and their health care needs. Different costs and volumes are associated with each category of care. In order to achieve a sense of volume in terms of cost and patient numbers, we analyzed both SPARCS and Medicaid data. A proxy for total patient numbers is measured by counting the number of unique patients who had inpatient admissions in 2012 SPARCS data. This number will *underestimate* the actual number of patients since the dataset does not include hospitals outside the New York State border (like Vermont's Fletcher Allen hospital).

Let's take a look at four of these categories -- chronic care and multimorbidity, with a focus on diabetes; acute stroke care; and behavioral and addiction care -- that represent different types of patient needs especially relevant to the North Country. The diverse types of patient needs will showcase the different types of health care capabilities and capacity, which will lead to different types of recommendations regarding the future of the North Country's health care landscape.

Chronic Conditions and Multimorbidity

In the North Country, the most common chronic conditions²⁷ among Medicaid beneficiaries are depression, followed closely by diabetes, rheumatoid arthritis/osteoarthritis, and ischemic heart disease. When analyzing payer claims information (SPARCS) for hospital care, the most common chronic diseases among hospital admissions are lower respiratory disease, non-specific chest pain and chronic obstructive pulmonary disease (COPD) and bronchiectasis. The most common chronic conditions seen in outpatient visits are diabetes, cardiac dysrhythmias, and other allergic reactions.

Optimal chronic care involves disease management, a pro-active, community-based focus on secondary prevention and empowering the patient to optimally manage his or her own health. Tackling chronic disease with this multi-pronged approach can avoid exacerbations of the disease and the development of complications.

Many people with chronic conditions have more than one condition. It is well known that one of the largest challenges of our health care system – currently still primarily geared to treating acute conditions – is dealing with people who have significant, chronic multimorbidity (defined as having three or more chronic conditions). These patients need a holistic approach, not focused on managing the individual conditions in parallel, but on achieving patient-specific goals that are still within reach: avoiding hospitalization or institutionalization where possible, and improving quality of life. These forms of treatment focus much more on so-called 'secondary prevention.'

²⁷ Measured using CMS methodology. For the Medicaid analyses, people with three or more chronic conditions are counted as 'multimorbid'.

Diabetes

Approximately 6% of the North Country Medicaid population suffers from diabetes. This population requires disease-management and a pro-active focus on secondary prevention.²⁸ Since Medicaid enrollees represent only part of the population, an analysis of SPARCS data was used to reach a more complete estimate of the number of persons with diabetes in the region. Conservative estimates place the total number of patients suffering from diabetes in the North Country at 5,544.

The 6% Medicaid beneficiaries with diabetes (excluding those with > 2 other chronic conditions) accounted for 12% of total Medicaid spending in 2012. The average per beneficiary per year (PBPY) Medicaid cost for diabetes in the North Country is approximately \$15,700 which is \$2,500 lower than the PBPY cost for the rest of New York State. Most of the annual Medicaid spend on beneficiaries with diabetes occurs in nursing homes (24.9%). Other spending is allocated to home health (24.8%), pharmacy (15.2%) and inpatient services (12.6%). Diabetes spending is higher in the North Country than it is elsewhere in the state. The use of inpatient services for patients with diabetes is higher in St. Lawrence and Clinton counties, where there are a high number of avoidable admissions for chronic diseases is high. The North Country also has a higher diabetes mortality rate.

Multimorbidity

Approximately 1.4% of the North Country Medicaid population suffers from multimorbidity. Together, they account for 4.3% of total Medicaid spending. New York State spends an average of \$32,649 in per beneficiary per year for a multimorbid patient, as compared to \$12,236 PBPY costs for an average Medicaid enrollee in the North Country.

A closer look reveals that 21% of Medicaid spend on beneficiaries with multimorbidity is on inpatient hospital care, and 34% is on nursing home care. In the rest of New York, the costs of care are spread very differently, with a much larger portion going to nursing home care (51%) and less to inpatient hospital care (13%). The spending pattern for multimorbid patients is very similar to what's spent on end-of-life care in the last six months of life. In both cases, a more optimal care pattern would show lower inpatient costs and increased outpatient and primary care costs, including home care.

Medicaid patients with multimorbidity in the North Country see on average four to five different hospital specialists per year. An ideal care pattern would show lower numbers of specialists working in parallel, and a stronger focus on integrated, community based care.

Acute Stroke Care

According to research by the New York State Department of Health, the prevalence of cardiovascular diseases (CVD) has been stable over the last decade. However, as a disease group, CVD affects almost 8% of adults in the state and accounts for almost 40% of all deaths annually, thereby placing it firmly on the list of conditions that requires attention.³⁰

The treatment of acute cerebrovascular accidents (or stroke) is a good proxy measure (both efficiency and quality) for the larger category of acute cardiovascular diseases. For all of these acute cardiovascular conditions, time to

²⁸ These numbers *exclude* Medicaid enrollees that have been identified with multimorbidities.

³⁰ BRFSS Brief. Cardiovascular Disease, New York State Adults, 2010.

the acute treatment facility as well as capabilities and experience of these facilities are key predictors of initial outcomes. Higher volume centers tend to achieve higher evidence-based treatment scores and have better outcomes. In the post-acute phase, good outcomes are facilitated by short lengths of stay, skilled rehabilitation and a focus on rapid reactivation.³¹

The latest basic life support protocols for New York State stipulate that patients with a pre-hospital time (time from onset of symptoms and expected arrival at Stroke Center) of less than two hours be transported to the nearest New York State Department-designated Stroke Center, unless the patient is suffering from cardiac arrest or other conditions that warrant transport to the closest ED.³² In these protocols, transport to high volume specialized treatment facilities such as a designated Stroke Center, is prioritized over proximity and speed of acute treatment. The North Country does not house a designated Stroke Center, meaning that most patients (if detected early enough) should be transported out of the North Country for adequate stroke treatment.

On average, 966 residents from the North Country were admitted for stroke to hospitals in or outside of the North Country every year between 2010 and 2012. Approximately 40% of all North Country residents are admitted to facilities outside of the North Country.³³ Patients leaving the North Country for stroke treatment mostly go to Fletcher Allen Health in Vermont and University Hospital SUNY Health Center in Syracuse. The percentage of patients leaving the North Country for treatment is most significant in the northeastern parts of the region. For example, 35% of patients from Clinton County seek treatment outside of the county, with most of these patients (27%) ending up at Fletcher Allen Health in Vermont. In Franklin and Essex, 33% and 27% of the stroke patients go to Fletcher Allen Health, respectively. The Glens Fall Hospital in Warren County treats the highest number of stroke patients in the North Country, averaging 156 stroke patients a year, followed closely by Champlain Valley Physicians Hospital Medical Center at 90 stroke patients a year.³⁴

The total costs of care up until one year after discharge for North Country Medicaid beneficiaries who suffered a stroke is approximately \$17,000.³⁵ Most of this spending goes to inpatient services (36%), nursing homes (29%) and home health (11%).³⁶

For acute cardiovascular care, both the time to acute treatment and the volumes treated at the acute facility are key predictors of improved outcomes. A significant portion of North Country residents are transported to stroke centers, but many still remain in the North Country.

Although the distances in the North Country will always present a challenge to optimal, in-time treatment, the significant number of people throughout the North Country who are transported to a designated stroke center illustrate that a further streamlining of this care may be possible to balance the time to treatment with the treatment capabilities and expertise per center.

³¹ Ogbu, U.C., et al., Hospital stroke volume and case-fatality revisited. *Med Care*, 2010. 48(2): p. 149-56.
Saposnik, G., et al., Hospital volume and stroke outcome: does it matter? *Neurology*, 2007. 69(11): p. 1142 -51.
Votruba, M.E. and R.D. Cebul, Redirecting patients to improve stroke outcomes: implications of a volume based approach in one urban market. *Med Care*, 2006. 44(12): p. 1129-36.

³² State of New York Department of Health. NYS Suspected Stroke Protocol, 2009.

³³ SPARCS data using International Hospital Benchmark market share tool (2010-2012); numbers of patients admitted to non NYS hospitals estimated on the basis of extrapolation of Medicaid data.

³⁴ Data from North Country residents only.

³⁵ Salient NYS Medicaid System Data Version 6.4 data analysis (2010-2012).

³⁶ Salient NYS Medicaid System Data Version 6.4 data analysis (2010-2012).

Mental Health and Substance Abuse Care

Among chronically ill patients, depression is one of the most common diagnoses in the North Country. Mental health conditions will often manifest themselves in combination with other health conditions; approximately 50% of people with a severe mental health disorder suffer from substance abuse problems.³⁷ It is important, therefore, that mental health professionals work closely together with other health professionals in order to provide integral solutions for both the patients and their surroundings. As is emphasized in New York State's SHIP, optimal mental health and substance abuse care involves timely and adequate access to mental health specialists, integrated community based services and primary care. A big issue is early detection and treatment, which can prevent destructive and life-altering consequences to patients and their surroundings.

In the North Country, mental health conditions³⁸ among Medicaid beneficiaries are more prevalent than substance abuse. The most commonly treated mental disorders in 2012 were mood disorder (53%), followed by anxiety (27%), psychosis (8%) and post traumatic stress disorder (PTSD) (6%).³⁹ Suicide mortality rates in the North Country are above state average, indicating a need for services that address mental health conditions.

Approximately 15% of Medicaid beneficiaries in the North Country are treated for a mental health condition, and 4.8% had substance abuse problems.⁴⁰ Alcohol is the primary choice among patients with addiction problems, but the use of prescription drugs, heroin, and methamphetamine is increasing. Many individuals with addictions are admitted to hospitals for care.⁴¹

Together, the 15% of the Medicaid beneficiaries with mental health conditions account for 30% of total Medicaid spending. Compared to the rest of the state, beneficiaries with a mental health problem account for a larger portion of hospital utilizations than the same type of beneficiaries do in the rest of the state. In the North Country, 11% of all admissions to hospitals are related to a mental health condition. In the rest of the state, this is only 8%. Similarly, almost 10% of all patients who go to a hospital in the North Country have one or more of the selected mental health conditions, whereas only 6% do in the rest of the state.⁴²

The North Country region counts 12 areas that are underserved by mental health professionals and various counties report shortages of capacity to treat patients with mental health problems. Psychiatric facilities and treatment programs that are able to admit patients for treatment are often more than 30 miles away from North Country residents. This could explain why such a high proportion of admissions to hospitals in the North Country are related to mental health conditions when compared to hospitals in the rest of the state. The lack of mental health professionals and need for supportive housing in the region may be driving patients to inpatient hospital services as the only alternative to care. Given the large absolute number of patients suffering from mental health problems, and the very significant cost associated with this group of patients, a dedicated focus on restructuring the care for this patient category is crucial.

As with mental health, substance abuse is very much a community issue that requires treatment in a community and home setting close to home. Substance abuse providers are thinly spread, if at all present in the North Country, forcing patients to inpatient services.

³⁷ Isaacs, S. et al. New York State Health Foundation: Integrating Mental Health and Substance Abuse Care. Health Affairs (vol 32, 10), 1846-1850.

³⁸ Affective disorders, anxiety; somatoform; dissociative; personality disorders, mental retardation, other mental conditions, other psychoses, preadult disorders, schizophrenia and related disorders, senility and organic mental disorders, alcohol-related mental disorders, and substance-related mental disorders.

³⁹ Presentation by S. Gillette, director of Community Mental Health Services Clinton County. Presented to the NCHSRC on January 21st, 2014.

⁴⁰ Department of Health, New York State, 2012.

⁴¹ Department of Health, New York State, 2012. Evidence from Clinton County.

⁴² Salient NYS Medicaid System Data Version 6.4 data analysis (2010-2012).

Costs for patients with a substance abuse problem are strikingly higher than in the rest of the state, mostly due to higher spend on hospital and pharmacy services. The significant costs associated with caring for this group of patients calls for a dedicated focus on restructuring the care for this patient category as well.

The region's lack of primary care and mental health services means that many patients with chronic conditions or reduced mobility have few options for care close to home. This causes more patients go to the hospital when their condition deteriorates. For example:

A large portion of the services provided to patients with a chronic condition takes place at an inpatient level, as seen by the large portion of avoidable admissions for these conditions. Despite the more intense levels of care, outcomes remain poor most likely due to the fact that the intense treatment phases are the result of a crisis in the patient's condition.

Typically, the management of chronic diseases requires a heavy focus on lifestyle interventions in a setting close to home. However, the North Country lacks the necessary primary care and care coordination resources. For chronic patients, it is worth exploring the possibility of converting some of the inpatient-focused services to more outpatient community centers.

For patients with multiple chronic conditions, leading practices and literature all point to the importance of focusing on the patient's goals, and taking a unified, integrated and person-centered approach rather than on individual disease management protocols for each condition. This implies substituting inpatient and single disease-focused specialist care for more nurse-led, community care with a strong focus on well-being, prevention of further complications and exacerbations, and psychosocial support.

Currently, patients suffering from multimorbidities spend a significant portion of time (and related costs) on inpatient services and specialist visits. Part of the reasons for this may be dictated by supply. Hospitals are often easier to reach and more accessible than thinly spread outpatient facilities and primary care doctors.

These examples demonstrate that building more primary care and outpatient services will allow patients with chronic conditions to seek care sooner and more frequently, closer to home, and produce better health and quality of life outcomes.

Telehealth

Telehealth is a rapidly expanding field dedicated to providing health care and health-related services at a distance using technology. Widespread adoption of telehealth can link diverse aspects of the health care system to increase patients' access to primary and specialty care, improve shortages of primary care and specialty physicians in rural and medically underserved communities, and enable health care services to be provided more efficiently in the areas where they are needed most.

Delivery of health care through telehealth has the potential to reduce health care delivery costs, enhance patient satisfaction, and improve clinical care and patient outcomes in the North Country. Several regional factors exist that drive the need for an alternative to the traditional face-to-face delivery of health care. These include a growing aging, chronically ill and home-bound population; extensive health care provider shortages, and a large geographically isolated area within which patients must travel to access care.

Although some providers in the North Country have successfully established telehealth programs and initiatives, implementation challenges persist that threaten their sustainability. Even if providers are able to effectively implement telehealth, maintaining it without adequate reimbursement from insurers renders the program unsustainable. In addition, providers who have not yet implemented telehealth cite numerous financial, technological, and regulatory barriers to doing so that exist both in the North Country and statewide. As such, the potential and opportunity for telehealth to positively impact the health care delivery system in the North Country has not been fully realized.

The North Country can benefit greatly from a coordinated, planned effort to expand telehealth capacity throughout the region, building on existing successes and infrastructure. A fiber optic telecommunications and telehealth network has been built that currently links many rural North Country health care sites to urban centers for consultation, specialty care and diagnostic resources. Organizations such as the North Country Health Care Providers, Fort Drum Regional Health Planning Organization, and other experienced providers are poised to expand their efforts and collaborate with other entities to implement telehealth more widely.

Long Term Services and Supports (LTSS)

Across the country, we are experiencing a graying of the population as growing numbers of Baby Boomers enter retirement and beyond. The North Country is no exception. Much of the bricks and mortar of “modern” health care in northern New York was developed in a different era. Long term care in this region developed similarly to the rest of New York, which was in response to the establishment of Medicare and Medicaid. In the early 70’s these facilities were filled with seniors, many of whom would not be -- nor want to be-- admitted today.

The profile of the earliest admissions to long-term care settings would better match those considered appropriate for supportive housing or home care. Chronic and acute conditions that demanded hospital admissions four decades ago are managed differently today, with dramatic shifts in what we now consider the proper use of the long term care system. A greater knowledge of how things can be done, changing expectations of the senior population and more recognition of the high costs of in-patient care altered the use of nursing homes and gave rise to more home-based services. New York State developed incentives to admit only the most in need of skilled care and disincentives to admit anyone to skilled nursing facilities whose care needs could be served in lower cost settings.

Providing appropriate long term care services and support in the North Country has proven to be a challenge, both in the provision of services and the financial feasibility of long term services and supports. Many nursing homes are far flung and separated by vast distances between each other. They exist in areas where they are underserved by downstream providers who can support timely discharges from nursing homes or their alternatives for acute care discharges. Some are located in communities with small populations that no longer need the bed capacity or where a shortage of health care workers has made it difficult to fill staff positions. Lesser levels of care, such as assisted living, are also needed in the North Country.

Not all counties are equally challenged. In Washington County, there appears to be adequate home care as well as sufficient -- even slight excess -- of nursing home beds, with reasonable travel from the majority of population centers. Some counties appear to be well served, but too often home care providers have difficulty covering the whole county due to the geographic diversity in the North Country. The strains on the system are consistent throughout the region, and include a shrinking workforce, an aging infrastructure, and lack of broadband access. But all LTSS providers in the North Country suffer from a lack of options, a shortage of natural partnerships within reasonable distances, and low market volume.

Medicaid has evolved to become the primary payer for LTSS in the region, financing 43 percent, or nearly half, of all spending on LTSS in New York State. Only 6 percent of the Medicaid population in 2007 used LTSS, but such services cost nearly half of total Medicaid spending. The use of LTSS is costly. Among those using LTSS in 2007, the average annual spending per Medicaid beneficiary was \$43,296 compared to just \$3,694 for Medicaid beneficiaries who did not use long-term care services. The heavy use of institutional services such as hospitals and nursing homes is a big driver of those high costs. Even so, most LTSS is provided at home by family members and informal caregivers who have limited service and financial support.

New York State is transitioning virtually all Medicaid enrollees to “care management for all” by 2018. This initiative began in SFY 11/12 as a Medicaid Redesign Team (MRT) proposal and is intended to improve benefit coordination, quality of care, and patient outcomes over the full range of health care, including mental health, substance abuse, developmental disability, and physical health care services. It will also redirect almost all Medicaid spending in the state from fee-for-service Medicaid (under which health services providers bill directly to the state) to “care management,” in which a managed care organization is paid a capitated rate by the state and is then responsible for managing patient care and reimbursing service providers. As the *Care Management for All* initiative moves ahead, enrollment in care management will rise to 95% of the Medicaid population, while fee-for-service spending will ultimately drop to only 4% of all Medicaid spending.

Current trends suggest that the North Country does not have sufficient capacity for home care, assisted living and informal supports to address the region's LTSS needs. The capacity is going to dwindle even further as the population ages, and the prevalence of chronic disease grows. Several nursing homes in the region are struggling financially, with a few near complete collapse. Some nursing homes are essential providers and are part of the safety net for families, but are not part of health networks or fully integrated. Managed long term care programs that do exist are not at scale or not available to those in the community who need them. Medicaid does not reimburse nursing homes at the level of costs, which causes serious financial challenges for many LTSS providers such as nursing homes and home care. The fragmented array of LTSS services poses enormous challenges for individuals and families desperate to provide care to aging loved ones.

Building LTSS into any health system reform is essential, but is especially important in a region where the population is aging. These services must be integrated into any reform initiatives, including the State Health Innovation Plan. The goal is to expand LTSS across smaller regions of the vast North Country with the understanding that due to the small population, it is possible that some providers may never reach the point of efficiency to thrive under incentive-based payments. Instead, the region may be reliant on person-centered planning that uses navigators, health homes and managed long-term care plans and informal networks of caregiver support.

Recommendations

The North Country Health Systems Redesign Commission (NCHSRDC) has based its recommendations on the framework and priorities of the State Health Innovation Plan (SHIP), which is New York State’s roadmap for achieving the Triple Aim.

Transformation of the North Country Health Systems into a collaborative and integrated model of high value health care requires an initial investment to achieve significant savings as a byproduct. We applaud the efforts of the Cuomo Administration to secure \$8 billion in federal support as part of the NYS waiver demonstration. The NCHSRC unanimously recommends that distribution of this funding be based on a safety net definition that reflects the reality of providing care to all vulnerable populations in our region. That means any formula must address the challenges to provider stability that result from a high overall public payor mix. It should also reflect vulnerability associated with geographic isolation and the attendant access problems for populations in need.

For each priority of the SHIP, the NCHSRC has the following recommendations and thoughts:

Improving Access and Integrating Care

1. Primary Care

- Endorse care delivery models that include enhanced care management and care coordination approaches such as the Advanced Primary Care (APC) and Health Homes models.
- Endorse the SHIP’s health care workforce priorities:
 - a) Increasing the recruitment and retention of a primary care workforce throughout the State, including expansion of the Doctors Across New York (DANY) program;
 - b) Updating and aligning standards and educational programs for all types of health care workers with the APC model, particularly training in care coordination, multidisciplinary teamwork, and necessary administrative and business skills;
 - c) Identifying regulatory reform needed for primary care-related workforce flexibility opportunities by putting in place the infrastructure to test and evaluate workforce models of care and their implications for professionals to work closer to the top of their licenses;
 - d) Assuring adequate education and training throughout the State and developing more robust working data, analytics and planning capacity.
 - e) Advancing regulatory reform so that advanced nurses and care managers and other types of health care professionals can deliver a wider scope of primary care services.
- Suggest the State provide primary care providers access to capital investments funds that would address their needs and risks, and provide financing for restructuring that is aligned with integration.
- Authorize the Commissioner of Health to allow collaborative projects in the North Country to proceed without extensive Certificate of Need (CON) review.
- Expand the Medical Home model, which applies in Long Term Care as well as primary care settings.

- Urge Department of Financial Services to support the expanded participation in Medical Homes by all insurers active in the North Country.
- Facilitate expansion of primary care across the region into appropriate community settings including schools and places of employment.
- The NYS Department of Health should continue data analysis to identify gaps in primary care as evidenced by factors such as avoidable Emergency Department visits.

2. Behavioral Health

- Integrate primary care and behavioral health services through regulatory and financial reform to promote value-based models that are supportive of the SHIP. While the movement to managed care is expected to achieve integration, the Commission recommends financial incentives to embed primary care and behavioral health services into the health care continuum across the region.
- Enhance collaboration among primary care providers and behavioral health providers to co-locate screening, assessment and brief outpatient treatment services to improve integrated person-centered care.
- Improve access and availability of prevention and wellness services in primary care settings through partnerships with local prevention organizations (behavioral health agencies, Healthy Heart networks, etc.).
- Reform payment for services to include care provided by non-clinical social workers and other licensed mental health professionals.
- Explore alternative pathways to the licensing of mental health professionals.
- Support providers in attaining assistance to possess a viable health IT structure.
- Support efforts to increase supportive housing.
- Establish a multi-agency team to identify regulatory barriers to integrate health and behavior health services to achieve the goals of the SHIP.

3. Long Term Care

- Explore conversion of skilled nursing facilities (SNFs) into a new design known as Skilled Care Campuses (SCCs). An SCC could be a group of virtual expanded services provided by the current SNF that would support a reduction in SNF bed capacity, and reuse the existing SNF space and infrastructure to support adults needing other services. Services might include outpatient therapy, assisted living, social day care, supportive housing with meals and activities.
 - a) Establish with funding support as needed, one or more SCC pilots to explore and evaluate the concept and to connect it to primary care, emergency care and behavioral health.
 - b) Allow SNFs to reduce certified bed numbers while allowing the remaining space to carry 100% of the capital cost burden. Create incentives for some form of senior housing to be developed either in the spaces no longer used as SNF beds or in new construction in close proximity to the SNF.
 - c) Grant outpatient therapy licenses to the SNF associated with the SCC, so their therapy departments can support post- discharge rehabilitation.

- d) Allow certified nursing assistant staff employed by the SNF to serve other individuals receiving services through the SCC without additional certification or provide a streamlined path for dual certification.
 - e) Enable licensed professional staff of the SNF to support the residents, perhaps with a consulting certified home health aide available.
 - f) In conjunction with other organizations, allow SNFs to be involved in defining the priority admission list to the housing to facilitate appropriate discharges from the SNF.
 - g) Integrate silos of care management, so primary care managers (e.g. Medical Home Model) and long-term care managers are working in a coordinated manner.
 - h) Consider funding for housing on the SCC sites or other free standing locations from House NY program or MRT Supportive Housing program.
- Develop initiatives such as consumer-directed care models that support families and recognize that informal caregiving provides most of the long-term services and supports in the North Country.
 - Change the financial paradigm of Medicaid to pay for a broad set of supportive services, with incentives to keep to an irreducible minimum the number of people in expensive skilled beds, but with enough funding to keep essential rural facilities viable.
 - a) Vital Access Provider (VAP) funding may provide bridge funding to a reformed landscape, but sustainability may require an Essential Community Health Network (ECHN) designation or another program. For example, the Commission supports the VAP funding of the Blue Line Group. If an ECHN program goes into effect, the Blue Line Group should be evaluated for such support.
 - Support the expansion of assisted living particularly for low-income individuals throughout the region. Consider easing any applicable equity contribution requirements and/or providing access to grant funding.
 - Request Department of Health to carefully evaluate and consider for implementation the recommendations that are made on or about September 30, 2014, as a result of the grant, “A Roadmap to a Rational, Sustainable and Replicable System of LTC Services in the Eastern Adirondacks,” which is being conducted by the Foundation for Long Term Care and LeadingAge New York and funded by the NYS Health Foundation.
 - Promote the expansion of managed long-term care in the North Country.
 - Give small providers assistance to attain a viable health IT structure.
 - We recommend strengthening home care, in three areas:
 - a) Expand the use of the consumer-directed home care model;
 - b) Foster development of para-professional resources (home health aide, personal care assistants).
 - c) Increase Medicaid reimbursement rates in the North Country to support the recruitment and retention of the para-professional workforce in Home Health Care
 - d) Expand access to telehealth by first ensuring access to the internet in the region, and then through investment in remote monitoring telehealth equipment.
 - Increase access to palliative care programs for persons with serious, advanced illness and those at the end of life to ensure care end of life planning needs are understood, addressed, and met, which will in turn reduce the need for hospital care in these situations.

4. Hospitals

- Encourage all hospitals to engage in collaborative efforts to integrate services across the spectrum of medical and health services, with the waiver focused on reducing unnecessary and preventable hospital utilization.

5. Regional Planning

- Create Regional Health Improvement Collaboratives (RHICs) to promote regional leadership and a population-based approach to health system resource evaluation and development.
- RHICs should facilitate regional planning for care delivery to connect with the greater health of the community. They can achieve this by building linkages across primary care, hospitals, behavioral health, EMS long-term care providers, local health departments, occupational health, offices of the aging and a variety of community stakeholders.
- RHICs should:
 - a) Support the promotion, success and sustainability of the APC model, including the provision of technical assistance to local providers, as part of their mandate.
 - b) Receive timely and regular data sets to monitor population health outcomes and have the freedom to be flexible and innovative.
 - c) Identify opportunities for collaboration, integration, and consolidation that will maintain or improve access and quality, and financial viability; promote integrated care; facilitate discussions between local providers and payers regarding joint transition to value-based payments; require mandatory involvement with local planning and engage regional economic council; and co-locate screening and assessment.
 - d) Support funding to conduct sub-area analyses in specific regions such as St. Lawrence, and Hamilton counties to assess the potential for either a single unified system or optional arrangements with other providers.
 - e) Establish a joint committee of the two RHICs to coordinate efforts where appropriate, as well as to facilitate the sharing of information and data. The committee should meet once a year or more often to bridge the planning between the proposed two RHICs in the North Country.
 - f) Meet with the regional economic councils at least once a year to coordinate the economic development priorities with economic development policies.

6. Workforce

- Develop Graduate Medical Education (GME) programs to train medical graduates with financial incentives for service in the Adirondacks. The Commission urges financial support for an expansion of family medicine residency programs.
- Adapt medical school curriculum to align and train health care providers at all skill levels to outcome focused care and team based, coordinated care. We support integrating Advanced Care models into educational programs.
- Urge the Legislature to commit to a diverse and strong primary care workforce by safeguarding and expanding programs like Primary Care Service Corps (PCSC) and DANY which advance the recruitment and retention of primary care providers.

- Provide Doctors Across New York State with annual, consistent funding and with the North Country designated as a targeted area.
- Align State rules with more current federal direction with respect to standing orders and practice protocols.
- NYS should allow for house calls by Article 28-employed physicians and physician extenders, and provide reimbursement for services provided to chronically ill/home bound patients, including expanding telehealth reimbursement.
- Strengthen post acute services, via agreements to cross train and share staff across the continuum of care depending on where the need is greatest.
- Dedicate financial support to retrain health care workers based upon a movement from inpatient based to community based services.
- Align certified nursing aide (CNA) and home care aide training, and allow stackable credentials in order to meet needs in multiple venues.
- Aim for all health care providers to operate at the top of their license.
- Establish additional loan repayment incentives for physicians, and mid-level practitioners in the North Country.
- Work with State Education Department to recognize national licensure and reciprocity with other state to speed up access to providers and Canadian provinces.

7. Telehealth

- Expand telehealth throughout the region, and support efforts to:
 - a) License and credential telehealth providers (including development of policies relating to interstate practice of telehealth)
 - b) Develop policy that encourages and/or requires all payers to support telehealth reimbursement.
 - c) Allow multiple provider specialties to participate
 - d) Address technical transmission efforts
 - e) Expand existing Medicaid telehealth reimbursement policy to include Article 31 clinics, Article 36 Certified Home Health Agencies, SNFs, private practices, and federally qualified health centers (FQHCs) as eligible hub or spoke sites, regardless of opting in or out of ambulatory patient groups.
 - f) Develop a rural New York State Telemedicine Resource Center in the North Country.
 - g) Expand existing Medicaid reimbursement policy on eligible providers to include:
 - Clinical psychologists
 - Certified diabetes educators
 - Physician specialists, including psychiatrists
 - Certified diabetes educators
 - Certified asthma educators
 - Psychiatric nurse practitioners
 - Dentists
 - Genetic counselors
 - Mental health clinicians
 - Physical therapists for the purpose of supervision of physical therapist assist supervision

8. Emergency Medical Services (EMS)

- Integrate the EMS system into the coordination of health care in the North Country.
- Improve communications systems and technology to allow for better consultations with physician medical control.
- Explore ways to incentivize potential work force, improve working/volunteering conditions and salaries.
- Explore reimbursement options to improve stability of pre-hospital care and inter-facility transportation, including that provided by air-ambulance.
- Implement alternative models of community-based care, including the community para-medicine model that leverages the Emergency Medical System for home visits and preventive care.
- Support legislative proposal allowing volunteer fire departments to bill for EMS services rendered.

Financial Rewards for Value

- Coordinate the State's investments in capital restructuring with the deployment of Delivery System Reform Incentive Payment (DSRIP) funds, and emphasize the need to direct these investments towards:
 - a) Collaborative efforts that involve multiple stakeholders and partnerships.
 - b) Entities providing services to populations in geographically isolated communities that are essential to the region;
 - c) Ensuring that the definition of a "safety net provider" does not focus solely on Medicaid, but rather on all public payors. The North Country has a lower Medicaid proportion and the providers play a unique role in ensuring access for underserved and isolated populations;
 - d) Services that provide timely, high-quality care to all, consistent with patient-centered, population health-based, care models that aim for greater integration, over applications from single organizations.
- Create a new funding category to address sustainability called Essential Community Health Network (ECHN) for providers that are essential and financially distressed due to their engagement in transformation.
 - a) Facilities may be hospitals, nursing homes or some other entity that is a safety net provider, given their isolation and/or population served. They are also committed to transformation initiatives called for by the Medicaid Redesign Team or SHIP.
 - b) A collapse of these institutions will jeopardize the particular initiative with which they are engaged, such as medical home expansion, but the financial distress may undercut other critical services supported by the traditional inpatient and outpatient base.
- Implement a North Country Medicaid rate adjustment, with review after three years, when the impact of managed long-term care and the above changes are evaluated.
- Examine Medicaid policies and programs for VAPs to ensure they:
 - a) Provide financial support while facilities transition to new models of care.
 - b) Identify and reduce incentives that contradict a value approach to reimbursement, such as policies that encourage overuse of expensive skilled beds.

- Support the Governor’s proposal to double the appropriation allocated for the VAP program in FY 2014-15.
- Expand the Health Facility Restructuring Program to FQHCs, in order to allow DOH to work with select providers to access interest-free loan programs to sustain essential services.
- Embrace various payment reform initiatives that may include: global budgets for essential providers, a variety of bundling initiatives across the spectrum of care providers, ACO-like shared savings models, etc.
- Call upon DFS to establish mechanisms that incentivize the participation in Medical Homes by all insurers active in the North Country region.
- Expand application of the Certificate of Public Advantage (COPA) to allow clinically integrated providers, who demonstrate value enhancement, to negotiate collectively with private insurers, as since their efforts to improve value in Medicaid and Medicare will benefit other insurers.
- Explore ways to expand intermediate levels of care (e.g., partial hospitalization, crisis respite services or observation programs) to reduce unnecessary hospitalizations and ED visits.

Transparency and Consumer Engagement

- Encourage the input of consumers and patients to gauge satisfaction with health care resources in the North Country. This includes the extent to which cost and quality are transparent and incorporated into consumer decision-making and commensurate with state and federal reforms.
- Create a subgroup to implement a communications plan that highlights the key points in the recommendations.
- Create a subgroup to identify and develop regulatory modifications that are necessary to assist providers at implementing the recommendations from this report.
- RHICs should engage and include consumer representatives on the councils.

Measurement/Evaluation

- Use the SHIP principle of developing a standardized, statewide approach to measure and evaluate the quality and efficiency of care delivery.
- Use measurement and evaluation to provide common standards and performance metrics by which to track and evaluate the progress of health system sustainability, performance and transformation within the North Country.
- Encourage the establishment of a statewide “common scorecard” to produce meaningful population and regional data in order to inform regional health assessment and planning efforts.

Promote Population Health

- Use public health initiatives to address population health.
- Support the State’s Prevention Agenda.
- Encourage physician-based best practices for population health.
- Align DSRIP with community health improvement plans and community health plans.

Conclusion

The challenges involved in delivering health care throughout the North Country can no longer be ignored or delayed. Multiple trends have converged to create a precarious situation in the region's health care delivery system. Rising rates of chronic disease, a growing dearth of health care workers, transportation challenges, and the fiscal difficulties confronting the region's health care facilities are making it increasingly difficult for the residents in this region to access quality health care and for providers to remain financially viable. Compounding the problems are the region's high rates of poverty, the vast geographic size and the pressure from reforms in the health care delivery system.

It has become incumbent upon all stakeholders in the region to adjust the way they do business in order to rebuild a viable system, so that residents in the North Country can access high quality health care, be it acute services, preventive care, or inpatient care. The recommendations laid out in this report are designed to help move in that direction and stabilize the health care delivery system in the North Country. They have been carefully constructed to satisfy the demands of the State Health Innovation Plan, which is the roadmap for achieving the Triple Aim – better patient care, improved population health and reduced costs – while also taking into account government reforms, financial restraints and the reality of the region's demographics and geography.

Achieving any significant change will require the region's health care providers to adjust the way they do business. It calls upon them to restructure, collaborate and integrate in order to develop new models of care that are better able to adapt to an evolving payment system while meeting the goals of the Triple Aim. Pursuing these recommendations will take years and require significant effort by providers, patients and community entities alike.

No doubt, we live in times of great turmoil in the health care industry, and the North Country is no exception. Issues of access, quality and cost continue to impact communities throughout New York State as well as the rest of the country. The recommendations in this report address all of these concerns and have been carefully designed with a patient-centered focus. We believe that they will result in a stronger, more stable and viable health care system, and that the lessons learned here will be worthy of consideration in other communities facing similar struggles.

Appendices

State Health Commissioner Announces Commission to Create a Sustainable, Integrated Health Care System for New York's North Country
North Country Health Systems Redesign Commission appointed

ALBANY, N.Y. (Dec. 2, 2013) — New York State Department of Health Commissioner, Nirav R. Shah, M.D., M.P.H., today announced the formation of the North Country Health Systems Redesign Commission (NCHSRC). The goal of the NCHSRC is to create an effective, integrated health care delivery system for preventative, medical, behavioral, and long term care services to all communities throughout New York's North Country.

Healthcare providers in the North Country are faced with several challenges including a shortage of physicians and other primary care practitioners as well as fragmented, widely dispersed services. Moreover, the continuing transition of medical, behavioral, and long term care services to outpatient settings is threatening the fiscal stability of many hospitals and nursing homes.

"This Commission will play a vital role in establishing a sustainable, integrated service-delivery model to meet the health care needs of New Yorkers in the North Country region," said Dr. Shah. "This exceptional team of commission members shares the state's vision to create a viable system of care that emphasizes prevention, increases primary care supply, establishes more community-based options, supports critical safety-net providers, monitors and rewards quality, and forges innovative affiliations and partnerships."

"I am honored to lead this vital initiative to help ensure that our citizens in the North Country have access to quality health care services, and I thank Governor Cuomo and Commissioner Shah for their leadership and vision in establishing this commission," said Daniel Sisto, NCHSRC chair. "We are committed to assisting North Country communities in creating the integrated service delivery systems that are critical to access, quality, and the health of the region's residents for years to come."

The NCHSRC is charged with:

- Assessing the total scope of care in the North Country: community and preventive care, secondary and tertiary care and long term care.
- Assessing the regional population's health care needs and the system's ability to meet them.
- Recommending ways in which to ensure that essential providers survive or that appropriate capacity is developed to replace failing providers; a restructuring and re-capitalization agenda.
- Identifying opportunities for merger, affiliation and/or partnership among providers that will maintain or improve access and quality, financial viability and promote integrated care.
- Making specific recommendations that providers and communities can implement to improve access, coordination, outcomes and quality of care, and population health.
- Developing recommendations for the distribution of re-investment grants.

The NCHSRC engages a broad cross section of health care experts, business and community leaders, elected officials, patients and other key stakeholders who will lead a strategic, regional planning process. Members have been appointed by Commissioner Shah.

NCHSRC members are:

- Chair: Daniel Sisto, past president, Hospital Association of New York State (HANYS)
- Co-Vice-Chair: Arthur Webb, principal, Arthur Webb Group
- Co-Vice-Chair: John Rugge, M.D., president and CEO, Hudson Headwaters Health Network, Chair of the Committee on Health Planning of the NYS Public Health and Health Planning Council (PHHPC)
- Steven Acquario, executive director, NYS Association of Counties
- Cali Brooks, executive director, Adirondack Community Trust
- Dan Burke, regional president, Saratoga-Glens Falls Region-NBT Bank
- Tedra Cobb, president, Tedra L. Cobb and Associates
- Tom Curley, past executive director, Associated Press
- Susan Delehanty, chief executive officer, Citizens Advocates, Inc.
- Garry Douglas, president and CEO, North Country Chamber of Commerce
- Honorable Janet Duprey, New York State Assembly Member
- Honorable Betty Little, New York State Senator
- Fred Monroe, supervisor, Town of Chester
- Honorable Patty Richie, New York State Senator
- Neil Roberts, Board member, Fort Hudson Health System
- Honorable Addie Russell, New York State Assembly Member
- Honorable Dan Stec, New York Assembly Member
- Denise Young, executive director, Fort Drum Regional Planning Organization

The NCHSRC will hold its initial early next month and will submit its recommendations to the State Health Commissioner by March 31, 2014. The NCHSRC will be supported by staff from the State Health Department, the State Office of Mental Health and the State Office of Alcoholism and Substance Abuse Services.

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Contact:
New York State Department of Health
518 474 7354, ext. 1

NORTH COUNTRY HEALTH SYSTEM REDESIGN COMMISSION

January 28, 2014

Courtney Burke
Deputy Secretary for Health
Capitol, Room 236
Albany, NY 12230

Nirav Shah, M.D., M.P.H.
Commissioner of Health
New York State Department of Health
Empire State Plaza
Corning Tower Building, 14th Floor
Albany, NY 12237

Jason Helgerson
Medicaid Director
Office of Health Insurance Programs
New York State Department of Health
1 Commerce Plaza, Suite 1211
Albany, NY 12210

Dear Deputy Secretary Burke, Commissioner Shah, and Director Helgerson:

The North Country Health Systems Redesign Commission (NCYSRC) is focused on achieving its mandate to produce a plan to improve access, coordination, outcomes, and quality of care for the nine-county region by April 1st, 2014. The Commission set as its working objective to craft recommendations highly consistent with the State Health Innovation Plan, the designs of the NYS Medicaid Reform Team, and the Affordable Care Act.

Recognizing the magnitude of the transformations ahead, the Commission members are most supportive of the Administration's efforts to secure federal support for health reform in the context of the Section 1115 waiver.

We have largely completed an initial review of access issues, workforce shortages, and health/behavioral health integration needs from analytical data, presentations by various health innovators, and the Commission members' own expertise. It is already obvious that this region will require a significant amount of financial support to both "jump-start" the transformation and to assure the simultaneous delivery of essential services in the region.

The anticipated completion of our report is April 1st. We understand key discussions about waiver details may be resolved before that date. Consequently,

the Commission unanimously voted at its last meeting on January 22nd, to convey immediately key recommendations to you regarding the allocation of Delivery System Reform Incentive Payment (DSRIP) funding. The Commission urges that one of the criteria for DSRIP funding specifically incorporate entities providing services to populations in geographically isolated communities. Our data reveals substantial areas lacking key health services, with a lack of transportation, and significant geographic and socio-demographic factors exacerbating the problems of access. Service providers in these communities are the safety net for the health care of the people as well as for the economy of the region.

