Western New York Community Health Needs Assessment

Delivery System Reform Incentive Payment (DSRIP) Program

VOLUME ONE

Western New York Community Health Needs Assessment

for the

Delivery System Reform Incentive Payment Program

for the Millennium Care Collaborative PPS and
Catholic Medical Partners/Catholic Health System PPS

by the University at Buffalo Regional Institute
HMS Associates
The P2 Collaborative of WNY and
FTI Consulting Center for Healthcare Economics and Policy

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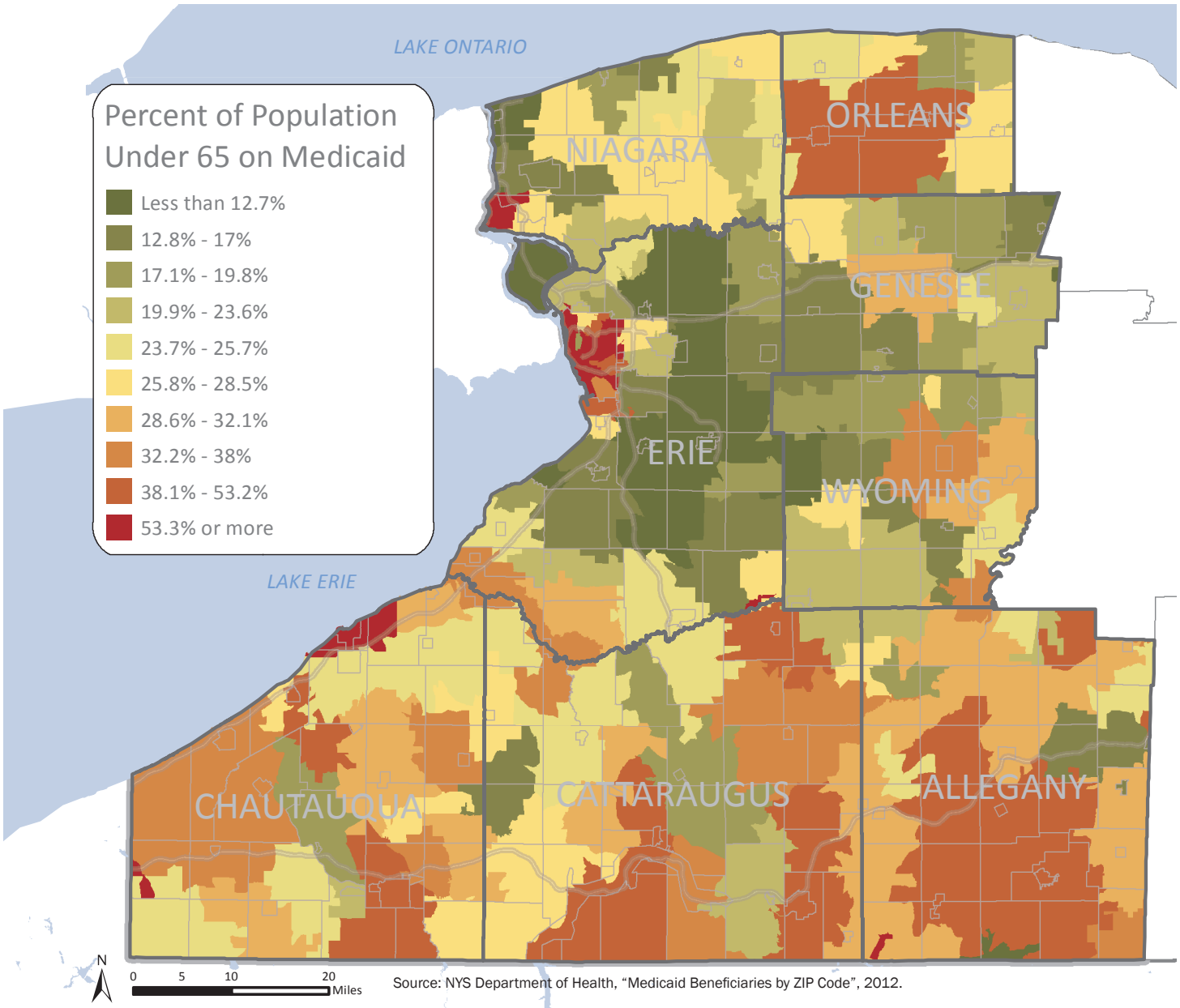

Source: NYS Department of Health, "Medicaid Beneficiaries by ZIP Code", 2012.

Western New York's Medicaid population is concentrated in the region's two largest cities, Buffalo and Niagara Falls. In parts of both municipalities the proportion of residents who are enrolled in the Medicaid program exceeds fifty percent. Other areas where the proportion of Medicaid participation is high include Lackawanna, Dunkirk, Jamestown, and ZIP codes in Orleans, Cattaraugus and Allegany County. This data maps the pattern of both urban and rural poverty across Western New York and highlights where health care need is also concentrated. It also shows the broad swath of relative affluence that characterizes much of suburban and exurban Erie, Wyoming and Genesee counties.

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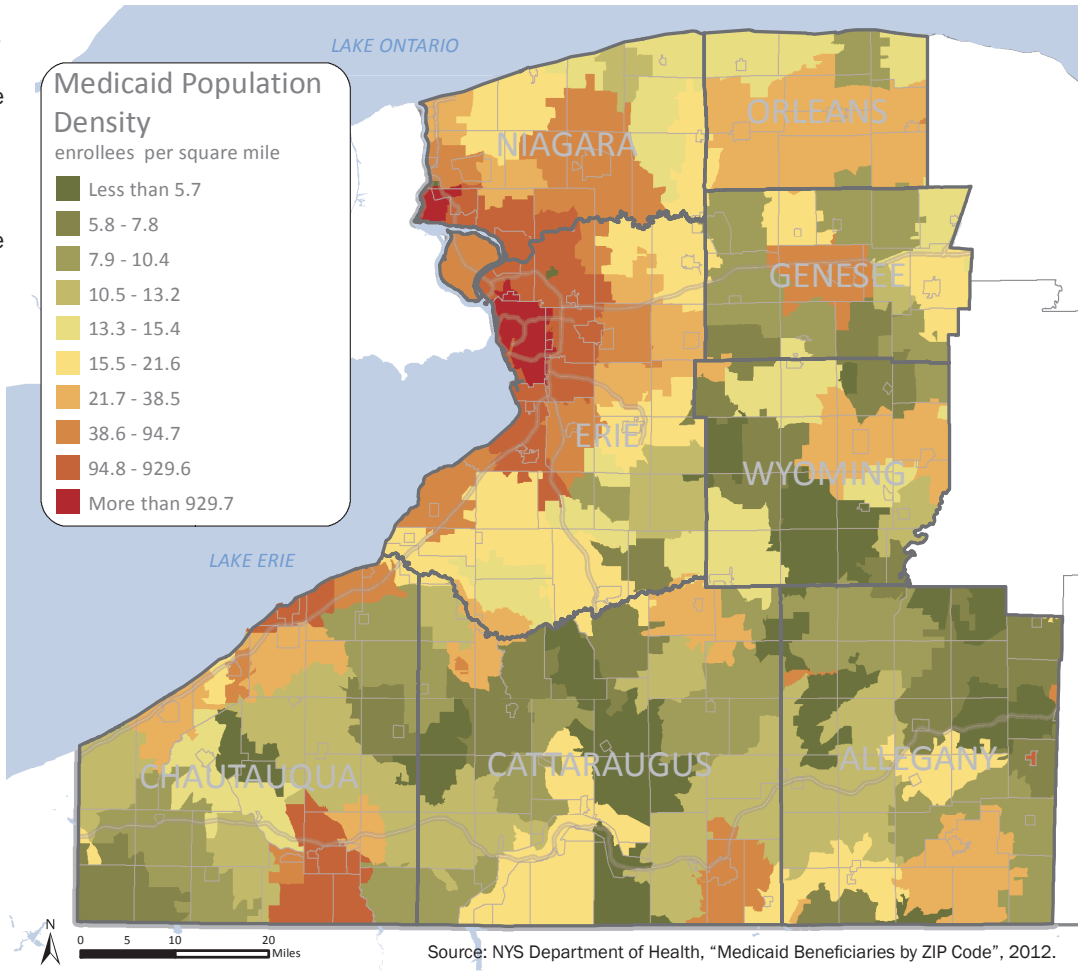
Medicaid Population Density By ZIP Code

When the Medicaid population is viewed, not as a proportion of residents in any given ZIP code, but as a total number, the focus of the picture shifts to the metropolitan core and its suburbs.

As in the map above, concentrations of Medicaid enrollees can be seen in Buffalo and Niagara Falls. But significant numbers of Medicaid members are also living in the first-ring Buffalo suburbs, the Tonawandas, Lockport, Dunkirk, Jamestown and elsewhere around the periphery of the region.

Conversely, in many areas where the proportion of Medicaid enrollees is high, the density of members is low because the overall population density is so low.

Meanwhile, it is worthy of note that nearly a thousand Medicaid members are not accounted for on a map of ZIP code geographies. They receive their mail at Post Office box-only ZIP codes so they don't show up on the map to the upper right.

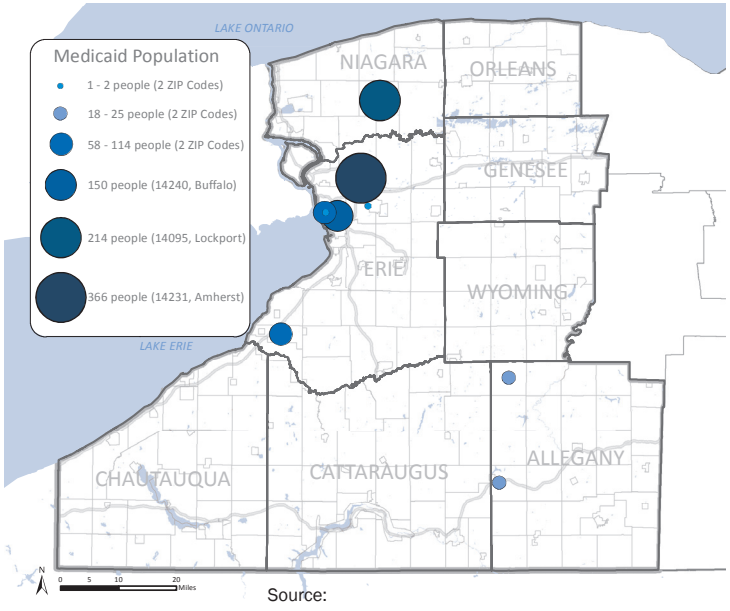


Source: NYS Department of Health, "Medicaid Beneficiaries by ZIP Code", 2012.

There are 15 PO Box-only ZIP codes in Western New York. Most of these only have a handful of Medicaid recipients who get their mail at those post offices. There are, however, five PO Box-only ZIP codes with a significant number of Medicaid enrollees.

The largest, with 366 enrollees, is located at a post office in Amherst. Two are located in Buffalo. One is in Lockport. A fifth is in Brant. While the numbers are not miniscule, they do not have a noticeable impact on the analysis provided in this report. The Medicaid members represented presumably live in other ZIP codes in those jurisdictions. But their numbers are generally not large enough to affect the observations made throughout this assessment.

Medicaid Population Density By PO Box Only ZIP Code



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Executive Summary

Introduction

Health care providers and their partners are undertaking what all involved hope will be historic change and improvement in the system of care for enrollees in the Medicaid program. The straightforward goals of the initiative are a matter of broad consensus: improve the quality of care, reduce costs and improve the health and well-being of every beneficiary of the program.

The Delivery System Reform Incentive Payment program (DSRIP), otherwise known as "Medicaid Reform," is the vehicle by which providers and their partners will lead the transformation of our system. This will seek to cut roughly $16 billion in unnecessary health care services and set aside half of those savings – about $8 billion – to fund projects to accomplish the overall goals.

Planning for those projects is being led by two "Performing Provider Systems" – Catholic Medical Partners/ Catholic Health System and Millennium Collaborative Care (comprising Erie County Medical Center, Kaleida Health, Niagara Falls Memorial Medical Center, the McGuire Group and SNAPCAP) – who will apply for state DSRIP funding for implementation. They have collaborated on the production of this community health needs assessment to inform their selection of projects and provide data, analysis and insights needed to further develop project plans.

The University at Buffalo Regional Institute, working closely with HMS Associates, the P2 Collaborative of Western New York, and FTI Consulting Center for Healthcare Economics and Policy is proud to submit this report as fulfillment of that DSRIP program requirement.

Methodology

Making a comprehensive assessment of community health needs in an area as large and diverse as the eight-county Western New York region requires the integration of a wide array of information and data types. Those used here include basic demographics, indicators of "community structure" or social determinants of health need, and detailed health care data describing system-wide performance, quality of care and population health status. Together, and produced as composite indices, these provide a powerful set of measures to understand in concrete terms who we are as a region, how health care is being delivered, and what are the results in terms of the health of people.

Qualitative data from a range of sources helps us give dimension and human detail to the numbers and provides us with the means to explain some of the dynamics at play in our health care system today. These data sources include a broad-based regional health needs survey completed by more than 7,000 people; a round of 16 "community conversations" engaging people served by the system to better understand those patient perspectives; and a series of 42 interviews with providers from every part of the region and every phase of the health care system from primary care to mental health and behavioral care to emergency department.

Community Engagement

The assessment process led with an outreach to the people of the communities served by the Western New York health care system. A three part process was designed to ensure that the needs assessment understood clearly the voice of the consumer. These elements included a robust community survey, facilitated conversations with community groups and an ambitious series of interviews with providers across the region.

Community Survey

The community health needs assessment included an ambitious and broad-based community survey in order to hear the voice of the customer in health care and to provide a source of data to complement the systematically collected health care and health status data analyzed for this assessment.

The survey was adapted from the Behavioral Risk Factor Surveillance System survey, which seeks information from consumers on their health care experiences and health status as well as basic demographic information. Two open-ended questions – one asking what the respondent believes is the most important health problem in the community, another asking what they believe is the most critical health system need – were included.

The survey was deployed in two ways. A hard-copy version of the survey was distributed in health care settings across the eight-county region with the assistance of partner organizations to the Performing Provider Systems. These included hospitals, emergency departments, urgent care clinics, primary care clinics, mental and behavioral health clinics, and other sites. More than 5,000 of such surveys were returned, tabulated and analyzed.

In addition, an on-line version of the survey was distributed, also through PPS partners as well as insurers such as Independent Health and Blue Cross/ Blue Shield, and via social media sites and word of mouth. Nearly 1,900 surveys were completed on-line.

Obviously, the more than 7,000 responses do not constitute a scientific random sample of health care consumers in the region. In the aggregate, however, the responses track roughly with the age demographics of the region, population of constituent counties, the ratio of Medicaid to non-Medicaid insured individuals. Over-represented in the survey are health care employees, mental health patients, residents of Erie County versus residents of the other seven counties. But the results provide some interesting insights into health and health care in the region.

The survey provided some striking comparisons between those who have employer provided insurance and those insured through Medicaid. Those with employer insurance were far more likely to be married and employed than Medicaid members. Those insured by Medicaid were three times more likely to report ill health in the past month and more than three times more likely to be smokers. Roughly half of respondents in each group, however, reported being overweight or obese.

When asked to select from a list of suggested improvements to the primary care delivery system, the most common answer was "shorter time to schedule appointments," followed by "longer hours of operation," "better follow-up care," and "more responsive staff."

In the open-ended questions, respondents identified the most important health problems in their community (in descending order of frequency) as obesity, diabetes, mental health issues, cancer, smoking and heart disease.

The most important health care needs cited included mental health care, more affordable insurance, primary and preventive care, health education, the need for more doctors, better access in general, and transportation

Community conversations

Outreach to hear the voice of the customer also included a series of 16 "community conversations" with Medicaid enrollees and others. These small group discussions – involving up to a few dozen participants in each – provided an open-ended opportunity for residents to reflect on their experiences in the health care system and suggest some improvements. The sessions were facilitated by the P2 Collaborative of Western New York and produced in collaboration with provider organizations and community groups across the eight counties.

A more detailed description of these conversations is provided in Section X. Some of the themes developed are highlighted here.

- Out-of-pocket costs are a significant barrier to health care for lower-income consumers. This includes, not only the cost of co-pays, deductibles and prescription drug purchases, but also transportation to sites of care and costs associated with being away from home (baby-sitters) or work (lost pay).
- Transportation is a pervasive problem in ensuring access to health care for the poor and nearly poor. Many low-income households lack access to a vehicle, public transit services in the region are weak or non-existent, and use of Medicaid funded services requires significant advance notice for pick-up and drop off. These challenges contribute to problems with no-shows to primary care appointments.
- The quality of care provided to Medicaid enrollees is perceived by some as inferior in quality to the care that people receive when they are otherwise insured.
- Communication is a problem for Medicaid patients who may not fully understand a doctor's instructions or explanations, either because the doctor speaks too technically or because the patient speaks another language, or because the doctor "talks down" to the patient. More generally, provider sensitivity to cultural differences is seen as a need.
- Waiting to be seen is a felt as a barrier to patient engagement in the primary care system. This includes how far in the future an appointment may be as well as how long the patient waits once she arrives at the clinic or other site. Both contribute to problems with no-shows and inappropriate ED use.
- Continuity of care is important to patients. In areas with high turnover among providers, patients can be left feeling abandoned or forced to describe their situation over and over again to someone new. Patients value their relationship with primary care provider or mental health counselor. More generally, patients sometimes feel passed around from one provider to another.
- Mental health care is an area of particular shortage, at least as perceived by patients. Long waits to find a provider, either because insurers must approve or evaluations must be completed, discourage patients.

Provider interviews

Health care providers have a crucial perspective on the health needs of the people of our region. A total of 48 front-line providers were interviewed, as suggested by leadership of the Performing Provider Systems. These included primary care providers, urgent care specialists, emergency room physicians, discharge planners, care coordinators, hospital administrators and a variety of researchers on issues that included prescription drug practice, teen pregnancy, smoking cessation, childhood asthma, mental health and overall system design. An extended thematic analysis of these interviews is provided in section 8 of this report. But major themes included:

- Poverty is, by most accounts, the overriding and most pervasive issue driving health care need in our region. Of course, Medicaid beneficiaries are poor by definition. But the impact of poverty on the income, employment status, educational attainment, regional mobility and the overall "opportunity structure" of individuals is massive. It influences all the choices individuals make about what to eat, whether to smoke, if they see a doctor, showing up for appointments, complying with regimes of medication, following doctors' orders, and much more.
- Chronic diseases are a pervasive issue for providers, especially, and perhaps ironically, for those working in emergency settings. Diabetes, asthma, cardiac disease, pulmonary conditions, addiction and other chronic conditions are both prevalent in the population and evident in emergency departments. Of course, these have an impact throughout the health care system – for primary care providers, skilled nursing facilities, discharge planners and care coordinators.
- Lifestyle issues are also understood as a driver of health care need. Rates of tobacco use, especially among Medicaid enrollees, poor diet, lack of exercise, and dangerous behaviors lead variously to obesity, diabetes, cardiac disease, cancer, lung problems, as well as HIV and sexually transmitted diseases and unwanted and teenage pregnancy.
- Access to care is a huge, complicated and difficult issue for providers. Patients who fail to appear for scheduled appointments make it hard to maximize the benefit from scarce resources. Patients who use emergency departments instead waste even more resources. And many patients will come when they are sick but not for well visits and preventive

care. But patients face a discouraging set of challenges: getting to provider sites when they don't own a car, waiting days or weeks to get an appointment, waiting hours to be seen, missing work to go to the doctor, not being able to afford co-pays or prescriptions and more.

- Compliance with prescription drugs and other doctor's orders was another important theme in the conversations. Research in the region has revealed a huge gap between what providers write in the clinic and what patients take at home. Cost is a barrier to compliance but so is confusion on the part of patients. Other ongoing research is examining where prescriber behavior departs from accepted practice – with impacts on both cost and health outcomes.
- Capacity is a key issue across primary care, specialist care and mental and behavioral health care. There's not a great financial incentive to train to be a primary care provider and significant disincentives in terms of working conditions, especially in rural areas. A broad range of specialists are also in short supply in rural quarters. The number of mental and behavioral health providers also seems inadequate to meet the need.
- Better coordination of care is identified as a pressing need across the system, in general, and specifically to address the DSRIP specific issues of unnecessary ED visits, avoidable in-patient utilization, and preventable re-admissions. The good news is that work is already under way to build better systems of coordination, through programs like the hospital-based health homes, the Patient Centered Medical Home, and Accountable Care Organizations, as well as through the individual initiative of primary care practitioners and others.
- Medicaid reimbursement structures provide some incentives that run contrary to the goals of the DSRIP program. Patients suffer no penalty for missing a medical appointment or for calling an ambulance to get to the emergency room for non-acute care. Hospitals are penalized financially for reducing ED visits. Low reimbursement levels prevent the development of urgent care facilities in locations where Medicaid patients might make most use of them. The rates also constrict supply of services by private primary care doctors even as funding for Federally Qualified Health Centers increases it.

Demographic overview

The assessment understands a series of demographic factors as indicators of health care need or health vulnerability. These are examined in greater depth in Section 2 of this report. But in general, we consider African-Americans and Latinos/Hispanics as at-risk populations, as are people over age 65 and women of child-bearing age (14-44 years). All of these indicators correlate closely with measures of poverty as do levels of educational attainment, single parent households and people born in a foreign country. The number of households without access to a motor vehicle is also another powerful indicator of the ability of people to meet their health needs.

Some key observations across these indicators include:

- African-Americans are heavily concentrated in the cities of Buffalo and Niagara Falls and constitute a majority of the population in several ZIP codes in each city. African-Americans also live in other locations around the metropolitan area, such as Cheektowaga. Several outlying concentrations of African-Americans are in ZIP codes where correctional facilities are located.
- Latinos/Hispanics follow a somewhat less concentrated residential pattern, with higher concentrations on Buffalo's West Side, Lackawanna and Niagara Falls, but also in Dunkirk, Jamestown, Orleans County and elsewhere. There are other concentrations of Latino residents in the ZIP codes where correctional facilities are located.
- Non-English speakers are distributed in a more complex pattern across the region. Many live in Buffalo, especially on the West Side, with its heavy refugee populations, or in Lackawanna, where many Yemeni and other Middle Easterners live. There are other clusters of non-English speakers in Jamestown, in Amherst around the University at Buffalo, and in Amish country in Cattaraugus County that may or may not be indicative of greater health need.
- Persons over 65 years reside in a still different pattern, with a lower proportion of older persons in the central cities and a much higher percentage in the suburbs of Buffalo, such as Amherst, Clarence and Elma, and in Lewiston outside of Niagara Falls. Other areas with a higher proportion of seniors are scattered across more rural areas in the region.
- Women of childbearing age (15-44 years) reflect a crucial category of potential health care need. However, outside of a concentration in the City of Buffalo and relative dearth of such women in the Erie County suburbs, there's no clear pattern of residential distribution. A closer look at which of these women are most likely to have children is needed to fully understand this potential need.
- Poverty status is perhaps the most important indicator of health care need. People at 200 percent of the Federal poverty level are overwhelmingly concentrated in the cities of Buffalo and Niagara Falls and widely across the Southern Tier counties of Chautauqua, Cattaraugus and Allegany in both small cities and rural areas.
- Educational attainment is an underlying factor for poverty status and, by extension, health care need. Lowest rates of high school completion are concentrated in Buffalo and Niagara Falls and across the Southern Tier Counties. Orleans County also has some lower rates for persons with high school diplomas.
- Foreign born people may have greater health care needs as a result of dislocation from their places of origin. However, circumstances can vary widely. Immigrant and refugee populations in Buffalo and Lackawanna or migrant farm labor populations in Orleans County likely have higher needs. Foreign born people in Amherst are likely to be students or faculty at the University at Buffalo or work in industries where benefits include health insurance.
- Households without access to a vehicle provides a crucial indicator of the ability of people to obtain access to health care services. Where a vehicle is absent and given the poor state of

public transit across the region, getting to appointments and filling prescriptions are onerous, sometimes impossible, tasks. As with many other indicators, concentrations of households with no vehicle are in the cities of Buffalo and Niagara Falls and along the Southern Tier.

When viewed as a composite index with all factors combined in one metric a few issues move to the foreground: transportation, aging and poverty. The region ranks last among upstate regions for households without access to a vehicle. It ranks very low for population over age 65. And it ranks below average for population living at 200 percent of the federal poverty level or lower.

These factors do not affect the region uniformly. The index ranks Erie, Chautauqua and Orleans counties relatively low for demographic indicators of health need – both against the other counties in Western New York and against counties of a similar type across the state and outside of New York City.

Community structure

While the demographic analysis focuses on who people are, the analysis of community structure deals with the environments in which they live. These metrics understand that the age and quality of housing, water quality, access to fresh and healthy food, the presence or absence of crime, working conditions, and the existence of faith based organizations can all influence people's health and their ability to improve it.

- Percent of housing built before 1980 is included in our index as a proxy for lead based paint the use of which was phased out by the 1970s. The connection between lead based paint and lead poisoning is well-established. But older housing can also present problems because of the use of asbestos or allergy causing agents. Not surprisingly, Buffalo and its older suburbs, Niagara Falls, and older small cities like Jamestown, Dunkirk and Olean accounted for the highest concentrations of older housing.

- Households with well water are also homes where residents likely do not get fluoride in their drinking water – a key contributor to dental health. All of the developed areas in the metropolitan counties of Erie and Niagara have fluoridated water – and almost no wells. Well water is somewhat more common across the remainder of the region but even in the most remote areas more than 90 percent of households have fluoridated water.
- Food access is crucial to expanding household choices to provide people with a healthy diet. Access to fresh and health foods, especially fruits and vegetables, is determined by a combination of variables – proximity to food outlets and availability of transportation. Poor food access in the region is a bi-modal phenomenon. It is concentrated in Buffalo and Niagara Falls, where rates of car ownership are low, and in certain rural areas, like parts of Orleans, Wyoming and Chautauqua counties, where distances to food outlets are greater.
- Violent crime presents, not only the potential for injury or death to people who are victims of it, but also the reality of persistent stress on a day to day basis simply because one is exposed to it. Such stress has a range of consequences including affective disorders such as depression and anxiety and a tendency toward obesity. Rates of violent crime are especially high in urban areas, as the map indicates, but even higher in concentrated portions of the cities of Buffalo, Niagara Falls, Lockport, Dunkirk, Jamestown, Salamanca and Olean.
- Migrant workers represent a small but important population in terms of health care need. There are only a couple thousand such workers in the region but they are likely to have poor access to care. Most of the migrant farm workers are concentrated in Orleans and Genesee counties with a scattering of workers in Erie and elsewhere.
- Faith-based organizations can play a role in meeting the social, economic and physical – as well as spiritual – needs of people. Churches of all faiths are common throughout the region with many in rural areas, but also in generally poor neighborhoods of Buffalo, Niagara Falls and smaller cities. Even in areas where the number of faith based organizations is smaller there is often one for every 1,000 people.

Health care analytics

The community health needs assessment relies on comprehensive healthcare data provided by the state in relation to three domains: system transformation, quality of clinical care and population health metrics.

Our analysis compares performance at regional, county-wide and ZIP code specific scales. An index of key metrics compares WNY performance with the performance of all other Department of Health regions in upstate New York. It also compares counties within the region with each other and against comparable counties classified by Eberts codes. This allows us an "apples-to-apples" comparison of urban counties with urban counties and rural with rural. More about the methodology and much more about the specific analysis is available in Section 4 of this report.

System transformation metrics

Measures of system transformation include rates for potentially preventable emergency room visits and preventable 30-day in-patient re-admissions, as well as individual and composite Prevention Quality Indicators and Pediatric Quality Indicators.

For preventable ER visits, the region as a whole performs just below the statewide average. But at the county level some problems appear. Rates of unnecessary ER use are distinctly higher across the Southern Tier counties of Chautauqua, Cattaraugus and Allegany.

Western New York as a region performs very well for avoidable

hospital re-admissions with the second lowest risk-adjusted rate in the state and far below the contiguous Finger Lakes, Central New York and Hudson Valley regions. Risk-adjusted rates screen out the effects of age, race and ethnicity on this analysis.

The challenge for program planners and managers will be to achieve across-the-board reductions of 25 percent on these measures even as some counties have already been relatively successful in reducing inappropriate use.

Prevention Quality Indicators for Western New York on an overall composite basis were good relative to other upstate regions but several indicators within the composite were distinctly negative. The region ranked last in the state for "angina without procedure," a key indicator of cardiac health. WNY also was at the bottom for a cluster of diabetes related metrics including "short term complications," "lower extremity amputations," and the overall composite.

The PQI measure also identified Niagara and Orleans counties as potential problem communities across a wide range of indicators with each ranking last or second-last in the region on 13 of 18 items.

The regional score for Pediatric Quality Indicators was also problematic, with the composite of six other measures ranking second lowest among upstate regions and similarly low rankings for the occurrence of asthma, gastroenteritis and short-term complications from diabetes. On most of these measures, Allegany County was ranked at the bottom but the performance in Cattaraugus and Erie counties was also poor.

Quality of care measures

Clinical outcomes measures allow us to assess the quality of care provided for major medical conditions. On a composite of these measures, Western New York lags somewhat behind the middle of the pack with some counties ranking higher (Erie and Wyoming) and others lower (Cattaraugus, Orleans). On specific components of the index, however, a number issues move to the foreground.

The region ranks last among upstate regions for testing for comprehensive diabetes care. And while Erie County ranks reasonably high on this measure others do not, including Genesee, Allegany, Cattaraugus and Orleans.

The region also ranks last upstate for "adherence to anti-psychotic medications for people living with schizophrenia," with the lowest rankings by county in Erie and Niagara.

The issues of diabetes and mental health overlap where rankings are also relatively low for "diabetes monitoring for persons living with schizophrenia" and "diabetes screening for people living with people living with schizophrenia or bi-polar disorder using anti-psychotic medications."

Other quality of care measures where Western New York lags includes screening for colorectal cancer and screening for breast cancer. Orleans, Allegany and Wyoming counties rank poorly against WNY counties as well as their Eberts code cohorts. Erie and Niagara, meanwhile, lead the region but lag their fellow "upstate metropolitan" counties.

Population health statistics

On broad composite measures of health status as framed by the New York State "Prevention Agenda" Western New York does relatively poorly. Across sub-categories of chronic disease, health status disparities, creating a healthy and safe environment, preventing HIV, sexually transmitted diseases and other infectious diseases, promoting mental health and preventing substance abuse, and promoting the health of women, infants and children, the region performs generally below par.