Additionally, the consideration of payer mix as a criterion needs to center on the impact of ALL public payers, not just Medicaid. In the North Country, for example, with its above average senior population, Medicare hospital reimbursement rates are among the extreme lowest in the nation. Other providers cite problems with public payment levels as well. As systems transform and integrate, state and federal savings will be secured in Medicaid and in all other public programs. They should be part of the calculus for transformational support.

We endorse any efforts to consider a specific provider's financial condition associated with losses from treating Medicare and Medicaid beneficiaries, and the uninsured. It may be necessary to modify criteria across NYS to be sensitive to the uniqueness of this region. Ultimately, it is important to recognize it is not any one data element, but rather the unique role some providers play in ensuring access for underserved or isolated populations, that makes them "safety net" providers.

We appreciate the opportunity to comment and your sensitivity to our needs.

Sincerely,



Daniel Sisto

Chair
North Country Health Systems Redesign Commission

CC:

John Rugge, M.D., Co-Vice-Chair, NCHSRC
Arthur Webb, Co-Vice-Chair, NCHSRC
Karen Westervelt, Deputy Commissioner, NYSDOH

William L. Owens

42 Blue Heron Way, Plattsburgh, New York 12901

518-563-2754

March 4, 2014

Daniel Sisto, Chair
John Rugge, M.D., Co-Chair
Arthur Webb, Co-Chair
North Country Health Systems Redesign Commission

Dear Mr. Sisto, Dr. Rugge, and Mr. Webb:

The North Country Health Systems Redesign Commission is moving rapidly to its conclusion by the end of March. As a Special Advisor to the Commission, I am very appreciative of the Governor's confidence in me, and I wanted to set forth my thoughts and raise issues that I think should be addressed, and to the extent possible, answered in the Commission's report.

The eight counties covered by the Commission represent seven of the twelve counties in my congressional district and are truly representative of rural upstate New York, which has unique issues related to the delivery of health care. Prior to setting forth the questions I think should be answered by the Commission, I think a number of observations are in order, based on my own experiences and the materials provided to date:

- a.) As noted above, we reside in a very large, rural geographic area and we are attempting to design an appropriate health care delivery system to care for our communities. The geography alone creates transportation issues, which are made more acute by difficult winter driving. We have large distances between our population centers, which frequently are quite small when compared to other regions of the State.
- b.) The aging of our population, which is a well-established fact, needs to be considered when determining the nature of the health care system that we are going to design and implement.
- c.) We have many small communities that have volunteer fire departments and volunteer EMT squads. There are certainly issues related to the workday coverage in those communities. As pointed out by the physicians from Samaritan Hospital in Watertown, there may well be opportunity to utilize paid EMTs to provide care at "health stations" in our local communities.
- d.) As we move to the anticipated quality focused payment system and away from a fee for service payment system, we will need objective measures to determine the long and short term impacts upon providers.
- e.) Will our health care system break down into three levels represented by large medical centers, large community hospitals and smaller community hospitals? I think we can also reasonably assume that under any payment system, the large medical centers will seek to perform the procedures that are most complicated and secure the greatest reimbursement, the large community hospitals will seek to perform and provide the next level of care, and small community hospitals will be faced with determining what procedures they can provide and perform at a sustainable reimbursement level. If the small community

hospital is not able to secure an adequate revenue flow for procedures performed, the question then becomes what will the large community hospitals and the medical centers provide in the way of resources, both economic and clinical, to ensure services to citizens living within the catchment areas of those smaller institutions in exchange for the flow of patients and related reimbursement. Clearly, this requires a strong primary care base which is in the best interest in all three levels of institutions.

f.) It is also clear that the regulatory process, at both the state and federal level, lacks the necessary flexibility to allow institutions to modify the delivery system in any reasonably rapid way. By way of example, it was anticipated that when the ACA went into effect and individuals had insurance that there would be a decline in emergency room visits. The materials provided by Iroquois Healthcare Alliance demonstrate a continuing apparent increase in the flow of patients into emergency rooms that was unanticipated. This raises the question as to whether or not a single campus approach may be necessary, with flexibly for an individual campus (hospital) to have an emergency department including a fast track, as well as an outpatient clinic and inpatient facilities. I have argued for many years that the Department of Veterans Affairs should partner with our smaller institutions, which would benefit veterans by reducing travel distance, as well as benefit the smaller hospitals by providing a greater population to serve and therefore higher revenues, which would help keep these facilities open for the entire local community. There is a great likelihood that hospitals will continue to see a decline in inpatient activity and an increase in outpatient activity, thus requiring flexibility on the "campus" to provide different types of healthcare alternatives that are best suited to the needs of the patient, while using the infrastructure of the institution.

g.) There has been ample discussion of workforce issues, as best I can tell from the materials I reviewed for each of the two day sessions. I would like to share a story from the Press Republican entitled, "Essex County Needs Psychiatrists," as I think that this encapsulates the issue very clearly, particularly in the behavioral health area. I am also enclosing a chart I previously supplied to Dan Sisto, which indicates where anticipated job growth will be. Much of it is in health care. This begs the question: how do we secure participation from our educational institutions at both the high school and college level to ensure we are training people for available jobs?

h.) The use of the EMR is crucial to any successful design. We are moving forward at a good pace, but there remains a need to stay focused on implementation and management of these systems.

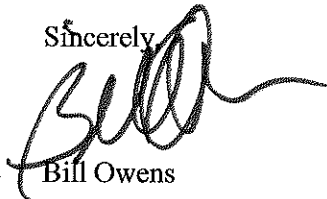
Using the foregoing as a background, the questions I would pose to the Commission are as follows:

1. Will the report specifically outline how our region will meet the key components of DSRIP to ensure the region receives its fair share of these funds? The metrics employed must recognize the makeup of our current reimbursement funding.
2. My primary question goes to how, as procedures gravitate to the large medical centers and larger community hospitals, will there be a requirement that those institutions either push back procedures that larger community hospitals and smaller community hospitals are not performing, or in the alternative, will they share revenue so the small community hospitals can maintain an appropriate level of care in their communities. This is practically important because of the rural nature of the region and the sparse population resulting in long travel times for emergent care. Using a very simple example, if an individual has a heart attack fifteen minutes west of Malone, what care will be available at Alice Hyde Medical Center to ensure that patient is at least stabilized before being moved to the larger community hospital or the medical center? This may mean the use of telemedicine, but clearly requires we determine how we will treat emergency patients as we move forward.

3. What will the Commission recommend in terms of recognizing the number of providers and other care givers that will be needed to provide care to our aging population and how and where will those people be trained? Will the Commission recommend different staffing and care models?
4. What analytics will we use to determine the long and short term impact on our institutions as we move to a quality focused payment system?
5. What changes will we need to make in the EMR system, not only from an operational standpoint, but from the point of view of confidentiality, as there are clearly gaps in the law. There are also several areas of conflict between federal and state law that need to be harmonized. The New York City Bar Association did an excellent analysis entitled, "Gap Analysis of New York Law and Recommendations Regarding Implementation of Electronic Health Records and Health Information Exchanges."
6. What steps will the State of New York take to create a flexible health care environment to allow rapid responses to changes in the delivery of health care, whether caused by technology, the ACA, aging populations, etc., so that communities will be able to fully use their existing institutions, even if those institutions are now providing multiple levels of care within the same campus. Will the state implement a data gathering and sharing plan that distributes current data for decision making?
7. Will the Commission consider recommending the utilization of entities like "health stations" (see paragraph c above) located at local volunteer fire departments, utilizing their EMTs for the provision of care for such things as taking blood pressure, checking weight, testing blood sugar, assisting people in securing medications, etc. where there is not a doctor or a clinic within a reasonable distance to provide the same. We all know that as we move forward with any plan to improve health care delivery, we need to ensure we are taking steps to provide preventive care. In our particular geography, in my mind, that means implementing a proposal like this, along with clinics in communities, in addition to the existing hospital structure.
8. Will the Commission consider the expansion of Medical Homes, ACOs, or other vehicles in its proposal as is implied by the State Plan? We know that the Medical Home in the Northeast region of my congressional district has been very successful in providing better care and reducing expenditures by Medicare in our communities.
9. What will the Commission recommend to facilitate in-home care, particularly in small, rural communities? How will they be staffed?

I hope the questions I have posed are discussed and considered as the Commission moves forward with its recommendations, as I think these questions, along with those raised by other members of the Commission, are the types of issues that need to be addressed in the report.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Owens", with a long, sweeping flourish extending to the right.

Bill Owens

Cc: Courtney Burke, NYS Deputy Secretary for Health

Essential Community Health Networks

The health care landscape is rapidly becoming a less fragmented, more value-driven, patient-centered, health care system. The new system requires creating continuums of care, with integrated teams of service providers taking responsibility for the health of the population, while it gradually replacing the current fragmented, costly and institutionally reliant system.

In the North Country, this complex transformation is compounded by an array of confounding issues: an absence of public transportation, challenging demographics, workforce shortages, a huge rural and mountainous geographic landscape, a weak economy, and an array of independent, fragile health providers.

The Commission is as concerned about retention and creation of appropriate capacity as it is focused on decreasing unnecessary institutional utilization, assuring access to care, and investing in primary care, population health initiatives and value-based care. We seek to build capacity, value, and access in a transformed health system.

Virtually every provider in the North Country could claim to be a safety net provider. To the degree care is being provided to a population in need and/or that services would be difficult to access if the provider were to disappear, the claim is warranted. Certainly, many institutions are key employers in their communities, and provide significant health services. Natural and man-made disasters alone may validate the claim by most providers that they are safety nets.

With the federal waiver in place, the term “safety-net “ takes on added implications since Delivery System Reform Incentive Payment funds will be given primarily to safety net providers with the goal of lowering inpatient admissions and readmissions.

Many factors, including DSRIP, will sharply reduce hospital inpatient revenue in the years ahead. An increased focus on primary care, the spread of medical homes, and the rise in ambulatory surgery means fewer patients will require inpatient stays. Even within hospitals, many factors are driving down revenues including the aggressive rejection of inpatient status for “observation” patients, the intense focus on eliminating related readmissions, efficiency programs to reduce length of stay and surgery minimizing technologies.

Given the limits of public funds to support transformation, we need to prioritize safety net institutions. Most definitions of safety net focus on the financially vulnerable alone. But in the North Country, the definition must take into account the numbers of patients who rely on public payers, the patients who are uninsured, geographic considerations and access to alternative services.

Even with waiver funds, the public purse will be insufficient to support every financially distressed hospital, nursing home, federally-qualified health center and other providers across NYS. As a result, tapping into these funds requires more structured criteria and accountability.

In circumstances where an ailing provider serves a vulnerable population, NYS has traditionally provided Vital Access Provider funds or other funding to support that provider through reform initiatives and financial difficulties, usually with an obligation to deliver a desirable outcome that relieves the situation. Under DSRIP, facilities will receive grants to engage in reforms to decrease utilization.

HOWEVER, given the already low Medicaid and Medicare provider reimbursements in the North Country, needed providers who reduce their utilization by participating in reform initiatives may experience a self-liquidating impact on their revenue streams beyond their ability to sustain core operations.

In areas, where other provider alternatives exist, this is not necessarily a public policy issue. Patients can go to another hospital or nursing home. But, in other more isolated locations, essential providers engaged in reforms cannot be allowed to deteriorate for doing precisely what the imperatives of national and state reform urge them to do.

Therefore, a portion of the “safety net” waiver, and/or other funds, need to be set aside for a new category called “Essential Community Health Networks” (ECHN). This category of support would apply to a very limited number of providers. These facilities may be hospitals, nursing homes, FQHCs, or some other entity. As an example, think of a break-even hospital trying to reduce preventable admissions that result from social problems. What would a 25% reduction in such admissions do to the hospital’s operating margin if fixed costs were 70% of the pre-reform operation but now remain at the same dollar level with a much smaller patient base?

By definition, these are safety net providers, given their isolation and/or population served. But ECHNs are also committed to transformation through integration. They are engaged in the integration initiatives called for in the MRT or SHIP. A collapse of these institutions not only jeopardizes the initiative, but the financial distress may undercut critical services supported by the traditional inpatient and outpatient base.

Unlike VAP funds, which are usually of limited duration, ECHN funding would be more long term to sustain core services during a multiyear period of transformation.

In prioritizing funds under the ECHN program, the State will gauge three key measures: whether the provider is truly essential to the community, at least during

the transformation period; if there are no alternatives for the core services needed in the area; and whether the entity is severely financially impaired.

Although provided for an extended period, ECHN funds will not be perpetual. NYS may make future iterations of funding more precise, discrete and short-term. For example, the ECHN provider may be directed to affiliate with a viable partner, when an alternative emerges. ECHN funds may take the form of a multi-payer commitment, a Medicaid rate increase to cover fixed costs, a global budget or other mechanism.

As the ECHN reaches a certain point of transformation and stability, it could seek to integrate with another provider in the North Country. These other provider might be strong enough to absorb the ECHN without major disruption or perhaps by providing a VAP subsidy to them. Given federal regulation, we may need to assure critical access hospital designations are sustained or find substitute supports during these transitions into larger networks.

To minimize last-minute financial crises and to limit the number of ECHNs over time, NYS needs a formal watch list to monitor provider viability and avoid impacting communities. There should be a more rigorous reporting of financial conditions to DOH from any entity whose financial profile triggers the criteria for the watch list. Key financial and utilization data will be reported monthly for those providers. For example, if a provider's losses reach a certain percentage of operating costs, they would be placed on the watch list. To minimize data transmission, the criteria must be manageable by DOH and restrictive enough to not encumber the provider community at large.

If a NON-essential provider that is not involved in reform activity begins to fail, the North Country report should affirm that such institutions are susceptible to early intervention from DOH. Intervention starts with close reporting. However, a non-essential provider is non-essential because there are alternative providers accessible to the population. Intervention may lead to the placement of a temporary operator at the institution, while DOH works with other providers to discuss assumption of the jeopardized institution or perhaps develops a closure plan.

ECHN Questions and Answers:

What is an ECHN?

An Essential Community Health Network is a category of safety net provider that describes a provider who is committed to transforming their health care delivery system, but who is struggling as a result of that effort. The ECHN must be essential to the community it serves, which means residents cannot get services from another provider, and it must be financially strained by the transformation. The designation will apply to a small number of providers.

Why do we need ECHN?

NYS does not have a formal mechanism to support needed provider capacity, where a provider's existence is critical to the provision of essential services.

ECHN bears some resemblance to the federal designation, Critical Access Hospital, which provides essentially break-even Medicare reimbursement to isolated, small rural hospitals. Both designations recognize that a provider may need subsidies due to the nature of their payer mix. However, ECHN is more stringent than a CAH. It does not apply only to hospitals and is premised not on mileage to the next hospital but the reasonable availability of alternative providers. It requires an applicant to meet financial requirements, be essential to a community and be engaged in collaborative reform. It is not a permanent designation but one that is periodically reviewed.

With more people insured under the NYS Exchange and more managed care expansion throughout the Medicaid program, there may be more coordinated care arranged by managed care plans and providers. This could reduce the need for an ECHN, if providers and payers negotiate sustainable rates.

The working assumption behind creating ECHN is that providers who devote significant effort to caring for financially vulnerable and/or isolated populations, and who engage in reform efforts that undercut their own viability, represent a key element in the successful transformation of health care in our state. A program that brings sustainability to transformation is needed in certain key areas for a limited number of such entities.

How does ECHN differ from VAP?

VAP has a variety of applications, such as transition support, grants to initiate reform imperatives and temporary subsidies in exchange for commitment to initiatives that yield efficiency. Delivery Reform Incentive Payment dollars will be

tied to safety net institutions with an attendant focus on reducing hospital readmissions and PPAs. The ECHN concept does not specifically address safety net definitions, nor is it tied to DSRIP. ECHN creates a set of criteria that ensures the long term sustainability of essential providers.

There will be far fewer ECHNs than there are potential VAP awardees. ECHNs are limited by needing to meet several stringent criteria. First, they are essential. That is, there are no care alternatives in the community if they were to fail. They also must demonstrate financial distress that can be attributed to their payer mix, not inefficiency. Finally, they must show engagement in collaborative reform.

Is ECHN just another bailout of duplicative hospitals, nursing homes and other providers?

No. The ECHN is narrowly focused on the sustainability of essential services in communities without service options. Financial distress is only one factor in assessing ECHN status. It may be applied in situations where DOH has determined the lack of financial viability of a provider is a function of engaging in health reform. It is the antithesis of a bailout caused by failure to transform and collaborate with others.

How do we define “essential” in ECHN criteria?

In its most simplistic form, a provider is NOT essential if other alternative providers or services exist, and the patient volume can migrate to those providers because they are reasonably accessible. Providers are deemed essential based on their level of care for financially vulnerable populations (in rural areas: uninsured plus public payer component). They provide needed services otherwise not accessible to the community.

First, essentiality is tied to a provider’s care for financially vulnerable populations. We would include Medicaid and uninsured populations (inpatient, outpatient, Emergency Services etc). In rural areas, where the senior population is increasing and reimburses well under costs, including the Medicare patient population is critical. This is much less the case in urban and suburban areas.

Second, we need to factor in geographic and travel distance to an alternative provider of needed services. In effect, is there a reasonably proximate alternative provider so the financial collapse of this provider would not cause a patient access issue? If so, the facility is not an ECHN.

Third, utilization criteria need to be monitored. We do not want to sustain a provider that is losing utilization because of general quality, price, or service issues. The utilization issue is a positive factor only if the declines can be attributed to

engaging in reforms, and the rest of the service facility is still needed in the community.

It should be noted that a provider's essentiality level may change if one or more providers in the market cease to operate. Also, if a provider joins with a larger system, its financial viability could change. The purpose of ECHN is not to substitute for the support provided to one component of a system to a subordinate unit of the system. So, the overall financial viability of a system may mitigate against ECHN status.

How do you measure financial viability?

There are numerous ways that bond agencies, regulators, academics and others measure a provider's financial viability. Basically, DOH would select a subset of financial indicators that deal with a providers' operating and bottom line margins, their liquidity, and their capital structure. The metrics are put in place and providers matched against them. These should include:

- Operating margin. Operating margin is key because it reflects the performance of the core business.
- Days of cash on hand. This figure is a vital measure since we see too many surprise crises when providers are unable to meet payroll and other essential expenses and turn to NYS for help. This requires a component of our recommendations to establish an early warning system that facilitates DOH oversight during transformation.
- Long term debt to capitalization. This measure reflects leverage capability and stress and exposure of bond holders and creditors.

Overall Assessment:

Some combination of essentiality and financial viability scoring needs to be developed for comparison purposes. However, for ECHN purposes we are not building a distressed provider support system. ECHN financial support would flow only to those providers who are engaged in a collaborative reform imperative mandated by state or federal government reforms. There are too many financial distressed providers in NYS for this program to support them.

Therefore, in applying for an ECHN designation, a provider would need to demonstrate how the collaborative initiatives have had a deleterious impact on their financial viability. For example, imagine several nursing homes engaged in a VAP- funded transformation for a predetermined period. after increasing community-based service delivery and decreasing inpatient nursing home care, it is

clear that the reforms have debilitated the financial structure of the home. If the home served a financially distressed population, and there are no alternative providers who can provide the inpatient skilled nursing facility care needed, then that provider or group may seek to transition to ECHN status.

Is this just throwing more money at a struggling facility?

This is not another traditional program to fund financial failure of providers, especially high cost acute and SNF providers. On the other hand, some providers who engage in reform, and who do not have a significant commercially insured population to rely upon may become seriously financially impaired. In a portion of those cases, especially in rural communities, no alternative service provider may be able to offer a viable alternative service delivery system. It is then the responsibility of NYS to assure the sustainability of these providers. This may come from a variety of funding and payment reforms, including an annual or global budget, or an increase in the Medicaid rate like Medicare does for CAHs. The ECHN may be part of a demonstration project or pilot with other payers participating in assuring sustainability with shared savings on top of the basic payment.

What is the early warning system?

Providers who fall into financial distress because they lose patient volume to alternative providers are not the focus of ECHN. However, it is clear many will blame reform for undercutting their viability. We would recommend that providers who do not meet a predetermined minimum level of liquidity be put on a watch list. Providers will be informed that this will necessitate a meeting involving DOH overseers and the Board as well as management. The meeting is to discuss the deteriorating situation, hear the strategy the management/board intends to undertake and give DOH a chance to respond and lay out the pathway options.

Such events makes the process public and formal. It requires more frequent submissions of financials for financially distressed, non-essential providers to DOH (monthly if there is no quarterly improvement for example). Additionally, if the provider is failing, is not engaged in efforts to either integrate or consolidate, and if the financial peril continues, providers should know that DOH would consider service closure, and/or temporary operator status.

The more this is understood, the more likely providers will open up about their struggles earlier, and legislators will be informed sooner. The ECHN concept becomes either an opportunity to help make adjustments or a life raft that enables providers to engage, be transparent and collaborate.

Visual materials for the Data chapter for NCHSR Commission

Draft version March 11th, 2014

Chapter 1: General description of the North Country and its residents

Figure 1.1 North Country total population, 2010

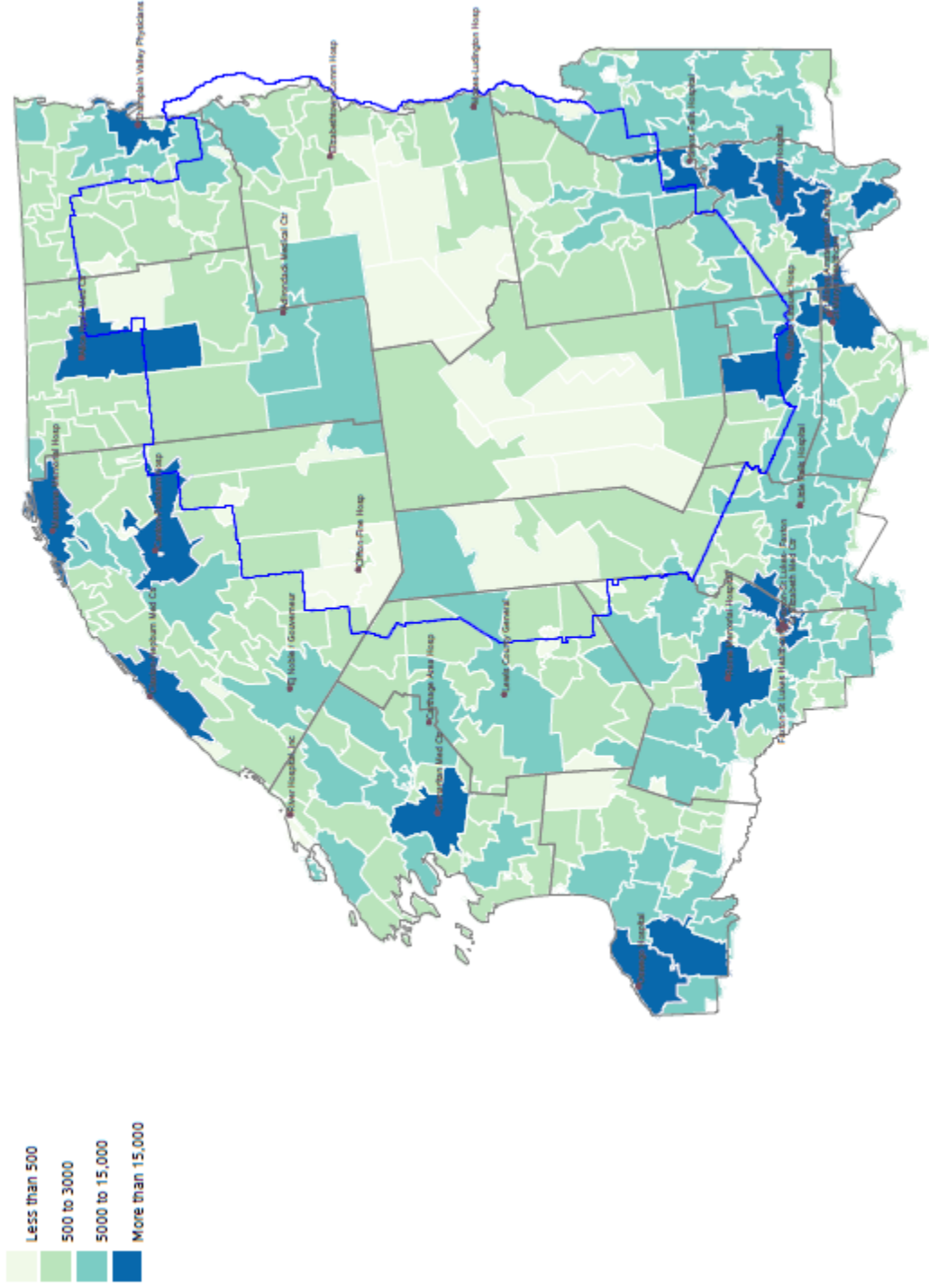


Table 1.1 North Country total population, 2013

DEMOGRAPHIC CHARACTERISTICS			
	Selected Area	USA	
2010 Total Population	562,798	308,745,538	Total Male Population
2013 Total Population	564,320	314,861,807	Total Female Population
2018 Total Population	568,998	325,322,277	Females, Child Bearing Age (15-44)
% Change 2013 - 2018	0.7%	3.3%	
Average Household Income	\$58,856	\$69,637	
			2013 2018 % Change
			288,871 290,651 0.6%
			276,049 278,347 0.8%
			102,975 101,186 -1.7%

POPULATION DISTRIBUTION				
Age Group	Age Distribution		USA 2013	
	2013	2018	% of Total	% of Total
0-14	99,625	100,698	17.6%	19.6%
15-17	21,495	20,398	3.8%	4.1%
18-24	62,858	60,987	11.1%	10.0%
25-34	71,799	74,227	12.7%	13.1%
35-54	149,933	138,100	26.5%	26.9%
55-64	73,908	78,237	13.1%	12.4%
65+	85,302	96,351	15.1%	13.9%
Total	564,920	568,998	100.0%	100.0%

HOUSEHOLD INCOME DISTRIBUTION				
2013 Household Income	Income Distribution		USA	
	HH Count	% of Total	% of Total	% of Total
<\$15K	30,025	13.7%	13.7%	13.8%
\$15-25K	27,332	12.5%	12.5%	11.6%
\$25-50K	60,948	27.8%	27.8%	25.3%
\$50-75K	42,580	19.4%	19.4%	18.1%
\$75-100K	27,610	12.6%	12.6%	11.7%
Over \$100K	30,651	14.0%	14.0%	19.5%
Total	219,145	100.0%	100.0%	100.0%

EDUCATION LEVEL				
2013 Adult Education Level	Education Level Distribution		USA	
	Pop Age 25+	% of Total	% of Total	% of Total
Less than High School	16,233	4.3%	6.2%	62.3%
Some High School	34,698	9.1%	8.4%	12.3%
High School Degree	140,346	36.8%	28.4%	17.3%
Some College/Assoc. Degree	109,095	28.6%	28.9%	5.1%
Bachelor's Degree or Greater	80,370	21.1%	28.1%	2.9%
Total	380,342	100.0%	100.0%	100.0%

RACE/ETHNICITY				
Race/Ethnicity	Race/Ethnicity Distribution		USA	
	2013 Pop	% of Total	% of Total	% of Total
White Non-Hispanic	511,459	90.5%	90.5%	62.3%
Black Non-Hispanic	16,660	2.9%	2.9%	12.3%
Hispanic	16,400	2.9%	2.9%	17.3%
Asian & Pacific Is. Non-Hispanic	5,466	1.0%	1.0%	5.1%
All Others	14,935	2.6%	2.6%	2.9%
Total	564,920	100.0%	100.0%	100.0%

Figure 1.2 North Country percent of population age 65 and older, 2010

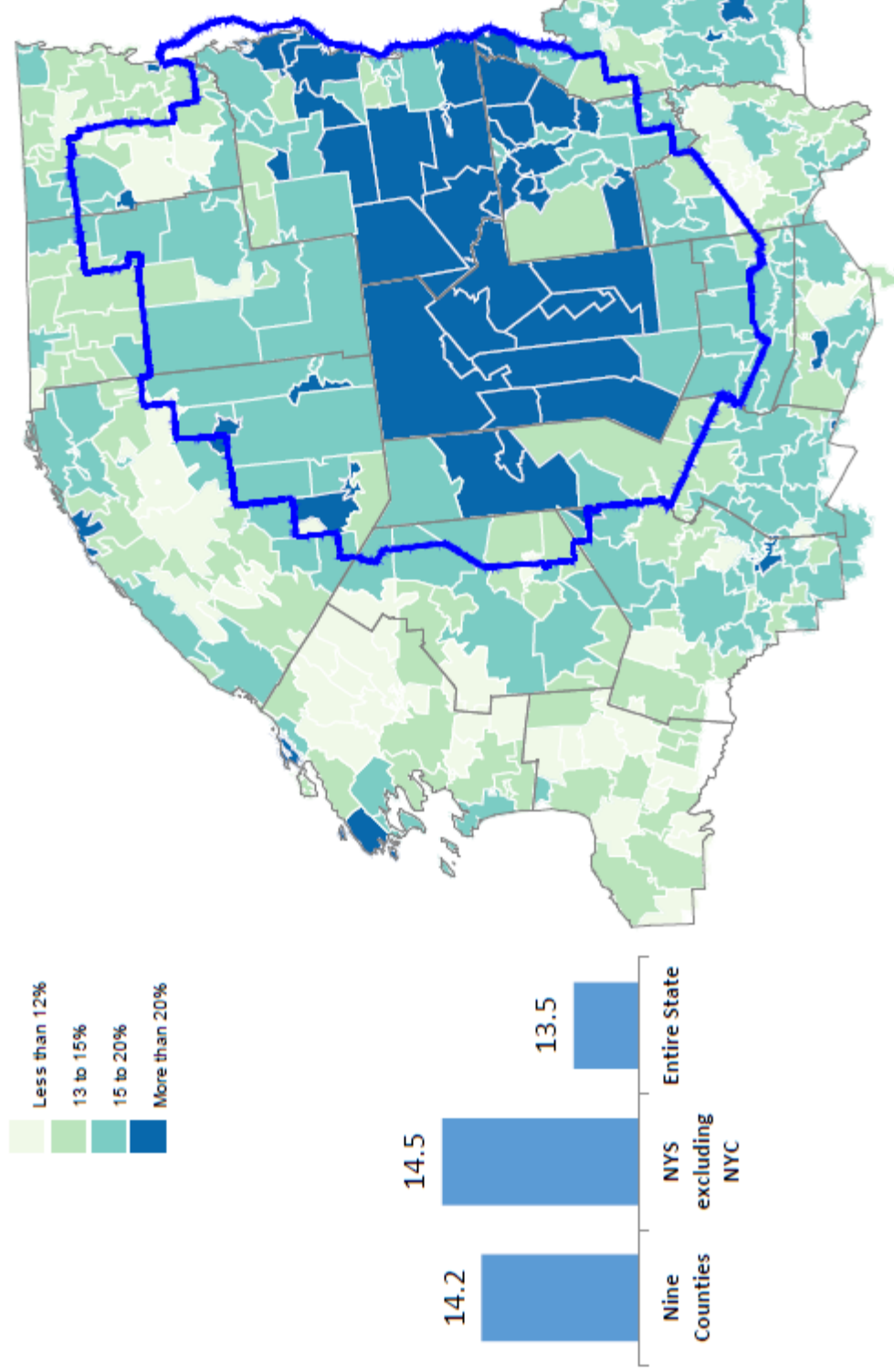


Figure 1.3 North Country population changes, 2013 - 2018

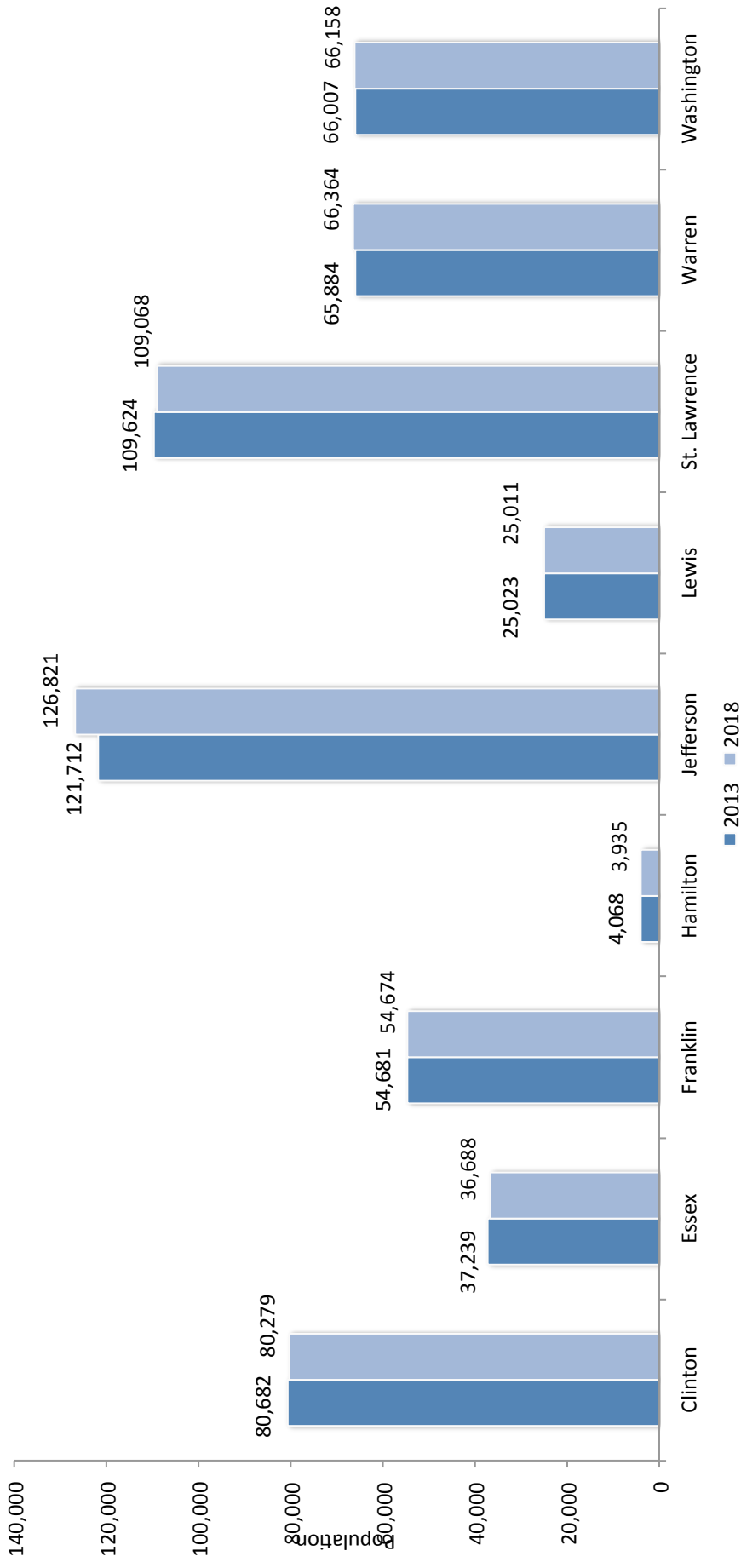
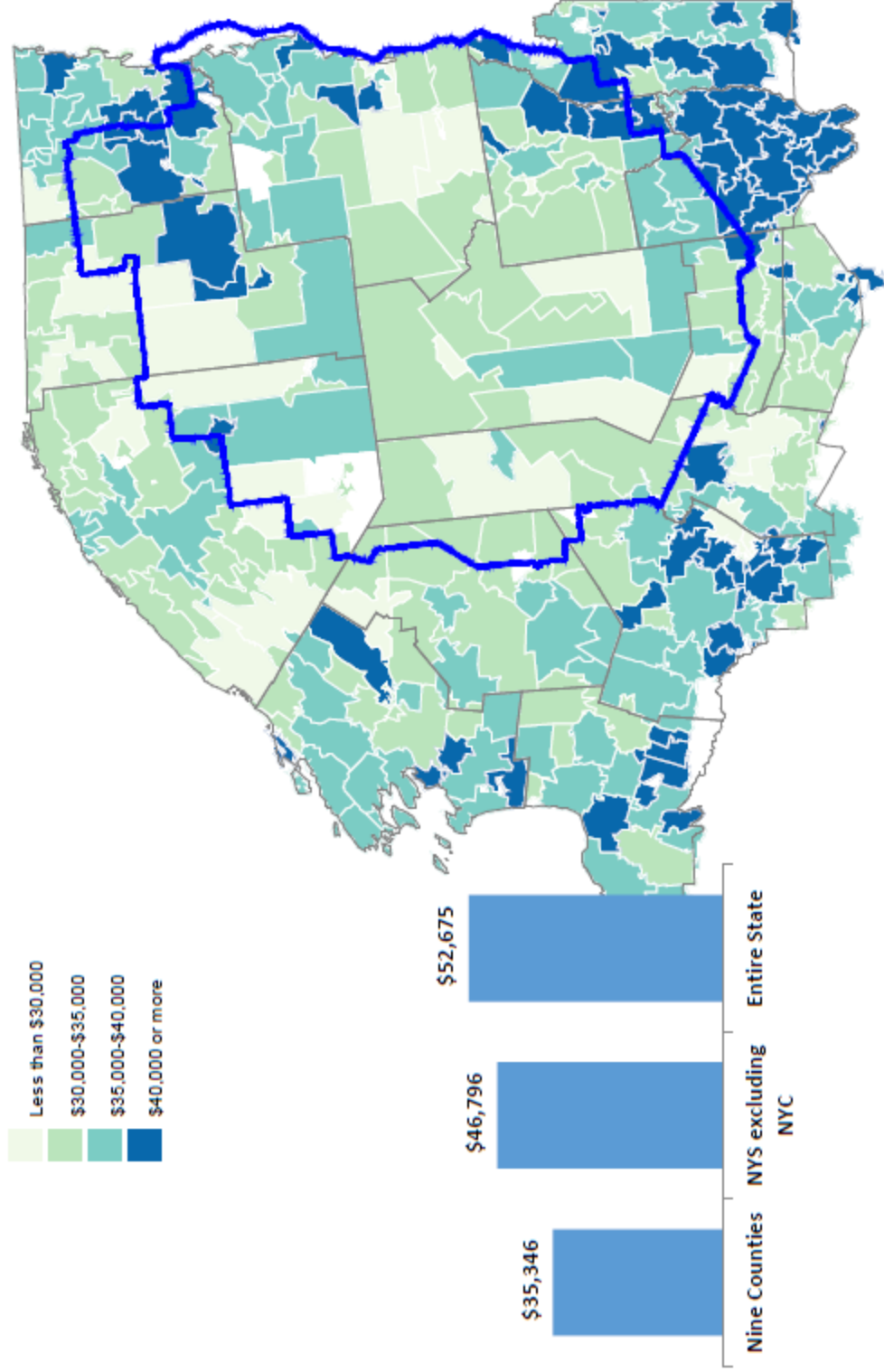


Figure 1.4 North Country median family income, 2010



Source: US Decennial census data as of April 1, 2010 by ZIP Code Tabulation Area.

Table 1.2 North Country county health rankings, 2013

County	Health Outcomes	Health Factors	Mortality	Morbidity	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environment
Hamilton	58	14	61	33	17	41	11	44
St. Lawrence	57	58	53	57	59	53	58	32
Washington	42	40	33	45	56	26	28	28
Franklin	36	51	42	23	36	51	55	45
Jefferson	30	54	39	18	61	27	50	54
Clinton	26	44	32	27	32	32	47	56
Lewis	17	45	22	8	41	30	40	51
Essex	16	19	14	16	16	37	32	2
Warren	12	17	16	7	44	2	23	3

Figure 1.5 North Country percentage of children and adolescents who are obese, 2010 - 2012

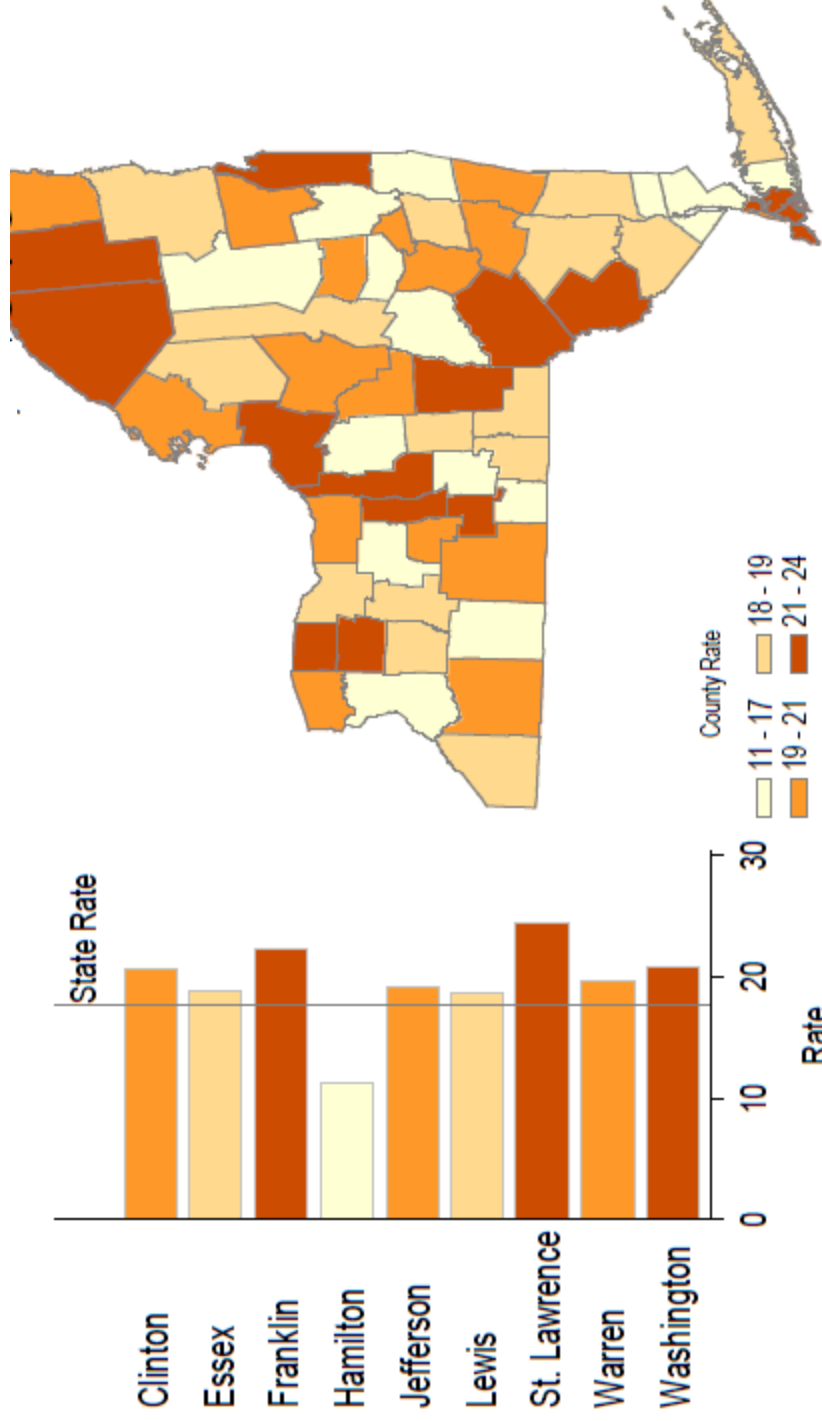


Figure 1.6 Age-adjusted percentage of adults who smoke cigarettes, 2008 - 2009

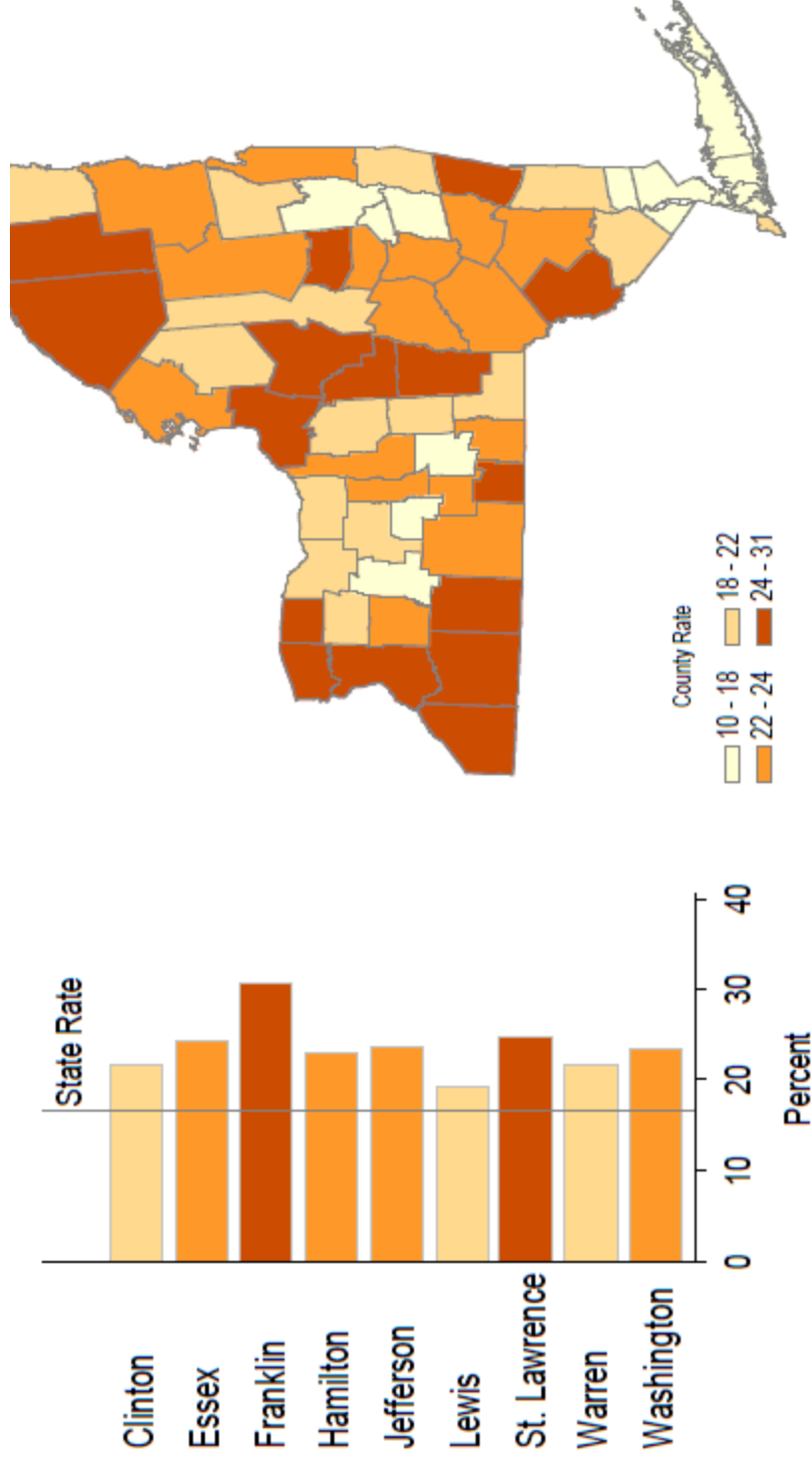


Figure 1.7 Age-adjusted percentage of adults who binge drink, 2008 - 2009

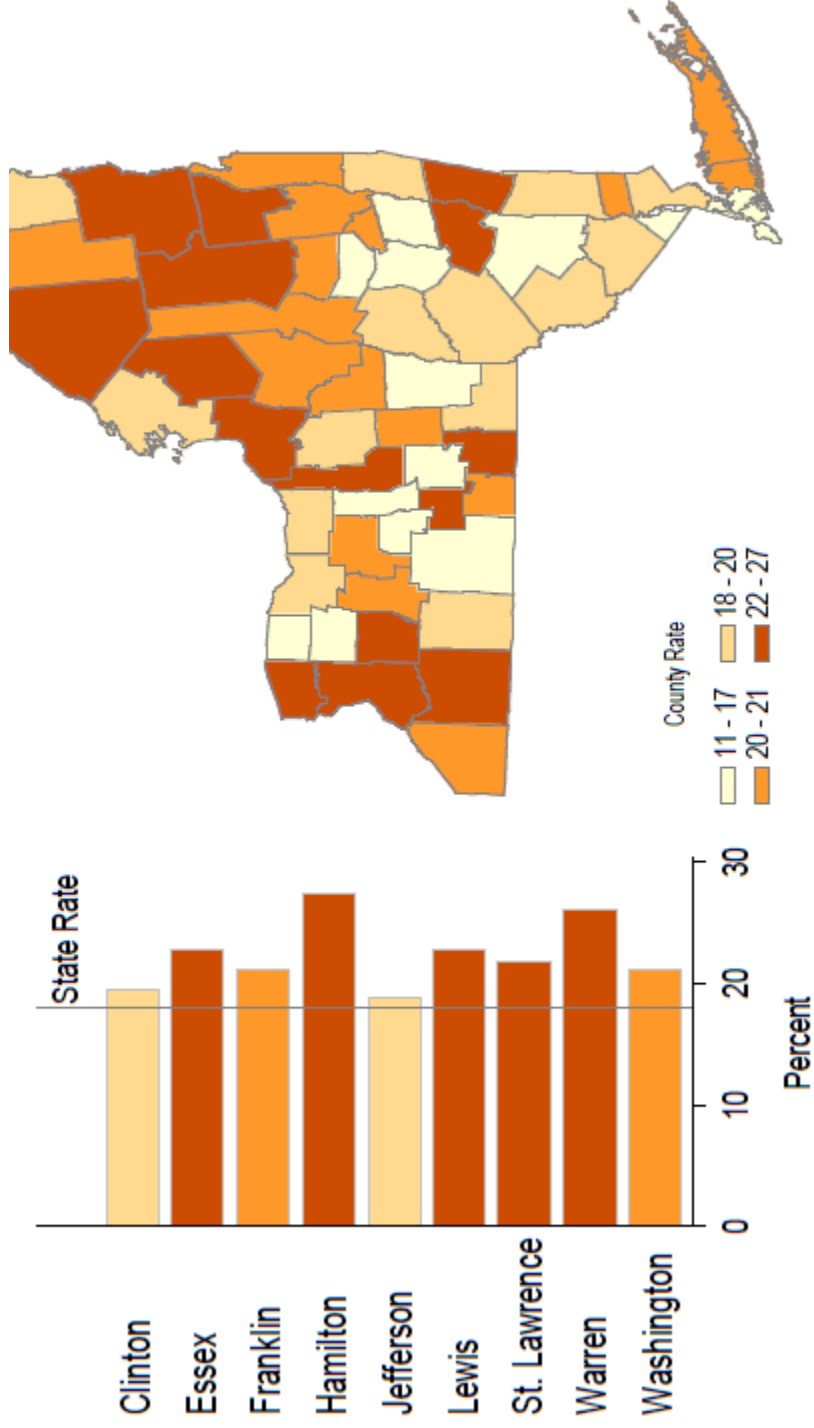
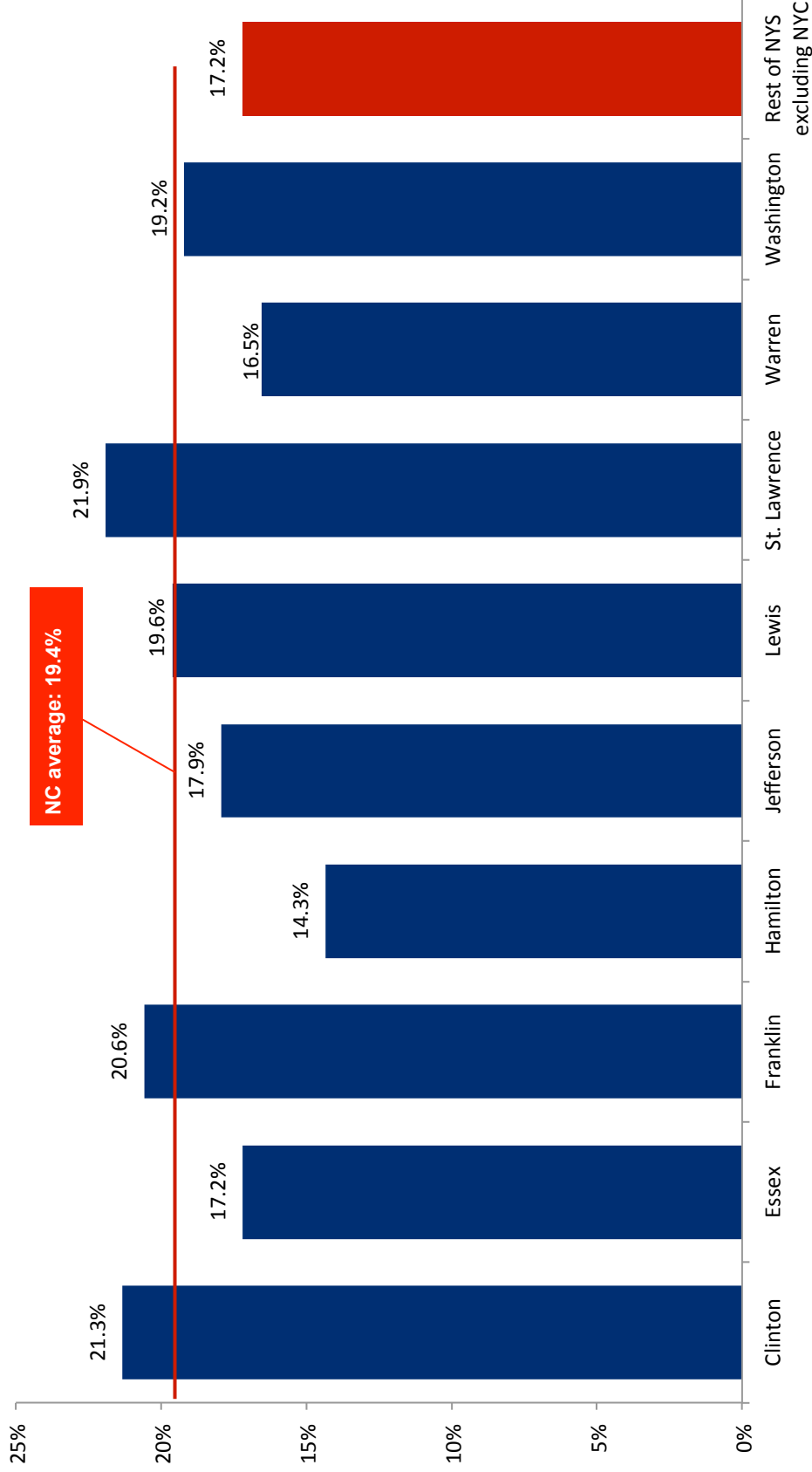
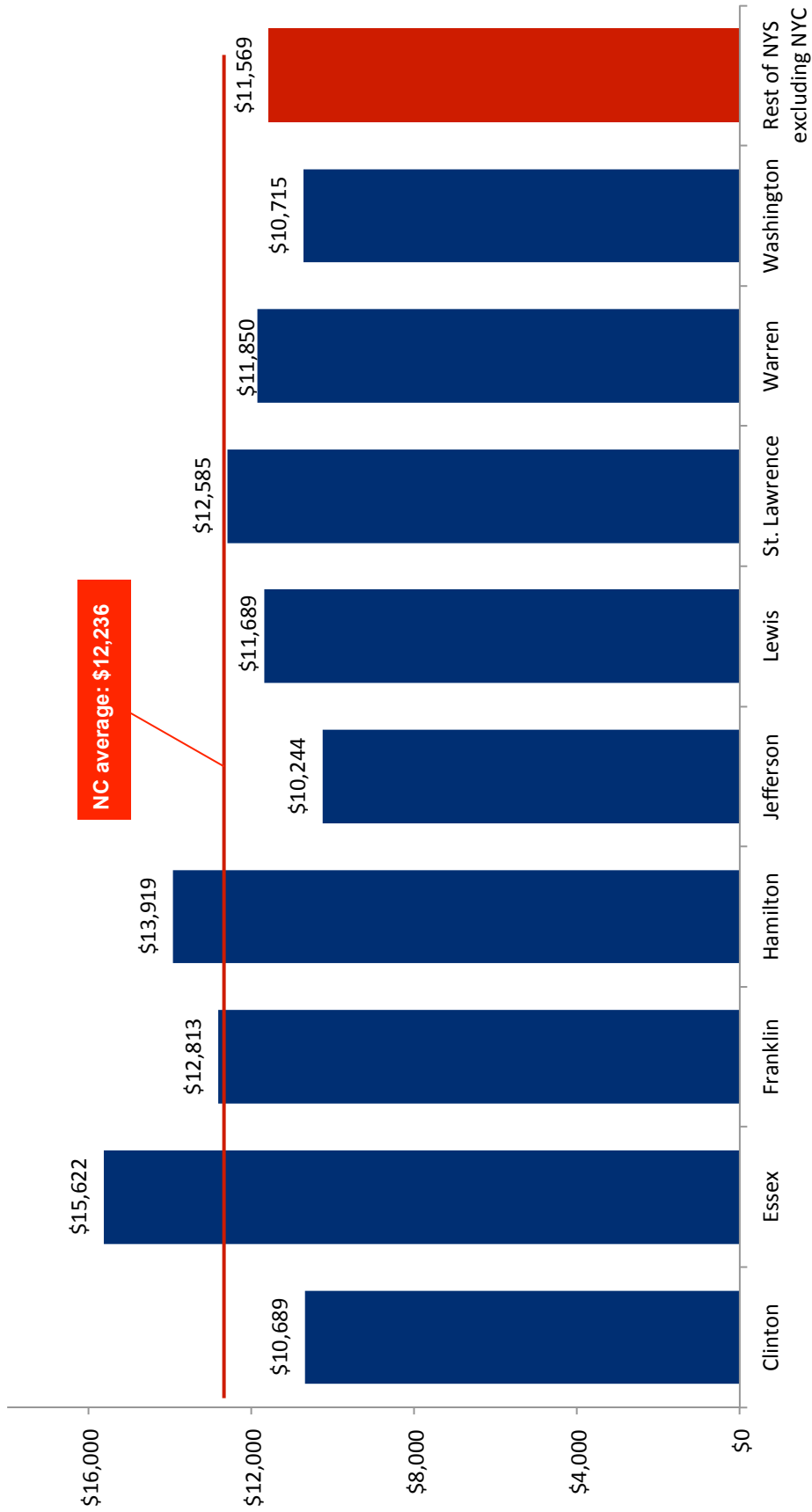


Figure 1.8 Medicaid enrollment for the North Country and New York State, 2012



Source: KPMG calculations using NYDOH, Medicaid Quarterly Reports of Beneficiaries and Expenditures and US Census population estimates for 2012

Figure 1.9 Annual Medicaid expenditure per enrollee for the North Country and New York State, 2010 - 2012

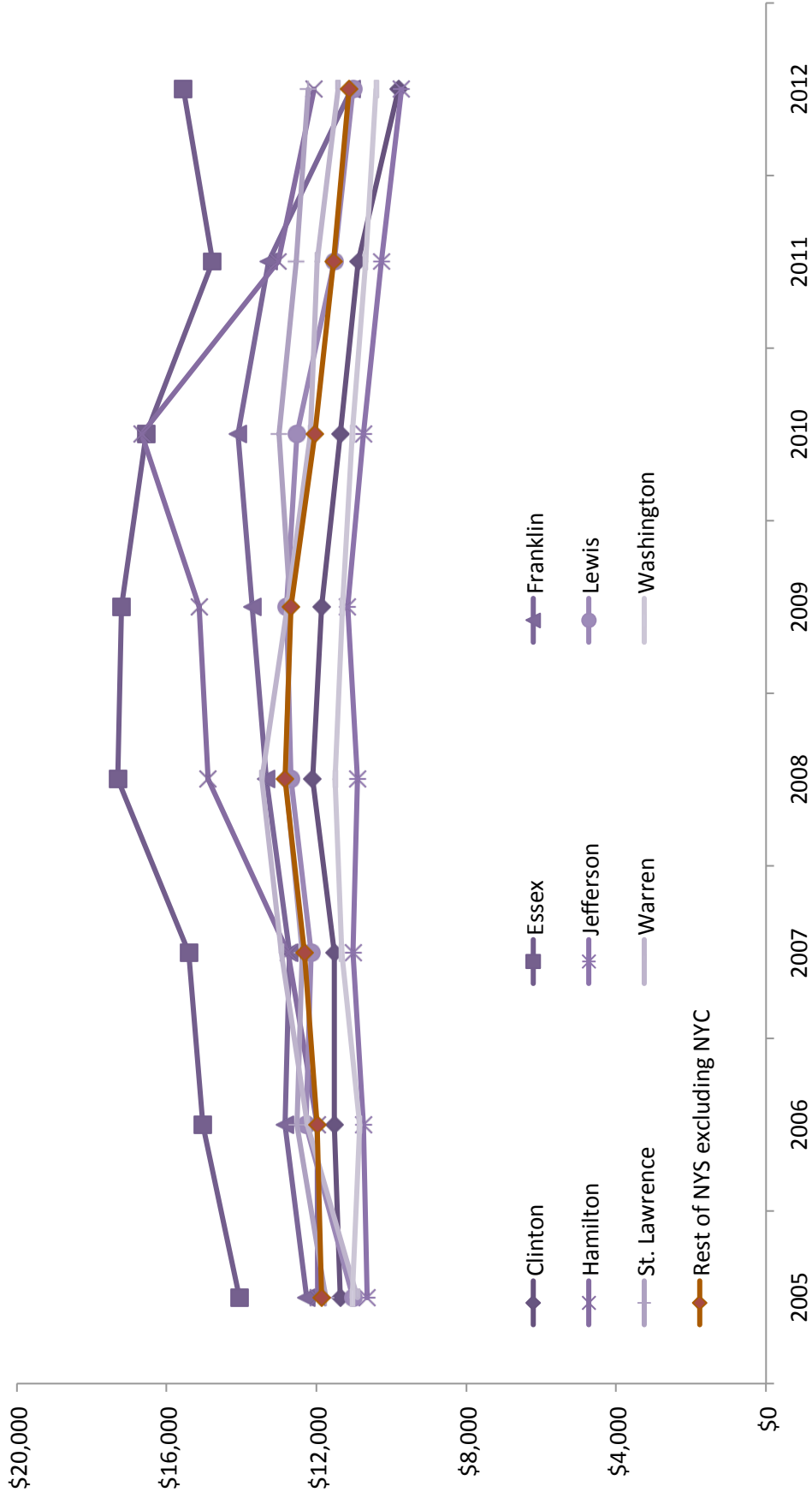


Source: NYDOH, Medicaid Quarterly Reports of Beneficiaries and Expenditures, 2010-2012

Crude expenditures per enrollee.

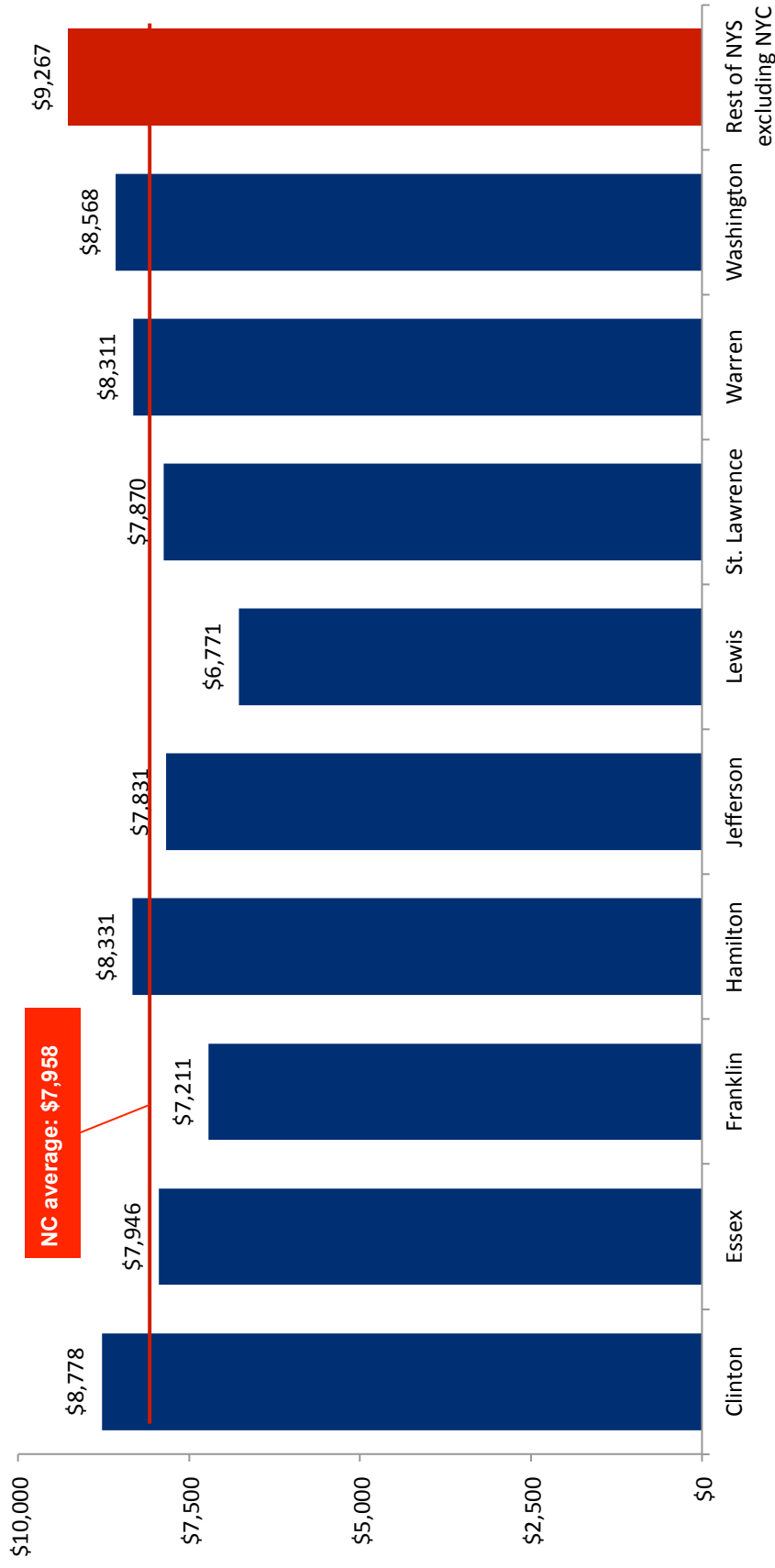
NC average is a simple average of the nine counties.

Figure 1.10 Total Medicaid expenditures per enrollee, 2005 - 2012



Source: NYDOH, Medicaid Quarterly Reports of Beneficiaries and Expenditures. Crude expenditures per enrollee, 2005 - 2012

Figure 1.11 Annual Medicare expenditure per enrollee for the North Country and New York State, 2008 - 2010



Source: [Dartmouth Atlas](#), 2008 - 2010.

Adjusted for price differences (cost of living, payments for resident training and the disproportionate share hospital program), age, sex, and race. Based on Medicare Fee-for-Service (FFS) 20% sample for 2003-09, and 100% sample for 2010.

Chapter 2: Overview of supply and access of care

Table 2.1 North Country facilities – Overview of licensed entities

Provider Type		Number of Providers
Acute Care	General Acute Care Hospitals	11
	Critical Access Hospitals	5
Office of Mental Health Facility		1
Diagnostic and Treatment Centers	Hospital Extension Clinics including School Based Extension Clinics	91
	Clinics with FQHC Status	23
	Clinics without FQHC status (Diagnostic and Treatment Clinics including Extension Clinics and School Based Extension Clinics)	36
Long Term Care	Residential Health Care	29
	Certified Home Health Agencies	12
	Long Term Home Health Care Programs	7
Hospices		5
Veterans Affairs	Community Based Outpatient Clinics	7
	Veterans Center	1
Total Licensed Entities in North Country		228

Figure 2.1 North Country Facilities – Hospitals, CAHs and OMH

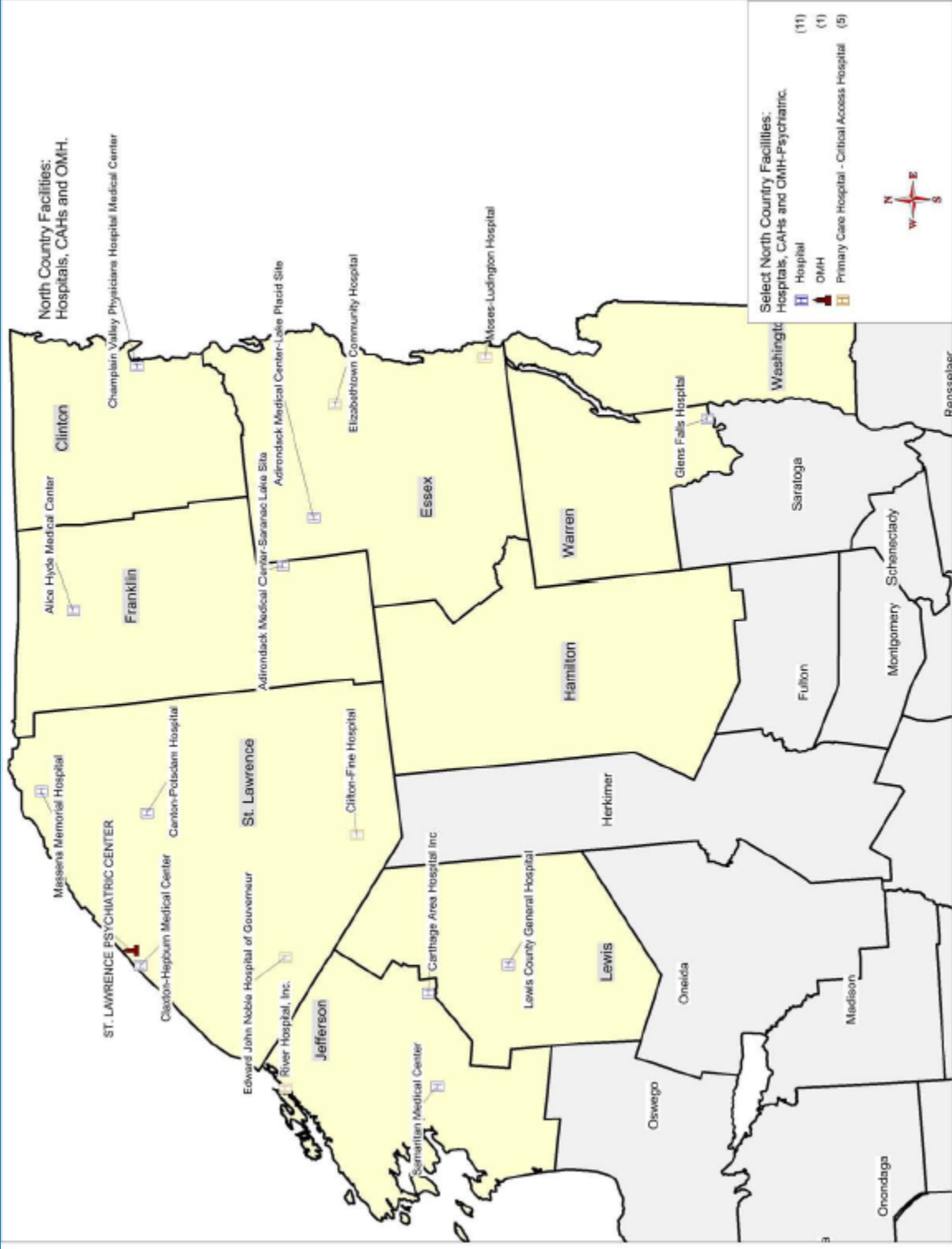


Figure 2.2 North Country facilities – Residential healthcare facilities and long term health care programs

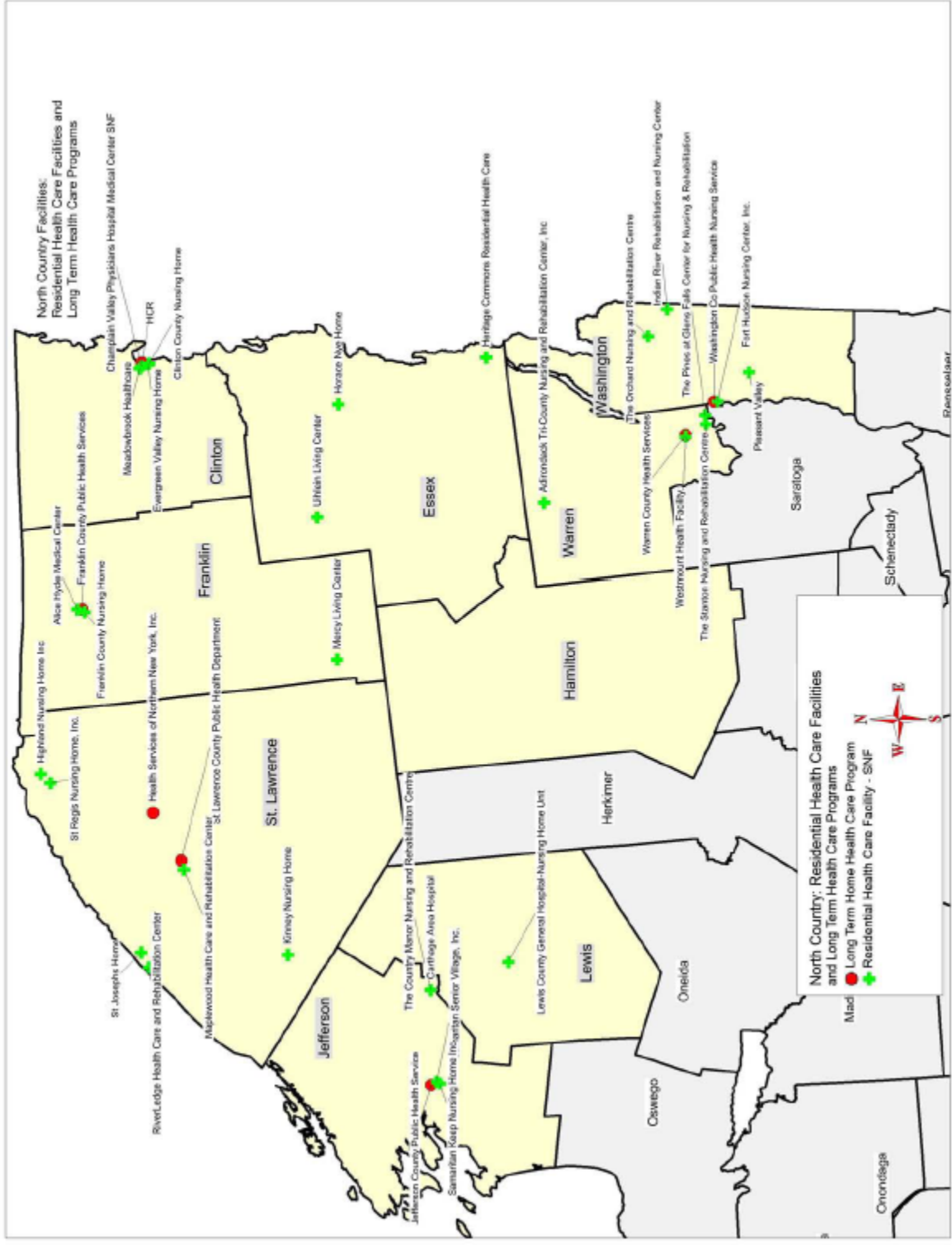


Figure 2.3 North Country mean distance to hospital based services

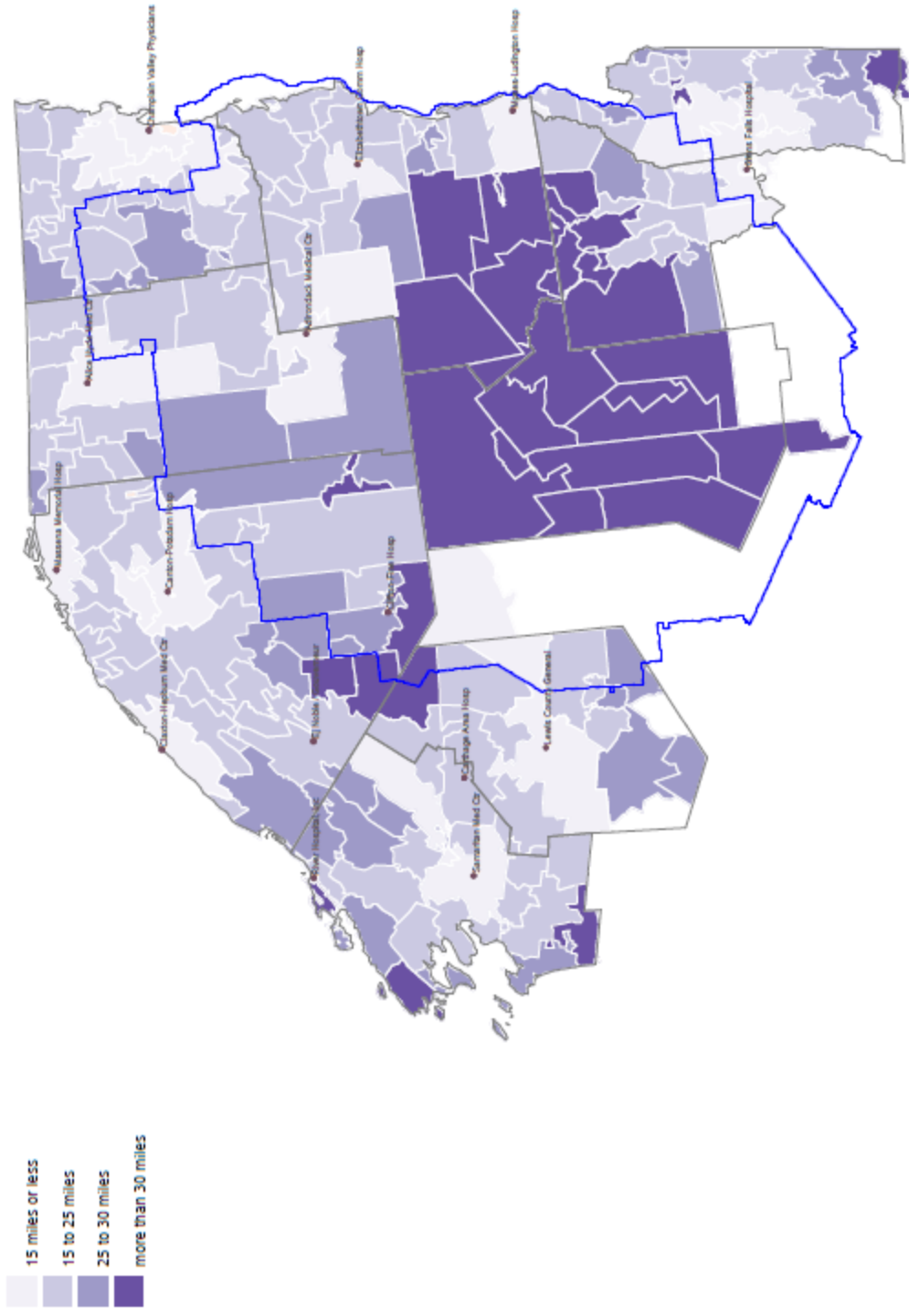
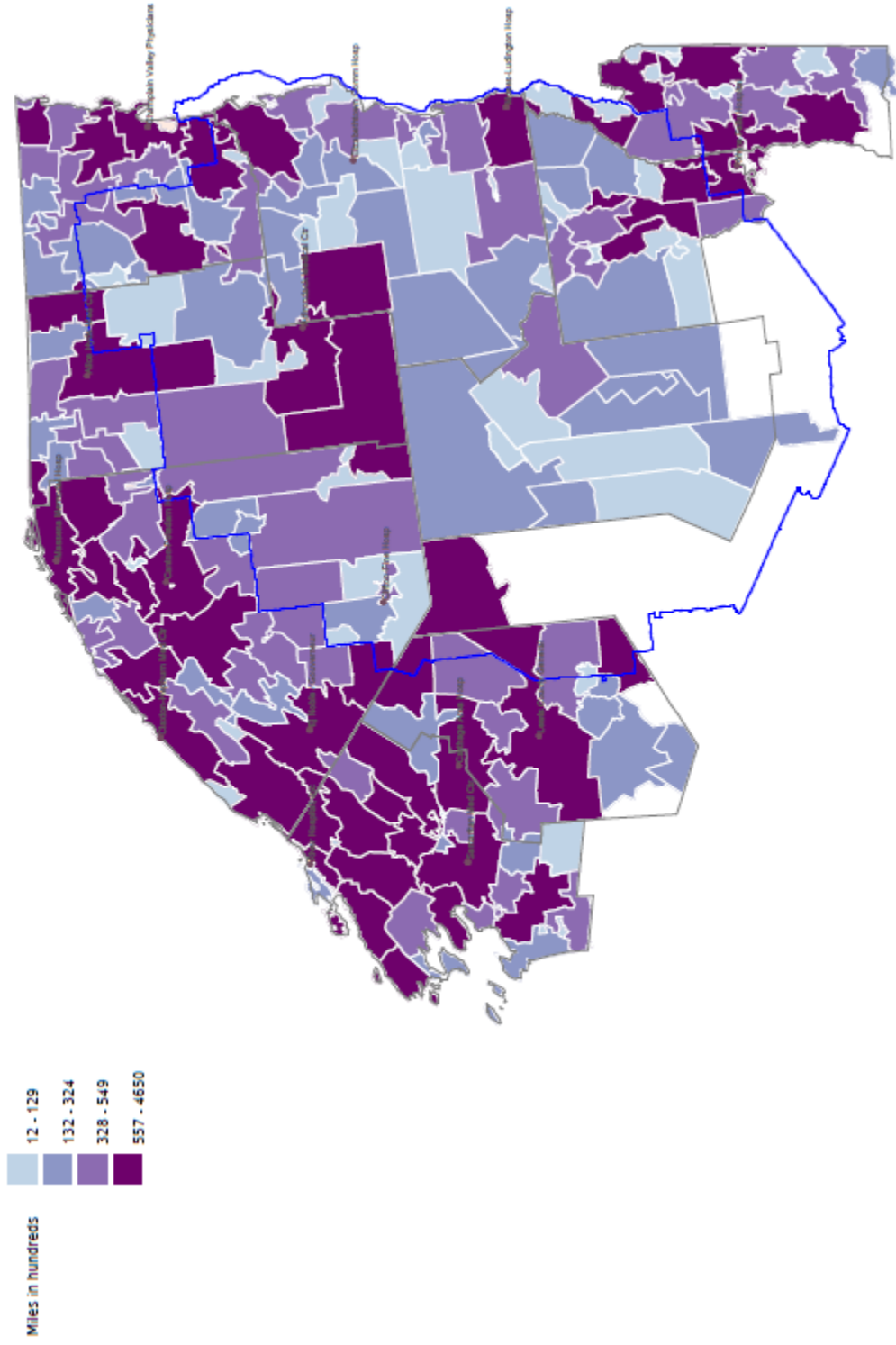
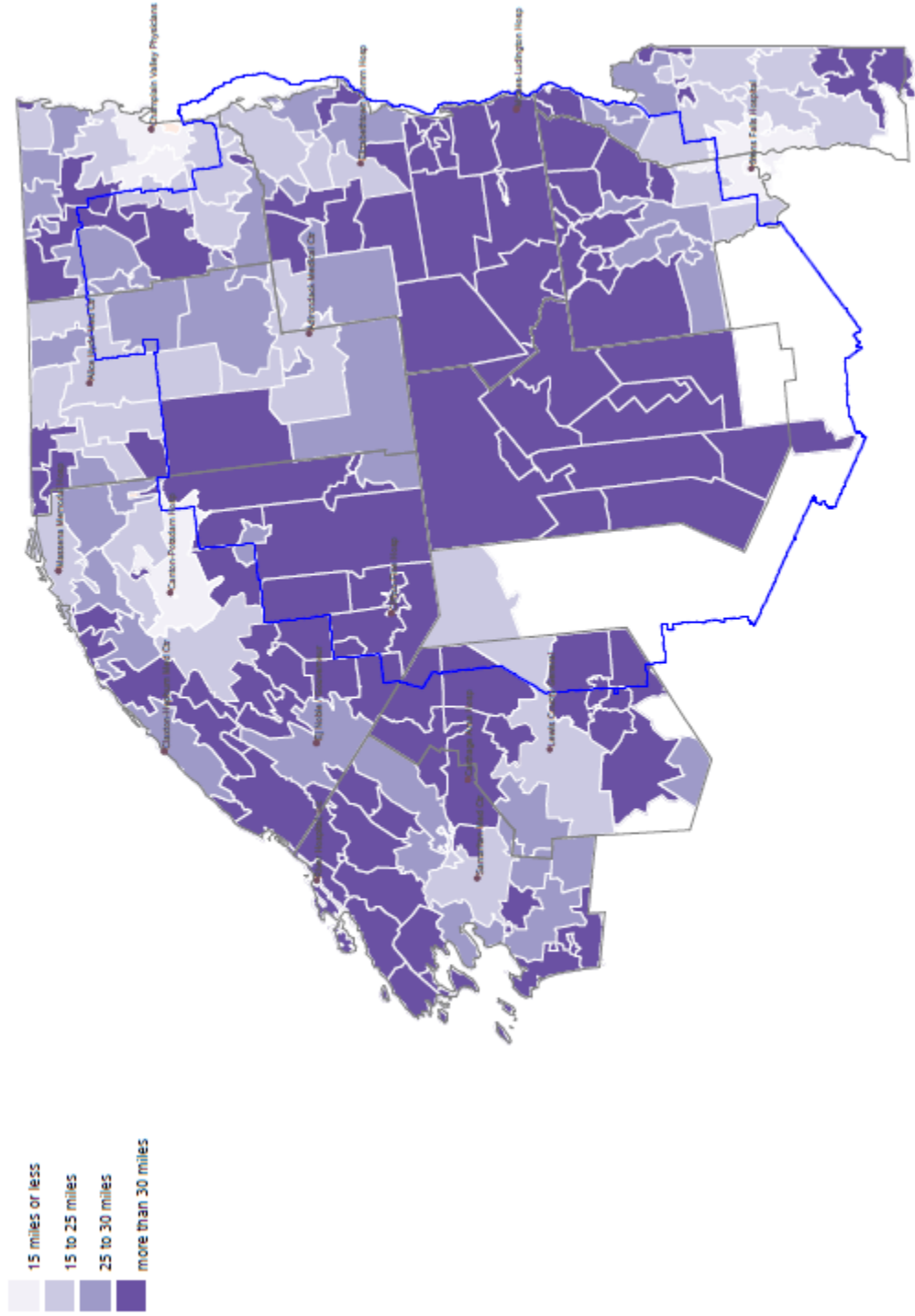