The region's poorest ranking comes in the sub-group for HIV and STDs. However, Erie County and to a lesser extent, Niagara County, account for the bulk of the problem. This includes low rankings for HIV prevention, new cases of HIV, and disparities in HIV rates for Black and Hispanic persons, as well as high rates for gonorrhea, chlamydia and syphilis.

The region also has a relatively low composite ranking for the subgroup for chronic diseases with higher incidences of hospitalization for complications of diabetes, complications of juvenile diabetes and for heart attacks. Rates for emergency room visits for asthma and by persons 0-4 years old for asthma were also above average compared with the rest of upstate New York.

For chronic diseases and causal behaviors, a few hotspots appear in the data. Orleans and Niagara County have a very high for percentage of adults who smoke. Genesee County ranked at the bottom compared with both WNY and similar counties statewide for hospitalizations for short-term complications from juvenile diabetes. Niagara County had a similar ranking with regard to adult diabetes.

The region also ranked poorly in the sub-group for promoting a healthy and safe environment with measures for ED visits as a result of falls, ED visits due to occupational injuries, and ED visits resulting from assault-related injuries. WNY was also at the bottom in terms of the number of jurisdictions approving the Climate Smart Communities pledge and the proportion of workers who use alternative forms of transportation or work from home.

For promoting mental health and preventing substance abuse the region also did poorly but based on a relatively small number of indicators. WNY had low rankings for age-adjusted suicide rate and for binge drinking.

The composite score for promoting the health of women, infants and children was somewhat better than the others. This score, however, might obscure several other troubling individual indicators. These included bottom rankings among upstate regions for percentage of pre-term births, maternal mortality rate, teen pregnancy, unintended pregnancy, percentage of second births within 24 months of previous pregnancy, and percentage of births to Medicaid enrollees.

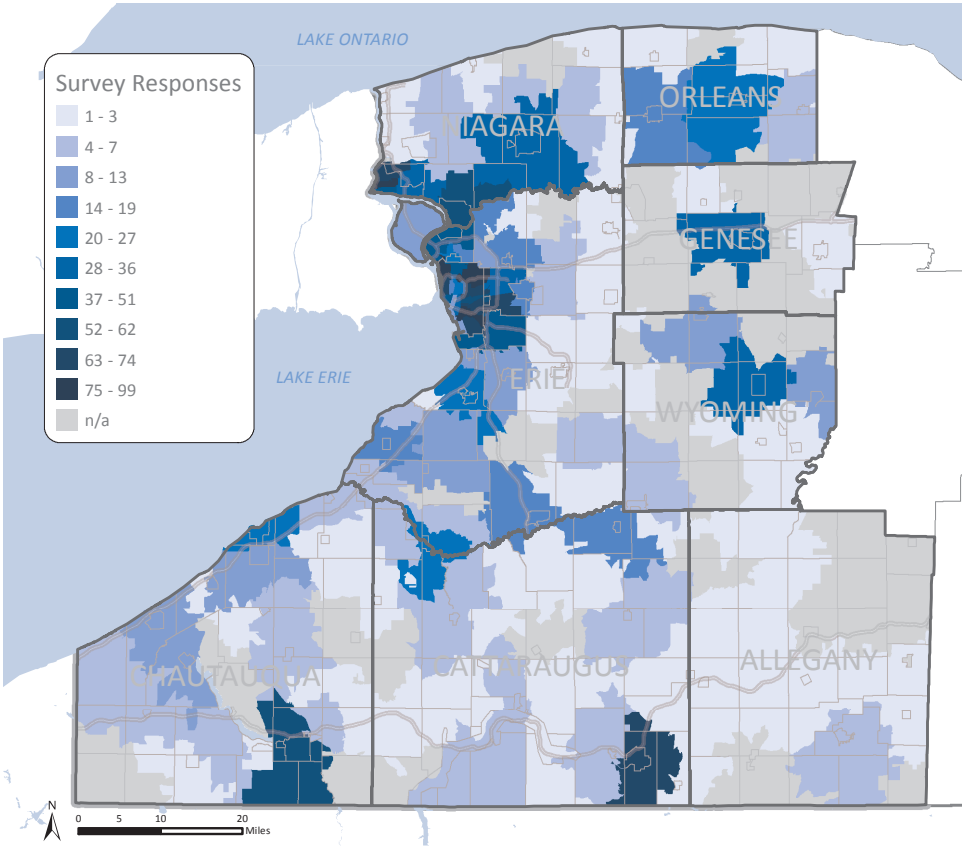
Community survey responses

The community survey, as noted elsewhere in this report, was intended as a vehicle for broad participation, not as a scientific research instrument. It sought to engage as many respondents as possible, not gather a scientific sample of health care consumers. There is no margin of error or confidence interval.

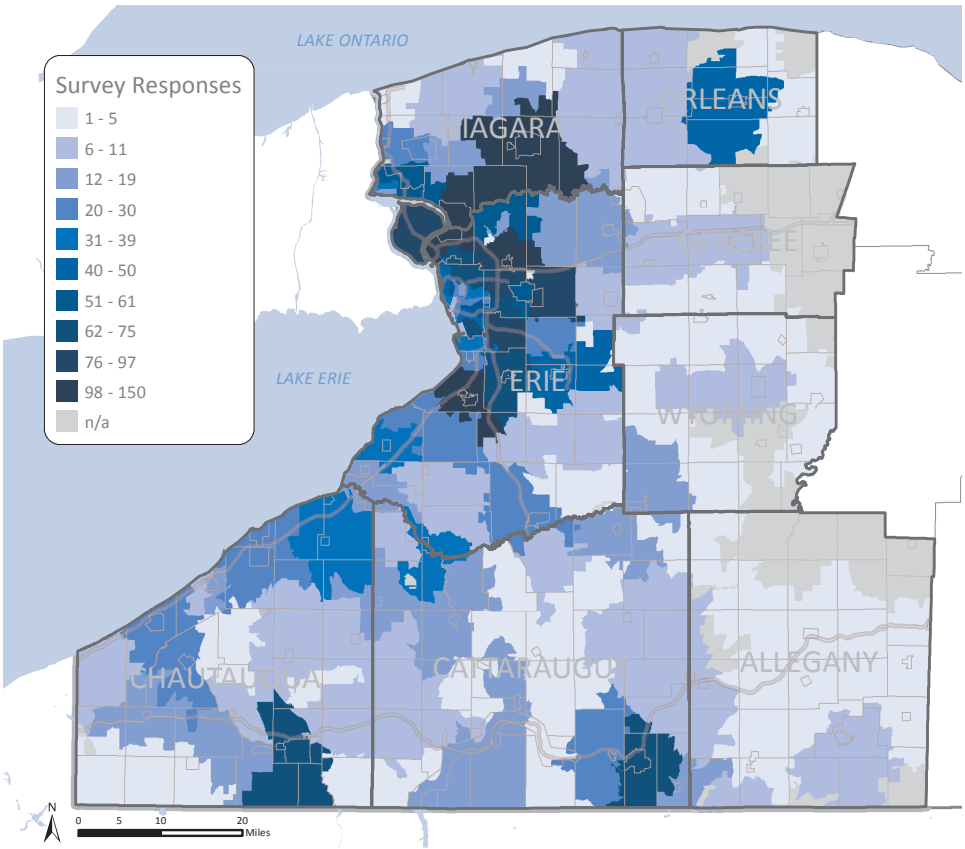
Nevertheless, the maps to the right show that the survey reached an audience roughly consistent with the overall population, Medicaid and non-Medicaid. For example, participation by Medicaid enrollees is shown stronger in the cities of Buffalo and Niagara Falls. In suburban Erie County, participation by those insured by other carriers was heavier.

There are some clear differences between respondents and the population at large, however. The outlying counties of Genesee, Wyoming and Allegany, especially, are underrepresented in the survey. Erie County, in contrast, was significantly overrepresented. But overall, participation roughly follows overall population patterns.

Medicaid Population Responses Per ZIP Code



Non-Medicaid Population Responses Per ZIP Code



1. Community Engagement

The assessors took to heart the State's encouragement to engage the community and hear the voice of the consumer. In Western New York this meant conducting a broad-based community survey, holding a series of "community conversations" with health care consumers around the region, and conducting in depth interviews with a broad array of health care providers.

Together, these have helped us paint a picture of the health care issues people in the region are facing today and what they think some of the solutions might be. Across survey, community conversations and provider interviews, the perspectives, frankly, are not that different. There are variations from groups to groups, from county to county and community to community. But in the "big picture" the results are very similar.
Not surprisingly, these community perspectives also correspond with findings from the analysis of comprehensive health care data. After all, community voices and data analytics all attempt to describe the same powerful reality Western New York is facing: poverty, unhealthy lifestyles, chronic disease, discontinuities of care, inefficiencies in using scarce health care resources and barriers to access.

1a. Community Survey

Introduction

The assessors, the PPS leadership and their partners across the region worked together to conduct a broad-based survey of patients in Western New York to help us understand what health care consumers are facing in taking care of their health, getting care and trying to pay for it.

The survey devised was adapted from the Behavioral Risk Factor Surveillance System which elicits information from patients about the care they are receiving and the state of their health, as well as basic demographic data on age, gender, marital status, employment and other variables. In order to address the central issue in the DSRIP program, a question was added about the respondents' health insurance status.

Beyond those basics, two other questions were asked: in the opinion of the respondent, what is the most important health problem in our community and what is the most important health care need? Although not every respondent answered these questions, they evoked an enormous volume of comment about both health problems and health care system needs.

The survey was deployed in two ways.

First was a five-page hard-copy survey that was distributed in clinical settings run by partner organizations affiliated or connected with the Performing Provider Systems. Staff on site was responsible for offering the survey to patients or clients, collecting it when they were done and returning it to the assessors. Sites included emergency departments, urgent care facilities, primary care clinics, mental health sites and other clinical locations. Surveys were offered in Burmese, Karen, Arabic, Somali and Nepali as well as English and Spanish. Some partners were aggressive in distributing the survey. Others struggled to find time to promote the survey in the course of the clinical day.

The second method to deploy the survey was an on-line version hosted on the commercial website polldaddy.com. The survey was promoted on the list serves of health care organizations, insurers, community groups and others, as well as through social media such as Facebook and by word of mouth. Typically, people clicked on a link and went immediately to the survey.

Nearly 7,000 surveys were completed – 1,800 on-line and almost 5,000 on paper. The tabulations were automatic on polldaddy.com. A commercial data entry firm tabulated the paper surveys.

This was not a scientific survey. It was not designed to capture a random sample of health care consumers. It was intended as a tool to facilitate community engagement and to reach as broad an audience as possible. That said, and with some caveats enumerated below, the results of the survey provide some interesting perspectives on the state of health care in Western New York and consumer views of the same.

Demographics of the survey

The population represented in the survey results does not exactly reflect the composition of the population of the region – but it is close in many respects.

The age distribution of responses is roughly comparable to the age distribution of the adult population. The proportions of respondents who said they are insured by Medicaid, Medicare or both are roughly comparable to the actual numbers. And the proportion of people who are married versus single is similar to the whole population.

There are some important differences, too. Because of the way the survey was distributed, Erie County is significantly overrepresented in the sample. Residents of Erie County represent just under three-fifths of the total regional population; they are slightly more than two-thirds of the survey respondents. Several other counties are only slightly under-represented – Niagara, Orleans, Cattaraugus and Wyoming. Only Chautauqua and Allegany counties were significantly under-represented.

Women were far more likely to respond to the survey – representing slightly more than half the adult population in the region but nearly two-thirds of respondents. For similar reasons, health care industry employees were heavily over-represented. There are many women in health care and the survey was promoted – on-line and hard-copy – by health care organizations. And because the survey was promoted aggressively to Medicaid members in particular the proportion of those employed versus the unemployed, retired or disabled was smaller than the actual population.

Nevertheless, the survey's data on self-reported well-being, access to care, sources of health information, hospital use and health status provide a useful complement to other health care data sources. Likewise, consumer suggestions about how to improve the health care experience and their answers to open ended questions provide some interesting – although not usually surprising – perspectives on the state of health care.

Q2. What is your age?

Age	Employer Provided	Commercial Insurance	ACA Exchange	Medicaid	Medicare	Medicaid and Medicare	Other	No Insurance	No Answer
18-24	4%	17%	6%	11%	4%	4%	22%	18%	4%
25-34	16%	9%	18%	25%	6%	14%	13%	36%	9%
35-44	18%	10%	18%	21%	10%	18%	13%	20%	12%
45-54	26%	14%	20%	22%	15%	21%	19%	16%	11%
55-64	30%	19%	35%	15%	13%	26%	19%	8%	11%
65-74	5%	17%	1%	2%	33%	12%	7%	1%	5%
75+	1%	13%	1%	1%	19%	5%	5%	0%	4%
No Answer	1%	1%	2%	2%	1%	1%	1%	2%	45%

Q3. What is your gender?

Gender	Employer Provided	Commercial Insurance	ACA Exchange	Medicaid	Medicare	Medicaid and Medicare	Other	No Insurance	No Answer
Female	76%	62%	69%	57%	58%	51%	58%	51%	30%
Male	23%	38%	28%	42%	41%	47%	40%	48%	26%
No Answer	1%	1%	2%	1%	1%	2%	1%	1%	44%

Q4. What is your marital status?

Status	Employer Provided	Commercial Insurance	ACA Exchange	Medicaid	Medicare	Medicaid and Medicare	Other	No Insurance	No Answer
Single	23%	37%	35%	64%	32%	62%	45%	62%	32%
Married	59%	49%	44%	13%	33%	10%	36%	18%	13%
Divorced	12%	6%	9%	13%	15%	16%	9%	15%	6%
Separated	2%	1%	3%	5%	0%	6%	2%	3%	1%
Widowed	3%	7%	7%	3%	18%	5%	7%	1%	3%
No Answer	1%	0%	2%	2%	1%	1%	1%	1%	45%

Q5. Where do you live?

County	Count	%
Allegany	93	1%
Cattaraugus	409	6%
Chautauqua	605	9%
Erie	4047	62%
Genesee	64	1%
Niagara	907	14%
Orleans	126	2%
Wyoming	116	2%
No Answer	207	3%

Q7. What is your current employment status?

Status	Employer Provided	Commercial Insurance	ACA Exchange	Medicaid	Medicare	Medicaid and Medicare	Other	No Insurance	No Answer
Employed	87%	51%	56%	23%	19%	14%	55%	66%	17%
Unemployed	3%	15%	14%	44%	14%	28%	22%	28%	22%
Retired	7%	27%	19%	3%	41%	10%	12%	1%	4%
Disabled	2%	7%	8%	28%	24%	46%	10%	3%	12%
No Answer	1%	1%	2%	2%	1%	2%	1%	1%	45%

Q8. If you are employed, what type of work is it?