Figure 2.4 North Country person miles travelled to any services includes hospital discharges and OASAS programs, 2012



Source: SPARCS 2012, Straight line distance traveled between facility and patient Zip Code

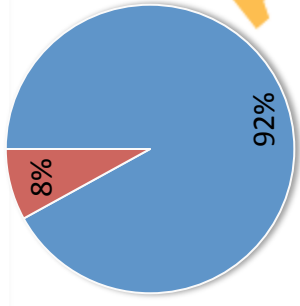
Figure 2.5 North Country mean distance to inpatient hospital stay



Source: Straight line distance in miles between facility and patient ZIP Code, SPARCS 2012 by ZIP Code

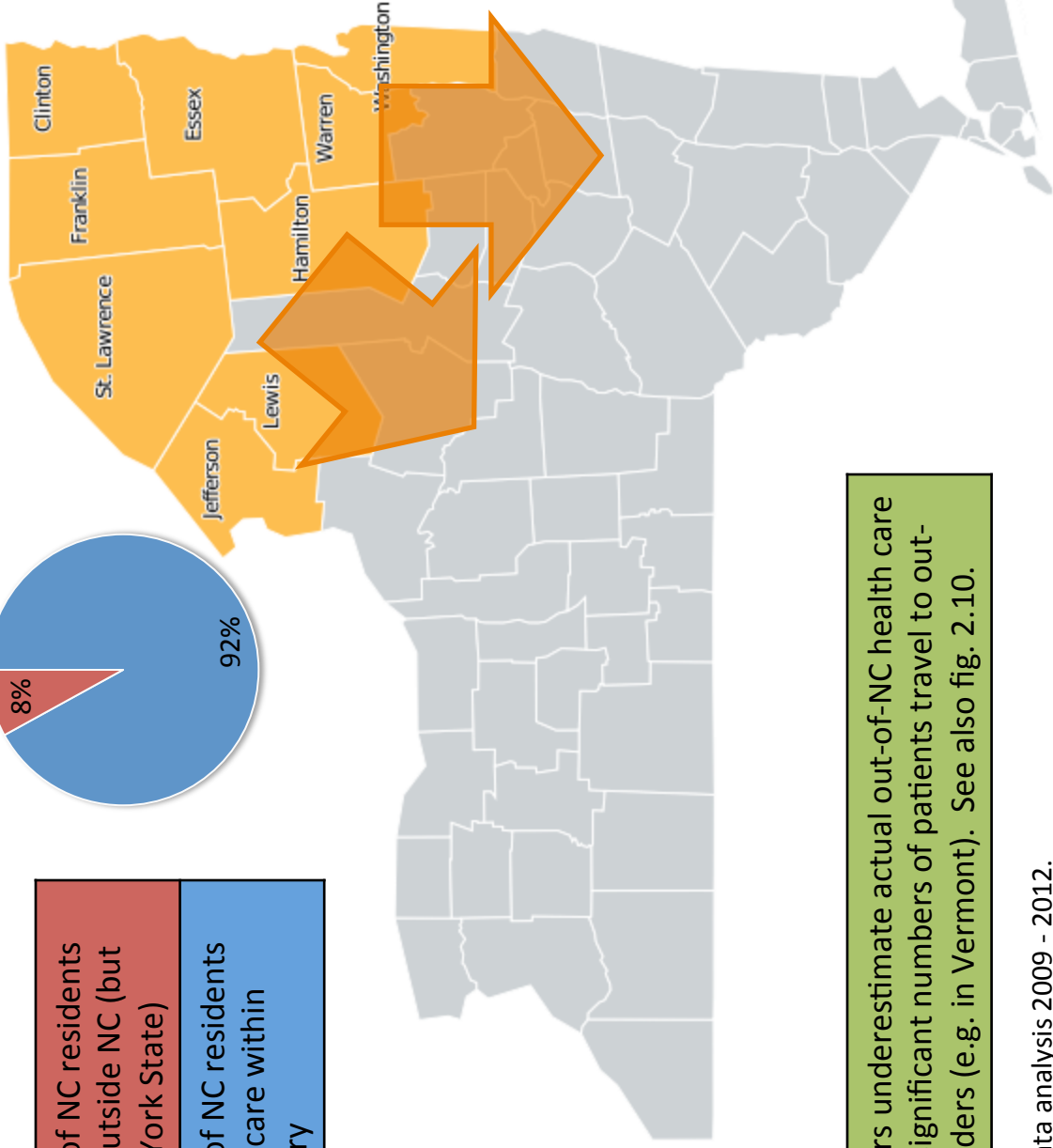
Figure 2.6 North Country resident travel patterns – all inpatient and outpatient care, 2009 - 2012

Outpatient

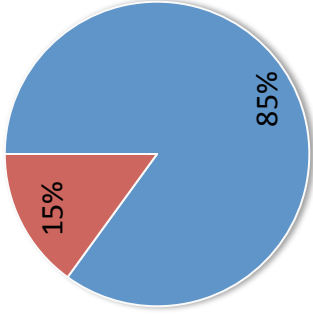


Percentage of NC residents who travel outside NC (but within New York State)

Percentage of NC residents who receive care within North Country



Inpatient



These numbers underestimate actual out-of-NC health care use because significant numbers of patients travel to out-of-State providers (e.g. in Vermont). See also fig. 2.10.

Figure 2.7 Local (within county) hospital use for non-tertiary care services

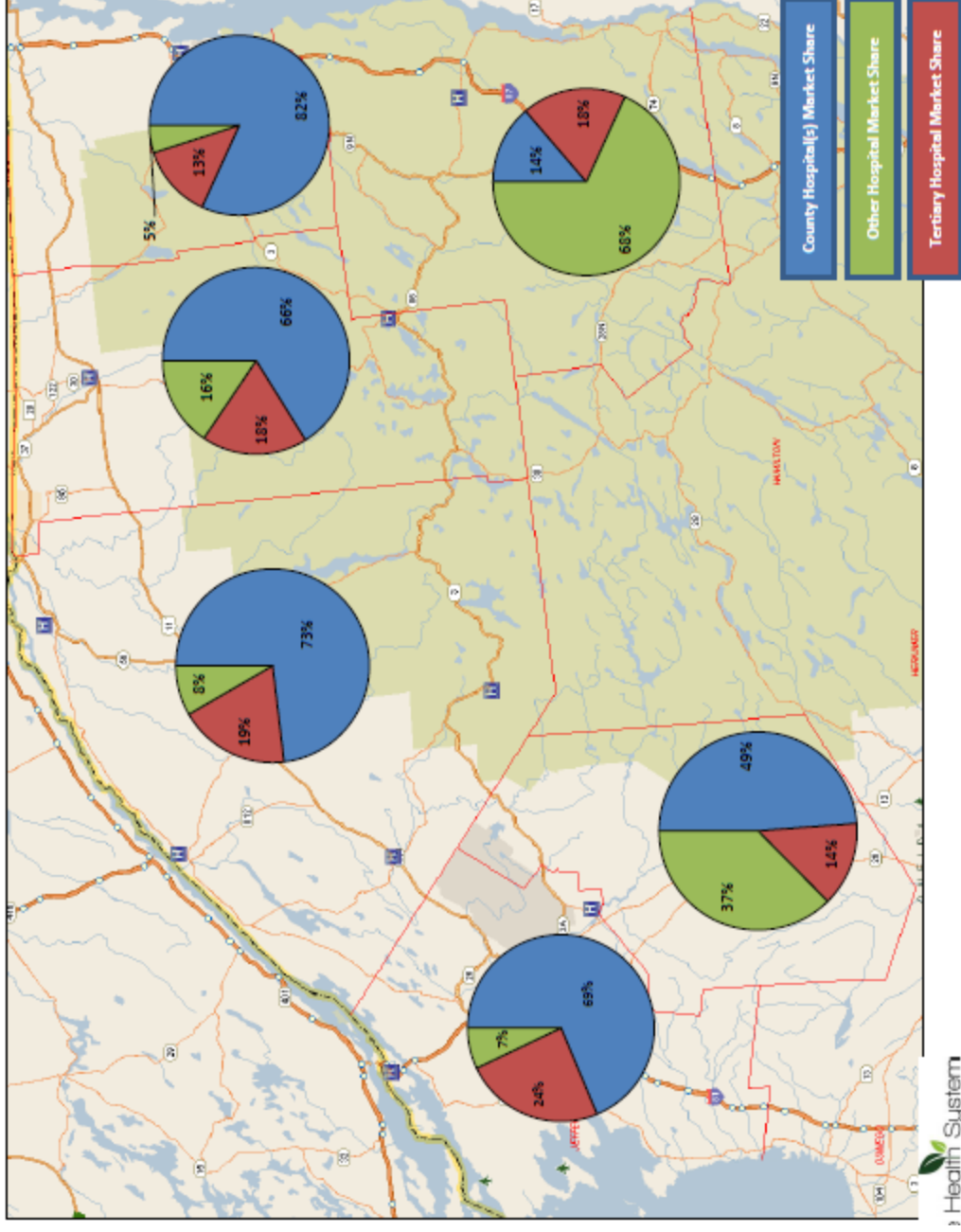


Figure 2.8 CNY regional perinatal program: 22 hospitals

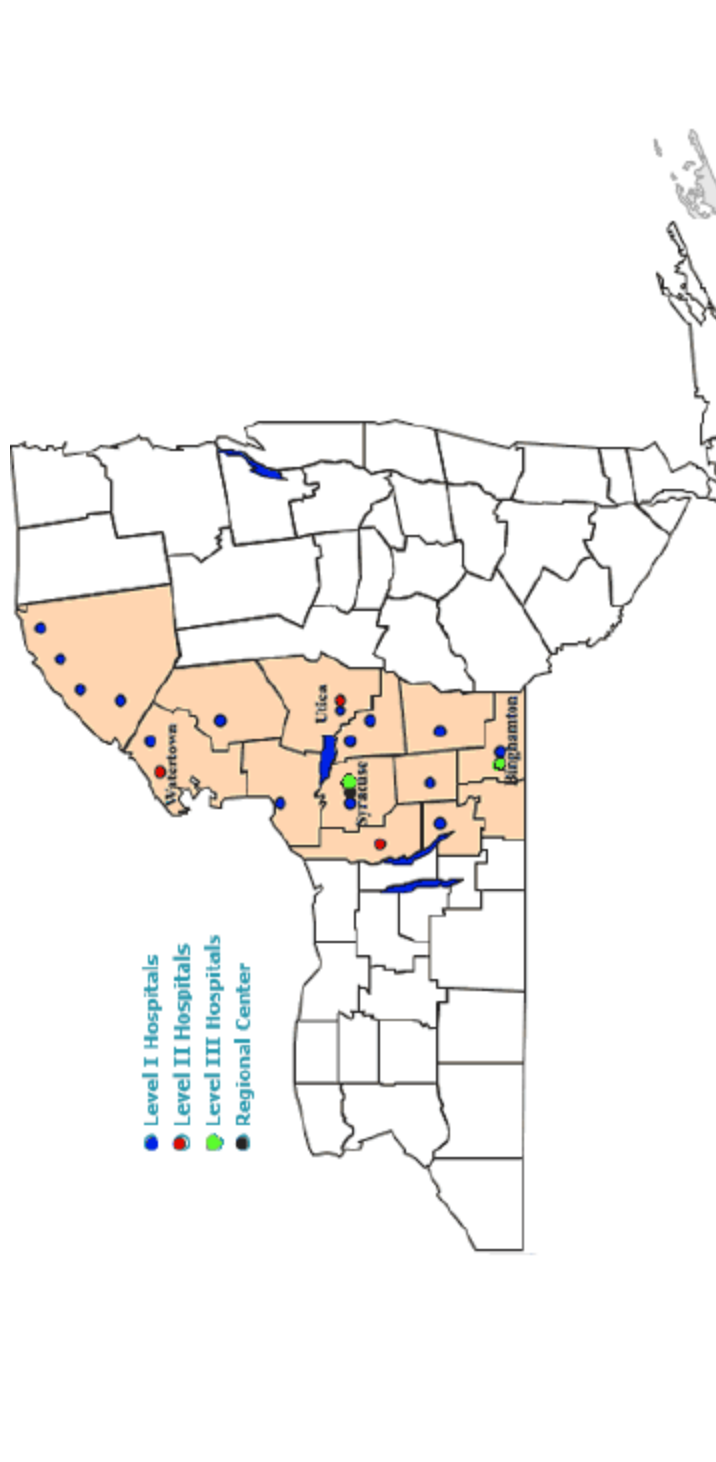


Figure 2.9 Burn Center: 34 counties

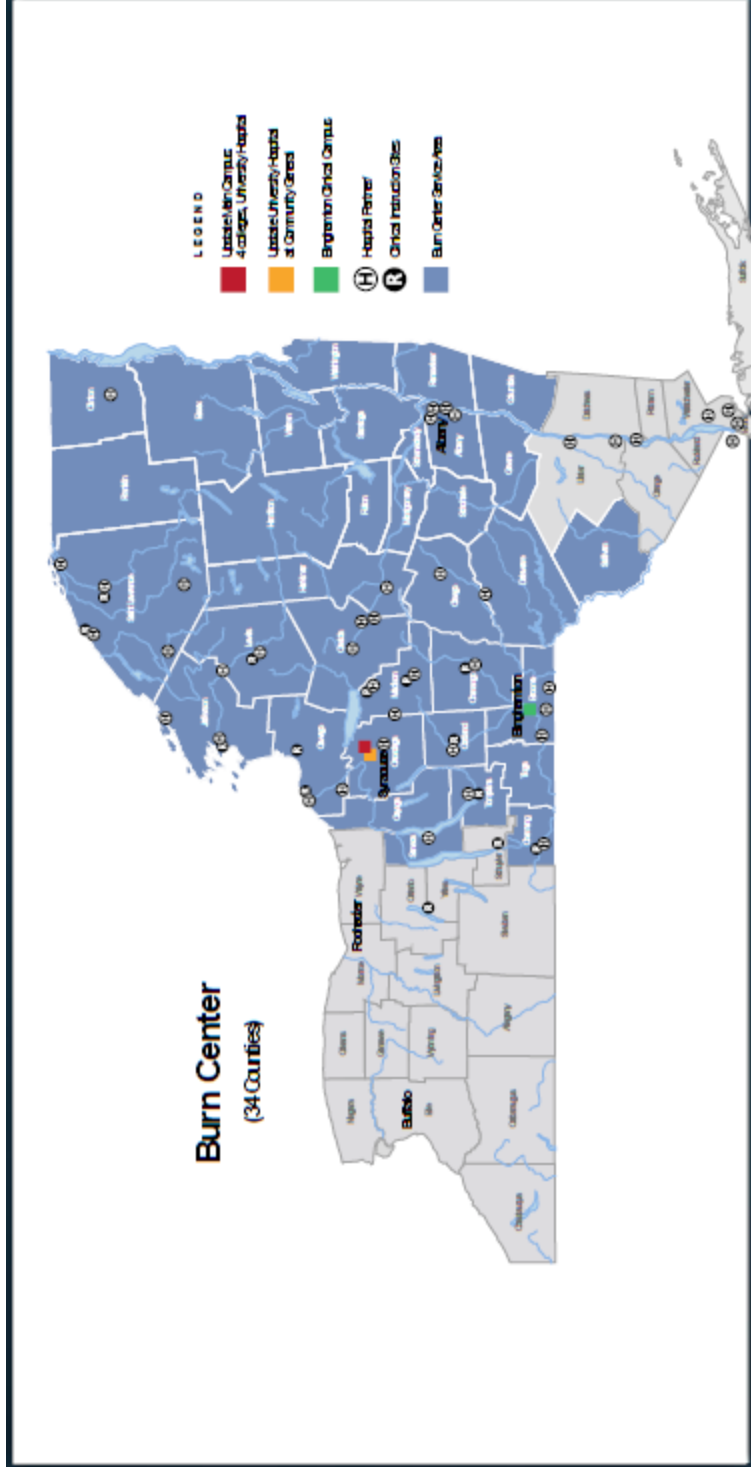


Figure 2.10 Clinton, Essex and Franklin counties Medicaid enrollee travel patterns for acute stroke admissions (2010 – 2012)

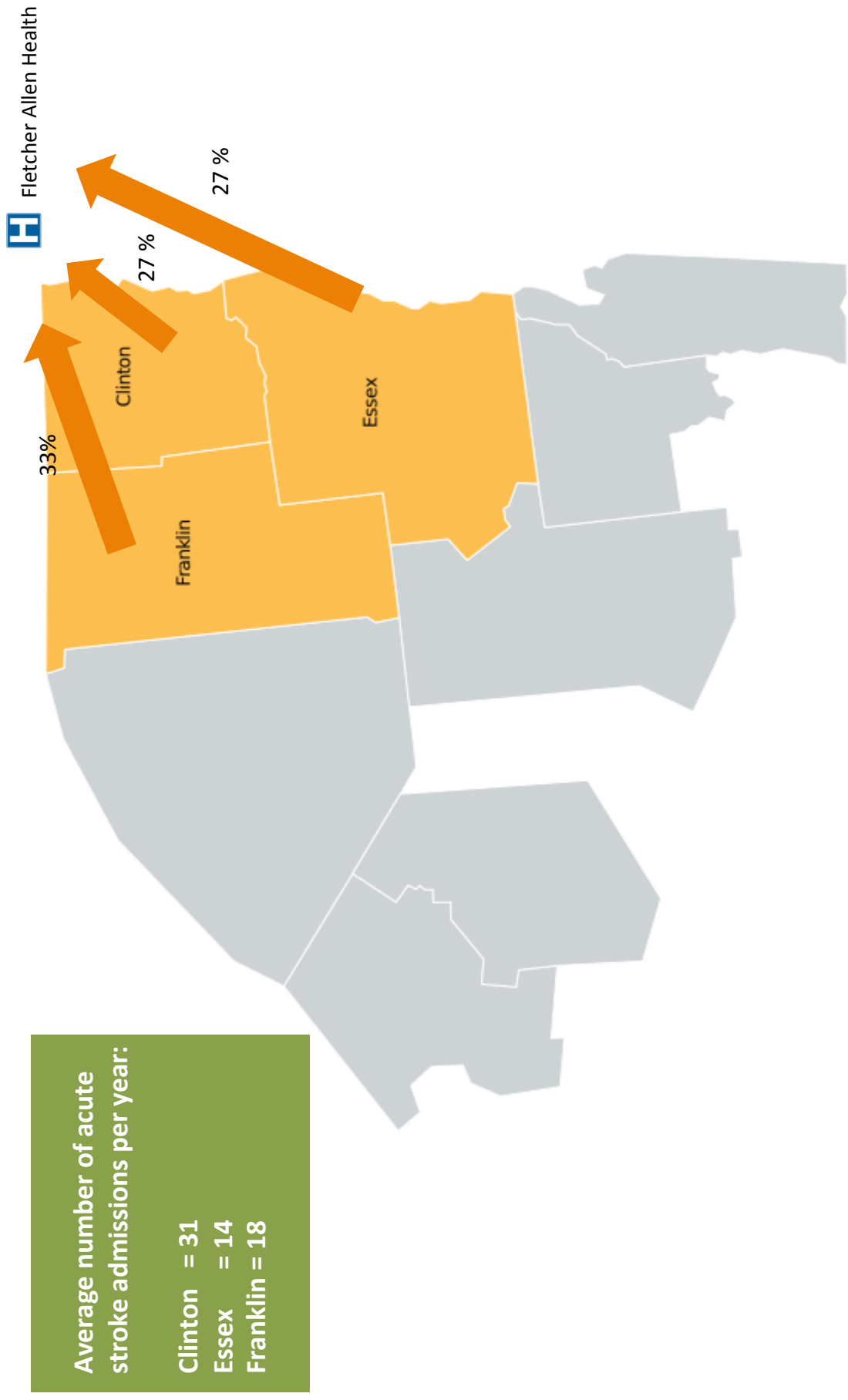
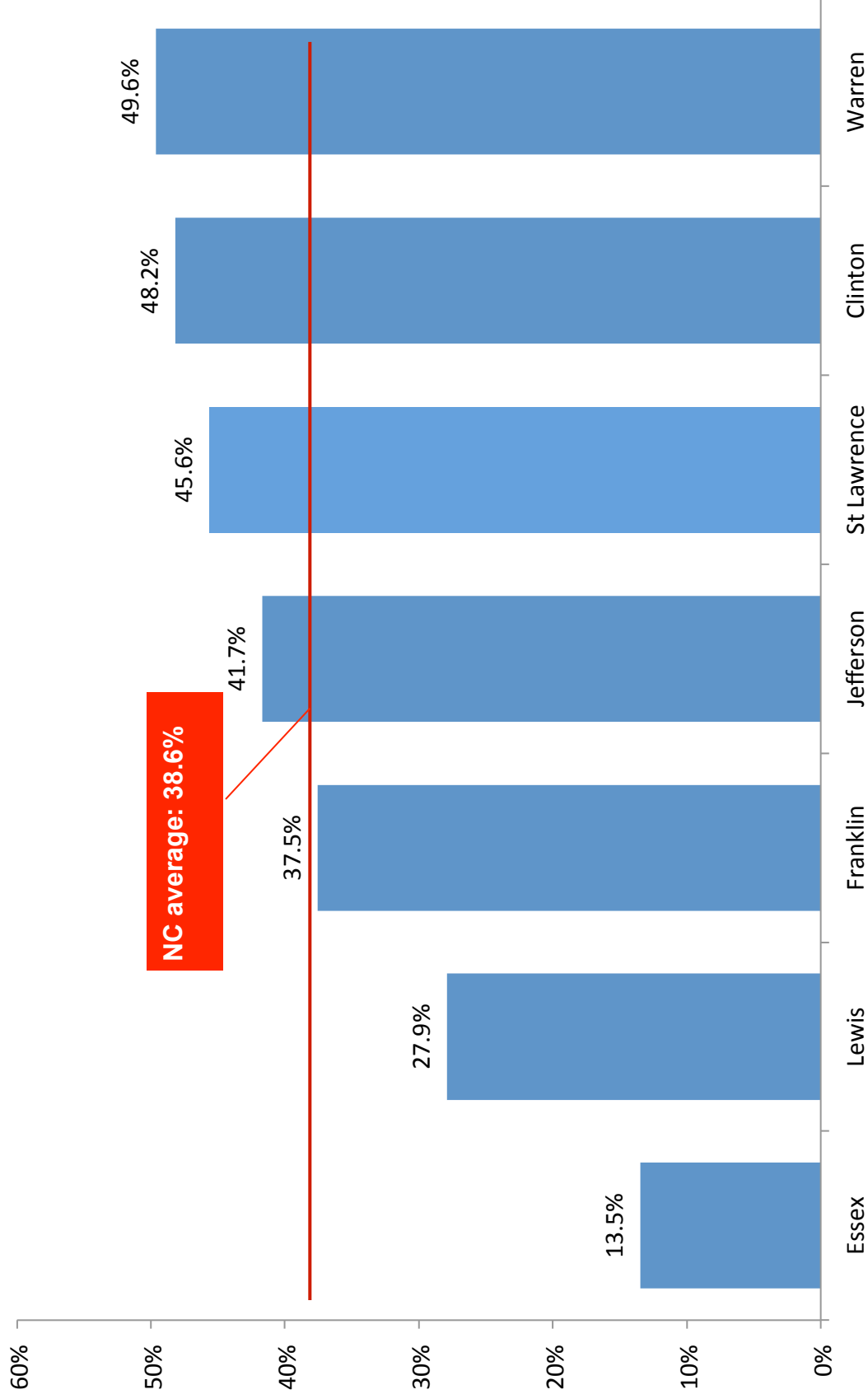


Table 2.2 North Country hospital beds per 1000 residents, 2010

	Total Beds (excluding Psychiatric)	Average beds per 1000 residents
Clinton	294	3.6
Essex	19	0.5
Franklin	159	3.1
Hamilton	0	-
Jefferson	325	2.8
Lewis	54	2.0
St. Lawrence	291	2.6
Warren	378	5.8
Washington	0	-
North Country	1,520	3.4

Source: Calculated using beds from Department of Health Website, New York State and population from NC Demographic Chart book

Figure 2.11 Hospital occupancy rates in the North Country, 2012



Source: KPMG calculations. Total inpatient days for 2012 inpatient stays in SPARCS data divided by number of beds in a given county multiplied by 365.

Table 2.3 Excess hospital capacity in St. Lawrence county, 2013

	Beds	ADC	Current Need	Excess Beds
Total Mental Health beds	52	45	57	(5)
Total Rehab beds	15	3	4	11
Total OB beds	21	8	11	10
Total Med Surg beds	211	101	135 105*	76 106*
Totals	299	157	202 172*	92 122*

- 2008 – 2013 SLC Acute Admissions dropped by 2,267 or 20%.
- 2013 – 2018 Med Surg Utilization is expected to decline by a minimum of 9% by 2018 reducing Med Surg ADC to 92.
- Duplication of Services and Inefficient Use of Resources Add Needless Cost to the System and Threaten the Liability of all SLC Hospitals.
- No SLC Hospital has the physical space to meet even these declining bed needs.

*Based on Average Length of Stay of 4.31. Using CPH ALOS Med Surg excess beds increase from 76 to 106.

**Clifton-Fine Hospital excluded because they have special use beds and minimal inpatient acute utilization.

Figure 2.12 North Country trend in inpatient discharges by service (SPARCS, 2007-2012)

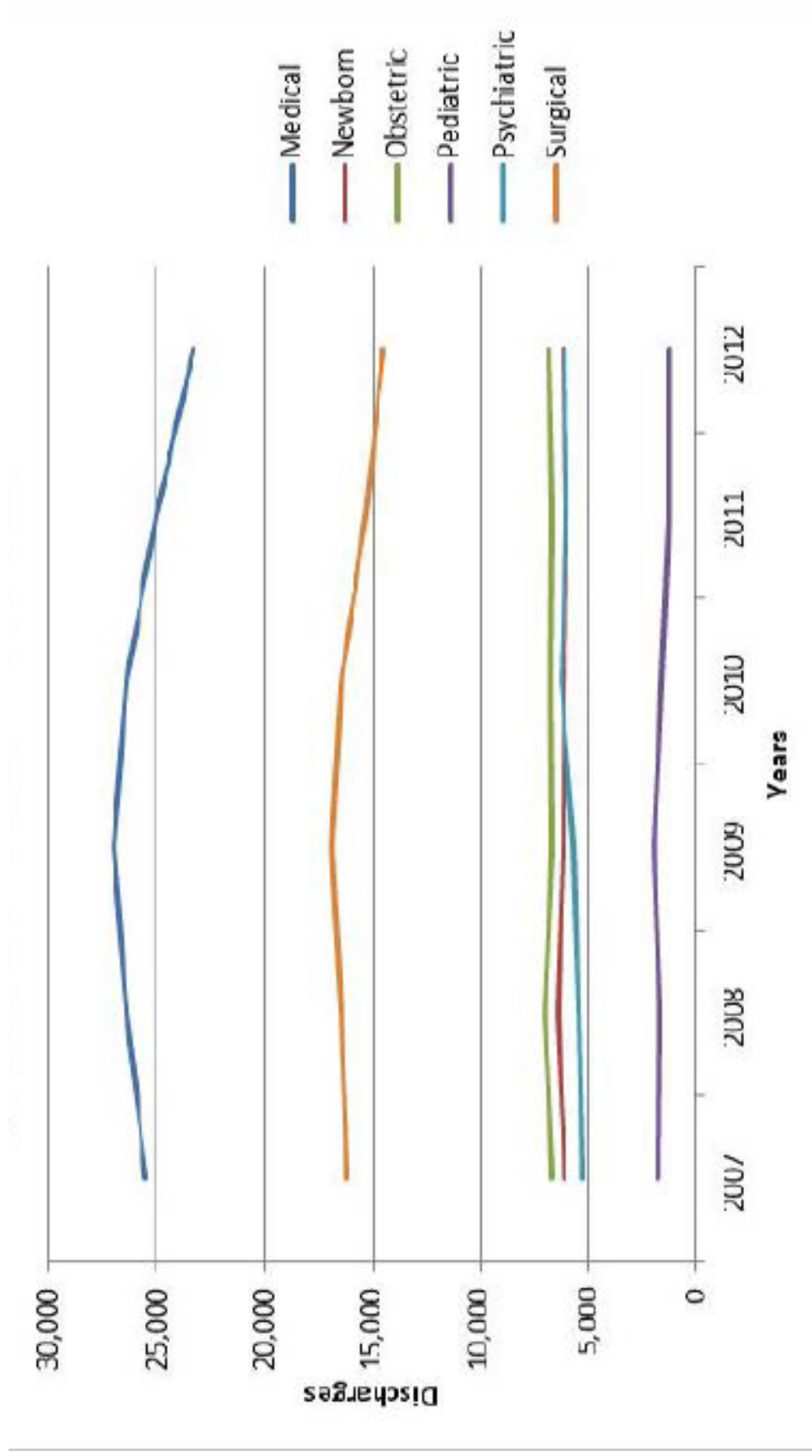
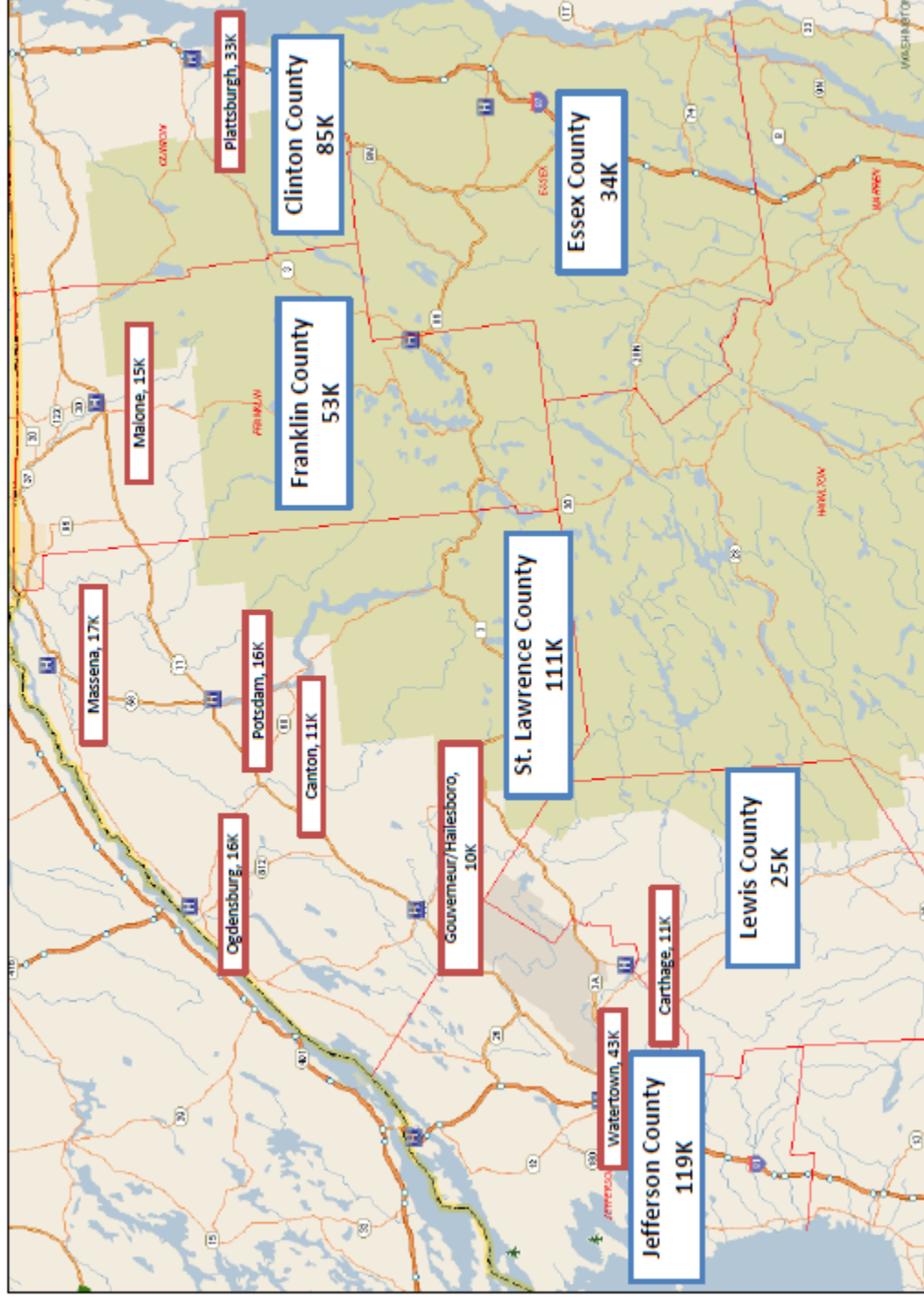


Figure 2.13 Overview of population size per town/county with a hospital



**Figure 2.14 Hospital Net Patient Revenues by Care Setting
% of Inpatient, Outpatient & Skilled Nursing**

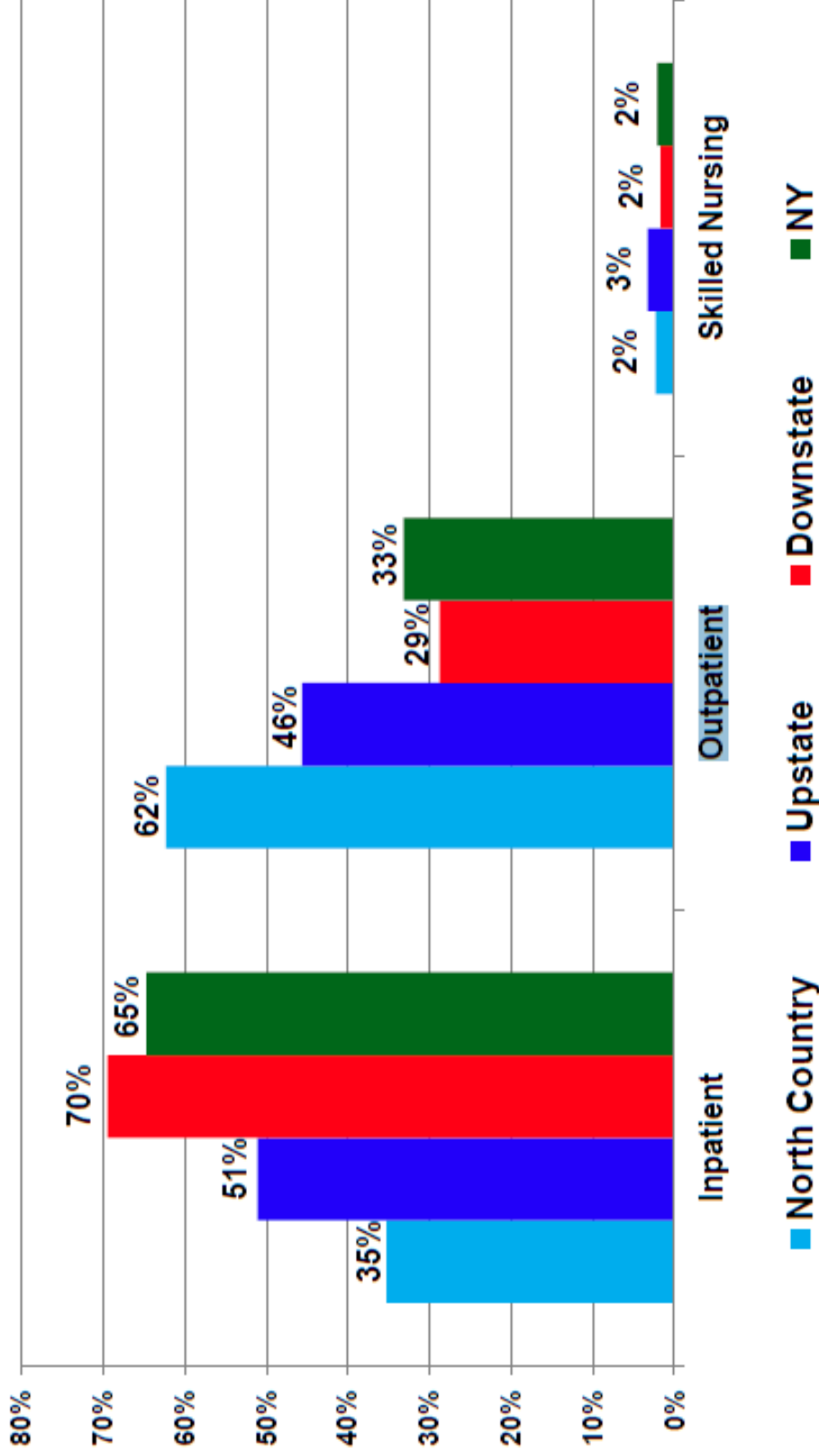


Figure 2.15 Total Outpatient Visits per 1,000 Population at Hospital / Health System Sites