Industry	Employer Provided	Commercial Insurance	ACA Exchange	Medicaid	Medicare	Medicaid and Medicare	Other	No Insurance	No Answer
Construction	1%	1%	3%	3%	3%	2%	4%	8%	1%
Education	7%	2%	2%	1%	1%	1%	2%	2%	2%
Farming	0%	2%	2%	0%	0%	0%	1%	1%	0%
Financial	4%	2%	5%	0%	0%	0%	1%	2%	0%
Government	4%	1%	1%	0%	1%	0%	1%	1%	0%
Health Care	43%	26%	10%	5%	6%	3%	19%	16%	4%
Human Services	9%	10%	5%	1%	5%	1%	8%	7%	3%
Hotel/ Restaurant	1%	3%	5%	4%	1%	3%	5%	5%	2%
Manufacturing	4%	1%	1%	2%	2%	1%	2%	5%	2%
Personal Services	0%	2%	4%	1%	1%	1%	1%	3%	0%
Retail Sales	2%	2%	5%	3%	1%	1%	2%	4%	1%
Transportation	1%	2%	4%	0%	1%	1%	1%	3%	0%
Other	3%	5%	5%	8%	6%	12%	8%	15%	7%
No Answer	20%	42%	48%	70%	72%	75%	44%	31%	76%

General well being

Survey respondents were asked whether there were 14 or more days in the previous month when their physical health was not good. Overall, 23 percent said their health had not been good. But when examined by insurance category we see that Medicaid, Medicare and dual eligible individuals were roughly two and a half times more likely to report ill health than those with employer provided insurance.

A similar pattern appeared when people were asked whether there were 14 or more days in the previous month when their mental health was not good. But in this case the rate of self-reported ill health for Medicaid enrollees was four times the rate for the employer insured – 34 percent to eight percent. In the case of both physical and mental health, the differences in rates between counties is likely unreliable because of the small number of responses from some counties.

The picture was about the same when respondents were asked if their physical or mental health kept them from their usual activities for more than 14 days in the previous month. Fully 38 percent of Medicaid members said there were – four times the rate of employer ensured respondents. Medicare and dual eligible patients were disrupted from their usual activities more than three times as often as the employer ensured.

Q9.1. Were there 14 or more days in the past month when your physical health was not good?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	23%	73%	4%
Employer provided insurance	13%	86%	1%
Commercial insurance	17%	81%	2%
Insurance through ACA Exchange	24%	74%	2%
Medicaid	35%	64%	1%
Medicare	35%	63%	2%
Both Medicaid and Medicare	32%	66%	2%
Other	25%	73%	3%
No insurance	23%	76%	1%
No Answer	8%	27%	65%

Q9.2. Were there 14 or more days in the past month when your mental health was not good?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	19%	76%	5%
Employer provided insurance	8%	90%	2%
Commercial insurance	11%	85%	3%
Insurance through ACA Exchange	21%	76%	4%
Medicaid	34%	64%	2%
Medicare	22%	74%	4%
Both Medicaid and Medicare	26%	72%	2%
Other	17%	81%	2%
No insurance	17%	81%	2%
No Answer	4%	31%	65%

Q9.3. Were there 14 or more days in the past month when your physical or mental health kept you from your usual activities such as work, recreation or self-care?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	22%	73%	5%
Employer provided insurance	9%	89%	2%
Commercial insurance	18%	79%	2%
Insurance through ACA Exchange	22%	75%	3%
Medicaid	38%	60%	2%
Medicare	33%	63%	4%
Both Medicaid and Medicare	31%	65%	3%
Other	21%	77%	2%
No insurance	19%	79%	2%
No Answer	7%	28%	65%

Access to care

The survey contained a battery of questions – adapted from the Behavioral Risk Factor Surveillance System survey – about what specific and standard types of care patients had received. These questions allow a comparison between what is considered appropriate care, especially screening for common diseases, and what patients actually experience. They also help identify the prevalence of some common barriers to access such as cost, transportation and lack of a primary care provider.

When asked if the respondent has needed to see a doctor within the past year but was unable to do so because of cost about 12 percent region-wide said yes. But for those who are uninsured nearly 60 percent said that issues of cost had prevented them from seeing a doctor. And interestingly one quarter of those with insurance through the sate Affordable Care Act also said they had been unable to afford a doctor visit.

Likewise, across the board for Medicaid, Medicare, employer insured and others alike, nearly four-fifths had visited a doctor for a routine checkup in the previous year. Only the uninsured departed from the trend. Only 42 percent of respondents without health insurance said they had been for a regular checkup last year.

Access to dental care is somewhat different. For the employer insured and those with commercial insurance, more than three-quarters had been to a dentist in the previous twelve months. Of those with Medicaid, Medicare, dual eligible and those with ACA exchange coverage, 60 percent or less had seen a dentist in the prior year. And those with no insurance at all were least likely to have seen a dentist – only about 37 percent.

Q11.1. Have you needed to see a doctor within the past year but been unable to do so because of cost?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	12%	84%	4%
Employer provided insurance	9%	90%	2%
Commercial insurance	8%	91%	1%
Insurance through ACA Exchange	24%	73%	2%
Medicaid	13%	87%	1%
Medicare	14%	84%	2%
Both Medicaid and Medicare	8%	91%	1%
Other	11%	88%	1%
No insurance	59%	39%	1%
No Answer	6%	29%	65%

Q11.2. Have you visited a doctor for a routine checkup (a general physical exam, not a visit for a specific injury, illness or condition) in the past year?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	77%	20%	4%
Employer provided insurance	82%	16%	1%
Commercial insurance	81%	19%	1%
Insurance through ACA Exchange	70%	28%	1%
Medicaid	75%	24%	1%
Medicare	85%	14%	1%
Both Medicaid and Medicare	82%	17%	1%
Other	76%	23%	0%
No insurance	42%	57%	1%
No Answer	26%	9%	65%

Q11.3 Have you visited a dentist or a dental clinic for any reason in the past year?

All Insurance Types	Yes	No	No Answer
Total (All Counties)	63%	33%	4%
Employer provided insurance	76%	23%	1%
Commercial insurance	77%	23%	0%
Insurance through ACA Exchange	60%	38%	2%
Medicaid	57%	42%	1%
Medicare	57%	42%	1%
Both Medicaid and Medicare	58%	41%	1%
Other	58%	41%	0%
No insurance	37%	62%	1%
No Answer	18%	17%	65%

Access to care (cont'd)

Women's health screening – mammograms and pap tests – varied significantly by type of insurance. Even among those with employer provided insurance about 27 percent of women responding said they had never had a mammogram. The average for all women was 38 percent who had never had the exam. For those on Medicaid more than half – 54 percent – had not been screened for breast cancer. Those without insurance were even worse off – fully 71 percent had never had a mammogram.

[Note: It's important to read the accompanying tables carefully because most of those who gave no answer were likely men. The percentages cited above and below took into account only women.]

For pap tests the disparities were similar while the level of care provided was better. Only seven percent of women covered by their employer's insurance had never had a pap test. The average for all women was 15 percent. Twenty-three percent of Medicaid enrollees had never been screened for cervical cancer. Even for those without insurance the rate was 30 percent.

Answers about screening for colorectal cancer also reveal a significant disparity – even when accounting for age differences across the insurance categories. (We divided the percentage of those reporting having had such screening by the percentage of people in that category who were 45 years or older to obtain an age-adjusted rate of screening). Across the region about 70 percent of age-appropriate patients had been screened for colorectal cancer. Those with Medicaid (72 percent) and employer insurance (74%) did better. Those with Medicaid did slightly worse (65 percent) and those without insurance even worse (56 percent screened for colorectal cancer).

Q11.5 If you are a woman, have you ever had a mammogram?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	43%	26%	30%
Employer provided insurance	57%	21%	22%
Commercial insurance	46%	24%	30%
Insurance through ACA Exchange	47%	30%	23%
Medicaid	31%	36%	32%
Medicare	50%	13%	37%
Both Medicaid and Medicare	38%	24%	39%
Other	36%	32%	32%
No insurance	18%	44%	39%
No Answer	12%	11%	77%

Q11.6 If you are a woman, have you ever had a Pap test?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	59%	10%	31%
Employer provided insurance	73%	5%	22%
Commercial insurance	59%	9%	33%
Insurance through ACA Exchange	68%	8%	24%
Medicaid	51%	15%	33%
Medicare	53%	10%	37%
Both Medicaid and Medicare	46%	14%	40%
Other	53%	15%	32%
No insurance	45%	19%	36%
No Answer	15%	7%	78%

Q11. 9 Have you been screened for colon or rectal cancer (home blood stool test, sigmoidoscopy or colonoscopy)?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	38%	55%	7%
Employer provided insurance	46%	50%	4%
Commercial insurance	57%	39%	3%
Insurance through ACA Exchange	41%	53%	5%
Medicaid	26%	69%	5%
Medicare	58%	39%	4%
Both Medicaid and Medicare	40%	54%	6%
Other	31%	65%	5%
No insurance	14%	83%	3%
No Answer	11%	19%	70%

Access to care (cont'd)

The survey presented startling evidence that the majority of diagnosed hypertension is untreated. Across the entire region nearly 57 percent of respondents who said they had been diagnosed with high blood pressure were not being treated for it. Even when looking at only those with employer provided insurance, 52 percent of those diagnosed were being treated for hypertension. Among Medicaid members (65 percent untreated) and the uninsured (81 percent) the situation was even worse. Only among Medicare patients was a clear majority of diagnosed cases of hypertension being treated.

The record on screening for cholesterol was significantly better but the disparities, again, were broad. Three-quarters of all respondents said they had had their cholesterol checked at some point. Eighty-eight percent of the employer insured got their cholesterol checked. But only 66 percent of Medicaid members were screened. Fewer than half of those with no insurance – 44 percent – said they were checked.

Fourteen percent of respondents said they had been diagnosed with diabetes – about one in seven individuals regionally. Again, there were significant disparities by insurance type. While only nine percent of those with employer insurance had been so diagnosed, the rate of diabetes diagnosis for Medicaid members (17 percent), Medicare enrollees (21 percent) and dual eligible persons (30 percent) was significantly higher.

The regional rate for those reporting having been diagnosed with asthma was also high – about 22 percent. Again, some disparity was apparent. The rate for Medicaid members was nearly double the rate for those with employer insurance – 30 percent vs. 17 percent.

Q11. 11 If you have high blood pressure, do you take medicine for high blood pressure?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	29%	38%	33%
Employer provided insurance	26%	28%	45%
Commercial insurance	36%	33%	31%
Insurance through ACA Exchange	35%	33%	33%
Medicaid	28%	52%	20%
Medicare	50%	28%	22%
Both Medicaid and Medicare	43%	36%	20%
Other	27%	45%	27%
No insurance	15%	66%	19%
No Answer	17%	22%	60%

Q11.12 Have you ever had your blood cholesterol checked?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	74%	21%	6%
Employer provided insurance	88%	10%	2%
Commercial insurance	78%	18%	5%
Insurance through ACA Exchange	76%	20%	4%
Medicaid	63%	33%	4%
Medicare	81%	14%	5%
Both Medicaid and Medicare	73%	21%	6%
Other	66%	32%	3%
No insurance	44%	49%	7%
No Answer	28%	16%	56%

Q11.14 Have you ever been told by a doctor that you have diabetes (not including pre-diabetes or pregnancy-related diabetes)?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	14%	81%	5%
Employer provided insurance	9%	89%	2%
Commercial insurance	11%	86%	3%
Insurance through ACA Exchange	10%	84%	6%
Medicaid	17%	80%	3%
Medicare	21%	74%	5%
Both Medicaid and Medicare	30%	65%	4%
Other	13%	84%	3%
No insurance	9%	87%	4%
No Answer	10%	35%	55%

Q11.15 Have you ever been told by a health professional that you have asthma?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	22%	73%	5%
Employer provided insurance	17%	81%	2%
Commercial insurance	19%	77%	5%
Insurance through ACA Exchange	22%	72%	6%
Medicaid	30%	67%	3%
Medicare	21%	74%	5%
Both Medicaid and Medicare	27%	69%	4%
Other	20%	78%	2%
No insurance	21%	76%	3%
No Answer	9%	35%	56%

Access to care (cont'd)

Survey results suggest that people who live in outlying counties in the region are somewhat less likely to have a primary care provider who is located in the county where they live than residents of either Erie or Chatuauqua County. Eighty-eight percent of Erie County residents reported that their primary care doctor does business in the county. For Wyoming County and Allegany County residents the rate was 66 and 65 percent respectively. In Genesee, Niagara, Orleans and Cattaraugus County roughly one-quarter of respondents said they had to travel outside their county of residence to see their primary care physician.

Two more questions in the survey highlighted the challenges for some – but especially Medicaid enrollees – in simply getting to sites of care. Asked whether they had needed to see a doctor in the past year but could not because they were unable to travel, 19 percent of Medicaid members said yes. Asked then if their inability to travel was because of a lack of transportation, 39 percent said yes. That means that seven percent of Medicaid members were unable to see a doctor because of limits on travel and transportation. For those with employer insurance the comparable rate was two-tenths of one percent.

Q11.18 Is your primary care provider located in the same county where you live?

County	Yes	No	No Answer
Allegany County	65%	32%	3%
Cattaraugus County	71%	27%	2%
Chautauqua County	84%	11%	4%
Erie County	88%	7%	5%
Genesee County	73%	25%	2%
Niagara County	73%	22%	5%
Orleans County	70%	25%	6%
Wyoming County	66%	33%	2%
No Answer	25%	11%	64%

Q11.19 Have you needed to see a doctor in the past year but could not do so because you were not able to travel?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	10%	85%	5%
Employer provided insurance	3%	95%	2%
Commercial insurance	6%	88%	6%
Insurance through ACA Exchange	8%	88%	4%
Medicaid	19%	77%	4%
Medicare	12%	84%	5%
Both Medicaid and Medicare	15%	82%	3%
Other	6%	92%	2%
No insurance	12%	85%	3%
No Answer	6%	38%	56%

Q11.20 If you answered "yes" above, was it because of lack of transportation?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	8%	20%	71%
Employer provided insurance	1%	13%	86%
Commercial insurance	5%	15%	81%
Insurance through ACA Exchange	7%	17%	76%
Medicaid	18%	28%	55%
Medicare	8%	23%	69%
Both Medicaid and Medicare	14%	25%	61%
Other	4%	28%	68%
No insurance	10%	35%	55%
No Answer	6%	16%	78%

Q11.21 Health includes mental and emotional as well as physical wellbeing. If you are being treated for emotional problems and have physical health problems as well, do you think your physical health problems are being taken care of?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	41%	18%	41%
Employer provided insurance	26%	12%	62%
Commercial insurance	34%	14%	51%
Insurance through ACA Exchange	35%	19%	47%
Medicaid	60%	24%	17%
Medicare	42%	24%	33%
Both Medicaid and Medicare	66%	20%	14%
Other	43%	19%	37%
No insurance	27%	38%	35%
No Answer	20%	16%	64%

Q11.22 If you are being treated for physical health problems and have emotional difficulties, too, do you think that your emotional problems are also being taken care of?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	39%	19%	42%
Employer provided insurance	24%	13%	63%
Commercial insurance	29%	18%	54%
Insurance through ACA Exchange	37%	16%	47%
Medicaid	58%	25%	18%
Medicare	39%	24%	37%
Both Medicaid and Medicare	62%	21%	17%
Other	38%	22%	40%
No insurance	26%	36%	38%
No Answer	18%	16%	66%

Access to care (cont'd)

Two questions also explored the connection between physical health care and mental health care. One asked patients if they were being treated for emotional health problems did they feel they were being well taken care of for their physical health. A second question reversed the relationship between physical and emotional health. With the exception of those who have no health insurance, and regardless of county, respondents were more likely satisfied than unsatisfied with the combination of care for physical and emotional problems.

The big difference was between Medicaid insured and dual eligibles and those with employer insurance in terms of how many were receiving care for both mental and physical problems. Eighty-four and 86 percent of the former groups were getting care for both mental and physical health problems. Only 38 percent of employer ensured were receiving care for both types of condition. Clearly, for the vast majority of the poor, poor physical health and poor mental health go together.

Q13 What is your primary source of information or advice about your health and health care?

By Insurance Type	Friends or family	Primary care doctor	Emergency room staff	Internet	Specialist physician	TV/ radio/ magazine/ newspaper	Library	Other	No Answer
Total (All Counties)	19%	56%	1%	7%	4%	1%	0%	4%	8%
Employer provided insurance	12%	63%	0%	10%	5%	1%	0%	5%	3%
Commercial insurance	18%	61%	1%	8%	5%	1%	0%	5%	2%
Insurance through ACA Exchange	15%	58%	0%	11%	4%	1%	1%	3%	7%
Medicaid	25%	53%	2%	4%	2%	2%	0%	3%	8%
Medicare	17%	63%	1%	3%	3%	3%	0%	3%	8%
Both Medicaid and Medicare	25%	54%	2%	3%	5%	1%	0%	3%	6%
Other	25%	48%	1%	7%	5%	2%	0%	5%	8%
No insurance	37%	26%	5%	12%	3%	3%	1%	3%	12%
No Answer	11%	25%	1%	1%	2%	1%	1%	1%	57%

Source of health care information

If the involvement of the patient in preventive care is a key to good health, then patient "health literacy," and by extension, access to health information is crucial. Where that information comes from is also of profound importance. With the exception of the uninsured, people across the region are most likely to get their health information from their primary care provider. After that, people rely on friends and family to learn about health issues. It is striking, however, that the uninsured go more often to friends and family than a primary care provider and are more likely than any other group to rely on information found on the internet.

Hospital and emergency room use

Changing patterns of in-patient and emergency department utilization are central to achieving the goals of the DSRIP program. Among respondents to the survey, about one in five was admitted to a hospital in the past year. Medicaid, Medicare and dual eligible persons, however were much more likely to be admitted than those in other groups. Indeed, the hospitalization rate for Medicaid enrollees was nearly two and a half times that of persons who were employer ensured.

The survey results also confirm data on which the DSRIP program was based – namely that Medicaid members are much more likely to use the emergency room than those otherwise insured. Fully 45 percent of people insured by Medicaid used an emergency room last year as compared with only 19 percent of the employer ensured. The overall average for the region was 30 percent.

Q14.1 Have you been admitted to a hospital in the past 12 months?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	20%	74%	6%
Employer provided insurance	12%	86%	2%
Commercial insurance	19%	78%	3%
Insurance through ACA Exchange	22%	70%	7%
Medicaid	29%	66%	6%
Medicare	29%	66%	5%
Both Medicaid and Medicare	27%	66%	7%
Other	25%	72%	4%
No insurance	13%	82%	5%
No Answer	11%	36%	53%

Q14.1 Have you visited an emergency room for care in the past 12 months?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	30%	62%	8%
Employer provided insurance	19%	78%	3%
Commercial insurance	22%	74%	5%
Insurance through ACA Exchange	32%	61%	7%
Medicaid	45%	47%	9%
Medicare	37%	54%	9%
Both Medicaid and Medicare	34%	57%	9%
Other	35%	55%	10%
No insurance	29%	65%	6%
No Answer	13%	31%	56%

Health problems

Q15.1 Have you had symptoms of pain, aching or stiffness in or around a joint during the past 30 days which began more than three months ago?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	45%	49%	6%
Employer provided insurance	43%	54%	2%
Commercial insurance	50%	46%	4%
Insurance through ACA Exchange	45%	49%	6%
Medicaid	49%	46%	5%
Medicare	56%	38%	6%
Both Medicaid and Medicare	46%	48%	6%
Other	45%	52%	3%
No insurance	41%	54%	5%
No Answer	19%	26%	55%

By Age	Yes	No	No Answer
Total	49%	45%	6%
18-24	71%	25%	4%
25-34	60%	36%	4%
35-44	51%	44%	5%
45-54	45%	51%	4%
55-64	43%	53%	4%
65-74	39%	57%	4%
75+	33%	58%	9%
No Answer	20%	21%	59%

Q15.2. Have you smoked at least 100 cigarettes in your lifetime AND are now smoking every day or some days?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	30%	64%	6%
Employer provided insurance	16%	81%	2%
Commercial insurance	20%	76%	4%
Insurance through ACA Exchange	27%	68%	5%
Medicaid	49%	46%	5%
Medicare	26%	69%	5%
Both Medicaid and Medicare	39%	54%	7%
Other	32%	65%	3%
No insurance	48%	48%	4%
No Answer	16%	31%	53%

Issues of chronic pain, arthritis, joint pain and related problems are not widely discussed in community conversations, provider interviews or in the open-ended questions of this survey. But these issues pop out of the data in the community survey. There are not significant disparities either by insurance type or by county. What is remarkable is that when asked if they have "had symptoms of pain, aching or stiffness in or around a joint during the past 30 days which began more than three months ago" 45 percent said yes. To put it another way, nearly half the people surveyed are living with long-term chronic pain but aren't saying much about it.

Cigarette smoking continues to be a major threat to health. Thirty percent of those surveyed reported smoking cigarettes on a regular basis – which is higher than other data sources indicate. What is noteworthy in the extreme is the disparity in smoking rates between Medicaid members and those without insurance and mostly everyone else. Nearly half of Medicaid enrollees say they are smokers (49 percent) and almost as large a share of the uninsured (48 percent). But only 16 percent of those with employer insurance are smokers.

Health problems (cont'd)

Across the region, binge drinking – five or more drinks on one occasion, four for women – was reported by 17 percent of all respondents. Among Medicaid, Medicare and dual eligible persons, the rate was well below average: 13 percent, 10 percent and 9 percent respectively. Twenty-one percent of those insured through their employer engaged in binge drinking – above the regional average. Most likely to binge drink, however, were the uninsured – an apparently age-related result.

Asked whether they considered themselves obese or overweight, roughly half of all respondents across the region responded that they did. The rate varied little across insurance categories and counties of residence, with one exception. Only 35 percent of those with no insurance reported themselves as overweight or obese – possibly another age-related result. Rates for obesity alone from clinical data are much lower. But when offered the choice of "... or overweight" a total of 48 percent are prompted to say "yes."

Those results seem somewhat at odds with the self-report of survey respondents about getting regular exercise or activity. Nearly two-thirds of respondents said they do "participate in any physical activities or exercise such as running, calisthenics, golf, gardening or walking for exercise." One is forced to wonder why such regular exercise isn't doing more to help people stay at a healthy weight, especially since more than half of survey respondents admit they don't eat the recommended five servings of fruits and vegetables daily.

Q15.3. Have you had four or more drinks (women) or five or more alcoholic drinks (men) on more than one occasion in the past month?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	17%	78%	6%
Employer provided insurance	21%	77%	2%
Commercial insurance	18%	77%	6%
Insurance through ACA Exchange	19%	75%	5%
Medicaid	13%	82%	5%
Medicare	10%	86%	5%
Both Medicaid and Medicare	9%	85%	6%
Other	19%	79%	2%
No insurance	27%	68%	5%
No Answer	9%	38%	53%

Q15.5 Do you consider your body to be overweight or obese?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	48%	46%	6%
Employer provided insurance	54%	44%	2%
Commercial insurance	42%	54%	4%
Insurance through ACA Exchange	49%	44%	7%
Medicaid	46%	49%	5%
Medicare	46%	50%	4%
Both Medicaid and Medicare	50%	45%	5%
Other	39%	58%	3%
No insurance	35%	59%	6%
No Answer	18%	28%	54%

Q15.7 Do you consume five or more servings of fruits and vegetables in an average day?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	37%	57%	5%
Employer provided insurance	43%	55%	2%
Commercial insurance	43%	53%	5%
Insurance through ACA Exchange	36%	58%	6%
Medicaid	34%	62%	5%
Medicare	36%	60%	5%
Both Medicaid and Medicare	34%	62%	4%
Other	32%	65%	3%
No insurance	32%	63%	5%
No Answer	18%	29%	53%

Q15.6 Do you participate in any physical activities or exercise such as running, calisthenics, golf, gardening or walking for exercise?

By Insurance Type	Yes	No	No Answer
Total (All Counties)	64%	31%	5%
Employer provided insurance	73%	25%	2%
Commercial insurance	69%	29%	3%
Insurance through ACA Exchange	68%	27%	5%
Medicaid	59%	36%	5%
Medicare	59%	37%	4%
Both Medicaid and Medicare	58%	37%	5%
Other	62%	35%	3%
No insurance	60%	35%	5%
No Answer	24%	22%	54%

Q17 What types of improvements would you like to see at your primary care provider's office?

By Insurance Type	Location	Hours of operation	Building	Parking	Waiting area	Responsiveness of staff	Shorter times to schedule appointments	Better follow-up care	More advice on use of medications	More advice on diet and exercise	More advice on preventive measures
Total (All Counties)	7%	14%	2%	5%	7%	10%	19%	11%	7%	11%	7%
Employer provided insurance	5%	19%	2%	5%	5%	10%	20%	12%	6%	12%	4%
Commercial insurance	8%	16%	3%	5%	6%	13%	18%	12%	4%	10%	5%
ACA Exchange	5%	13%	1%	5%	5%	9%	23%	9%	8%	13%	6%
Medicaid	8%	10%	2%	5%	9%	10%	18%	11%	8%	11%	9%
Medicare	8%	9%	3%	4%	9%	9%	16%	11%	11%	11%	10%
Both Medicaid and Medicare	7%	10%	3%	6%	7%	9%	21%	11%	8%	10%	8%
Other	4%	9%	3%	7%	8%	10%	20%	13%	7%	13%	6%
No insurance	9%	14%	2%	4%	4%	10%	21%	13%	7%	8%	8%
No Answer	7%	11%	3%	4%	7%	10%	20%	13%	7%	11%	8%

Suggested improvements to primary care

Survey respondents were invited to choose from a list of potential improvements to the primary care experience. People could check as many boxes as they wished. The responses across the board are instructive. The top five items suggested were “shorter times to schedule appointments” (19 percent), hours of operation (14 percent), more advice on diet and exercise (11 percent), better follow up care (11 percent) and responsiveness of staff (10 percent).

The next most common answers were more advice on preventive measures, more advice on medications, more convenient location and better quality of the waiting area – all with about seven percent of the responses. City planners joke that parking is always the most important issue in urban development. Not so in this sample. Only about 5 percent of total responses were about parking.

One of the more interesting results for this question was that people with employer insurance were roughly twice as likely to name extended hours of operation as an important improvement than Medicaid, Medicare and dual eligible individuals. This is in contrast to the observation that Medicaid patients often use the emergency room because their primary care provider is not open after regular business hours.

Open ended questions

The survey also offered participants an opportunity to say – without prompting – what they consider is the most important health problem in their community and what they believe is the most pressing health care system need. The answers that came back provide a richly textured picture of health care need in Western New York.

The two questions were intended to be complementary: "what's the problem" and "what's the solution?" As might be expected, the answers we got to one question were often just the flip side of the ones we got to the other. As such, the top-level analysis combines answers from both questions but maintains the distinction between answers from respondents who are Medicaid enrollees (and dual eligible) and those with other forms of insurance.

The big picture

Theme	#	%
Access to care	1,051	12.8%
Cost of care	1,044	12.7%
obesity and overweight	831	10.1%
Substance abuse	777	9.5%
Mental health	745	9.1%
Diet and exercise	582	7.1%
Cardiac health	325	4.0%
Education	300	3.7%
Diabetes	254	3.1%
All other answers	2,304	28.1%

Any thematic summary of the 8,213 individual responses to the two open ended questions risks obscuring the richness of depth and detail of what survey participants had to share. Taken as a whole, the responses are thoughtful and knowledgeable. They provide evidence to back the old adage that we are smarter together than we are as individuals. Nevertheless, it is possible to highlight some of the major points raised.

It is striking how much emphasis respondents put on the observation that too many Western New Yorkers are obese or overweight. And following medical doctrine, they typically ascribed the problem to a lack of healthy eating habits and regular exercise. If we combine responses about obesity, lifestyle and diabetes we see that one comment in five was focused on this theme.

Not surprisingly, then, many respondents made the connection between obesity and lifestyle with a range of chronic diseases that our health care analytics also show are too prevalent in our region: diabetes, heart disease, cancer, respiratory diseases and others.

Many, and especially the non-Medicaid respondents, were seemingly overwhelmed by the cost of care, both directly, and through their insurance premiums. High deductibles and co-pays compound the problem. Some are not sure the Affordable Care Act has helped them and others are resentful of those who benefit from Medicaid.

Access to care was another major concern, in terms of the supply of providers as well as the challenges of scheduling, waiting, getting insurance accepted, not to mention actually getting to the doctor's office or clinic.

Respondents, especially those who are insured through the Medicaid program, noted the prevalence of mental illness in our community and the inadequacy of available treatment for the same. Hard data also bear this out.

People were also deeply concerned about drug and alcohol abuse as well as other substance abuse issues like cigarette smoking. As with mental health issues, they noted the lack of resources to deal with these problems.

Many respondents seemed to understand that education is also a key issue in improving health care. Without greater knowledge or "health literacy," people can't be their own first-line health care provider. They can't improve their diets, manage their medications or participate in their own care.

Additional themes

Theme	#	%
Provider-patient relations	231	2.8%
Cancer	228	2.8%
Getting to care	212	2.6%
Prevention	206	2.5%
Care coordination	137	1.7%
Socio-economic issues	117	1.4%
Aging	113	1.4%
Patient responsibility	89	1.1%
Respiratory issues	85	1.0%
Infectious diseases	74	0.9%
Pain issues	71	0.9%
All other answers	741	9.0%

Many were unhappy with the relationship they have with their primary care provider. They don't listen, they don't take time, they don't care were common refrains. Others were dissatisfied with the overall mode of medicine which they see as focused on fixing problems with surgery and drugs rather than dealing with the root causes of health and disease.

Transportation is an important issue, especially for the Medicaid population. The challenges of getting to care in a dispersed region can be daunting.

Many understood that the best forms of health care are preentative. Certainly when taken together with comments on education, lifestyle and the importance of primary care, this is an even stronger theme than it first appears.

Respondents also recognized that there is a need to better coordinate health care, to communicate better, to attend to follow-up care, and connect the dots from one provider to another. Others emphasized the need for individuals to take more responsibility for their health and health care.

A number of respondents noted the influence that poverty, unemployment and other embedded socio-economic conditions have on the health of the population.

Finally, respondents mentioned a range of more specific health conditions that were of concern to them: respiratory issues like COPD and asthma, a range of infectious diseases, pain management, and issues relating to the aging process.

Contrasts between Medicaid enrollees and other survey respondents

Medicaid and dual eligible	%	All other insurances	%
1. Substance abuse	15.5%	1. Cost of care	16.4%
2. Mental health	12.4%	2. Access to care	14.3%
3. Access to care	9.7%	3. Obesity + overweight	11.1%
4. Obesity + overweight	8.2%	4. Diet and exercise	8.1%
5. Diet and exercise	5.0%	5. Mental health	7.4%
6. Cost of care	5.3%	6. Substance abuse	6.5%
7. Diabetes	4.6%	7. Education	4.3%
8. Cardiac health	4.6%	8. Cardiac health	3.7%
9. Getting to care	3.5%	9. Prevention	3.1%
10. Provider relationship	3.4%	10. Cancer	2.5%
11. Cancer	3.2%	11. Provider relationship	2.5%
12. Education	2.4%	12. Diabetes	2.3%
13. Poverty	2.2%	13. Getting to care	2.1%

While those insured through Medicaid (and those also eligible for Medicare) shared many of the concerns of those insured by others, the two groups put distinctly different emphases on these issues. Those differences speak eloquently to the distance between those poor enough to qualify for Medicaid and those affluent enough to be insured by their employers or themselves.