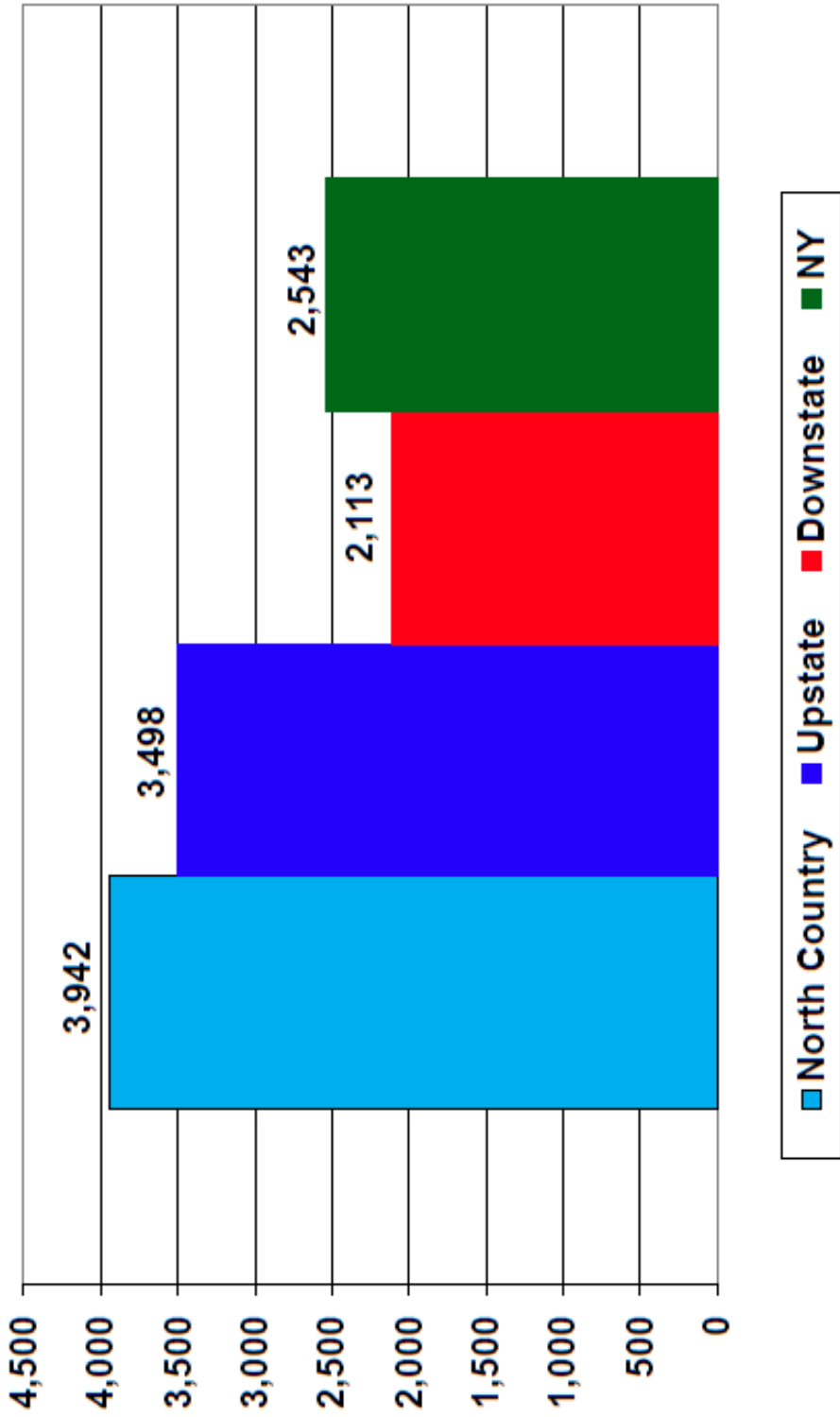


Table 2.4 North Country EMS mean response and transport times

County	Mean Response Time (min) from Scene	Mean Time (min) to Destination
Clinton	9.85	17.77
Essex	15.08	25.55
Franklin	12.44	18.32
Warren	9.52	21.59
Washington	12.25	27.18
Jefferson	9.26	16.95
Lewis	12.98	28.84
St. Lawrence	14.57	21.89
Hamilton	13.96	53.46
North Country	10.9	23.15
Statewide	11.17	13.16

Figure 2.16 North Country EMS mean response times

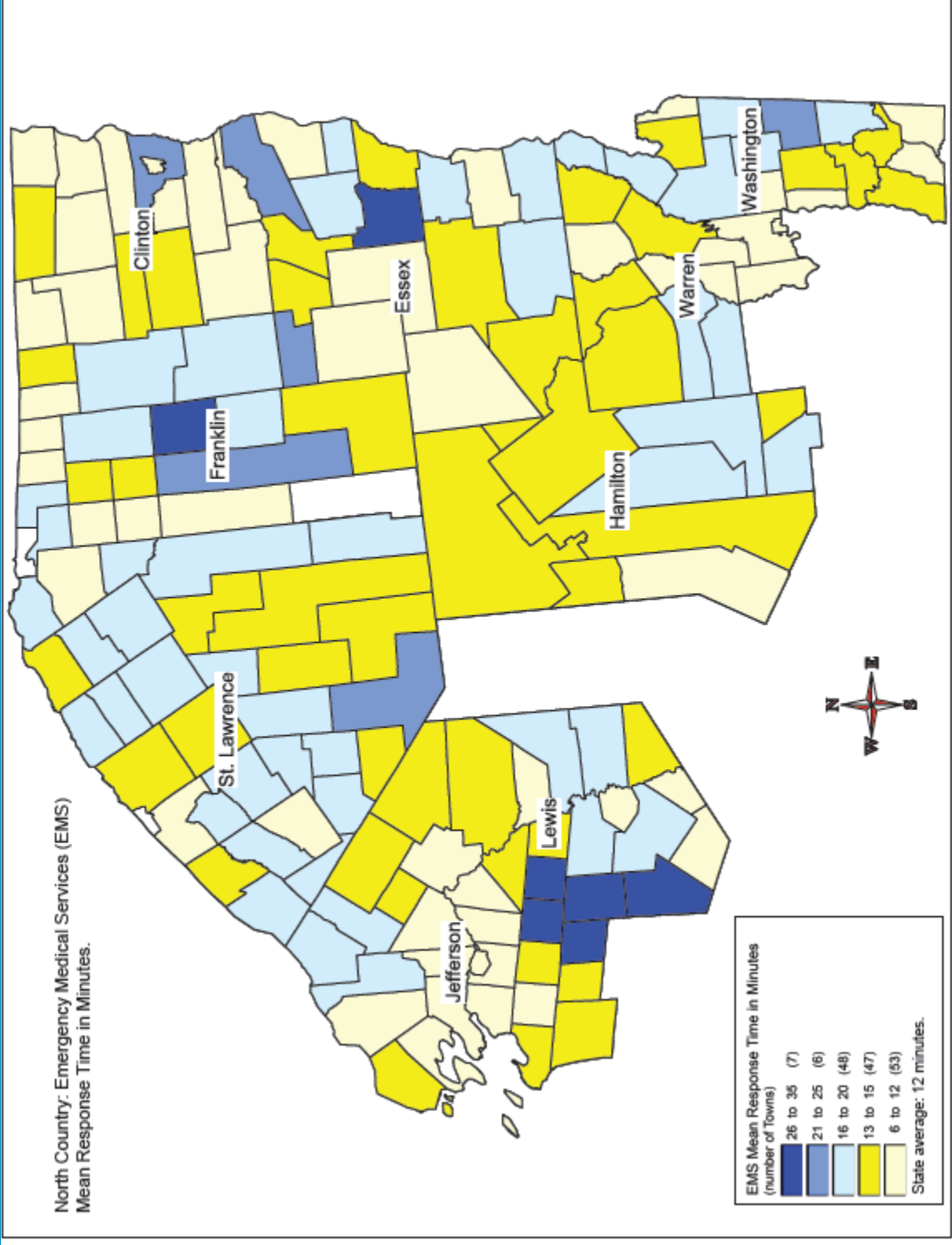


Figure 2.17 North Country EMS mean transport times

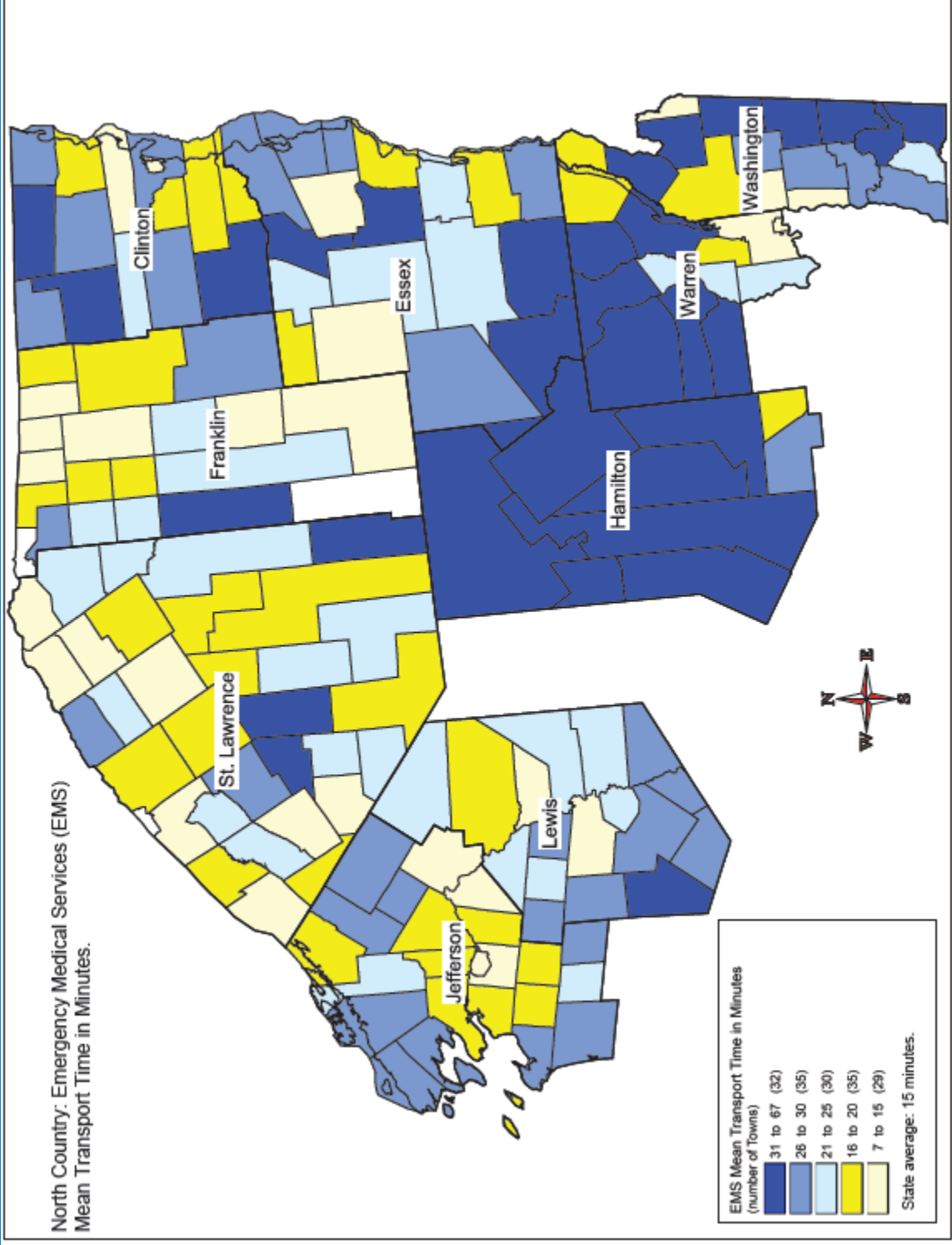
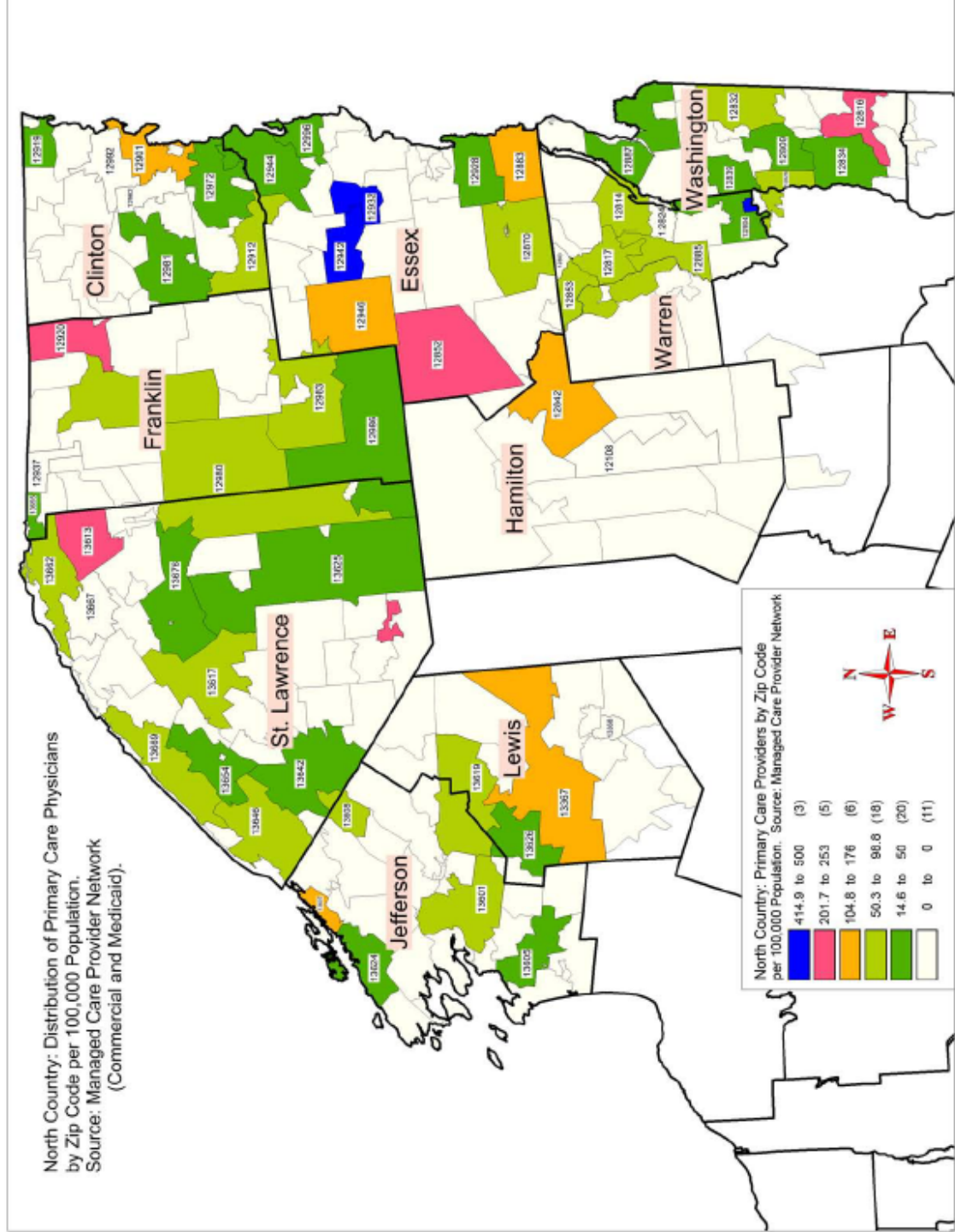


Figure 2.18 North Country distribution of primary care physicians per 100,000 population



Source: Managed care provider network (Commercial and Medicaid)

Note: Not sure of exact source. What is managed care provider network?

Table 2.5 North Country has fewer providers per 100,000 than other regions

Health Occupations	Per 100,000 Population			
	North Country	Statewide	Upstate	Downstate
All Physicians	207	348	259	402
Primary Care Physicians	77	120	100	116
Obstetricians/Gynecologists	9	14	11	16
Physician Assistants	51	61	88	45
Nurse Practitioners/Midwives	63	76	94	65
Specialists	120	228	159	269

Data source: The Center for Health Workforce Studies

Figure 2.19 Average case mix index for residential health care facilities, 2013

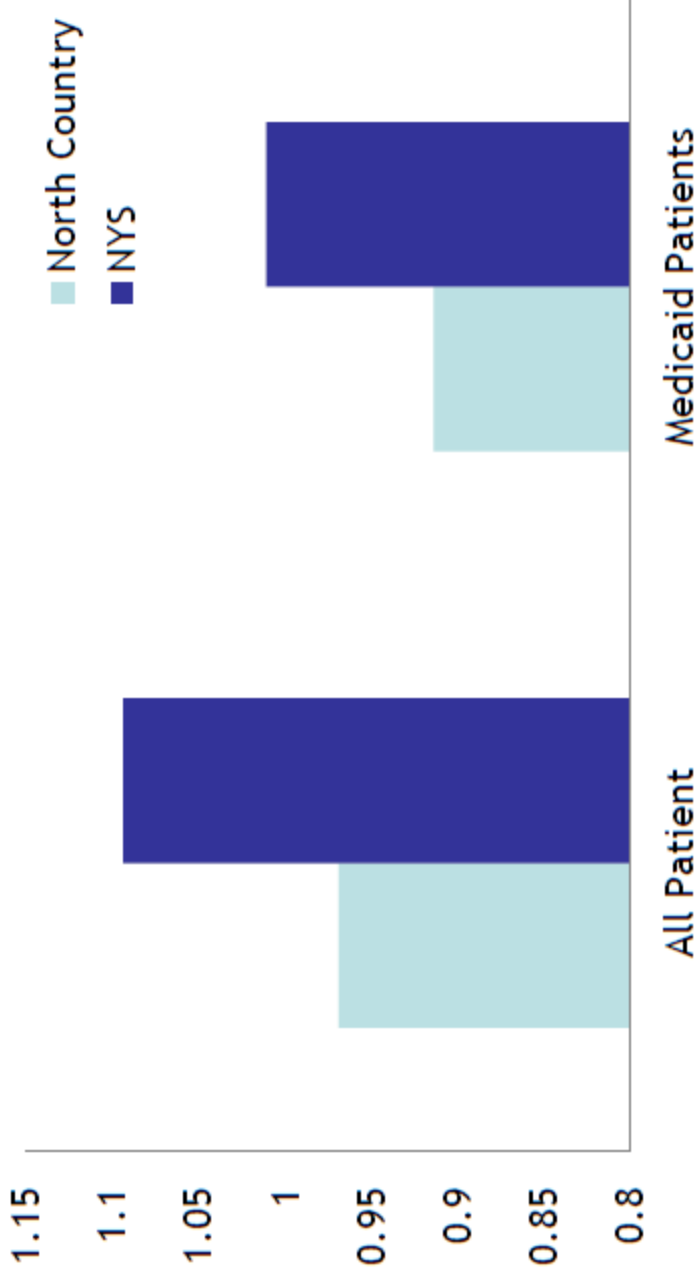


Figure 2.20 Healthcare workforce, 2013

Health Occupations, per 100,000	North Country	Upstate
All Physicians	233	259
Primary Care Physicians	98	100
Dentists	46	62
Physician Assistants	57	88
Nurse Practitioners/Midwives	60	94
Registered Nurses	1,317	1,372
Licensed Practical Nurses	589	528
Occupational Therapists	33	52
Physical Therapists	72	86
Respiratory Therapists	16	31
Social Workers	114	190

Shortage in LTCSS-related occupations

Figure 2.22 Average operating margin among North County hospitals compared to statewide average by year

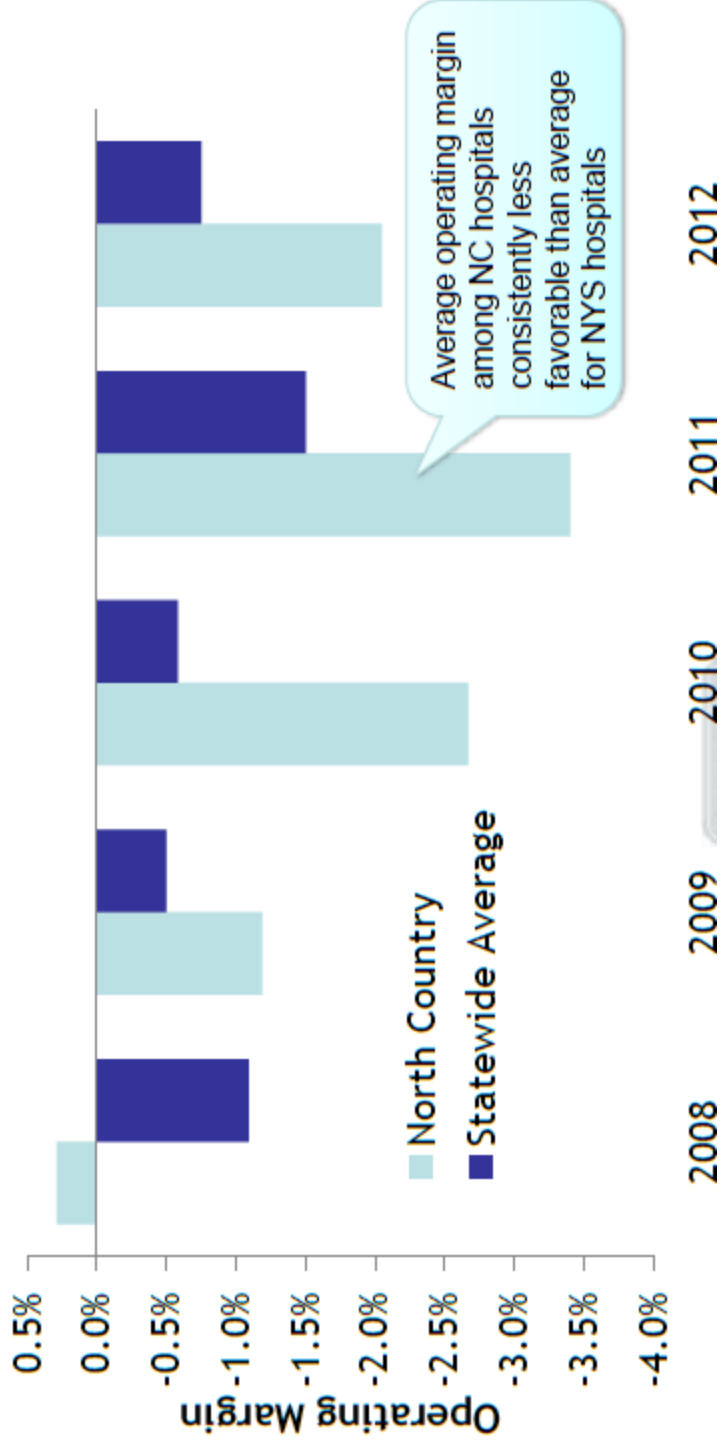


Figure 2.23 Average net margin among North County hospitals compared to statewide average by year

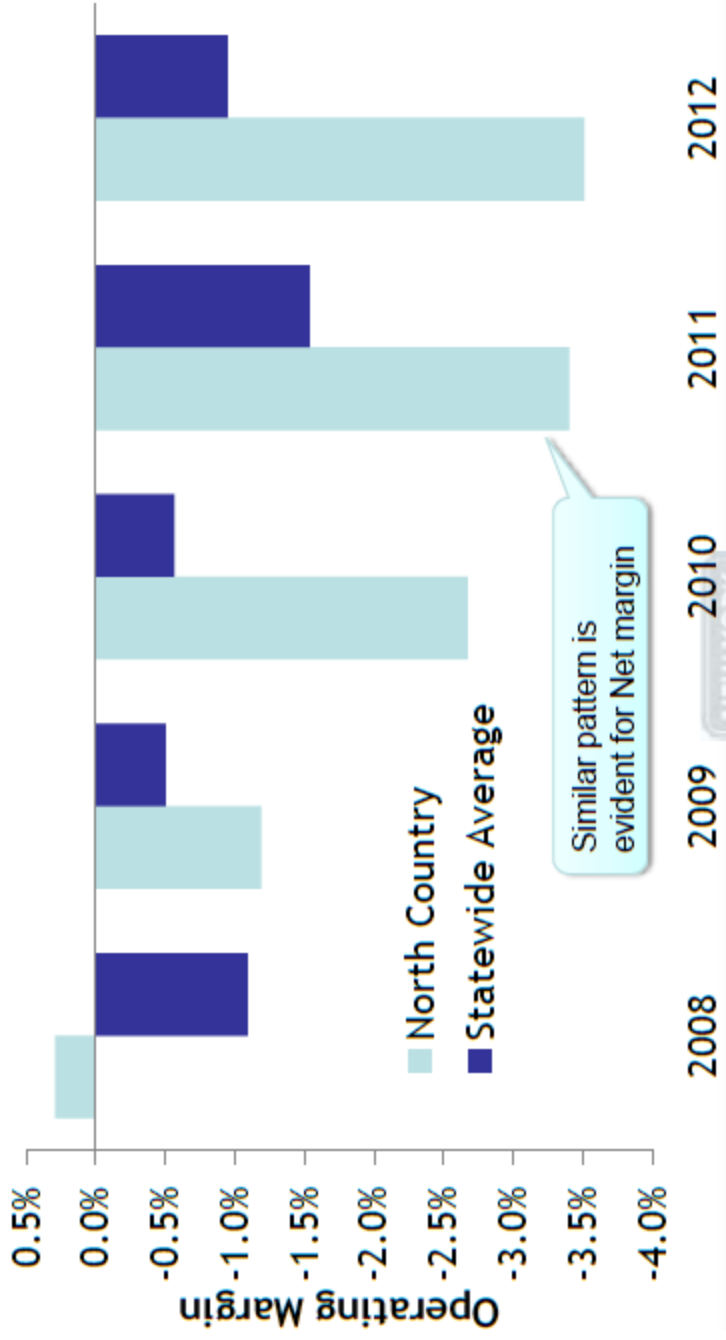


Figure 2.24 Operating margin among North County hospitals, 2012

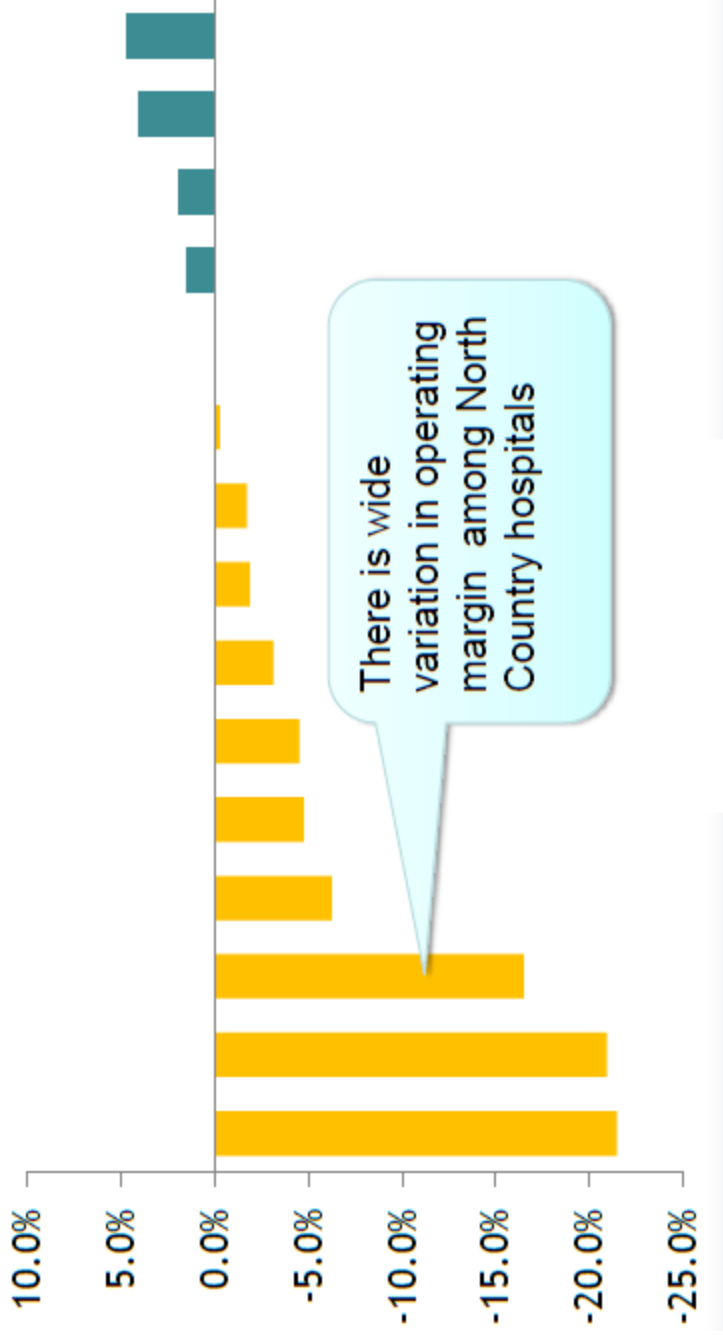


Figure 2.25 Days cash on hand among hospitals, 2012

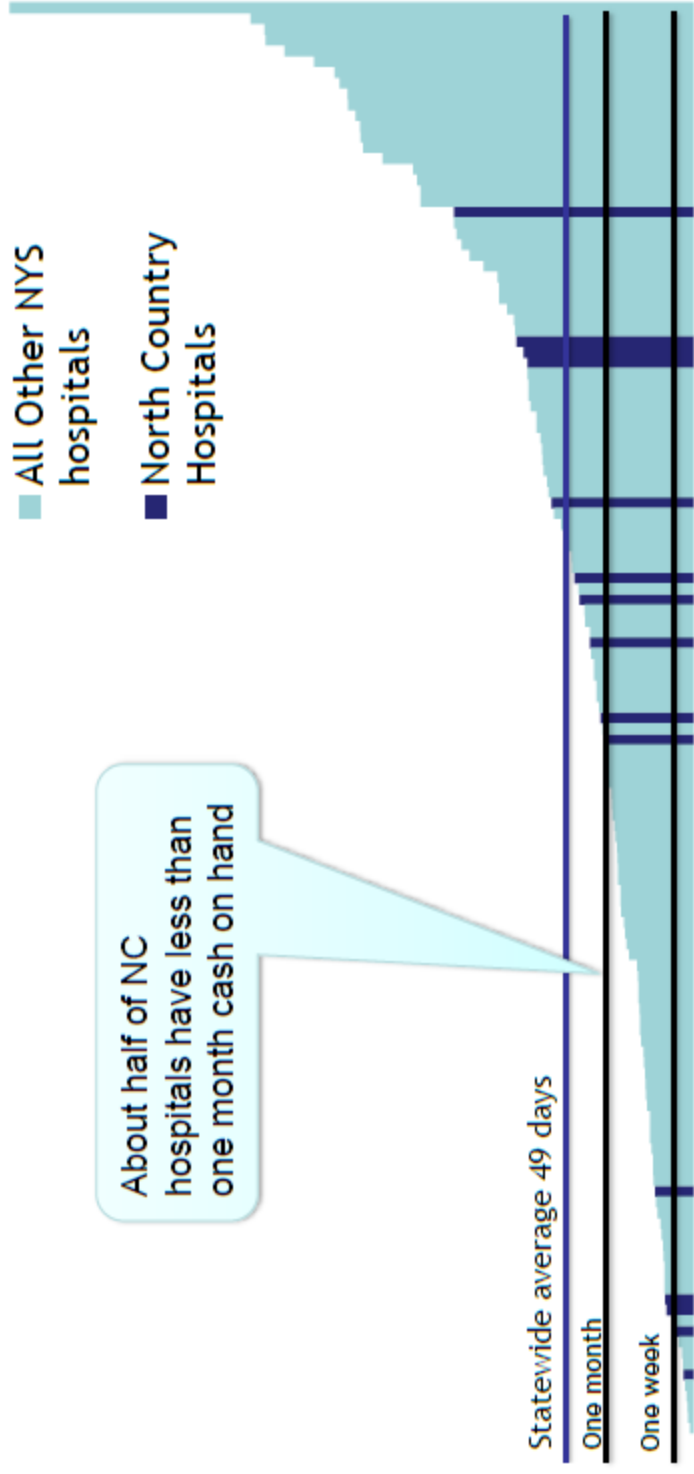


Figure 2.26 Operating margin among North County nursing homes, 2012

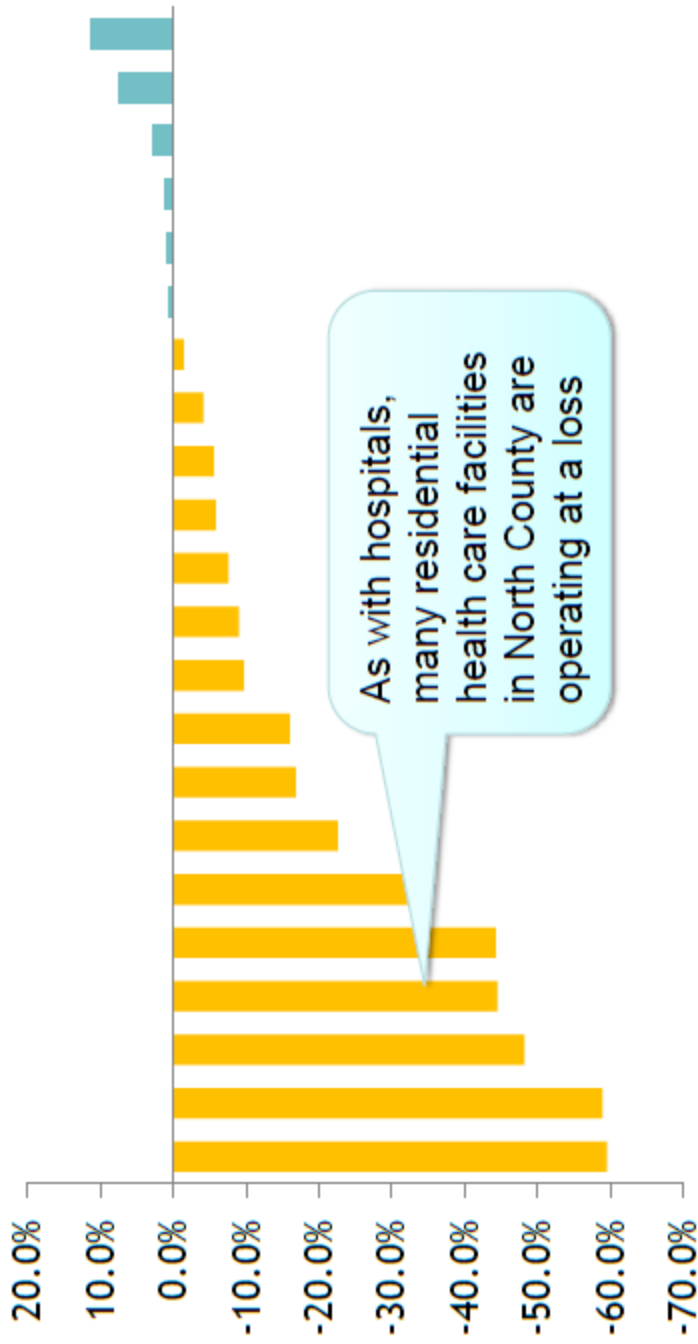


Table 2.6 Comparison of North County nursing homes financial status to all NYS nursing homes

Measure	North County Average	All NYS Average
Days cash on hand	19.6	26.4
Debt to capital ratio	32.5%	24.6%
Operating Margin	-16.3%	-2.5%
Net Margin	-8.1%	0.4%
Ratio of current assets to current liabilities	1.7	1.6

Chapter 3: Population need from a patient-centered perspective

Figure 3.1 Overview of applied framework to analyze patient need based on a clustering of healthcare in categories, rather than a provider-based approach

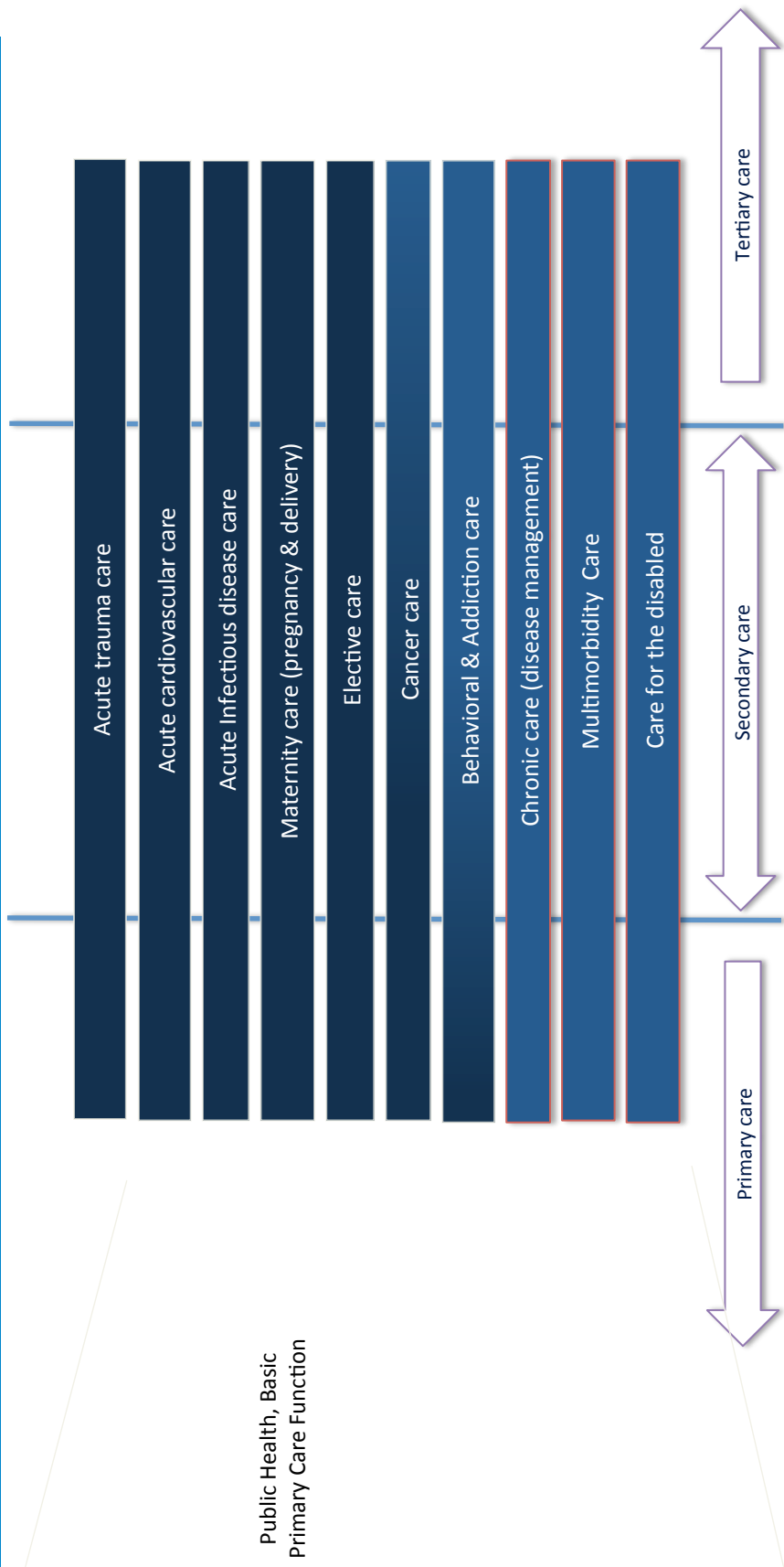


Figure 3.2 Percent of population with a regular health care provider

Most counties in the North Country rank in the bottom half of the state for the percent of the population that had a regular health care provider. Similar patterns were found for percent of respondents who had seen a dentist in the past year.

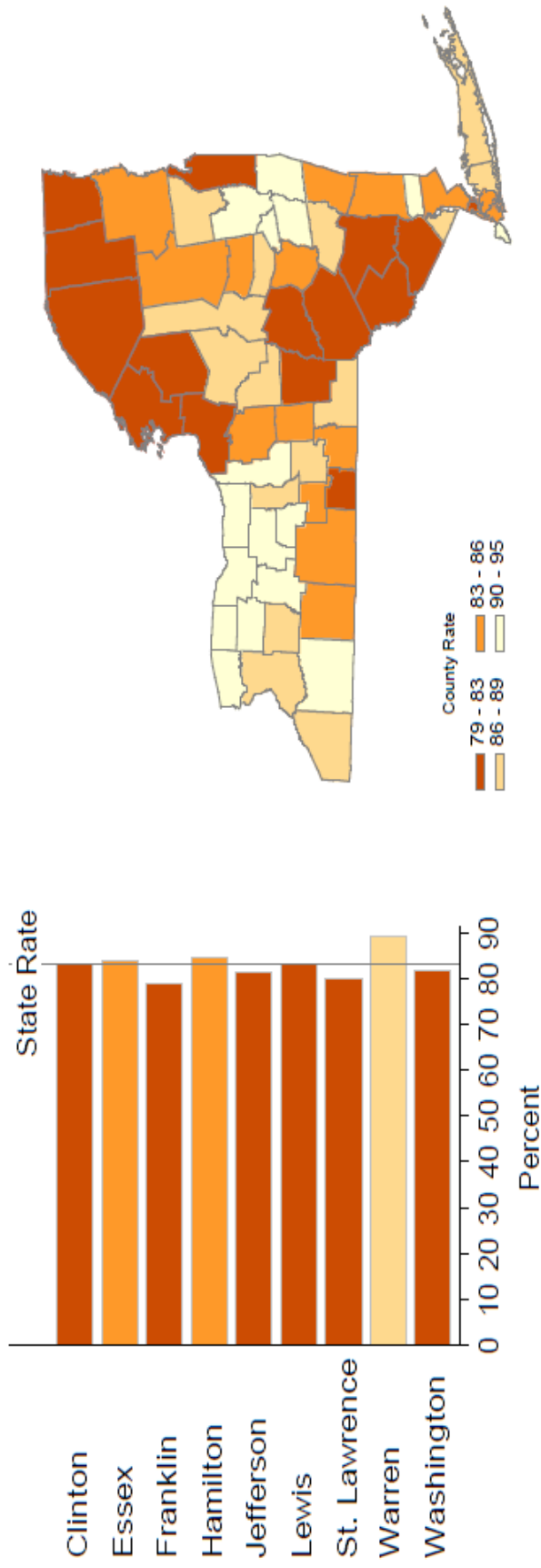


Figure 3.3 Avoidable ED visits

Visits to the Emergency department that did not result in an admission and possibly could have been treated in another setting or prevented with good quality primary care. Rates of these visits are higher in the North County region than in NYS as a whole.

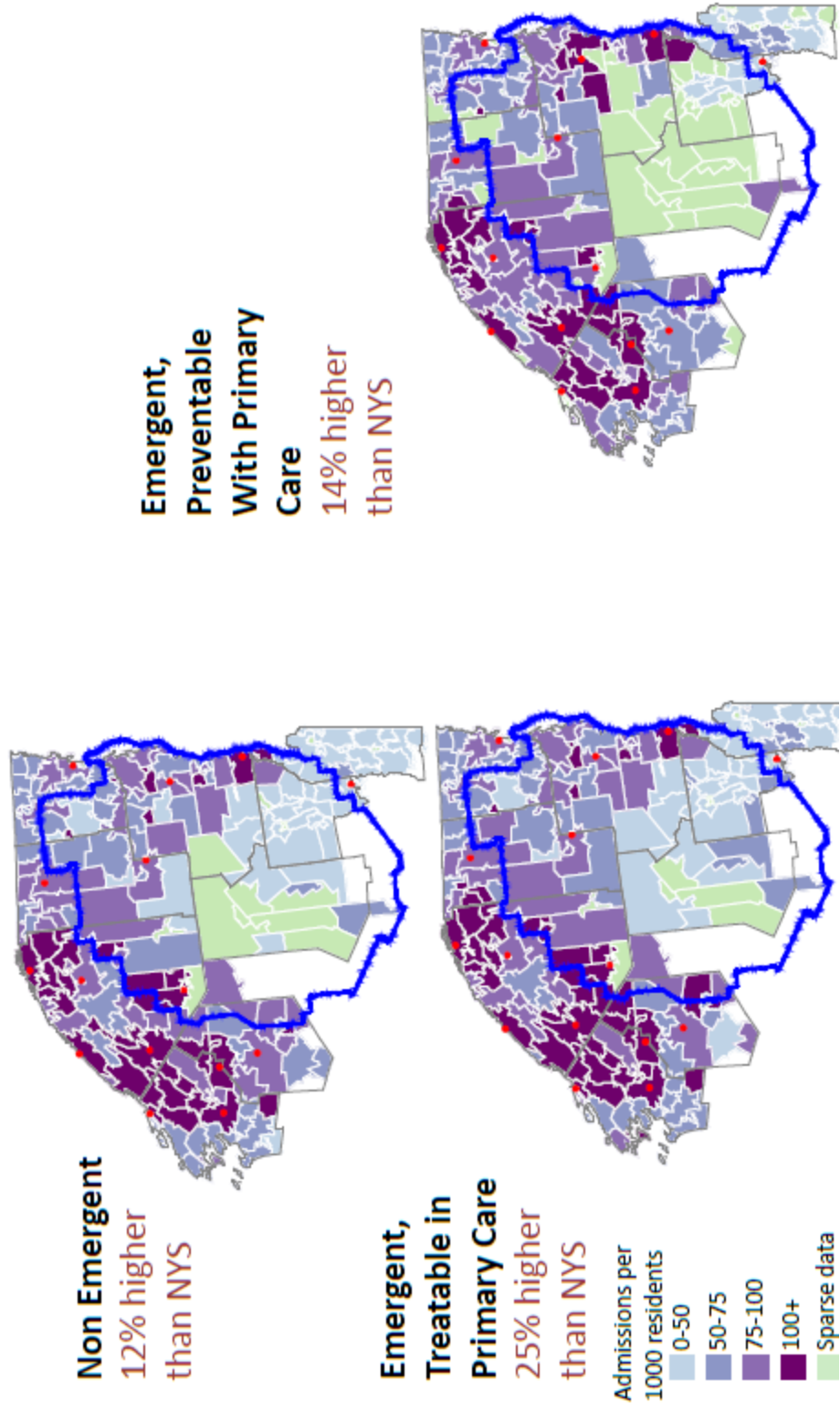


Figure 3.4 Hospital inpatient visits for ambulatory care sensitive conditions

Prevention Quality Indicators (PQI) are a measure of the hospital inpatient admissions that potentially could have been avoided with better quality primary care. This map displays the rate of PQIs in the community relative to the rate in New York State as a whole, adjusted for differences in the distribution of age and race compared to NYS.

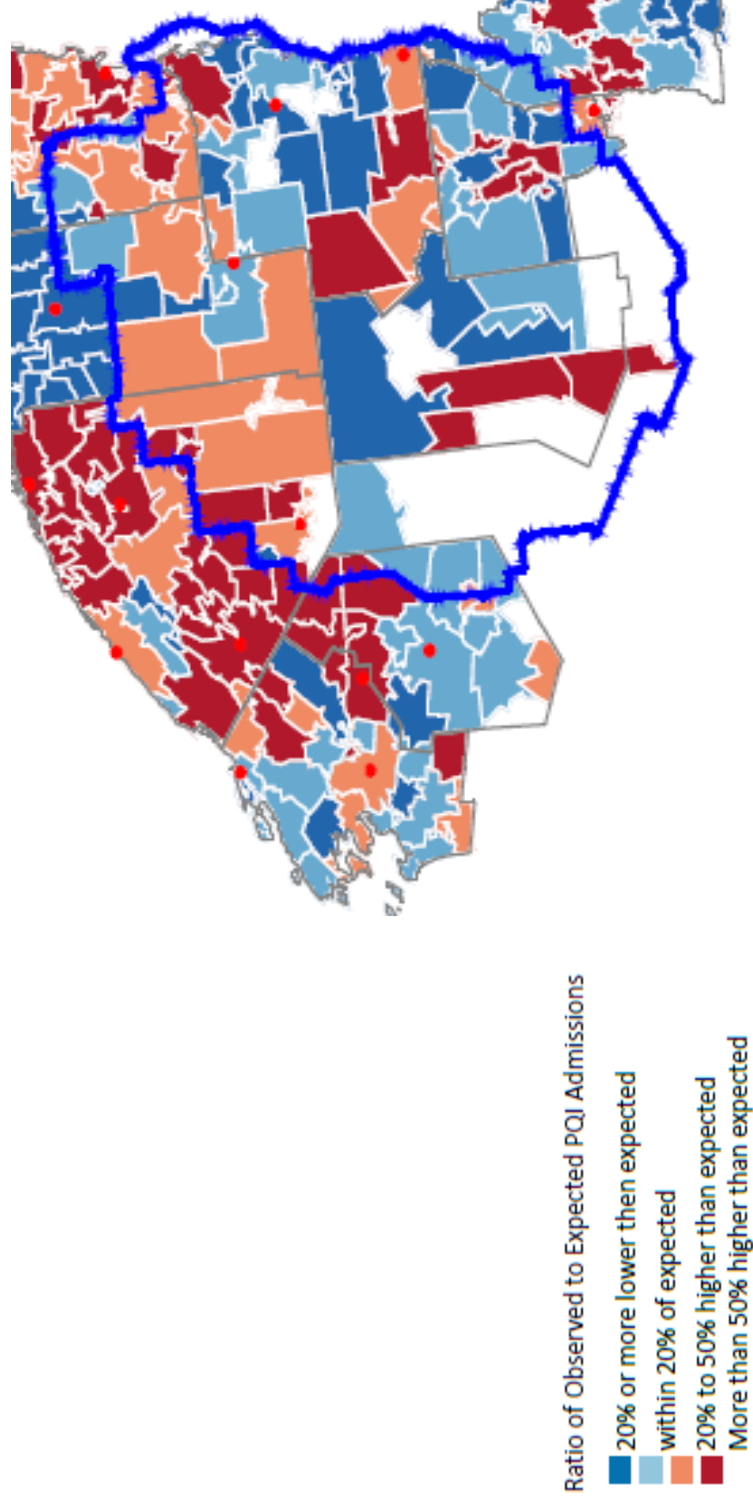
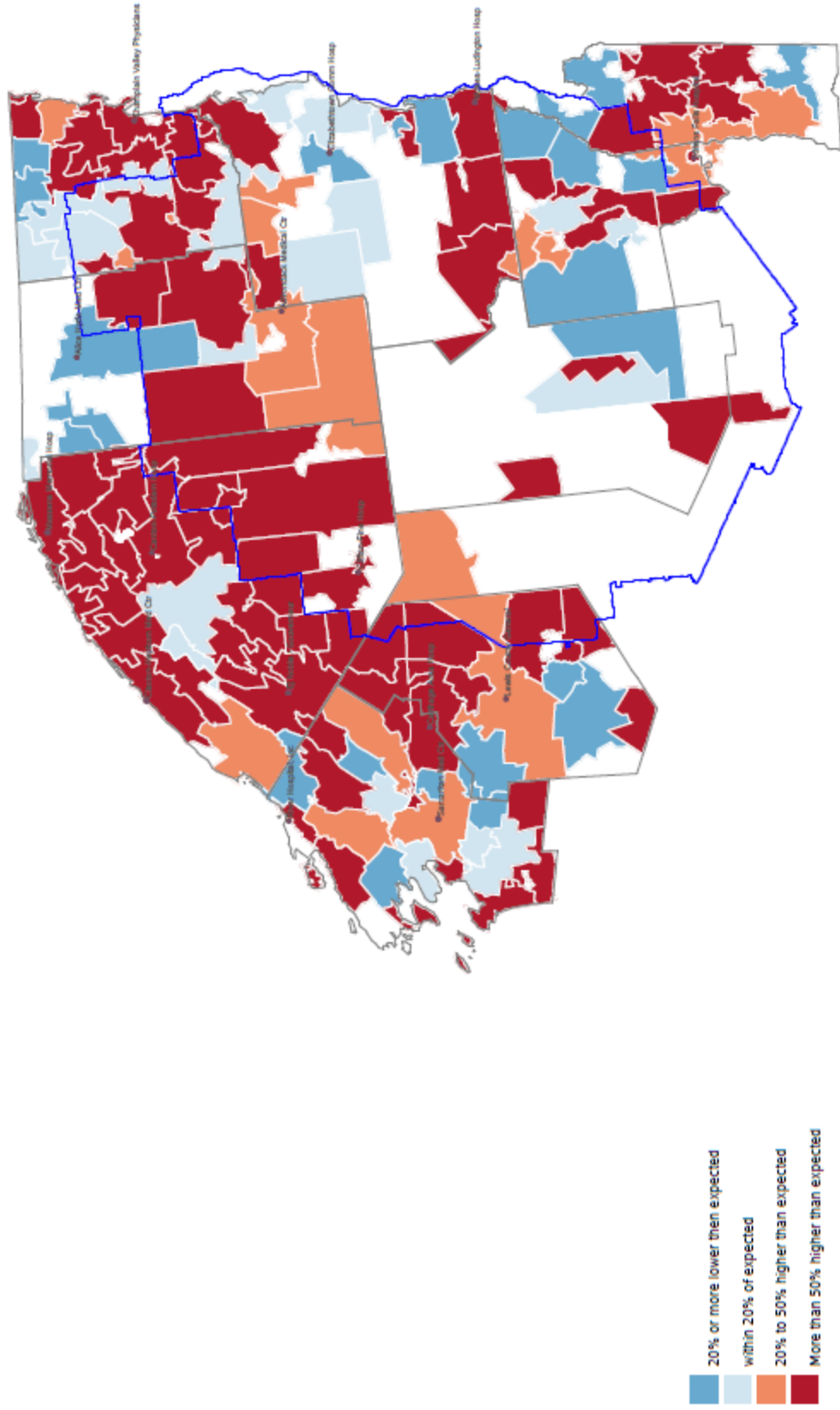
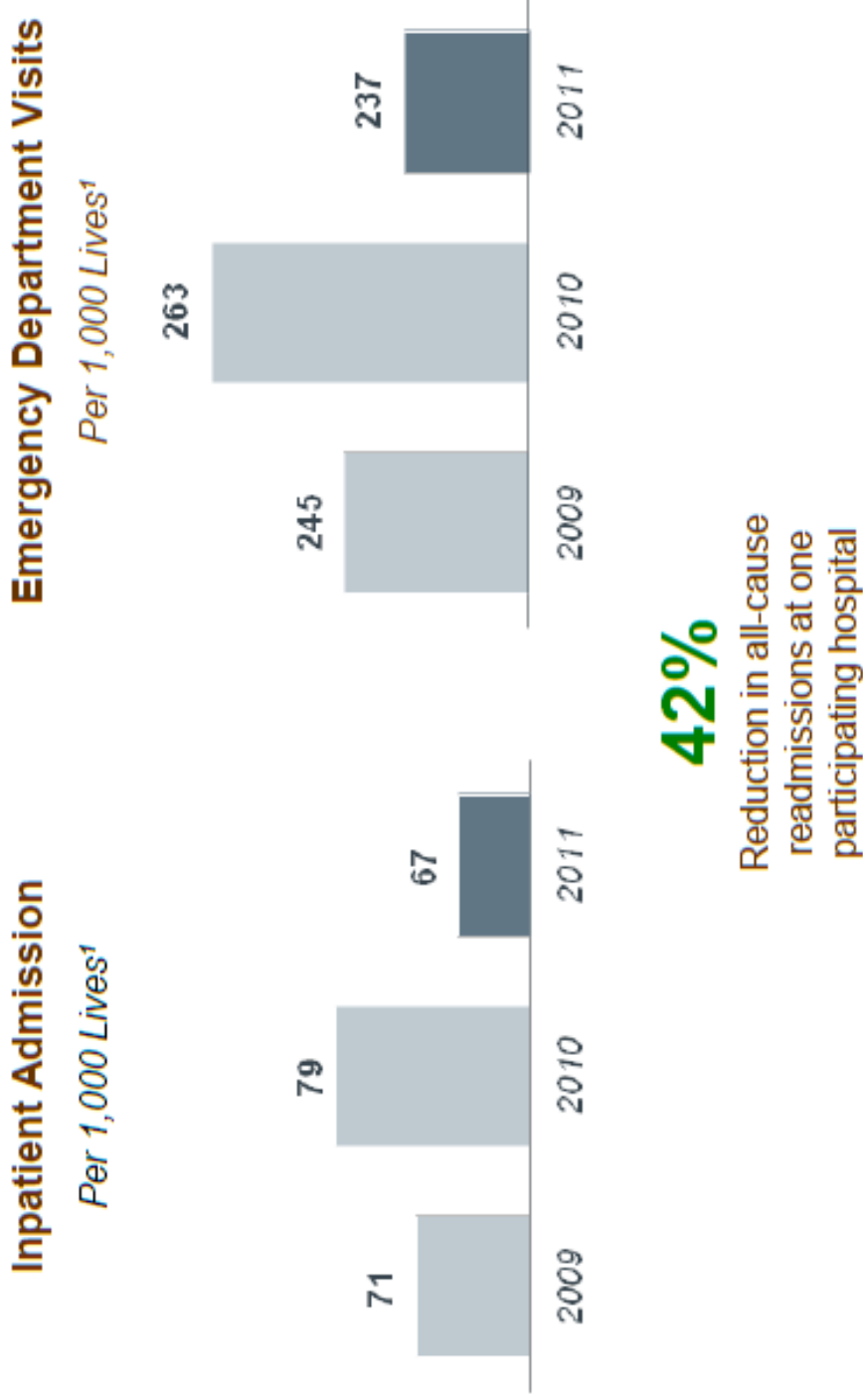


Figure 3.6 Potentially avoidable hospital stays bacterial pneumonia, 2012



Source: SPARCS 2012, Prevention Quality Indicators (PQI)

Figure 3.7 Adirondack Medical Home pilot successful in reducing hospital utilization rates



Source: Advisory Board interviews and analysis.

Figure 3.8 Adirondack Medical Home pilot successful in reducing risk adjusted and trended spending PMPM

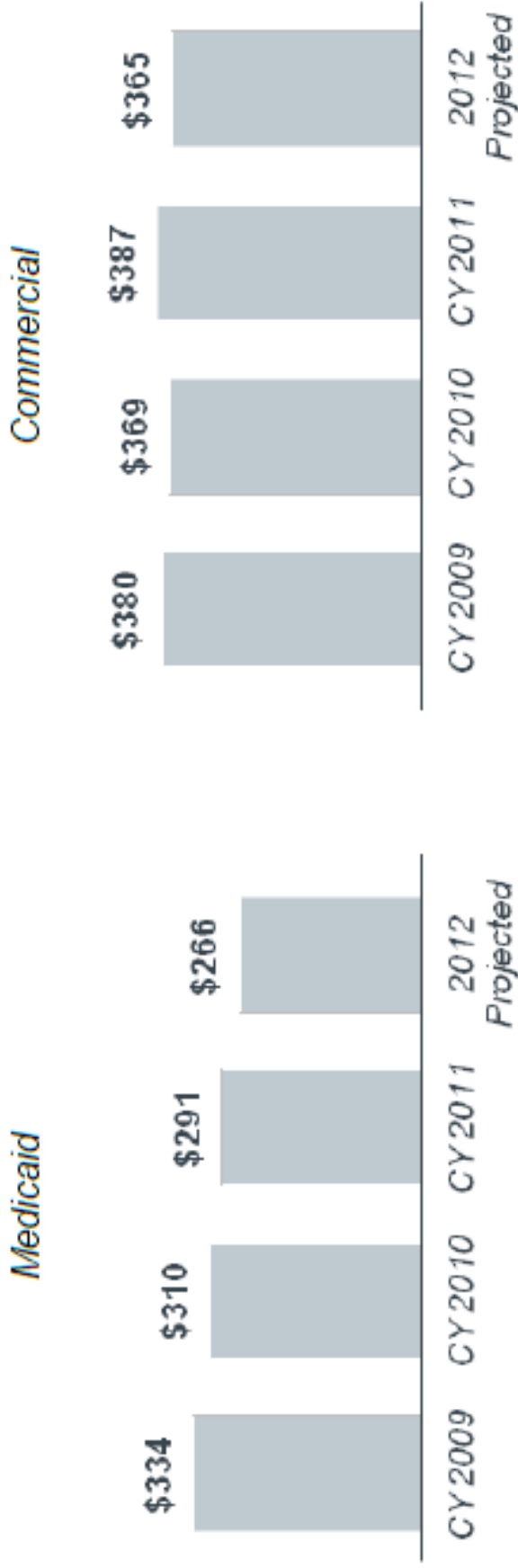


Figure 3.9 Adirondack Medical home pilot successful at improving patient satisfaction

Top box patient satisfaction scores have improved each year which is impressive given the limited resources available at many practices. Over 61% of patients said they had the best possible provider (10 of 10).

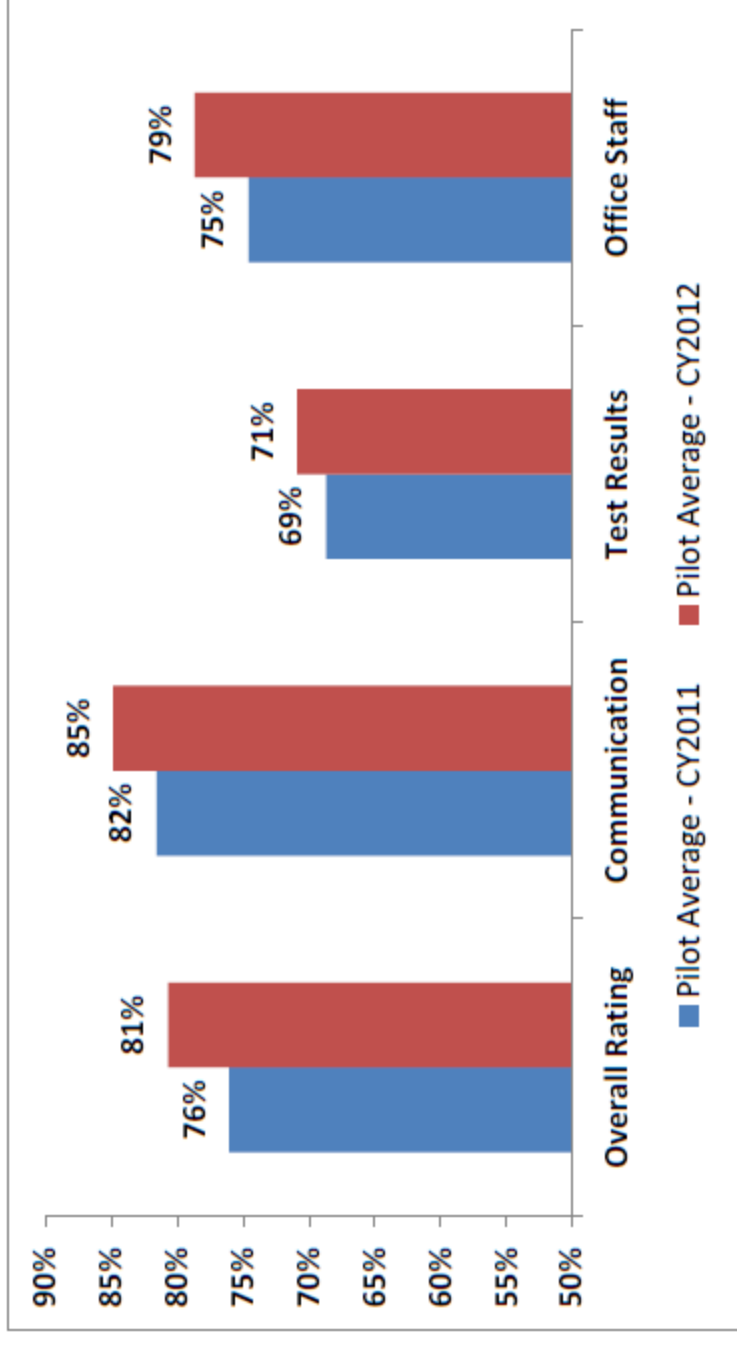


Figure 3.10 North County top 10 chronic conditions for Medicaid enrollees, 2010 - 2012

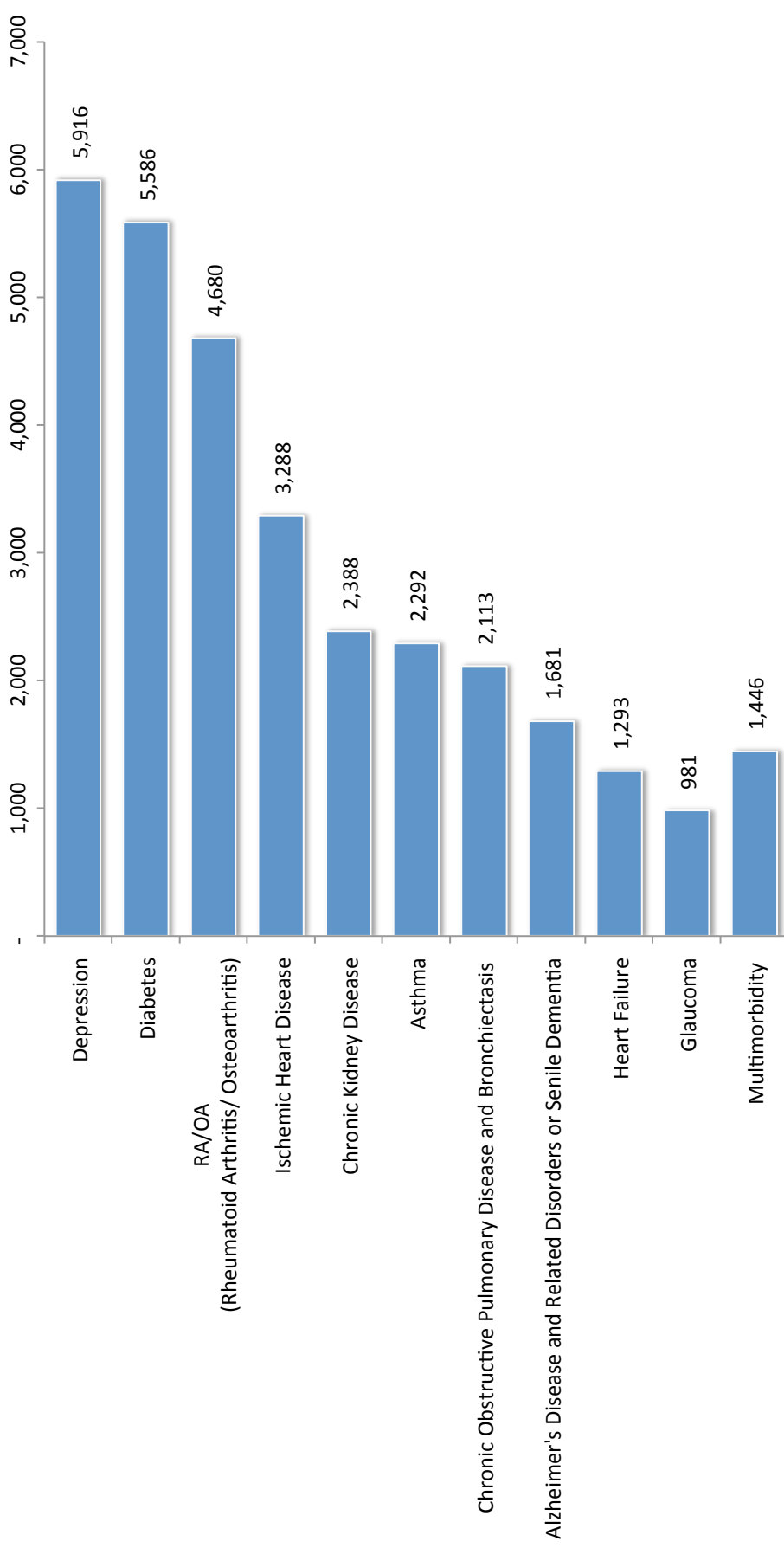


Figure 3.11 North County top 10 chronic conditions for hospital inpatient admissions, 2012

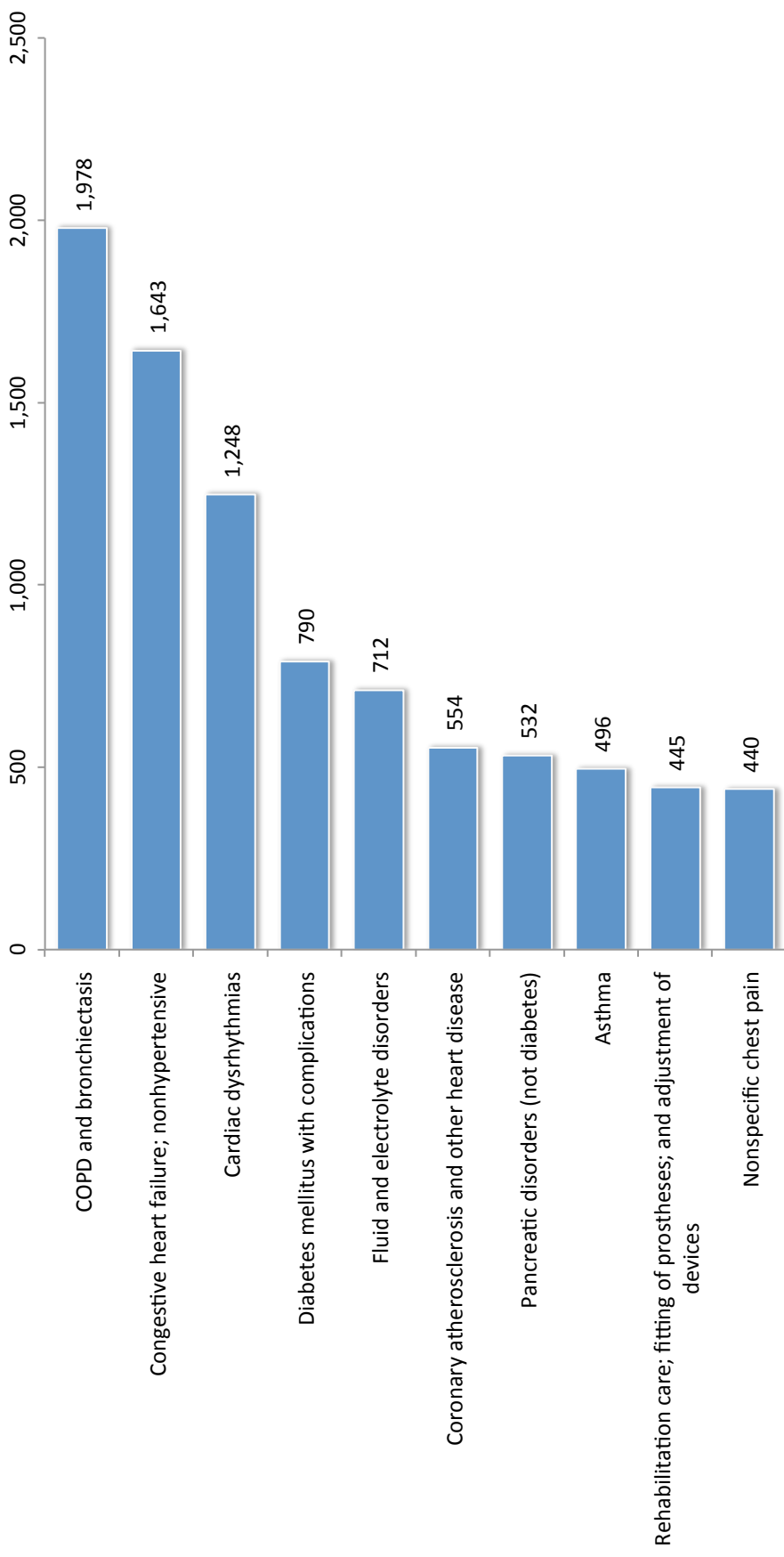


Figure 3.12 North County top 10 chronic conditions for hospital outpatient visits, 2012

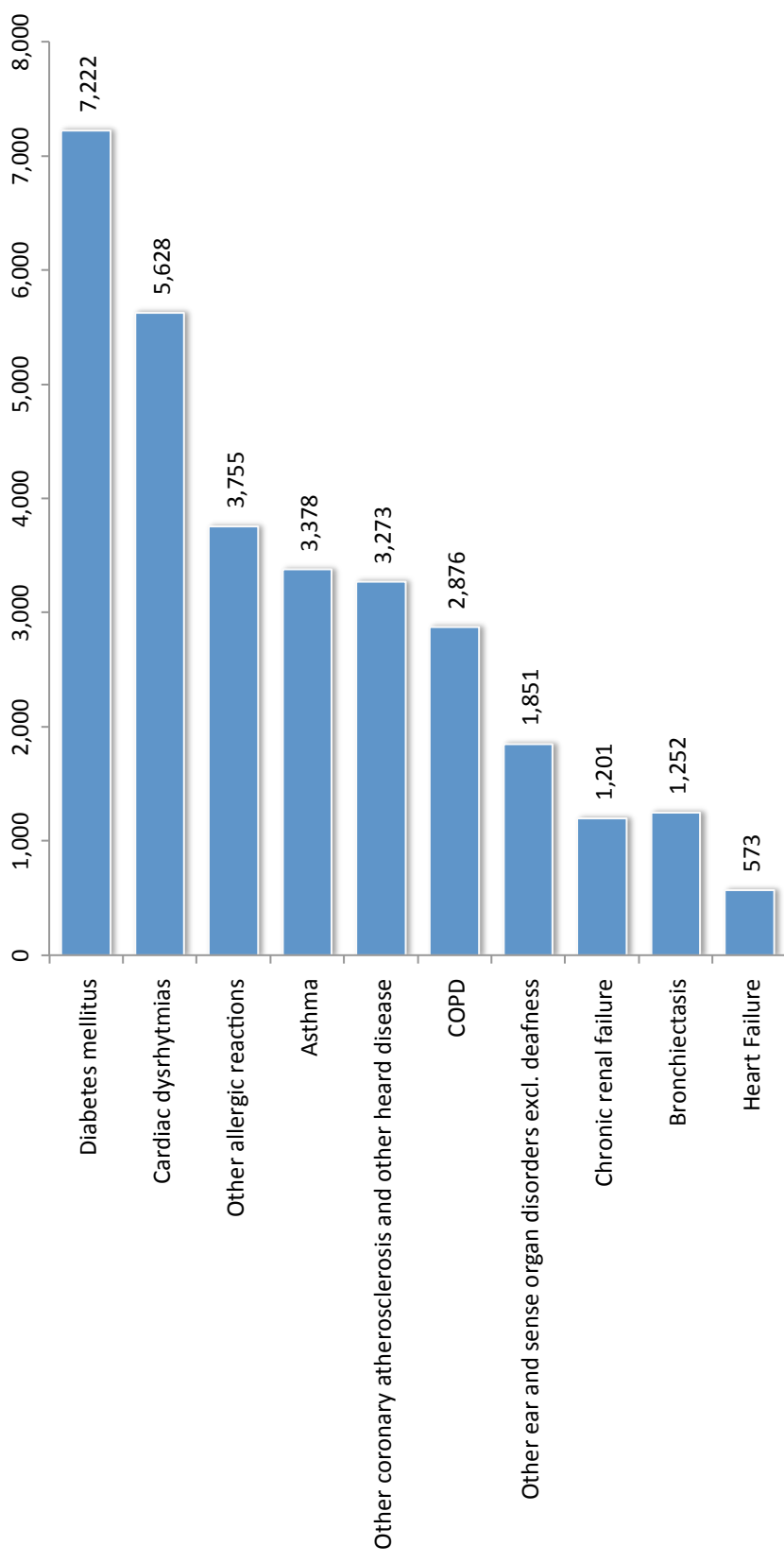
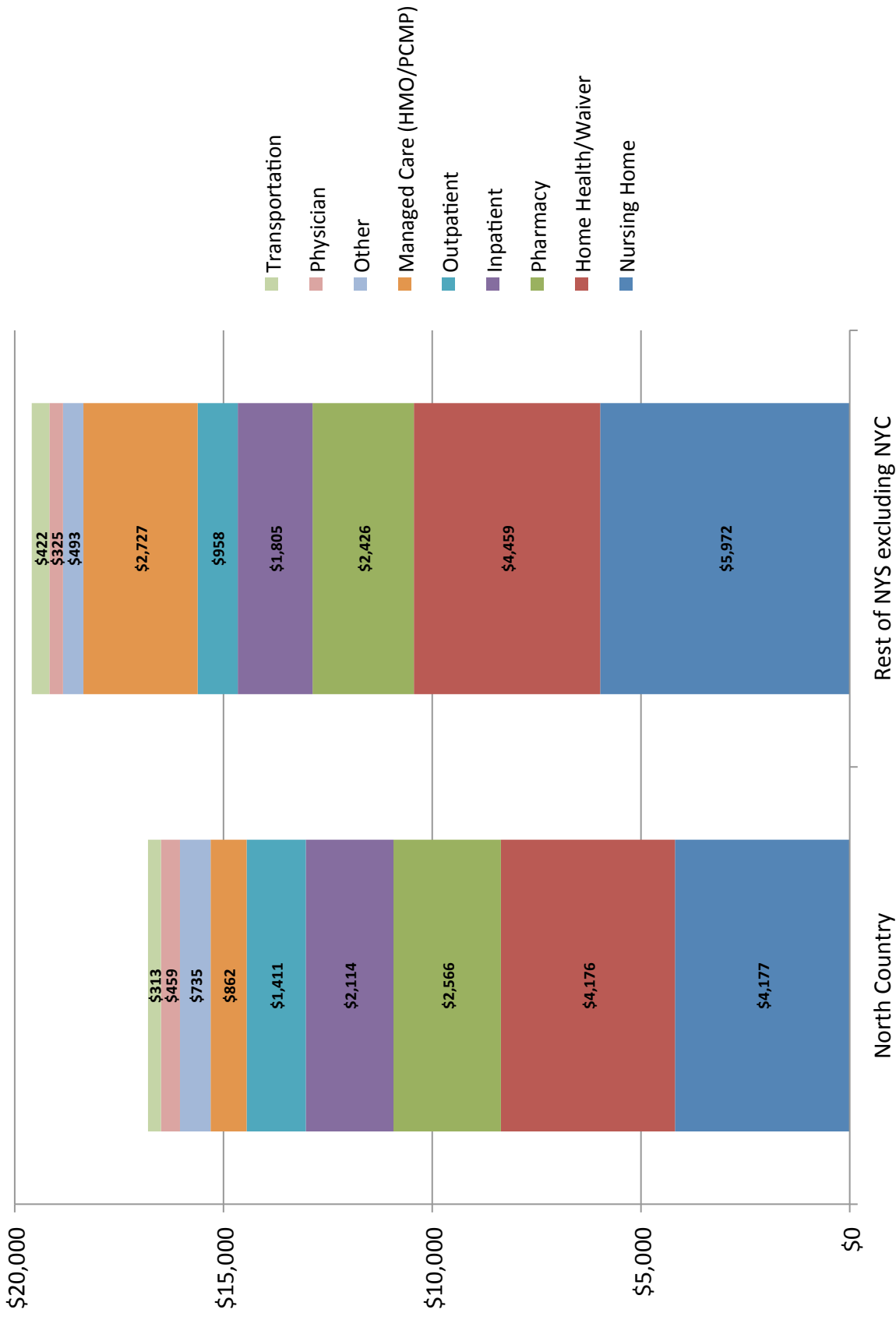


Figure 3.13 Medicaid spend on diabetes by category of service



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Average PBPY costs paid by the Medicaid program. Analysis by KPMG. Patients with > 2 chronic conditions are excluded.