Both groups were concerned about mental health and substance abuse but those on Medicaid expressed those concerns at roughly double the frequency of the otherwise insured. This is due in part, perhaps, to the means of distribution of the survey, but it also seems likely that Medicaid members are more impacted by these issues than the others.

Both groups were concerned about the cost of care, but those who are insured through their employer or out of their own pockets or who may not be insured at all were three times more likely to reference cost as an issue than those on Medicaid.

Interestingly, the two groups were roughly as likely to be concerned about issues obesity, diet and exercise and diabetes as the other. Medicaid members mentioned the issue a little less than one comment in five, non-Medicaid insured a little more than one in five.

Also worth noting, those insured through the Medicaid program were somewhat less likely to express concerns about access to care -- a result that will seem counter-intuitive for some.

Methodology

Not every respondent took the time to fill out the open-ended questions. Fewer Medicaid enrollees completed the question than people otherwise insured. The answers ranged in size from a single word to a hundred-word essay. It seems it was easier to write more on-line than on the hard copy survey. But whatever the variables, these answers constitute an incredibly rich source of public commentary on an issue and a system that touches all our lives.

Tabulating and analyzing answers to open-ended questions is challenging. The process is, by its very nature, interpretive. But the answers were carefully quantified and sorted by issue and theme.

It's important to note that every distinct idea was counted, not just every response. For example, if a person wrote simply "obesity," one reference to obesity was added to the tally. But if a person wrote "obesity because of poor diet and lack of exercise leading to diabetes," the tallies for "obesity," "diet/nutrition," "exercise/sedentary lifestyle," and "diabetes" were all increased by one.

The tabulation and analysis also attempts to group responses by theme. Thus, for example, heart attacks, hypertension, high cholesterol, stroke and congestive heart failure are all grouped under "heart health." As a result, the tallies have a two level hierarchy – major categories on top and related issues below.

A table below summarizes the top ten issues or themes from each question for each county with answers from Medicaid enrollees and people otherwise insured reported and analyzed separately. (A full transcript of the tally of responses by county and insurer will be provided in a subsequent edition of this assessement, as will a finer-grained analysis of these answers).

County	Q. 18. In your opinion, what is the most important health problem facing people in your community?		Question 19. What do you believe is the most critical need for health care service in your community?	
	Medicaid and Dual Eligible	All Other Insurers	Medicaid and Dual Eligible	All Other Insurers
Allegany	Weight-related issues [3] Cost of care [3] Getting to care [2] Substance abuse [2] Mental health [2] Pain [2] Access to care [1] Aging-related issues [1] Socio-economic issues [1] Cancer [1]	Cost of care [12] Access to care [12] Drug abuse [8] Weight-related issues [7] Mental health issues [4] Provider-patient relationships [4] Diet and exercise [2] Cancer [2] Misuse of the ER [2] Aging [2]	Mental health [4] Access to care [2] Cost of care [3] Cancer [1]	Access to care [27] Education [5] Provider-patient relationships [4] Getting to care [4] Cost of care [2] Cancer [2] Substance abuse [1] Infectious diseases [1] Prevention [1]
Cattaraugus	Mental health [30] Weight-related issues [18] Substance abuse [13] Diet and exercise [7] Access to care [3] Cancer [5] Cardiac health [5] Socio-economic issues [3] Pain issues [3] Care coordination [2]	Weight-related issues [40] Diet and exercise [20] Cost of care [18] Substance abuse [17] Cardiac health issues [13] Access to care [13] Cancer [12] Getting to care [12] Socio-economic issues [10] Diabetes [9]	Access to care [11] Provider-patient relationships [8] Mental health issues [7] Weight-related issues [1] Getting to care [6] Education [4] Diet and exercise [3] Coordination of care [2] Cancer [2] Cardiac health issues [2]	Access to care [53] Cost of care [22] Care coordination [10] Weight-related issues [2] Diet and exercise [14] Mental health issues [12] Education [11] Getting to care [7] Provider-patient relationships [5] Substance abuse [6]
Chautauqua	Substance abuse [26] Weight-related issues [11] Diabetes [11] Cost of care [9] Mental health [7] Access to care [6] Cancer [4] Respiratory issues [4] Infectious diseases [3] Socio-economic issues [3]	Cost of care [56] Weight-related issues [47] Substance abuse [42] Access to care [33] Mental health issues [19] Diet and exercise [18] Diabetes [16] Cancer [13] Cardiac health [12] Socio-economic issues [12]	Access to care [20] Substance abuse [12] Mental health [6] Cost of care [7] Education [4] Provider-patient relationships [3] Aging [3] Cardiac health [2] Environment [2] Weight-related issues [1]	Access to care [84] Weight-related issues [5] Substance abuse [21] Cost of care [26] Mental health issues [13] Getting to care [12] Care coordination [4] Provider-patient relationships [7] Prevention [10] Education [8]
Erie	Substance abuse [189] Mental health [123] Weight-related issues [118] Cardiac health [87] Diabetes [80] Diet and exercise [56] Cancer [54] Cost of care [43] Infectious diseases [38] Socio-economic issues [22]	Weight-related issues [315] Cost of care [287] Diet and exercise [281] Substance abuse [189] Access to care [154] Cardiac health [133] Mental health [123] Diabetes [92] Cancer [62] Education [62]	Access to care [136] Mental health [82] Substance abuse [75] Getting to care [48] Coordination of care [6] Education [41] Weight-related issues [15] Cost of care [39] Provider-patient relationships [39] Socio-economic issues [16]	Access to care [276] Cost of care [358] Weight-related issues [99] Mental health issues [119] Education [106] Coordination of care [48] Prevention [99] Provider-patient relationships [62] Aging-related issues [55] Substance abuse issues [49]

County	Q. 18. In your opinion, what is the most important health problem facing people in your community?		Question 19. What do you believe is the most critical need for health care service in your community?	
	Medicaid and Dual Eligible	All Other Insurers	Medicaid and Dual Eligible	All Other Insurers
Genesee	Substance abuse [7] Mental health issues [4] Weight-related issues [3] Access to care [2] Cancer [1] Respiratory issues [1] Cost of care [1]	Cost of care [3] Weight-related issues [3] Access to care [2] Mental health issues [2] Education [1] Diabetes [1] Diet and exercise [1] Substance abuse [1] Cancer [1] Cardiac health [1]	Diet and exercise [9] Access to care [5] Getting to care [4] Substance abuse [4] Prevention [1]	Access to care [10] Coordination of care [1] Cost of care [2]
Niagara	Substance abuse [57] Mental health issues [37] Weight-related issues [35] Diet and exercise [18] Cardiac health [13] Diabetes [12] Cost of care [12] Provider-patient relationships [12] Pain issues [10] Cancer [8]	Mental health issues [78] Weight-related issues [65] Cost of healthcare [44] Cancer-related issues [29] Heart health [23] Diet and exercise [21] Access to care [15] Respiratory issues [7] Environment [5] Coordination of care [5]	Access to care [32] Mental health [19] Cost of care [16] Substance abuse [14] Diet and exercise [13] Provider-patient relationships [12] Education [8] Getting to care [8] Socio-economic issues [7] Weight-related issues [5]	Access to care [64] Cost of care [42] Diet and exercise [26] Mental health issues [23] Substance abuse [14] Education [14] Prevention [13] Provider-patient relationships [12] Getting to care [12] Heart issues [9]
Orleans	Substance abuse [8] Weight-related issues [4] Access to care [2] Cold/Flu [2] Mental health issues [2] Diabetes [2] Diet and exercise [2] Provider-patient relationships [1] Cardiac health [1] Aging [1]	Weight-related issues [15] Cost of care [10] Access to care [7] Cardiac health [7] Substance abuse [7] Education [5] Diet and exercise [4] Getting to care [3] Diabetes [3] Provider-patient relationships [2]	Access to care [9] Weight-related issues [1] Diet and exercise [1] Provider-patient relationships [1] Pain issues [1] Cost of care [1] Substance abuse [1] Prevention [1]	Access to care [23] Cost of care [6] Prevention [4] Mental health [3] Provider-patient relationships [2] Education [2] Coordination of care [1] Misuse of the ER [1] Diabetes [1]
Wyoming	Mental health issues [9] Substance abuse [7] Weight-related issues [6] Getting to care [4] Access to care [3] Provider-patient relationships [2] Diabetes [1] Aging-related issues [1] Cancer issues [1] Cost of care [1]	Mental health issues [6] Weight-related issues [6] Access to care [5] Cost of care [5] Education [3] Provider-patient relationships [2] Socio-economic problems [1] Diabetes [1] Diet and exercise [1]	Access to care [9] Mental health issues [5] Diet and exercise [4] Provider-patient relationships [3] Drug abuse [3] Cost of care [3] Getting to care [2] Cancer [1] Socio-economic issues [1] Education [1]	Access to care [9] Cost of care [4] Getting to care [3] Education [3] Coordination of care [2] Drug abuse [2] Prevention [2] Mental health [1] Critique of modern medicine [1]
No county specified	Cardiac health [1] Independent living [1]	Access to care [3] Cost of care [1] Aging-related issues [1]	Diabetes [1] High blood pressure [1] Medication [1] Independent living [1]	Help with doctors [1] Nutrition counseling [1] Cost of care [1]

Allegany

Q. 18 Health Problem Medicaid + dual eligible

Weight-related issues [3]
- Obesity (2)
- Lack of activities/ recreation (1)

Cost of care [3]
- Cost of medications and care (3)

Getting to care [2]
- Distance to specialist (1)
- Faster ambulance response (1)

Aging-related issues [2]
- Elder care (1)

Pain issues [2]
- Arthritis (1)
- Pain (1)

Substance abuse [2]
- Drugs, alcohol and smoking (2)

Mental health issues [2]

Access to care [1]
- Patient advocacy (1)

Socio-economic issues [1]
- Poverty (1)

Cancer [1]

Non-answers
- Not sure (1)

Q. 18 Health Problem All other insurance

Cost of care [12]
- Cost of insurance/care/medication is too high (7)
- Lack of dental coverage (3)
- Lack of insurance (2)

Access to care [12]
- Insufficient doctors/access to services in rural areas (10)
- TLC stay open permanently (1)
- Wait times for appointments (1)

Substance abuse [8]
- Drugs, alcohol and smoking (8)

Weight-related issues [7]
- Obesity (7)

Mental health issues [4]

Provider-patient relationships [4]
- Quality of care (4)

Cancer [2]

Misuse of the ER [2]
- Unnecessary use of ER (2)

Diet and exercise [2]
- Nutrition (2)

Aging-related issues [2]
- Memory loss (2)

Coordination of care [1]
- Doctors fear not getting paid (1)

Diabetes [1]

Getting to care [1]
- Distance / transportation (1)

Education [1]
- Health education (1)

Non-answers [2]
- Don't know (2)

Q. 19 System Need Medicaid + dual eligible

Access to care [4]
- More specialists in area (2)
- Substance abuse care (1)
- Wait times to get appointment (2)

Mental health issues [4]
- Mental health (2)
- Mental health coverage (1)
- More understanding of mental health problems (1)

Cost of care [1]
- ACA provisions (1)

Cancer [1]

Other health issues [1]
- General health (1)

Non-answers [2]
- None (1)
- Not sure (1)

Q. 19 System Need All other insurance

Access to care [25]
- Lack of doctors/specialists (9)
- Lack of access to mental health care (5)
- Access to dental care (5)
- Desire for urgent care not just ER (4)
- TLC (1)
- In-home care for memory loss (1)

Education [5]
- Health education (5)

Getting to care [4]
- Distance to health services (4)

Provider-patient relationships [3]
- Quality of care is low (3)

Cost of care [3]
- Cost of care (2)
- Fairness of insurance system (1)

Cancer [2]

Substance abuse [1]
- Smoking cessation (1)

Infectious diseases [1]
- Frequent spreading of illness at workplace (1)

Prevention [1]
- Wellness program needed (1)

Other health issues [1]
- General illness (1)

Other issues [1]
- More training and research (1)

Non-answers [3]
- Don't know (3)

Cattaraugus

Q. 18 Health Problem Medicaid + dual eligible

Mental health issues [30]
- Mental health (18)
- Depression (5)
- Anxiety (2)
- Access to mental healthcare (2)
- Stigma of mental illness (1)
- Child mental health (1)
- Stress (1)

Weight-related issues [18]
- Obesity (11)
- Overweight (7)

Substance abuse [13]
- Drug addiction (7)
- Alcohol (4)
- Smoking (2)

Diet and exercise [7]
- Diet (4)
- Lack of exercise (2)
- No exercise facilities options (1)

Access to care [3]
- Lack of doctors (1)
- Oral care (1)
- Doctor shopping (1)

Cancer [5]

Cardiac health [5]
- Heart disease (5)

Diabetes [4]

Socio-economic issues [3]
- Lack of money (2)
- Discrimination (1)

Pain issues [3]
- Pain (2)
- Nerve problems (1)

Coordination of care [2]
- Wait times to get appointment (1)
- Overuse of Rx pain killers (1)

Patient responsibility [2]
- Self-care (2)

Cost of care [2]
- Lack of insurance (2)

Infectious diseases [2]
- AIDS (1)
- STDs (1)

Education [1]
- Health knowledge (1)

Getting to care [1]
- Transport for elders (1)

Respiratory issues [1]
- Respiratory problems (1)

Prevention [1]
- Preventive care (1)

Other health issues [6]
- Celiac disease (1)
- ADHD (1)
- Autism (1)
- Liver disease (1)
- Disability (1)
- Home injuries (1)

Other issues [3]
- Funding cuts to Medicare (1)
- Cost of shampoo (1)
- Need non-corporate pharmacy (1)

Non-answers [9]
- Don't know (5)
- Nothing (4)

Q. 18 Health Problem All other insurance

Weight-related issues [40]
- Obesity (28)
- Overweight (8)
- Obesity-related (3)
- More help with weight management (1)

Diet and exercise [20]
- Diet (11)
- Exercise (6)
- Cost of Health food (2)
- Exercise facilities (1)

Cost of care [18]
- Cost (9)
- Premiums (4)
- Co-Pays (2)
- Prescriptions (2)
- Deductibles (1)

Substance abuse [17]
- Drug addiction (10)
- Smoking (4)
- Alcoholism (3)

Cardiac health [13]
- Heart Disease (9)
- Hypertension (2)
- Cholesterol (2)

Access to care [13]
- Lack of PCPs (5)
- Lack of specialists (3)
- Lack of doctors (1)
- Medical run-around (1)
- More hours of service (2)
- Wait time at doctor's office too long (1)

Cancer [12]
- Cancer (11)
- Breast cancer (1)

Getting to care [12]
- Access (5)
- Transportation (3)
- Transportation in winter (1)
- Access to emergency care (2)
- Urban bias of system (1)