Figure 3.15 Diabetes mortality rate per 100,000, 2009-11

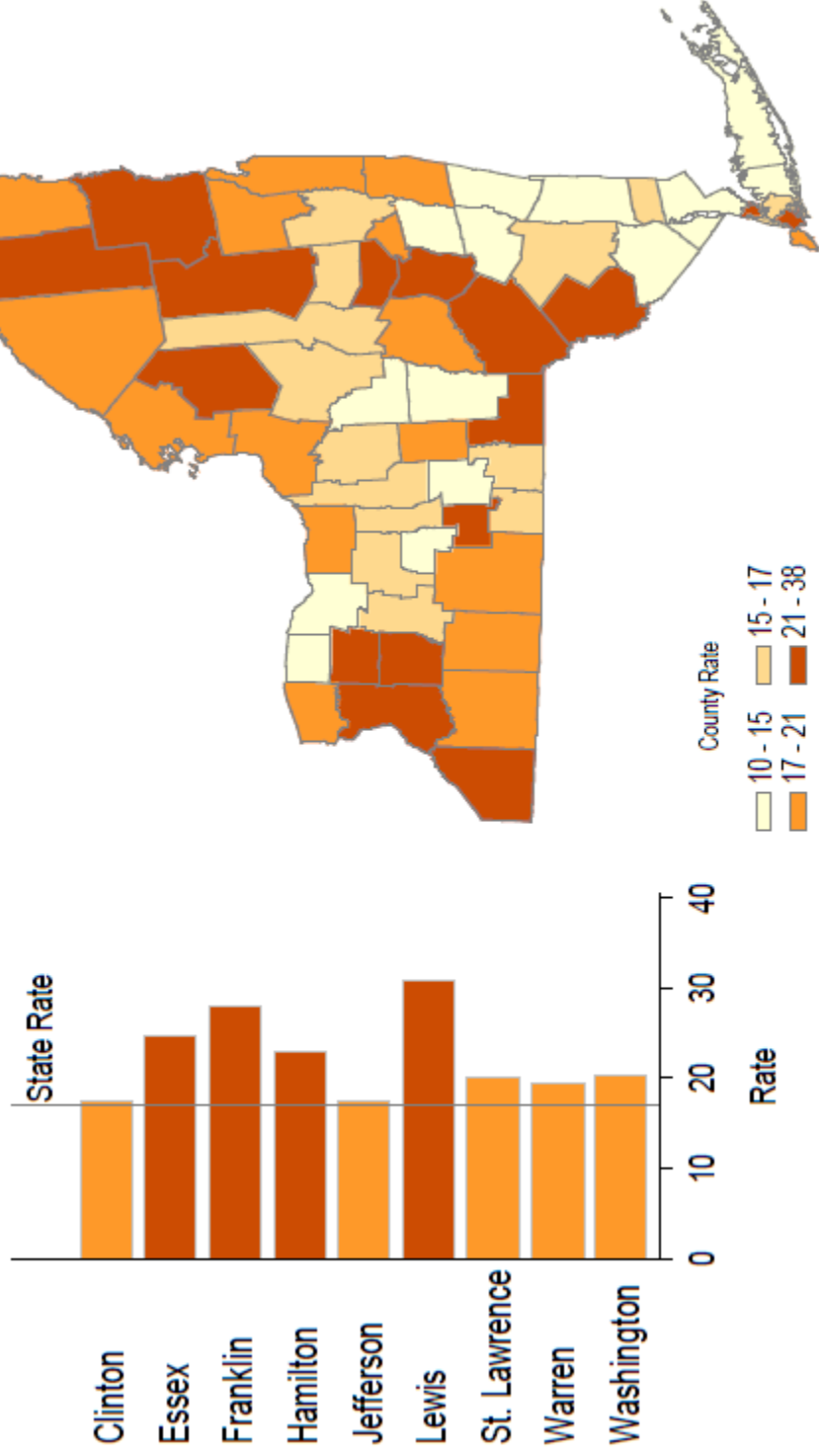


Figure 3.16 Average total number of Medicaid beneficiaries with multimorbidity (three or more chronic conditions)

*Average total number of beneficiaries with multimorbidity (2010 -2012) = **1,430***

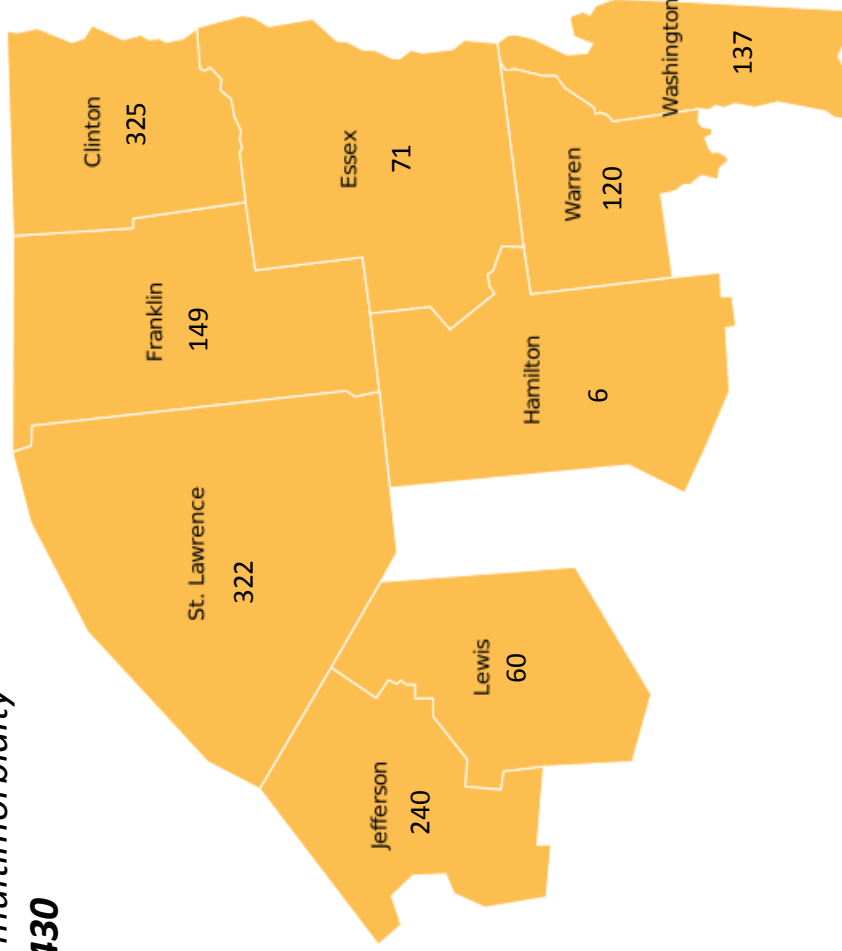
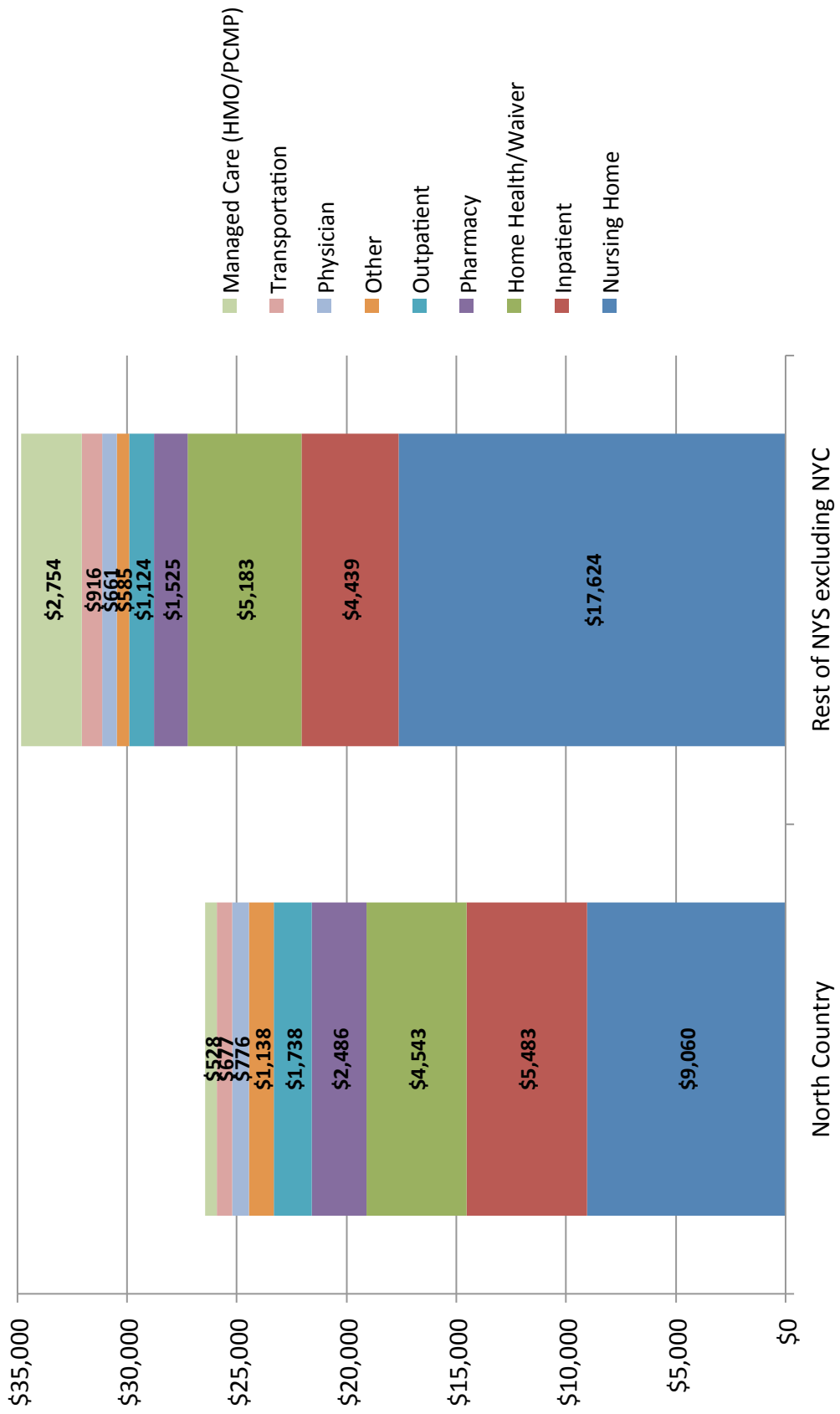
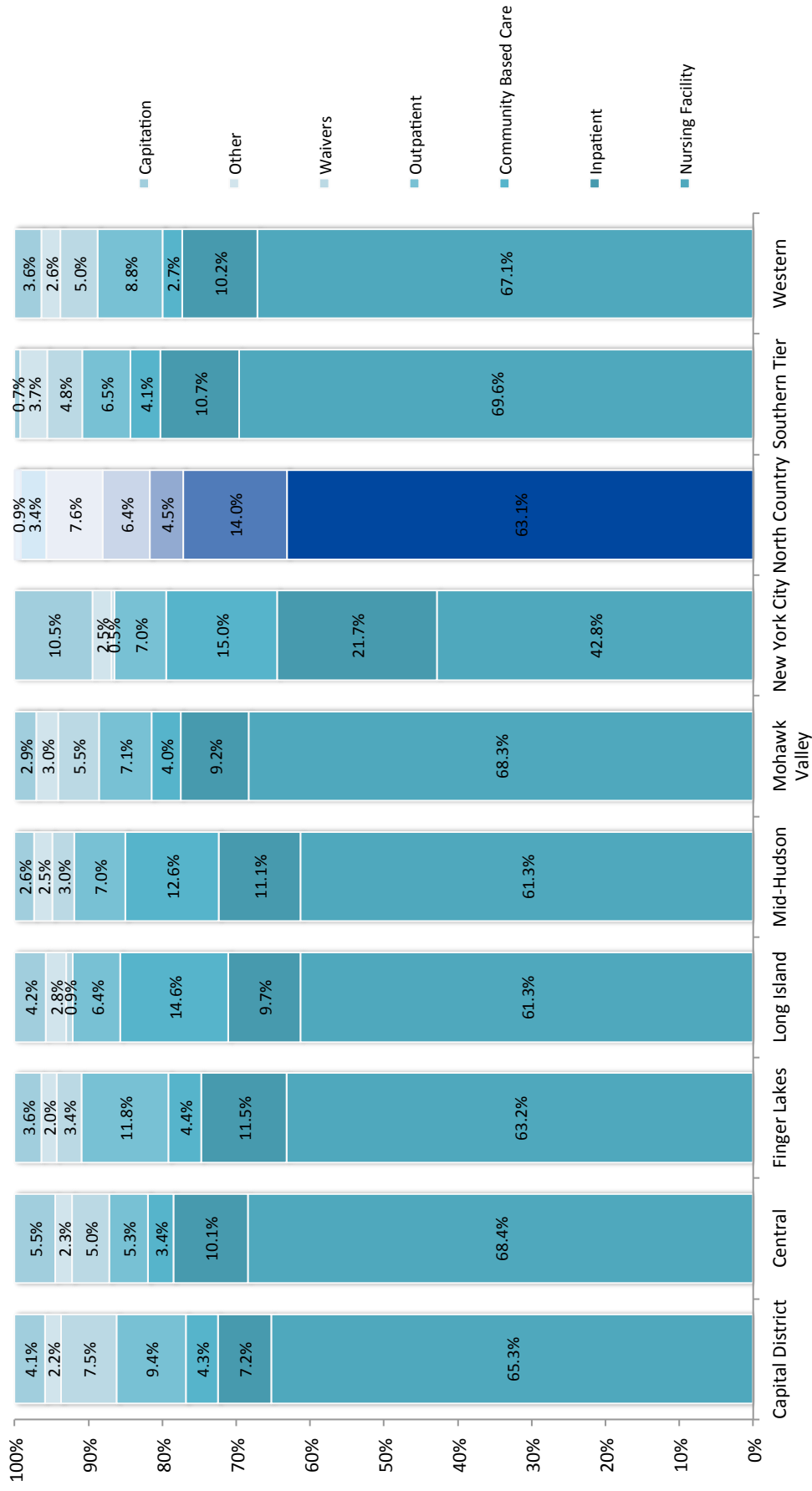


Figure 3.17 Medicaid spend on Multimorbidity by category of service



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Average PBPY costs paid by the Medicaid program. Analysis by KPMG.

Figure 3.18 Distribution of category of services for end-of-life care (Medicaid, 2012)



Source: New York Medicaid Data. Calculations based on Per Member Per Month (PMPMs) spending by Category of Service (COS). Adults with Malignancies Are Excluded. "Other" includes spending on physicians, emergency department visits, intermediate care facility/developmentally disabled, pharmacy costs, and all other types of service.

Figure 3.19 Average number of specialties seen by beneficiaries with multimorbidities (PBPY)(2010-2012)

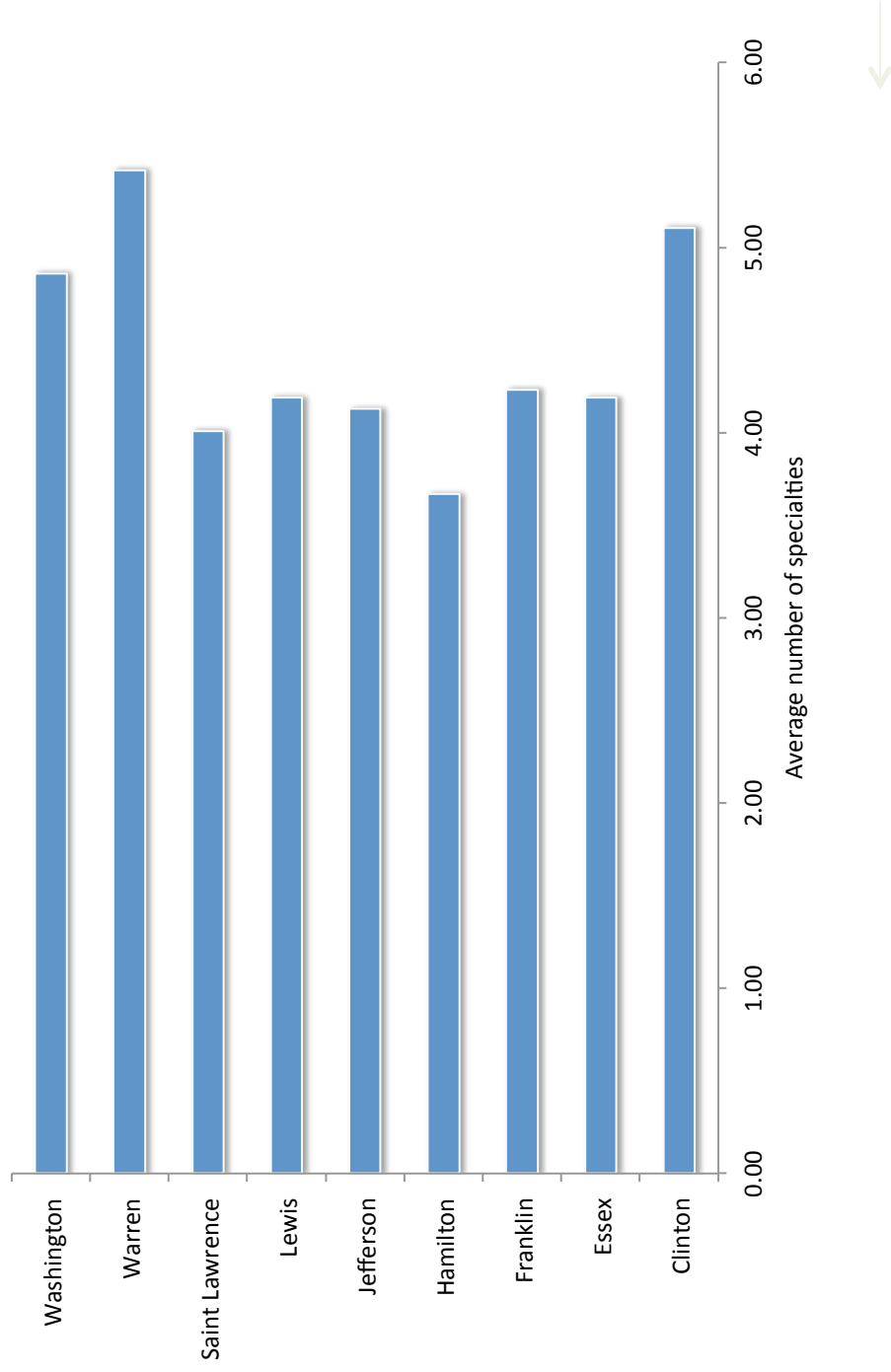
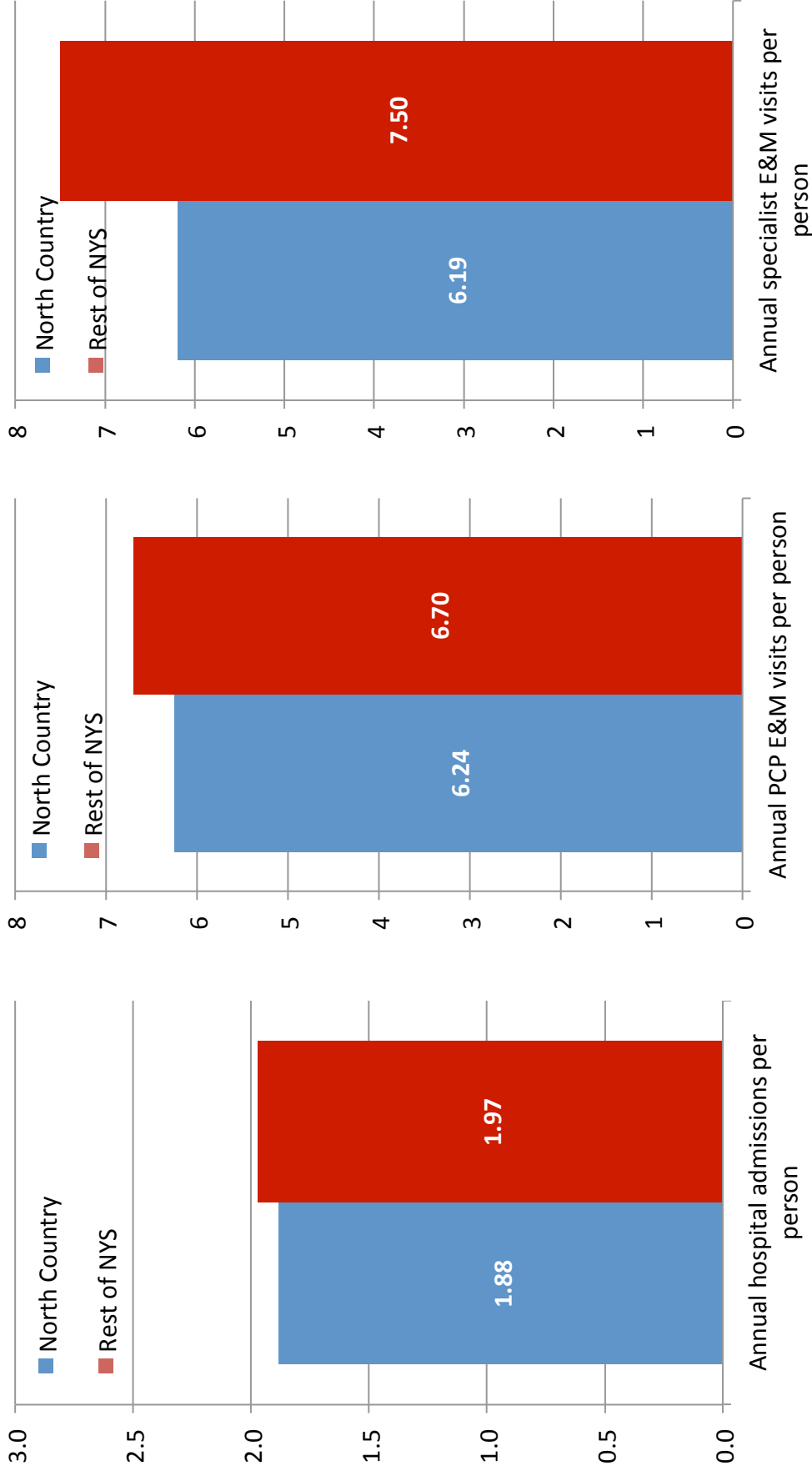
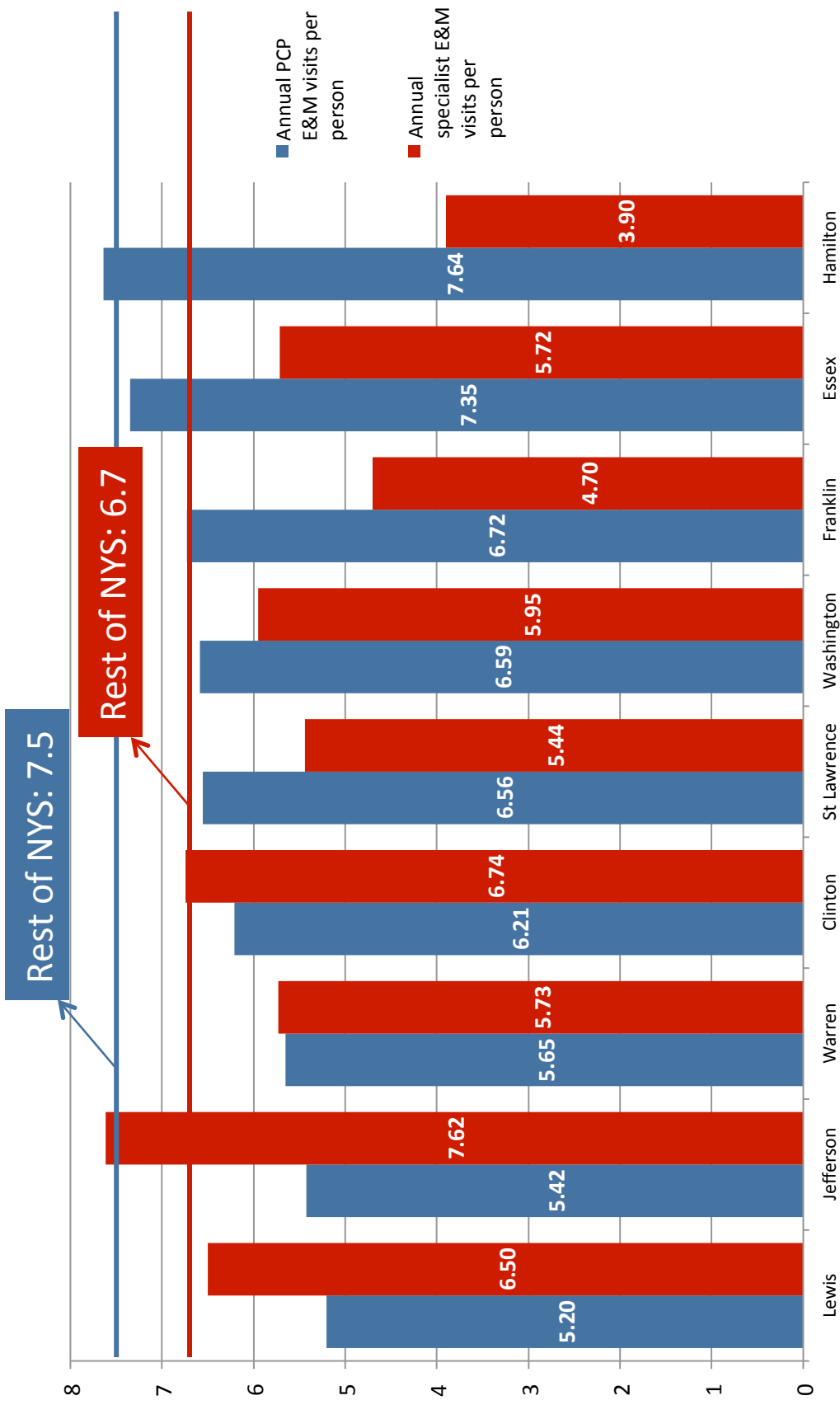


Figure 3.20 Medicaid hospital and physician utilization for multimorbidity, 2010-2012



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Analysis by KPMG. Rest of NYS excludes NYC. PCP: Primary Care Physician. E&M: Evaluation and Management.

Figure 3.21 Number of physician visits per patient for multimorbidities, 2010-2012



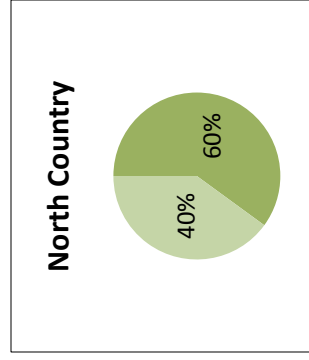
Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Analysis by KPMG. Rest of NYS excludes NYC. Data sorted by number of PCP E&M visits per person. PCP: Primary Care Physician. E&M: Evaluation and Management.

Chapter 4: Acute stroke care

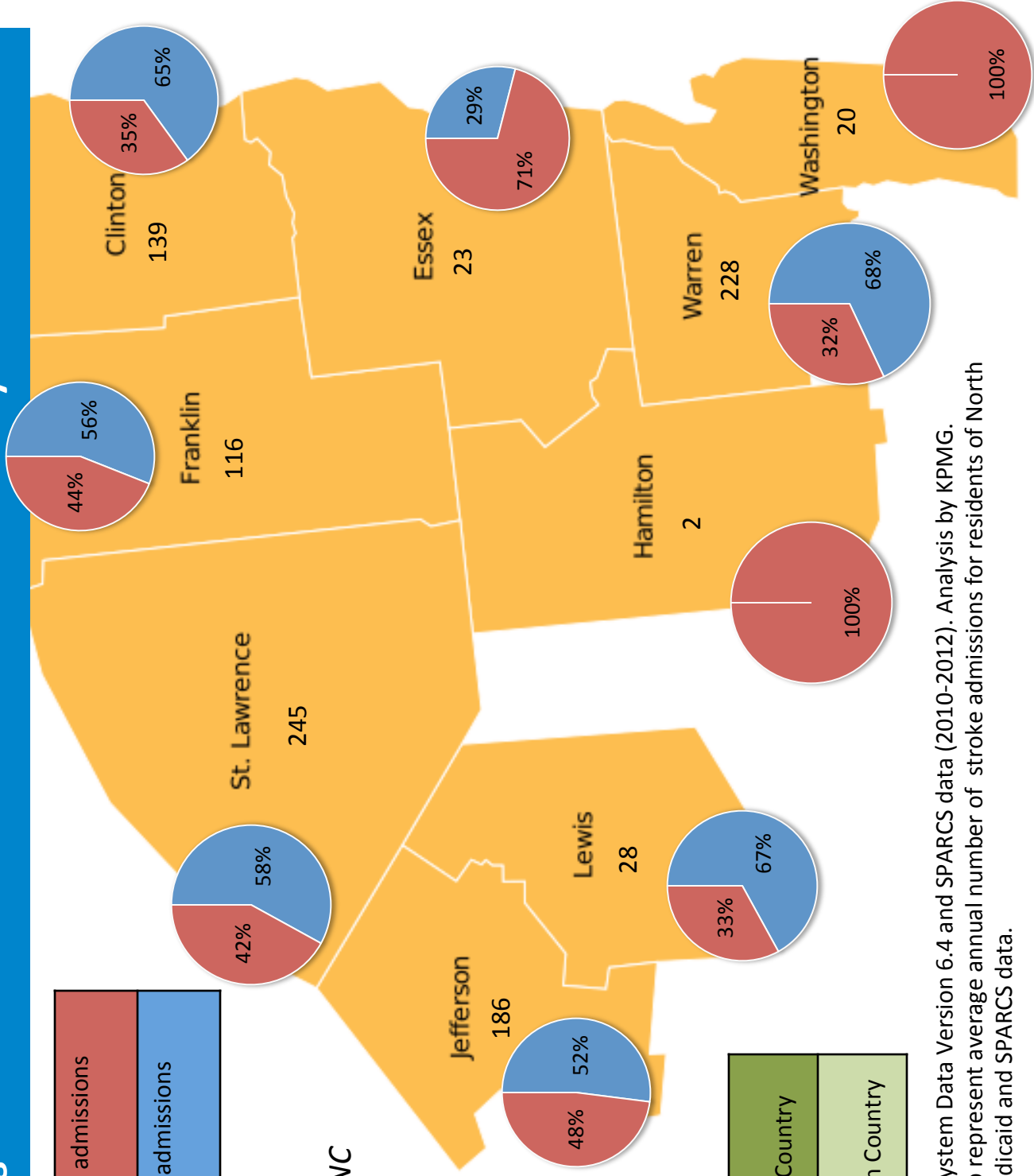
Figure 4.1 Average annual stroke admissions in North Country

Percentage of annual stroke admissions outside the county
Percentage of annual stroke admissions inside the county

Total admissions for NC residents = 966



Percentage of annual stroke admissions inside the North Country
Percentage of annual stroke admissions outside the North Country



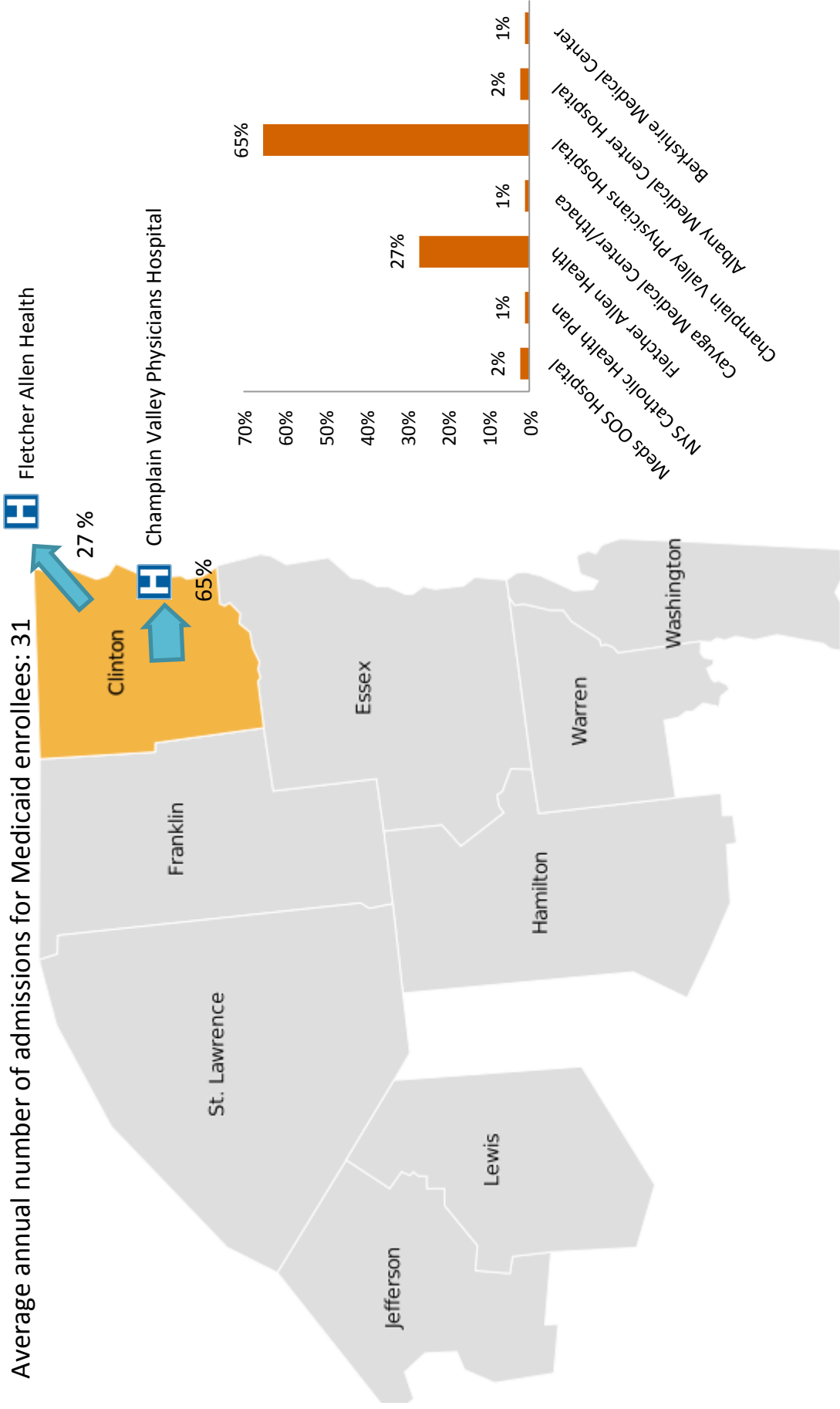
Source: Salient NYS Medicaid System Data Version 6.4 and SPARCS data (2010-2012). Analysis by KPMG.
 Note: The numbers on the map represent average annual number of stroke admissions for residents of North Country extrapolated using Medicaid and SPARCS data.

Table 4.1 Average annual acute stroke admissions by hospital in North Country

County	Facility Name	Average annual stroke admissions (2010-2012)
Franklin	Adirondack Medical Center-Saranac Lake Site	41
Franklin	Alice Hyde Medical Center	23
St. Lawrence	Canton-Potsdam Hospital	63
Jefferson	Carthage Area Hospital Inc	11
Clinton	Champlain Valley Physicians Hospital Medical Center	90
St. Lawrence	Claxton-Hepburn Medical Center	38
St. Lawrence	Clifton-Fine Hospital	3
St. Lawrence	Edward John Noble Hospital of Gouverneur	9
Essex	Elizabethtown Community Hospital	6
Warren	Glens Falls Hospital	156
Lewis	Lewis County General Hospital	19
St. Lawrence	Massena Memorial Hospital	30
Essex	Moses-Ludington Hospital	1
Jefferson	River Hospital, Inc.	0
Jefferson	Samaritan Medical Center	85
Total		574

Source: Analysis by KPMG of SPARCS data using International Hospital Benchmarking tool (2010-2012)

Figure 4.2 Clinton county Medicaid enrollee travel patterns for acute stroke admissions (2010 – 2012)



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Analysis by KPMG.

Figure 4.3 Franklin county Medicaid enrollee travel patterns for acute stroke admissions (2010 – 2012)

Average annual number of admissions for Medicaid enrollees: 18

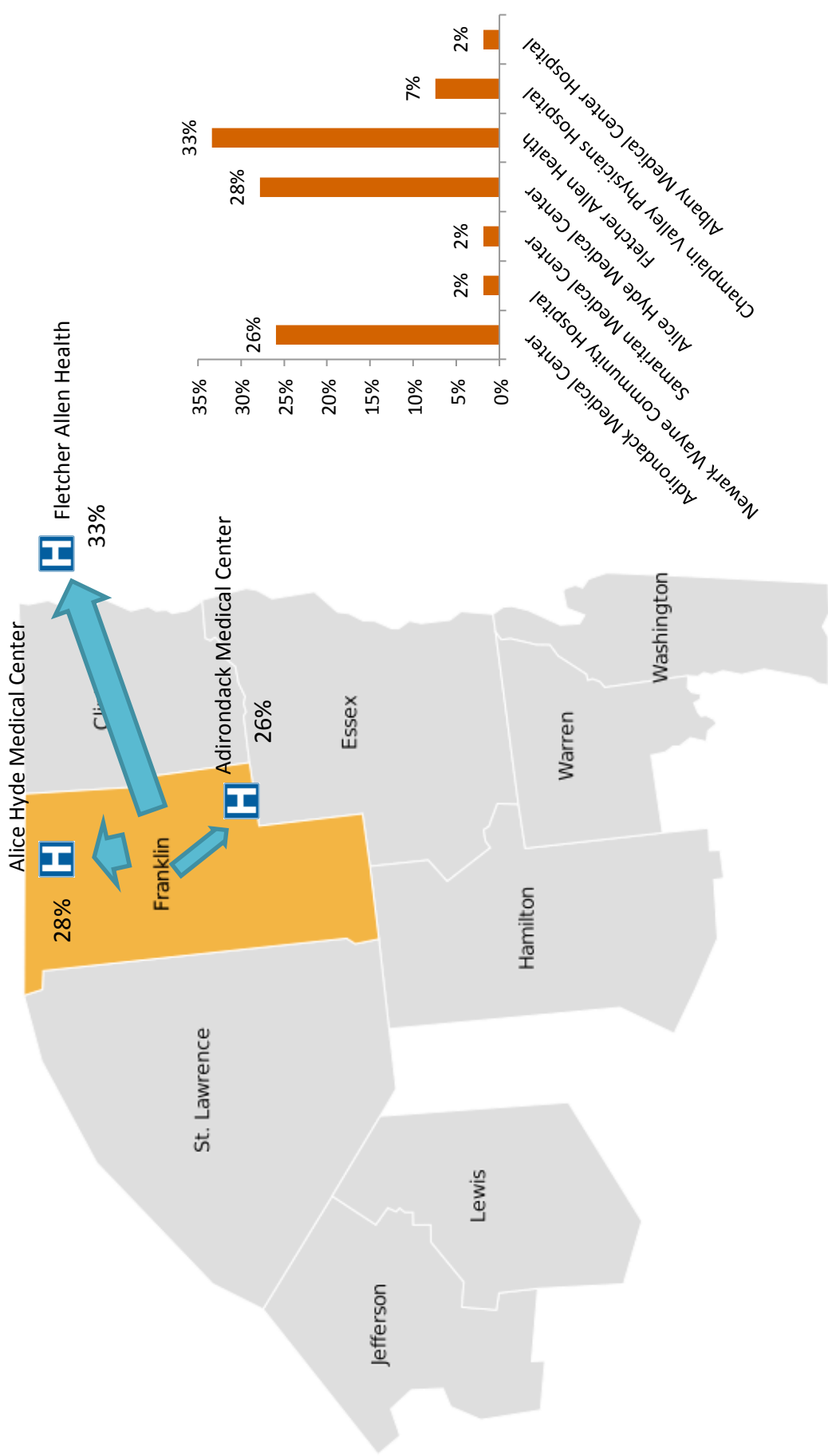


Figure 4.4 Essex county Medicaid enrollee travel patterns for acute stroke admissions (2010 – 2012)

Average annual number of admissions for Medicaid enrollees: 14

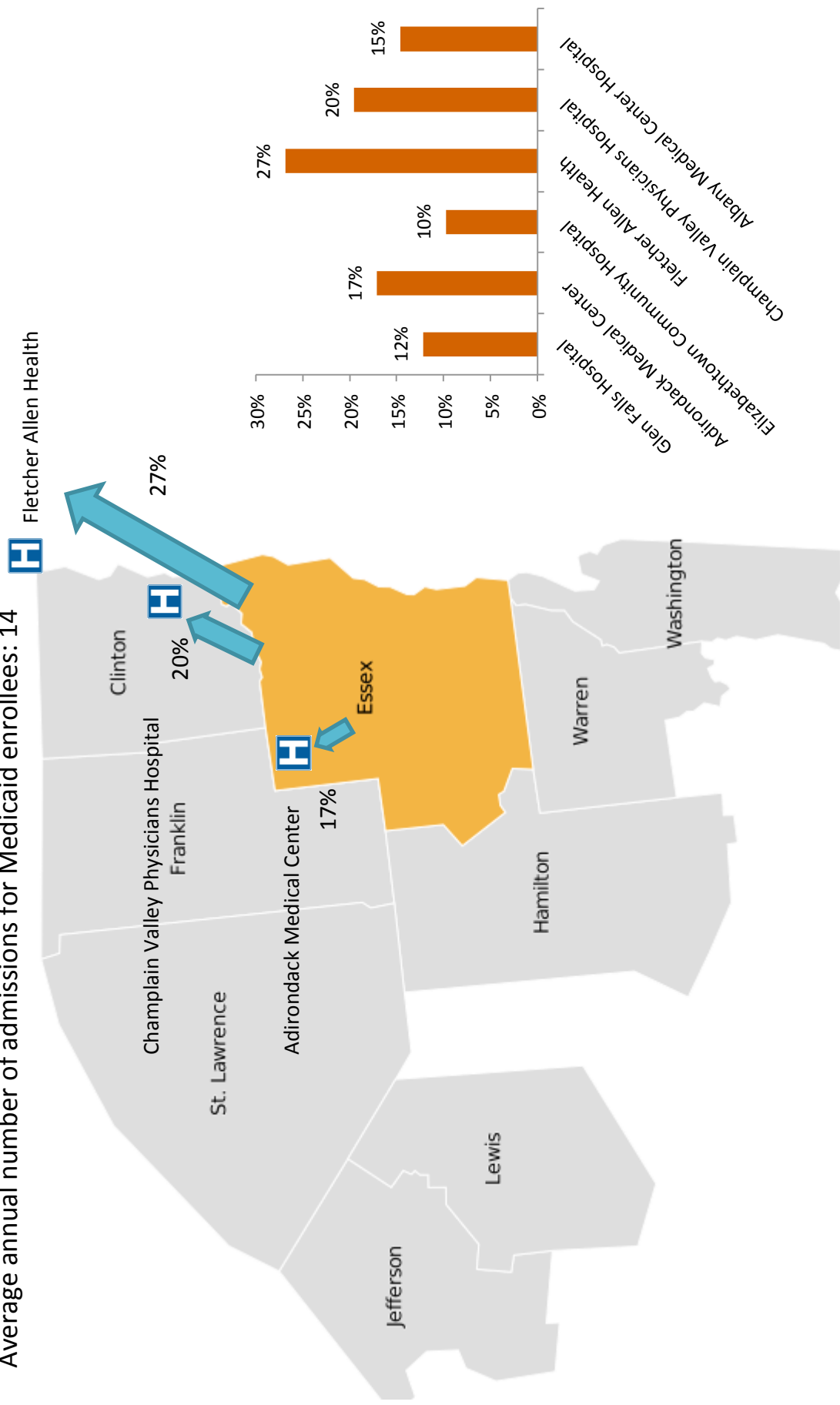
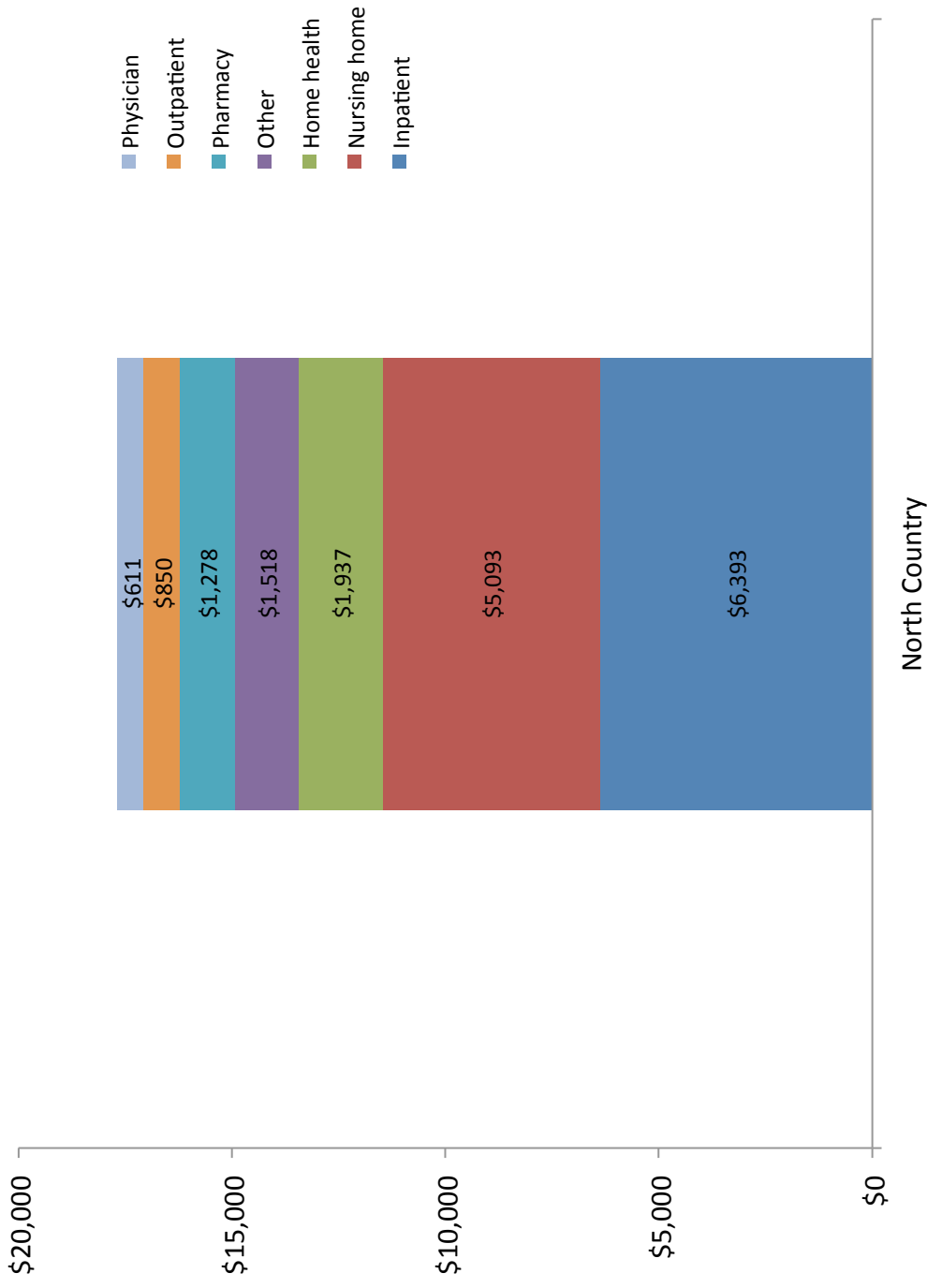
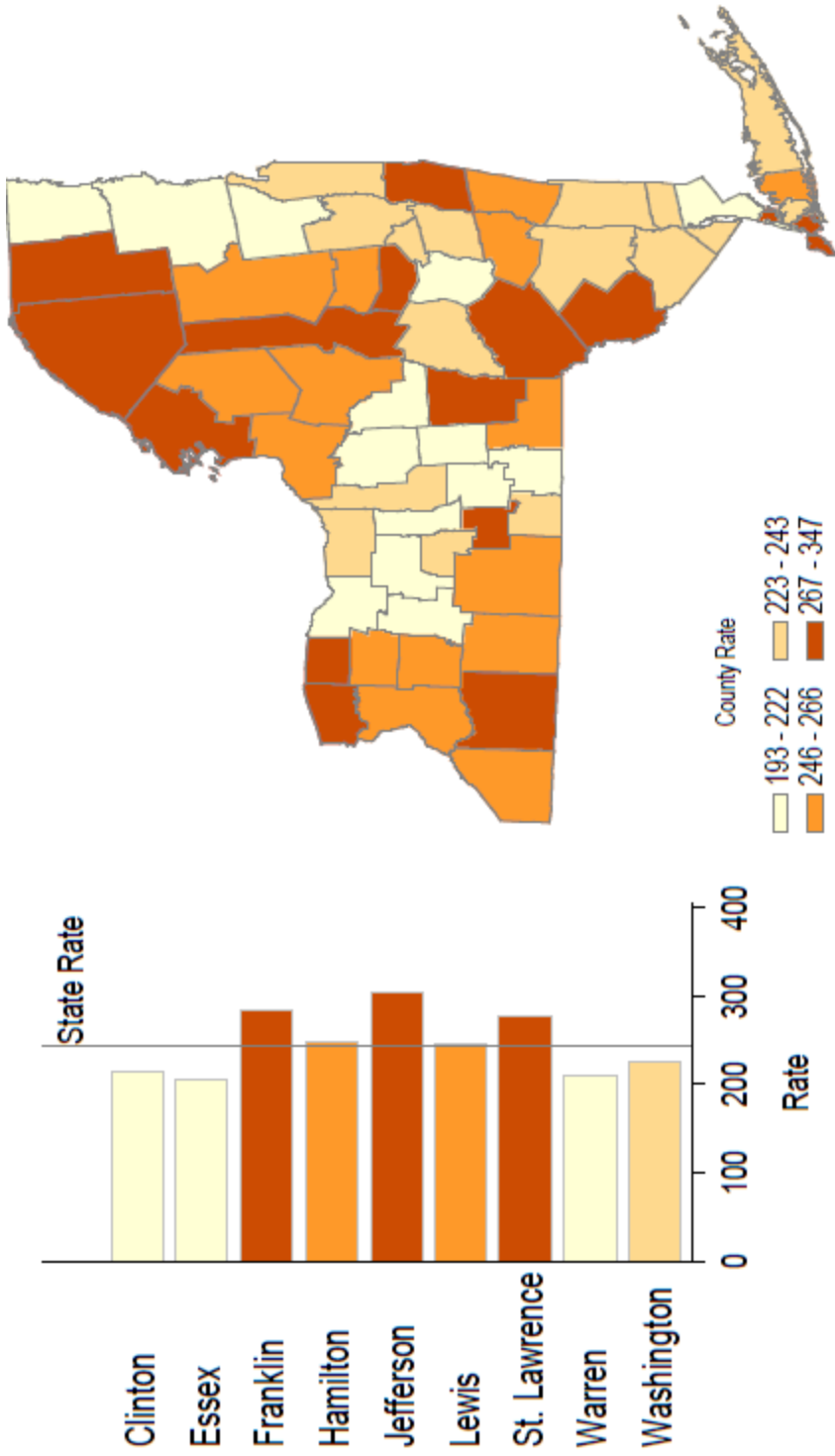


Figure 4.5 Acute cardiovascular: Care utilization by Category of Service for Stroke



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Average PBPY costs followed by a stroke discharge paid by the Medicaid program. Analysis by KPMG.

Figure 4.6 Cardiovascular disease mortality rate per 100,000, 2009-11



Chapter 5: Mental health and Substance abuse care

Figure 5.1 Average number beneficiaries with a mental health condition per year in North Country

Average total number of beneficiaries with a mental health condition (2010 -2012):
16,657

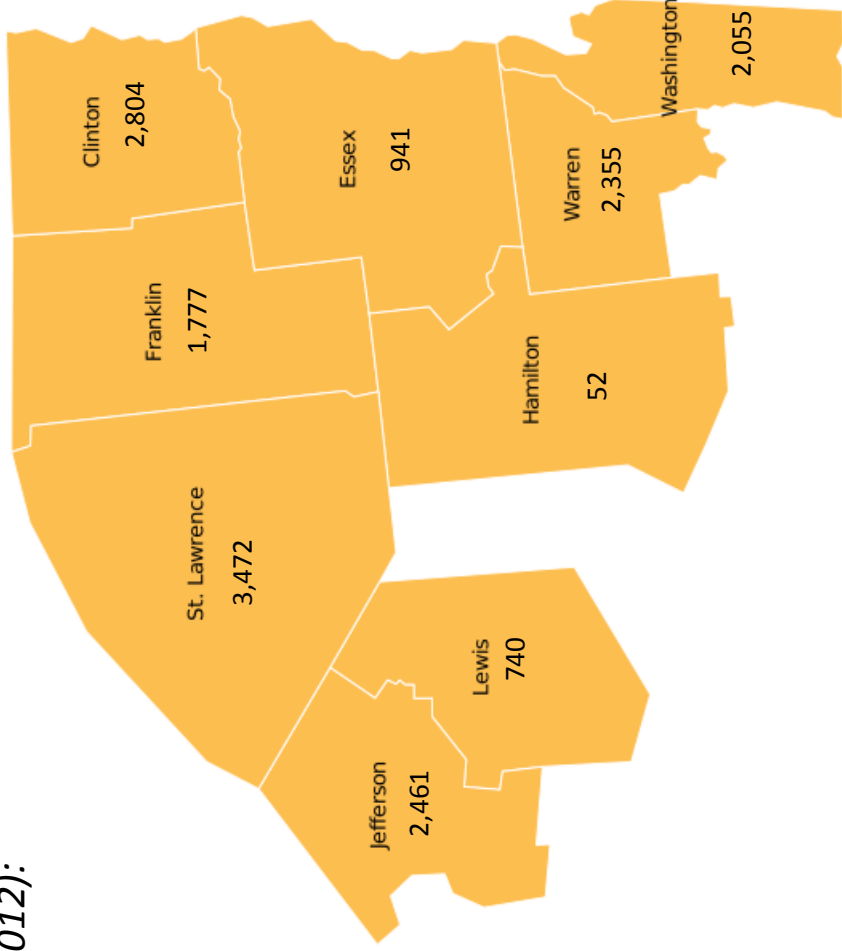
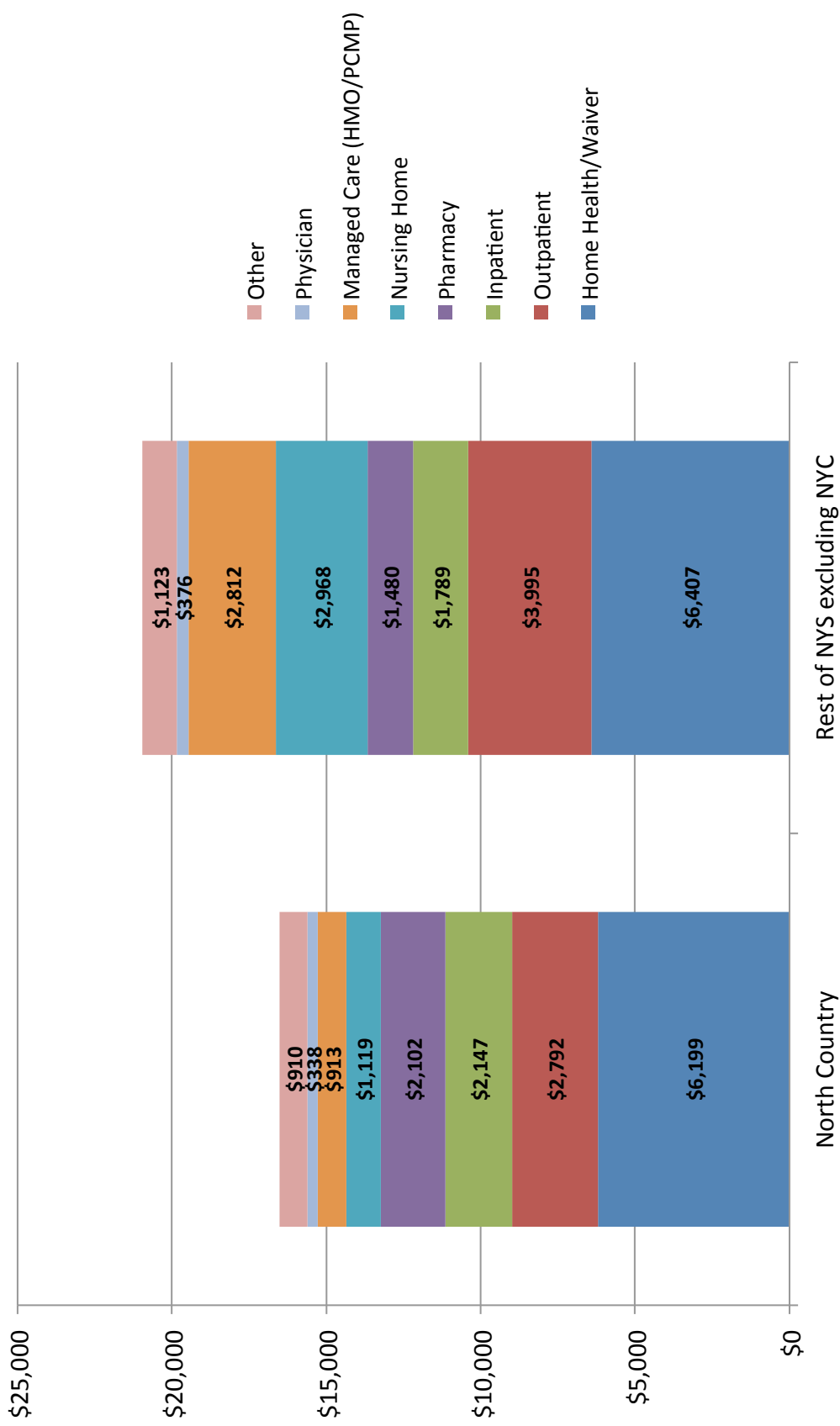
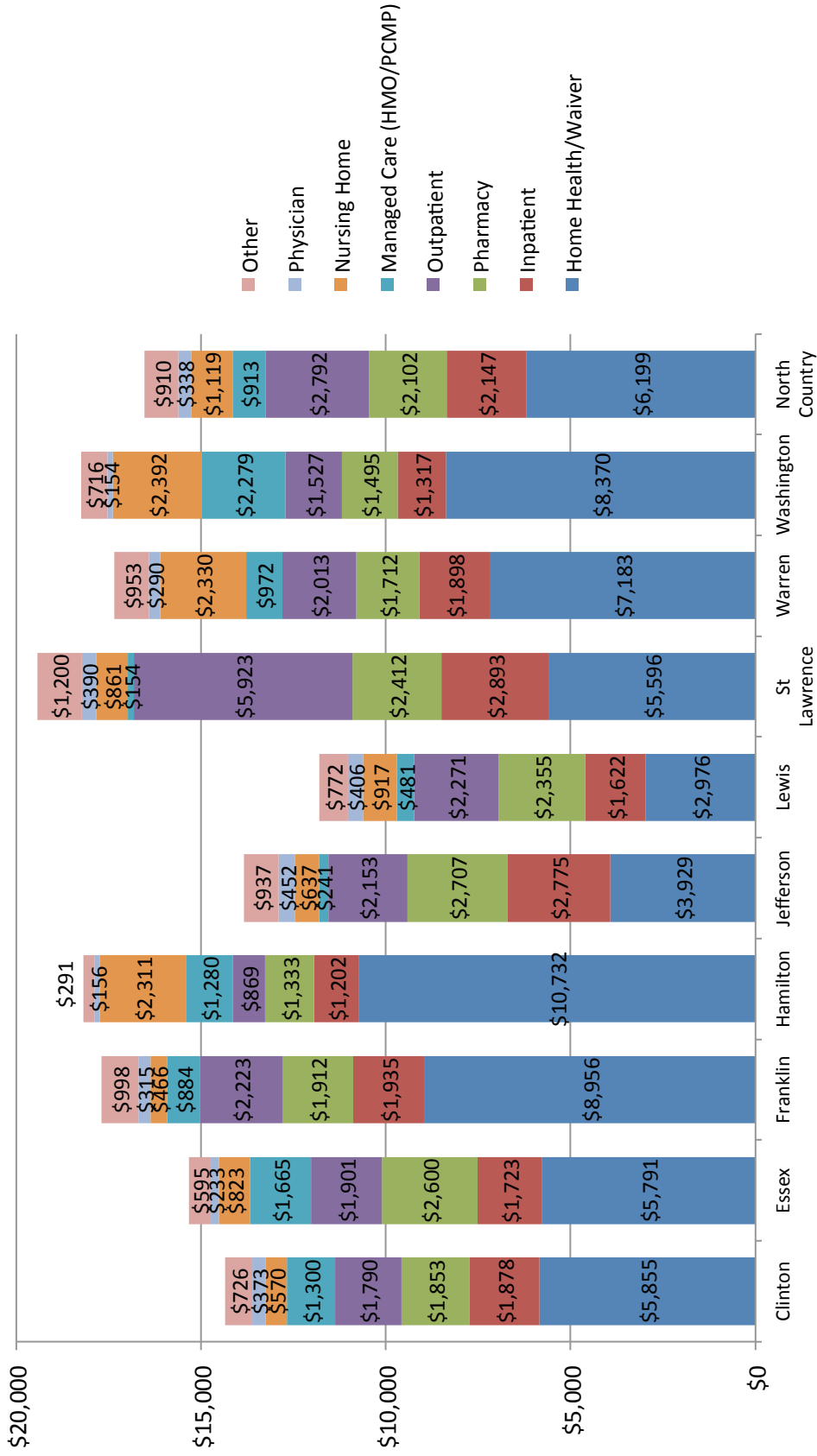


Figure 5.2 Medicaid spend on mental health by category of service



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Average PBPY costs paid by the Medicaid program. Analysis by KPMG.

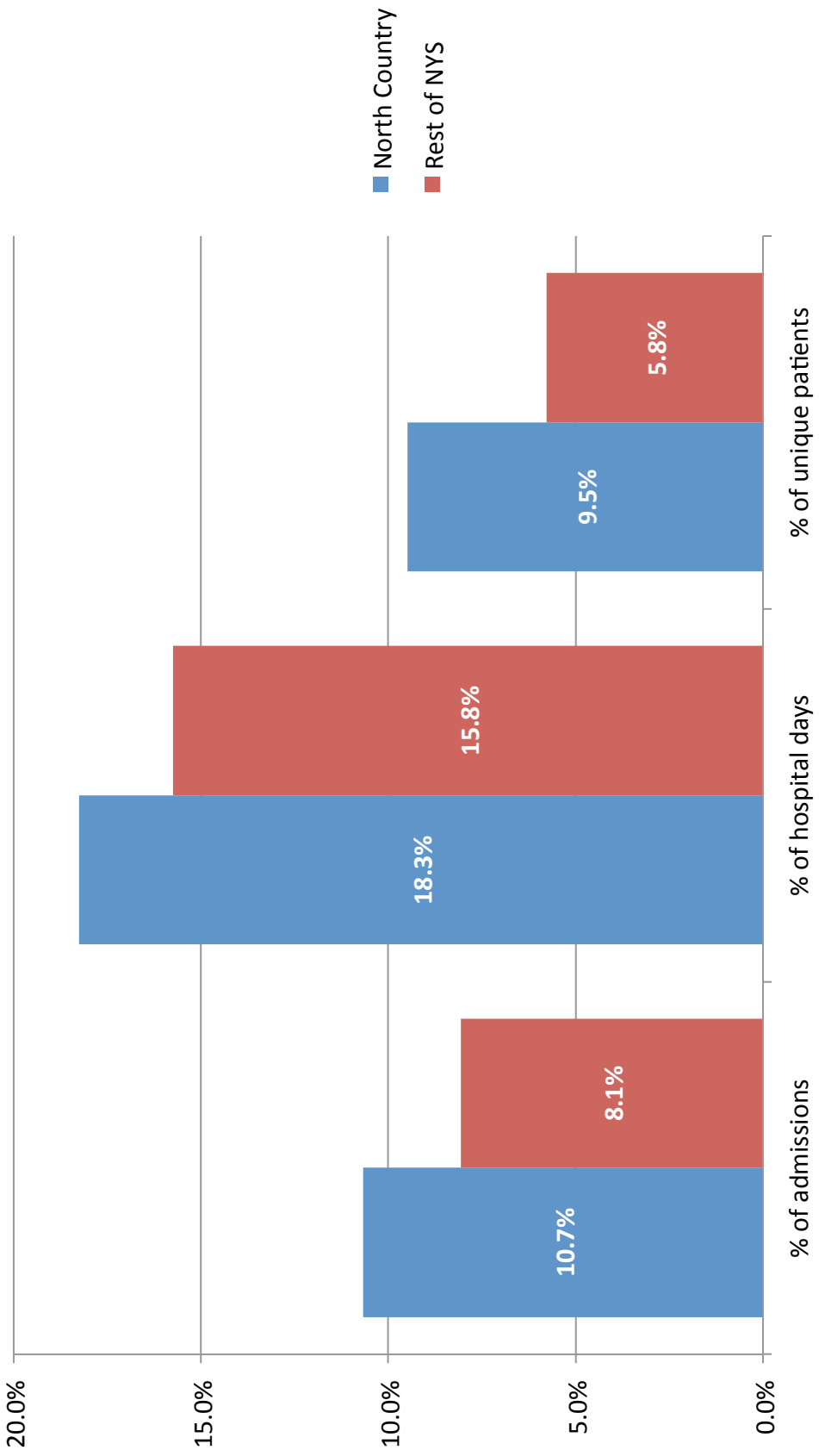
Figure 5.3 Medicaid spend on mental health by county and category of service



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Analysis by KPMG.

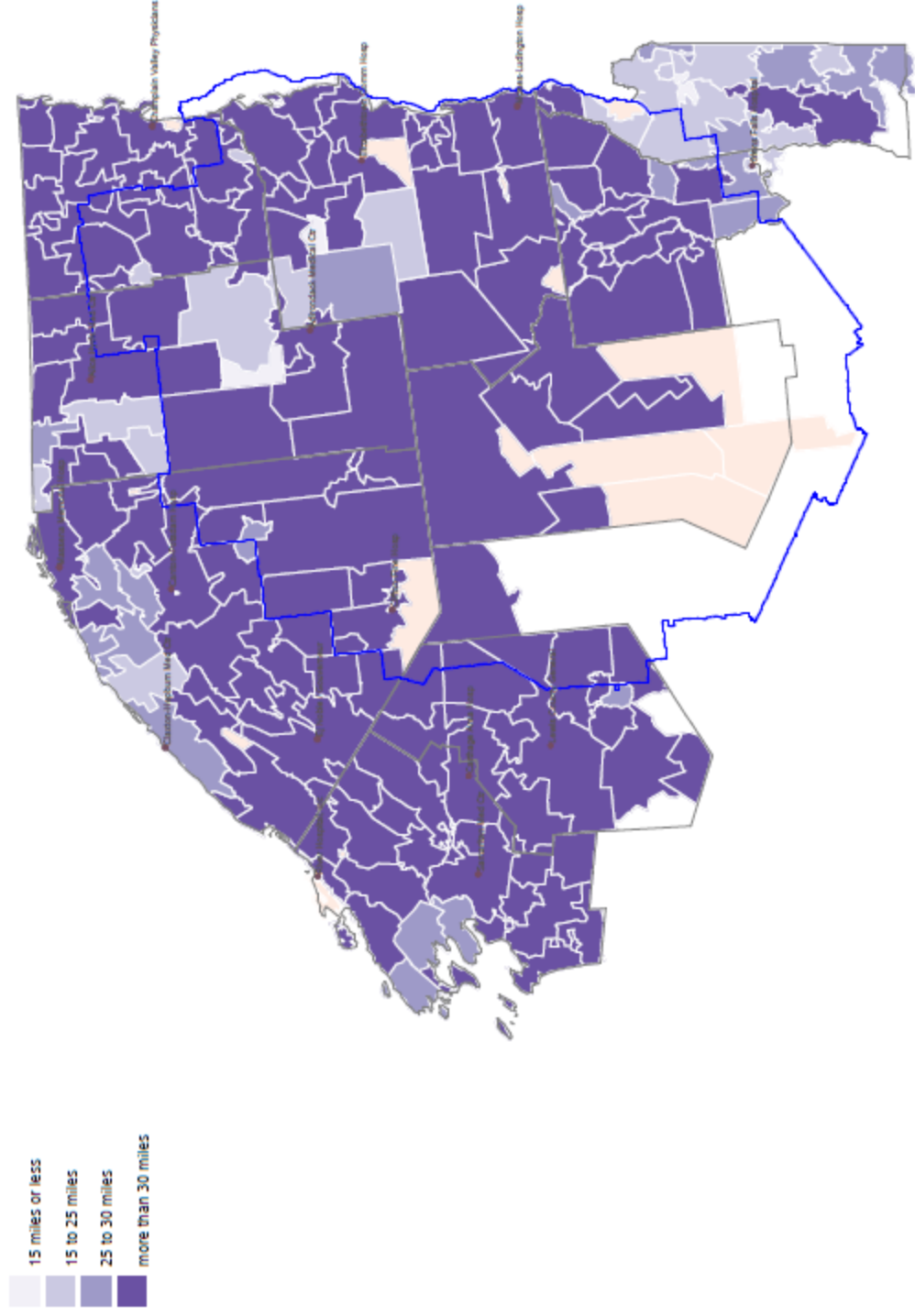
The "Other" includes the following: Emergency room, transportation, dentist, durable medical equipment, referred ambulatory, dental clinic, laboratory, child care, eye care, and ICF/MR.

Figure 5.4 Medicaid hospital utilization of mental health diagnoses, 2012



Source: Salient NYS Medicaid System Data Version 6.4 (2012). Analysis by KPMG. Mental health related diagnoses include: Affective disorders, anxiety; somatoform; dissociative; personality disorders, mental retardation, other mental conditions, other psychoses, preadult disorders, schizophrenia and related disorders, senility and organic mental disorders, alcohol-related mental disorders, and substance-related mental disorders.

Figure 5.6 Mean distance to OASAS certified treatment programs, 2012



Source: Straight line distance in miles between facility and client ZIP Code, OASAS June 2013 to July 2013, by Zip Code

Figure 5.7: Suicide mortality rate per 100,000, 2009-2011

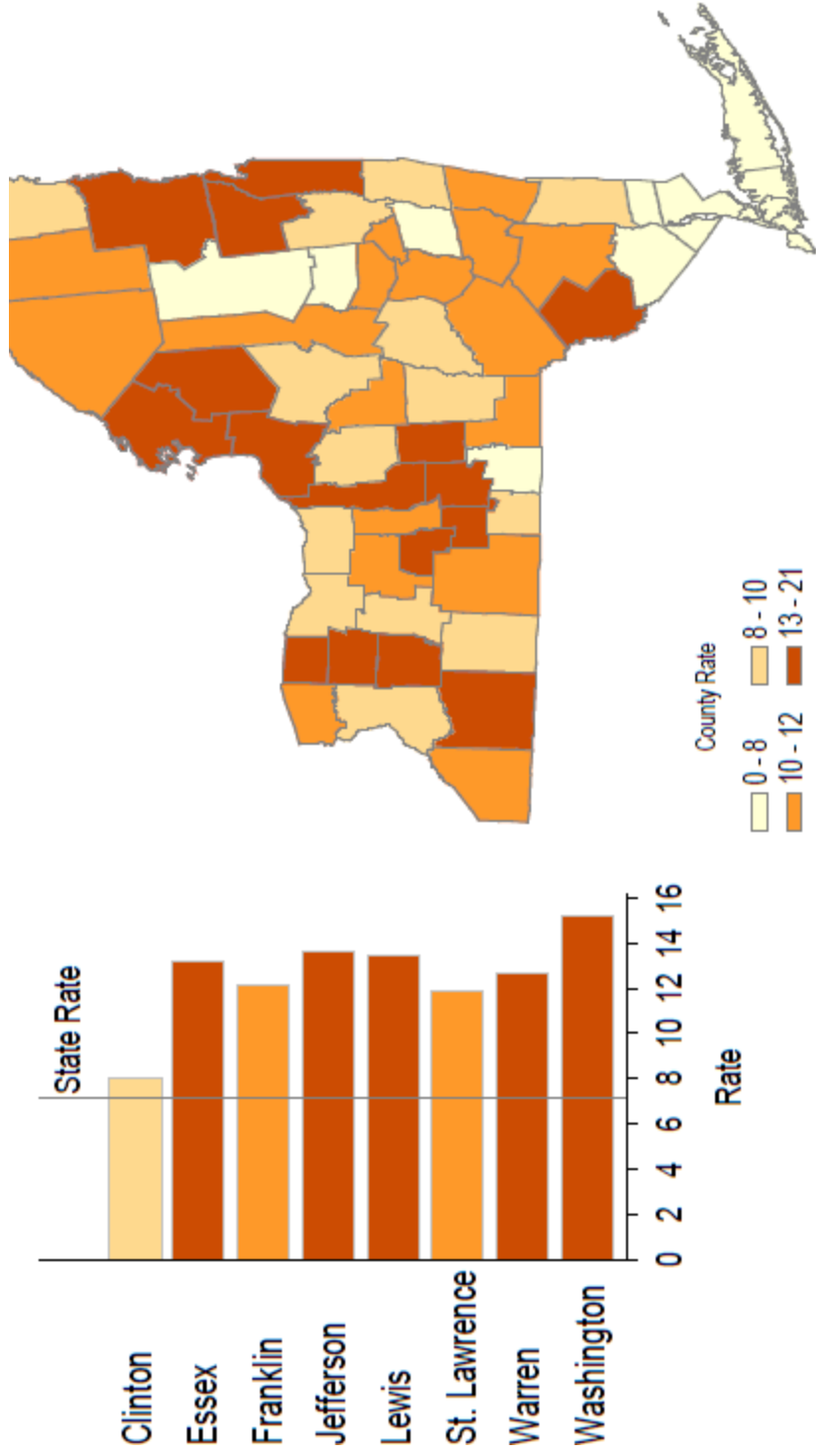


Figure 5.8 Average number of beneficiaries with a substance abuse condition per year in North Country

Average total number of beneficiaries with a substance abuse condition (2010 -2012):
5,222

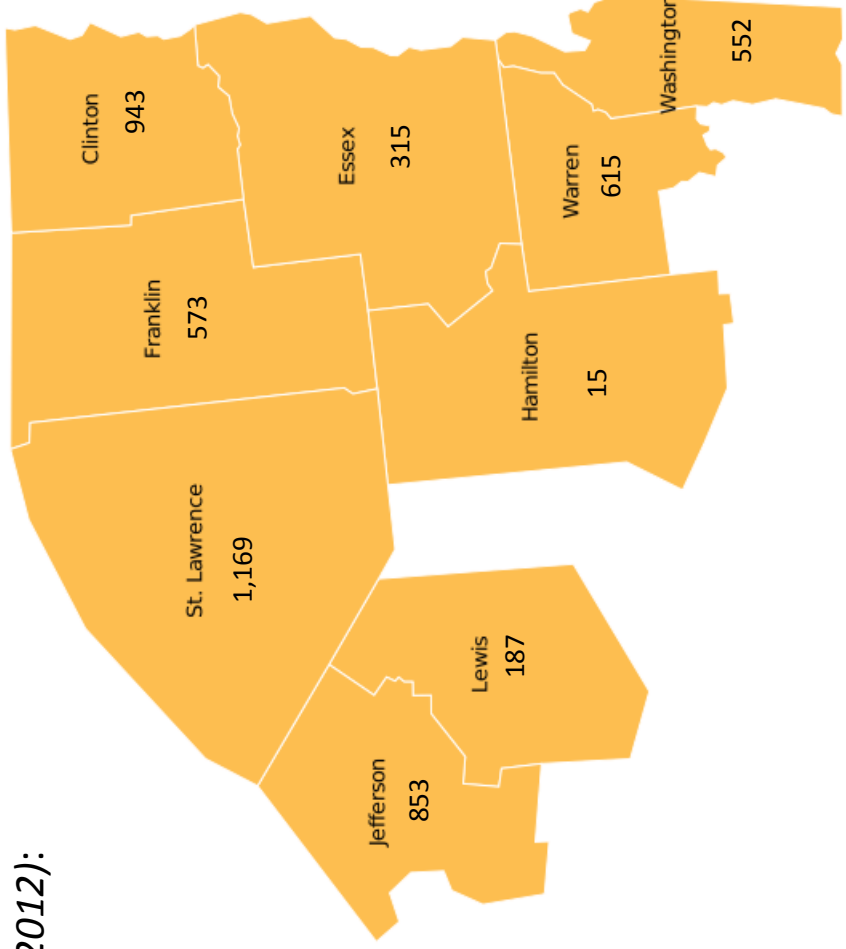
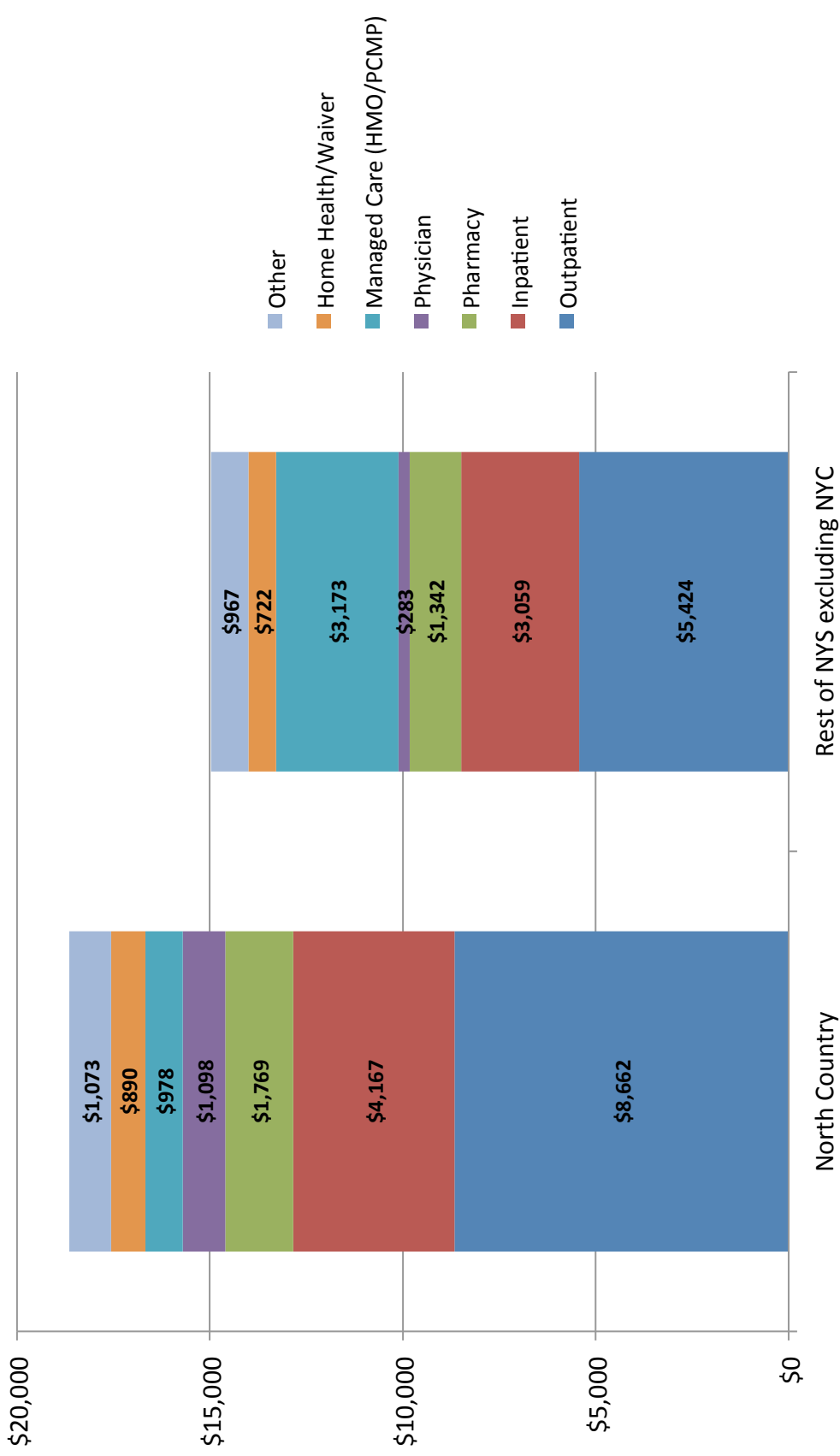
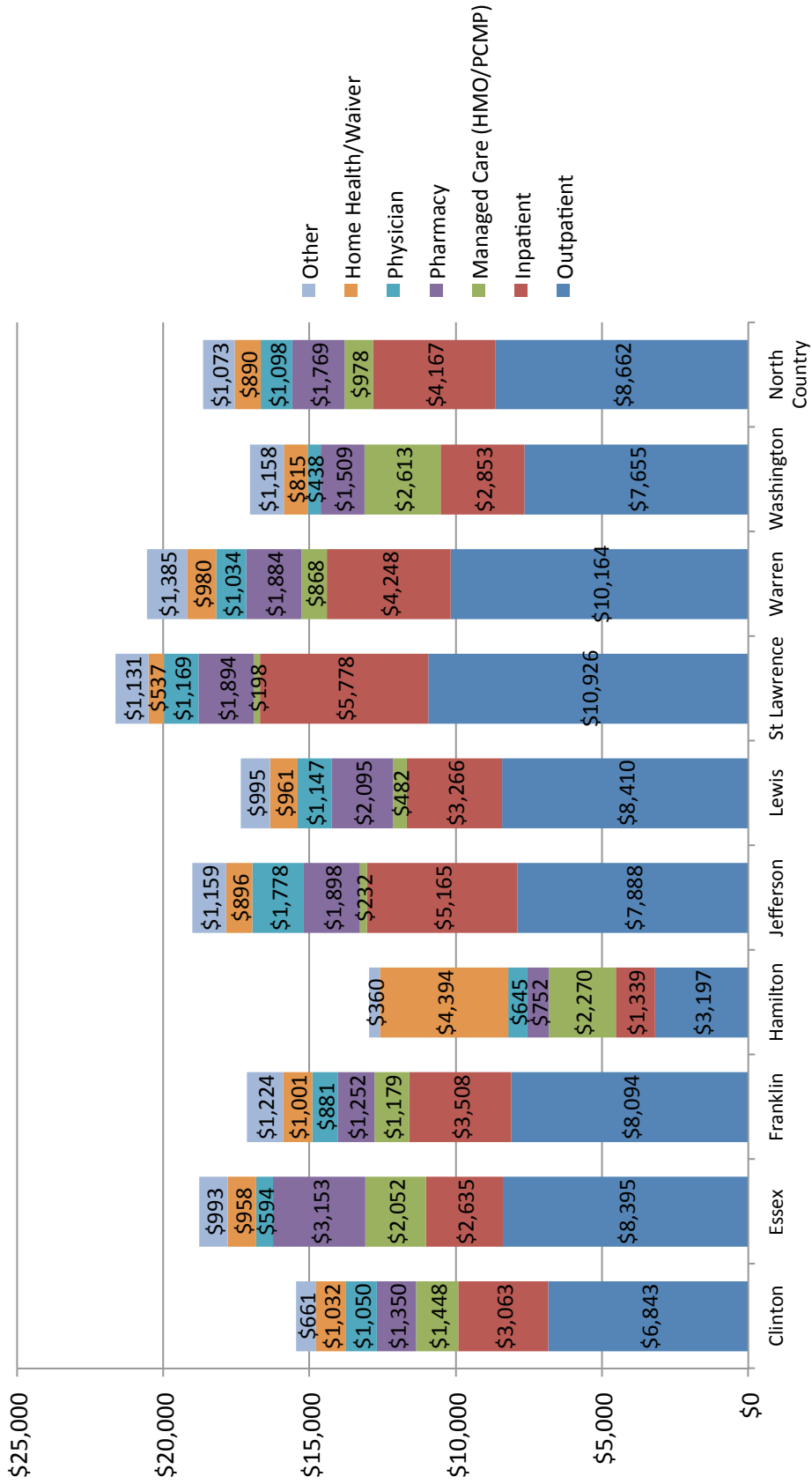


Figure 5.9 Medicaid spend on substance abuse by category of service



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Average PBPY costs paid by the Medicaid program. Analysis by KPMG.

Figure 5.10 Medicaid spend on substance abuse by category of service



Source: Salient NYS Medicaid System Data Version 6.4 (2010-2012). Average PBPY costs paid by the Medicaid program. Analysis by KPMG. The "Other" includes the following: Emergency room, nursing home, transportation, dentist, durable medical equipment, referred ambulatory, dental clinic, laboratory, child care, eye care, and ICF/MR.