Socio-economic issues [10]
- Poverty (5)
- Education (3)
- Bad parents (1)
- Learned helplessness, apathy (1)

Diabetes [9]

Education [5]
- Health knowledge (5)

Coordination of care [3]
- Overmedication (3)

Respiratory issues [3]
- Lung disease (2)
- Asthma (1)

Mental health issues [3]
- Depression (3)

Aging-related issues
- Aging (1)

Infectious diseases [1]
- Lack of handwashing (1)

Provider-patient relationships [1]
- Communication (1)

Issues of equity [1]
- Freeloaders (1)

Other issues [4]
- Video games (1)
- Obamacare (3)

Non-answers [1]
- No opinion (1)

Q. 19 System Need Medicaid + dual eligible

Access to care [11]
- More doctors (2)
- A hospital (2)
- More providers covered by insurance (2)
- More cardiologists (1)
- Women and children shelter (1)
- Social workers in schools (1)
- Medication (1)
- Senior care (1)

Provider-patient relationships [8]
- Better oral care (2)
- Better doctors (1)
- Better neurosurgeons (1)
- The answering machines at doctors' offices (1)
- Quality of care (1)
- Better testing equipment (1)
- Non-judgmental care (1)

Mental health issues [7]
- More mental health providers (2)
- Counseling (2)
- Mental health care (1)
- Mental health checkups (1)
- Mental health advocacy (1)

Getting to care [6]
- Closer providers (5)
- Transportation (1)

Cost of care [5]
- Affordable insurance (1)
- Cost (1)
- Access to care for uninsured (1)
- More access to Medicaid/Medicare (1)
- Insurance coverage of flu vaccines (1)

Education [4]
- Health knowledge (4)

Diet and exercise [3]
- Dietitian advice (2)
- Fitness facility (1)

Coordination of care [2]
- More service hours (1)
- Long-wait time @ hospital (1)

Cancer [2]

Cardiac health [2]
- Cardiac problems (1)
- Cardiac care (1)

Substance abuse [2]
- Smoking (1)
- Drinking (1)

Diabetes [2]

Pain issues [2]
- Pain management (1)
- Arthritis (1)

Weight-related issues [1]
- Obesity (1)

Other health issues [2]
- Birth control (1)
- Bone disease (1)

Other issues [2]
- Hunger (1)
- Better communities (1)

Non-answers [12]
- Don't know (9)
- Everything good (3)

Q. 19 System Need All other insurance

Access to care [53]
- More PCPs (12)
- Better doctors (6)
- Hospital (4)
- Urgent care (3)
- More providers (3)
- More doctors (3)
- Access (2)
- 24hr care (2)
- After hours primary care (2)
- Better hours (2)
- Shorter time to appointments (2)
- After hours pharmacy (1)
- Lack of availability (1)
- Closer hospital/ER (1)
- More EMTs (1)
- Phlebotomists (1)
- Pediatric care (1)
- Child care (1)
- Family care (1)
- Elderly care (1)
- Care for disabled veterans (1)
- Care for low income (1)
- Less frequent closing of offices and hospital (1)

Cost of care [22]
- Lower costs (10)
- Lower cost insurance (4)
- Lower deductibles (3)
- Funding (1)
- Better insurance (2)
- Better reimbursement to seniors (1)
- Less decision-making by insurance, more by doctors (1)

Diet and exercise [14]
- Nutrition counseling (9)
- Recreation /fitness (5)

Mental health [12]
- Mental health services (11)
- Peer services (1)

Education [11]
- Education for health (9)
- Education for self-care (1)
- Health coaching (1)

Coordination of care [10]
- Physician turnover (5)
- Poor working conditions for physicians (3)
- Continuity of care (1)
- Better communication between providers (1)

Getting to care [7]
- Transportation (7)

Substance abuse [6]
- Long term chemical dependency services (4)
- Drug and alcohol education (1)
- Smoking cessation (1)

Provider-patient relationships [5]
- More efficient ER (2)
- Better hospitals (1)
- Better specialists (2)

Prevention [4]
- Preventive screenings (2)
- Preventive care (1)
- Wellness program (1)

Pain issues [3]
- Pain (3)

Weight-related issues [2]
- Obesity (2)

Respiratory issues [2]
- Asthma (2)

Cold/Flu [1]
- Colds (1)

Other issues [1]
- Less Medicaid (1)

Non-answers [8]
- Don't know (6)
- None (1)
- Everything (1)

Chautauqua

Q. 18 Health Problem Medicaid + dual eligible

Substance abuse [26]
- Smoking (8)
- Drugs (14)
- Alcohol (3)
- Drinking (1)

Weight-related issues [11]
- Obesity (10)
- Stress eating (1)

Diabetes [11]

Cost of care [9]
- High cost of deductibles, co-pays and co-insurance (3)
- Cost (1)
- Insurance (4)
- Insufficient insurance coverage (1)

Mental health issues [7]
- Mental health (3)
- Depression (2)
- Suicide (1)
- Anxiety (1)

Access to care [6]
- Lack of care for homeless (1)
- Lack of specialists (1)
- Lack of hospitals (1)
- More beds and shower in rooms for patients in isolation (1)
- Long wait times at ER (2)

Cancer [4]

Respiratory issues [4]
- Asthma (2)
- Respiratory problems (2)

Infectious diseases [3]
- HIV (2)
- Contagious illnesses (1)

Socio-economic issues [3]
- Income (1)
- Family difficulties (1)
- Overwork (1)

Diet and exercise [3]
- Poor nutrition (2)
- Lack of exercise (1)

Provider-patient relationships [2]
- Lack of quality care (2)

Getting to care [2]
- Lack of transportation (2)

Pain issues [2]
- Pain management (1)
- Back problems (1)

Education [1]
- Lack of knowledge about resources (1)

Aging-related issues [1]

Cold/Flu [1]

Other health issues [3]
- Head lice (1)
- Dental problems (1)
- Retardation (1)

Other issues [2]
- PPE in W/Cs (1)
- Weather (1)

Non-answers [9]
- Don't know (9)

Q. 18 Health Problem All other insurance

Cost of care [56]
- High cost of medical care (19)
- High cost of insurance (16)
- Lack of insurance (13)
- High cost of medications (4)
- Doctors charging for more time than actual amount of time spent w/ patient (1)
- Insufficient health insurance coverage especially for elderly on Medicare (2)
- Getting health insurance (1)

Weight-related issues [47]
- Obesity (47)

Substance abuse [42]
- Medication and drug abuse (24)
- Smoking (11)
- Alcohol (4)
- Lack of drug addiction treatment centers (3)

Access to care [33]
- Not enough primary care providers (11)
- The hospital closing (6)
- Lack of specialists in county (3)
- Lack of in-county cardiac care (1)
- CHF (1)
- No dental or vision coverage (1)
- Lack of full service hospital (1)
- Lack of dentists (1)
- Need for after hours and weekend appointments (4)
- Wait times (3)
- Long wait times to get appointment (1)

Mental health issues [19]
- Depression (7)
- Lack of mental health services (4)
- Stress (4)
- Mental health (3)
- No long term mental health care (1)

Diet and exercise [18]
- Poor diet (9)
- Lack of exercise (7)
- Consumption of sugar (2)

Diabetes [16]

Cancer [13]

Cardiac health [12]
- Cardiovascular problems in general (8)
- Hypertension (4)

Socio-economic issues [12]
- Low income or poverty (8)
- Large proportion of income goes to medical expenses at expense of other necessities (1)
- Low prevailing wages (1)
- Overwork (1)
- Unemployment (1)

Respiratory issues [10]
- COPD (5)
- Asthma (5)

Getting to care [8]
- Having to travel far to get care (6)
- Not having car (1)
- Not having money for gas (1)

Provider-patient relationship [5]
- Lack of good quality medical care (5)

Education [5]
- Lack of health education (3)
- Ignorance (2)

Coordination of care [4]
- Lack of communication between primary doctors and specialists (2)
- Over prescription of addictive medications (1)
- Doctors taking on too many patients (1)

Prevention [3]
- Preventive care (2)
- No access to preventive care (1)
- Unvaccinated children (1)

Issues of equity [3]
- Welfare abuse (1)
- Exploitation of social services by those who don't need them (1)
- Discrimination against patients on Medicaid (1)

Infectious diseases [2]
- Communicable diseases (1)
- STDs (1)

Cold/Flu [2]
- Colds (2)

Aging [1]
- Old age (1)

Misuse of the ER [1]
- Overuse of ER (1)

Other health issues [3]
- Multiple sclerosis (3)

Other issues [1]
- Self-employed individuals being kicked off insurance and forced to buy through exchange (1)

Non-answers [8]
- I don't know or not sure (8)

Q. 19 System Need Medicaid + dual eligible

Access to care [20]
- More doctors in area (4)
- Emergency response (3)
- More specialists (2)
- More hospitals (2)
- MRIs (1)
- Helicopter (1)
- Dentists (1)
- Doctors (1)
- More dentists (1)
- More staff (1)
- More coverage of dental (1)
- More doctors w/ flexible hours (1)
- Less waiting at the ER (1)

Substance abuse [12]
- Drug treatment (5)
- Drug abuse (4)

- Smoking (1)
- Smoking cessation (1)
- Alcohol (1)

Cost of care [7]
- Insurance (2)
- Free or low cost clinics (2)
- Lower costs (3)

Mental health issues [6]
- Mental health (4)
- Depression (1)
- Long term mental health (1)

Education [4]
- Lack of resources or knowledge of them (3)
- Health education (1)

Provider-patient relationships [3]
- Honest doctors (1)
- Bedside manners (1)
- Better hospital facilities (1)

Aging-related issues [3]

Cardiac health [2]

Getting to care [2]
- Long distances to see doctors (2)

Environment [2]
- Environment (1)
- Environmental conservation (1)

Prevention [2]
- Preventive care (2)

Weight-related issues [1]
- Obesity (1)

Diabetes [1]

Cancer [1]
- Cancer screening (1)

Diet and exercise [1]
- Nutrition (1)

Infectious diseases [1]
- HIV (1)

Non-answers [12]
- I don't know (11)
- Everything (1)

Q. 19 System Need
All other insurance

Access to care [84]
- Lack of primary care doctors in area (21)
- Keep good hospitals open (17)
- Lack of specialists in area (12)
- More urgent care (8)
- Emergency services (4)
- After hours medical services (4)
- Access to competent doctors (3)
- More long term care (3)
- More availability of doctors (2)
- Doctors willing to take patients w/o insurance (1)
- Mental health emergency room (1)
- Home care (1)
- Child vaccination (1)
- Child access to good healthcare (1)
- More EMTs (1)
- More nurse practitioners (1)
- Larger service area for HMOs (1)
- Quicker service at ER (1)
- Long waits at doctor's office (1)

Cost of care [26]
- Affordability (7)
- Not being able to afford insurance (6)
- Affordable housing and services for elderly (3)
- Inability of working people to afford care and medications (2)
- Affordable dental services (2)
- Help paying for gym and other weight loss programs (4)
- Getting the uninsured insured (2)

Substance abuse [21]
- Drug rehab (10)
- Drugs (6)
- Alcohol (3)
- Earlier interventions (1)
- Ineffective counseling and drug rehab (1)

Mental health issues [13]

Getting to care [12]
- Travel distance (6)
- Transportation (6)

Prevention [10]
- Preventative care (8)
- Regular healthcare/follow up (1)
- Health maintenance and health lifestyles promotion among Medicaid and other public assistance recipients (1)

Education [8]
- Health + nutrition education (8)

Provider-patient relationships [7]
- Better quality doctors at ERs (3)
- Better support services (radiology/lab) at ER (2)
- Instructions on how to read doctors' notes and prescriptions (1)
- More doctors caring about people rather than money (1)

Respiratory issues [6]

Diet and exercise [5]
- Proper diet (2)
- Exercise (2)
- Cost of healthy food (1)

Weight-related issues [5]
- Obesity (5)

Coordination of care [4]
- Overprescribing medication (2)
- Unnecessary testing (1)
- Coordination between providers (1)

Cancer [4]

Aging-related issues [4]
- Aging and elderly services (4)

Diabetes [2]

Heart health [2]
- Heart problems (2)

Socio-economic issues [1]
- Insufficient income (1)

Misuse of the ER [1]
- Monitors/auditors to stop abusive use of ER (1)

Other issues [9]
- Get rid of Obamacare (1)
- Making unemployed eligible for insurance (1)
- More English speaking/American doctors (1)
- Translation (1)
- Labeling too many people as disabled (1)
- Less insurance company control on care decisions, more for doctors (2)

Non-answers [10]
- Not sure/don't know (8)
- No problems noted (1)
- Care is adequate (1)

Erie

Q. 18 Health Problem
Medicaid + dual eligible

Substance abuse [189]
- Drugs (80)
- Smoking (46)
- Alcohol (45)
- Addiction (14)
- Prescription drugs (4)

Mental health issues [123]
- Mental health (69)
- Depression (27)
- Anxiety (9)
- Stress (4)
- Schizophrenia (3)
- Bi-polar disorder (2)
- ADHD (2)
- Insomnia (2)
- MH budget cuts (2)
- Suicide (1)
- PTSD (1)
- Anger (1)

Weight-related issues [118]
- "Obesity" (77)
- "Overweight" or "weight" (38)
- Childhood obesity (3)

Cardiac health [87]
- Heart disease (43)
- Hypertension (39)
- Stroke (2)
- Cholesterol (2)
- Congestive heart failure (1)

Diabetes [80]
- In general (79)
- Related to anti-psychotic drugs (1)

Diet and exercise [56]
- Nutrition/diet (25)
- Lack of exercise/ sedentary lifestyle (19)
- Poor access to food (3)
- Lack of money for food (7)
- Hunger (2)
- Eating disorders (2)
- Toxins in food (2)

Cancer [54]

Cost of care [43]
- Lack of insurance (24)
- Cost of care (12)
- Cost of prescription drugs (6)
- Co-pays (1)

Infectious diseases [38]
- HIV/AIDS (19)
- STDs (13)
- Unsafe sex (3)
- Hepatitis C (2)
- In general (1)

Socio-economic issues [22]
- Homelessness (6)
- Housing (5)
- Poverty (5)
- Jobs (5)
- Prison (1)

Coordination of care [19]
- Lack of information (11)
- Poor follow-up care (2)
- PAs and RNs instead of MDs (2)
- Poor referrals (1)
- Lack of timely appointments (1)
- Scheduling (1)

- Services (1)

Respiratory issues [18]
- "Breathing" (8)
- Asthma (7)
- Emphysema (2)
- COPD (1)

Pain issues [17]
- Pain (8)
- Arthritis (5)
- Headache (2)
- Back pain (2)

Access to care (16)
- "Access" (6)
- Lack of PCP (6)
- Lack of care (4)

Colds/Flu [14]

Getting to care [11]
- Transportation (8)
- Inconvenient provider location (3)

Provider-patient relationships [9]
- Poor communication (2)
- Lack of understanding (1)
- Doctors don't listen (1)
- Racist providers (1)
- Lack of respect (1)
- Treat us fairly (1)
- Understand transgendered (1)
- Language barriers (1)

Environment [7]
- Environmental pollution (7)

Violence and crime (7)

Prevention [6]

Education [5]

Other health issues [15]
- Pregnancy (2)
- Seizures (2)
- Epilepsy (1)
- Autism (1)
- Fatigue (1)
- Renal failure (1)
- Autoimmune disease (1)
- Prostate (1)
- Thyroid (1)
- Skin (1)
- Memory loss (1)
- Hearing (1)
- Aging (1)

Other issues [9]
- Immigration (3)
- Weather (2)
- Cut Medicaid (1)
- No free health care (1)
- Bed bugs (1)
- Personal hygiene (1)

Non answers [45]
- No problems/ no answer (20)
- Don't know (19)
- Not sure (6)

Q. 18 Health Problem
All other insurance

Weight-related issues [315]
- "Obesity" (212)
- "Overweight" or "weight" (73)
- Complications from obesity (22)
- Childhood obesity (8)

Cost of care [287]
- Cost of health care (70)
- Cost of insurance (63)
- No coverage (45)
- Co-pays (31)
- Deductibles (31)
- ACA made it more expensive (25)
- Items not covered (9)
- "Tweeners" + "donut holes" (8)
- Costs for retirees (3)
- Employers dropping coverage (3)
- Availability of insurance (1)
- Turning 26; can't afford it (1)
- Mental health not covered (1)
- Dental not covered (1)

Diet and exercise [281]
- Nutrition/diet (132)
- Lack of exercise/sedentary lifestyle (79)
- Lack of money for food (16)
- Need nutrition information (16)
- Poor access to food (15)
- Cost/ lack of gym or fitness (13)
- Need walkable environments (6)
- Poor health habits (4)

Substance abuse [189]
- Drugs (68)
- Smoking (51)
- Alcohol (44)
- Addiction (17)
- Prescription drugs (9)

Access to care [154]
- Long wait to schedule appointments (23)
- Lack of primary providers (22)
- Delaying/avoiding care due to cost (21)
- Lack of doctors (15)
- "Access" (15)
- Lack of specialists (13)
- Lack of mental health providers (12)
- Doctors to take Medicaid/Medicare (5)
- RNs and PAs instead of MDs (4)
- Primary care hours too limited (4)
- Primary care wait times (4)
- Keep local hospital (4)
- Hospital is understaffed (3)
- Doctors to take my insurance (3)
- Insurer limits on care (3)
- Lack of providers (3)
- Lack of pediatric care (2)
- ER wait times (2)
- Lack of care (2)
- Maternal and infant care (1)
- Forced to switch providers (1)
- Few choices under Medicaid (1)
- Availability (1)
- No charity hospital (1)
- Lack of beds (1)

Cardiac health [133]
- Heart disease (75)
- Hypertension (38)
- Cholesterol (8)
- Stroke (7)
- Congestive heart failure (4)
- Chest pain (1)

Mental health issues [123]
- Mental health (70)
- Depression (20)
- Stress (13)
- Stressful lifestyles (10)
- Anxiety (3)
- Bi-polar disorder (1)

Diabetes [92]

Cancer [62]

Education [62]
- Wellness education/ health literacy (44)
- Knowledge of health care system (12)
- Education (5)
- Misinformation (1)

Patient responsibility [40]
- Irresponsibility (23)
- Non-compliance (10)
- No-shows (3)
- Laziness (3)
- Apathy (1)

Provider-patient relationship [30]
- Doctors don't take time (6)
- Doctors don't listen (5)
- Poor communication (5)
- Doctors don't care (4)
- No personal relationship w/Dr. (4)
- Not patient focused (3)
- Only in it for the money (2)
- Language barriers (1)

Emphasize preventive care [29]

Critique of modern medicine [28]
- Over-reliance on drugs (12)
- Not holistic or preventive (11)
- Too many specialists (2)
- Lack of common sense (1)
- Drug conflicts (1)
- No well visits (1)

Aging-related issues [28]
- Elder care (14)
- Conditions of aging (11)
- Alzheimer's (3)

Respiratory issues [22]
- Asthma (12)
- COPD (5)
- Respiratory (5)

Getting to care [21]
- Transportation (18)
- Inconvenient provider location (3)

Socio-economic issues [19]
- Poverty (12)
- Homelessness (2)
- Economy (2)
- Money (2)
- Jobs (1)

Coordination of care [17]
- Poor coordination (13)
- Poor follow-up care (2)
- Managing multiple diseases (1)
- Lack of clinical pharmacy support (1)

Issues of equity [18]
- Cut Medicaid spending (5)
- Inequities in care (4)
- Stop Medicaid abuse (3)
- Ambulance abuse (2)
- Stop free health care (2)
- Freeloaders (1)
- SSI abuse (1)

Environmental [17]
- Pollution (13)
- Food (4)

Pain issues [14]
- Pain (3)
- Arthritis (3)
- Joints (3)
- Spine (2)
- Inflammation (2)
- Osteoporosis (1)
- Headaches (1)

Misuse of Emergency Rooms [14]
- ER Mis-use (12)
- Providers tell us to go there (2)

Multiple sclerosis [9]

Infectious diseases [9]
- STDs (5)
- HIV/AIDS (4)

Cold/Flu [8]
- Flu (3)
- Viruses (3)
- Flu shots (1)

- Ebola (1)

Dental care [8]

Thyroid disease [6]

Other health issues [25]
- Quality of care (4)
- Autoimmune disease (3)
- Vision (2)
- Renal failure (2)
- Anti-/non-vaccinators (2)
- Lack of sleep (2)
- Allergies (2)
- Fear of illness (2)
- End of life directives + care (1)
- Injuries (1)
- Hypothermia (1)
- Hearing (1)
- Sex education (1)
- Family planning (1)

Other issues [9]
- Cost of education (1)
- Electronic entertainment (1)
- Anti-Latino bias (1)
- Guns (1)
- Bed bugs (1)

Non-answers [36]
- No problems/ no answer (14)
- Don't know (18)
- Not sure (4)

Q. 19 System Need Medicaid + dual eligible

Access to care [136]
- More doctors (21)
- More clinics (19)
- More urgent care facilities (7)
- More doctors that accept Medicaid/Medicare (6)
- Services for children (6)
- Medicines (5)
- Community support services (5)
- Alternative/holistic care (4)
- Primary care (3)
- Better hospitals (3)
- Better ERs (3)
- Dental/dentists (3)
- Better facilities (2)
- Satellite offices in poor areas (2)
- Better insurance (2)
- More and better testing (2)
- Services for the homeless (1)
- More services (1)
- Choice of doctors (1)
- Medicaid and Medicare (1)
- Equal opportunity to have health care regardless of insurance status (1)
- One-stop shop clinics (1)
- Shorter wait times (17)
- Availability of doctors or staff when you need them (14)
- More hours/after hours/flexible hours (6)

Mental health issues [82]
- Mental health problems (29)
- More mental health providers/ services (28)
- More education/outreach on mental health problems (5)
- Better mental health (4) • Housing for mental health patients (4)
- More doctors aware of mental health (2)
- Affordable mental health (2)
- Crisis prevention (2)
- Mental health of the disabled (2)
- Better payment/reimbursement for mental health providers by Medicaid/Medicare (1)
- Hotlines for mental health issues/domestic violence (1)
- More emotional support from people that have been there (1)
- No funding cuts to mental health (1)

Substance abuse [75]
- Drug addiction (28)
- More rehab centers (24)
- Smoking (11)
- Alcoholism (6)
- Drug and alcohol abuse education and outreach (3)
- Drug testing requirement for welfare programs (1)
- More needle exchange programs (1)
- Better screening for drug and alcohol problems (1)

Getting to care [48]
- Transportation (25)
- Accessibility (8)
- Closer health care providers (5)
- Home visits (3)
- More reliable ambulance transportation to hospital (2)
- Non-medical transportation for the disabled and others (2)
- Free transportation (1)
- Home care (1)
- Transportation covered by Medicaid (1)

Education [41]
- Health education and outreach with greater focus on nutrition and exercise (34)
- Awareness of available programs and resources (7)

Cost of care [39]
- Affordability of health insurance (5)
- Cost (5)
- Coverage of dental care (3)
- More payment options (2)
- Funding (2)
- More benefits for disabled under age 65 (1)
- Cost of medications (1)
- Coverage of vision (1)
- Affordable dental care (1)
- Insurance (9)
- Getting insurance (7)
- Lack of insurance (2)

Provider-patient relationships [39]
- Better quality care (12)
- Doctors that listen to patients (6)
- Kindness and compassion (6)
- Better doctors (5)
- Responsiveness of staff (3)
- More translators (2)
- More Afrocentric care (1)
- Less clients (1)
- Better communication (1)
- Greater accountability (1)
- Better care for Medicaid patients (1)

Prevention [23]
- Preventive care (9)
- Follow up care (8)
- Vaccination (2)
- Pregnancy prevention (4)

Diet and exercise [18]
- Better diet (9)
- Exercise facilities (6)
- Regulating the junk food industry (2)
- Affordable food (1)

Socio-economic issues [16]
- Jobs (6)
- Lack of money (4)
- Housing assistance (3)
- Prostitution (1)
- Good quality housing (1)
- Single parents (1)

Weight-related issues [15]
- Obesity (15)

Diabetes [14]

Patient responsibility [12]
- Active lifestyles (10)
- Better hygiene (2)

Cardiac health [9]
- Heart problems (9)

Aging-related issues [8]
- Elderly (5)
- Ability to age in place (1)
- Universal design (1)
- Independent living (1)

Cancer [8]

Coordination of care [6]
- Mental and physical health care (4)
- Less physician's assistants and nurse practitioners (1)
- Better coordination of care/sharing patient information (1)

Infectious diseases [6]
- STDs (6)

Pain issues [5]
- Pain management (4)
- Joint problems (1)

Respiratory issues [4]

Environment [4]
- Environmental pollution (4)

Cold/Flu [3]
- Colds (3)

Critique of modern medicine [2]
- Less medicating patients (2)
- Rehab that gets at cause of health problems (1)

Violence and crime [2]
- Gun violence (1)
- Neighborhood safety (1)

Multiple sclerosis [1]

Other health issues [9]
- Better health (4)
- Illness (3)
- Transplants (1)
- Allergies (1)

Other issues [1]
- Legalize marijuana (1)
- Stricter regulation of pharmaceutical industry (1)

Non-answers [35]
- Don't know/unsure (27)
- Everything/Too many problems to list (6)
- No problems (2)

Q. 19 System Need All other insurance

Cost of care [358]
- Access to affordable care (72)
- Cost (56)
- Cost of insurance (31)
- Low cost options for uninsured or low income patients (29)
- Access to affordable insurance (26)
- Free healthcare and services (21)
- Cost of medications (17)
- Coverage of dental and vision (12)
- Better insurance coverage (12)

- Discounts to wellness services (10)
- Insurance (9)
- Cost of elderly services (9)
- Cost of medical visits (8)
- Cost of care not justified by quality delivered (6)
- Affordable nutrition (6)
- Affordable dental (4)
- More money for doctors (3)
- Cost of mental health services **(2)**
- More transparency/information about costs (2)
- Insurance for working poor (2)
- Cost of testing (1)
- Consistent pricing across providers (1)
- Bigger buildings on Medical Campus don't improve quality care just increase cost (1)
- Doctor requiring a new patient visit before scheduling a no-charge physical (1)
- Affordable gyms/exercise programs (17)

Access to care [276]
- More PCPs (45)
- Access to care for all regardless of insurance status or type of insurance (39)
- More alternative/natural/holistic/nutrition-based medicine (20)
- More affordable comprehensive/all-inclusive service neighborhood clinics (18)
- More 24/7 urgent care facilities (14)
- More specialists (11)
- Child-specific services of all types (8)
- Access to quality care (7)
- Doctor availability (6)
- ER (6)
- More services for the disabled (6)
- More hospitals in south towns (5)
- Primary care (5)
- Insurance for young adults (4)
- More staff (4)
- Universal health care (4)
- Medications (4)
- Keeping hospitals open (3)
- More maternity services (3)
- Mobile preventive/screening/lab services (2)
- More doctors that take Medicare/Medicaid (2)
- Services for underserved women (2)
- Outreach to people not getting care (2)
- More nurses (2)
- More dentists (1)
- Choice of providers (1)
- Doctors leaving the region (1)
- Insurance companies that no longer serve working poor (1)
- Chiropractor care (1)
- More equipment (1)
- Insurance plans that support holistic medicine (1)
- Shorter wait times to get appointments (29)
- After hours/extended hours/flexible hours (15)
- Wait times at ER (3)

Mental health issues [119]
- More mental health services for all ages (75)
- Mental health (9)
- Qualified mental health providers (7)
- Housing for mental health patients (6)
- Mental health crisis prevention (6)
- Depression (5)
- More mental health places that take insurance (3)
- Mental health ER (3)
- Support for families of mental health patients (2)
- Mental health education (1)
- Kendra's law (1)
- Stress management (1)

Education [106]
- Health education/information/awareness (87)
- Education about the insurance/healthcare system (12)
- Cause and effect image campaigns (2)
- Diabetes education (5)

Prevention [99]
- Preventive care (97)
- STD prevention (2)

Weight-related issues [99]
- Nutrition/Weight loss/exercise/lifestyle education and support (82)
- Obesity (17)

Provider-patient relationships [62]
- Better care for low income/uninsured people (10)
- More doctors that care (10)
- Better doctors (8)
- Better communication w/ patient (8)
- Better quality elder care (6)
- Better hospital care (5)
- Quality care for Medicare/Medicaid beneficiaries (4)
- Patient advocates (2)
- Better trained healthcare and ancillary staff (2)
- Defensive medicine (1)
- Trust in doctors (1)
- More time w/ doctor at appointment (5)

Aging-related issues [55]
- Help/Care for the elderly (27)
- Elderly (10)
- Assistance to elderly caregivers (9)
- Home care (8)
- Skilled nursing (1)

Diet and exercise [53]
- Healthy diet (30)
- Exercise programs (20)
- Fitness for elderly and disabled (1)
- Community gardens (1)
- Better food system (1)

Substance abuse [49]
- Drug and alcohol treatment centers (26)
- Drug abuse (15)
- Smoking cessation programs (6)
- Drugs and alcohol (2)

Coordination of care [48]
- Better coordination of care (21)
- Better case management and follow up (16)
- Unnecessary testing (4)
- Medication delivery service (1)
- Streamlined billings and collections (1)
- Better organization and flow (1)
- Community healthworkers (1)
- Shareable medical records (1)
- Avoid duplication of services (1)
- Reduce system and medical waste (1)

Patient responsibility [27]
- Avoidance of ER for primary care needs (18)
- Self-care/personal responsibility (9)

Getting to care [28]
- Transportation (27)
- Better ambulance response times (1)

Critique of modern medicine [20]
- Less emphasis on medicating patients, more on changing lifestyles (13)
- Integration of mental, spiritual and physical health (6)
- Overuse of antibiotics (1)

Socio-economic issues [13]
- Work and the economy (3)
- Money (3)
- Better parenting (2)
- Unemployment/underemployment/workplace closings (2)
- Better police patrolling (1)
- Money/lack of money (1)
- Homeless (1)

Cancer [12]
- Cancer screening + treatment (12)

Infectious diseases [6]
- STDs (6)

Pain issues [5]
- Pain management (5)

Environment [4]

Respiratory Issues [3]
- Asthma (2)
- Respiratory problems (1)

Cardiac health [1]

Issues of equity [1]
- Reduce healthcare disparities (1)

Diabetes [1]
- Comprehensive diabetes care center (1)

Other health issues [16]
- Reproductive health services (6)
- Illness in general (5)
- Disabled (3)
- Not using abortion as birth control (1)
- Organ transplants (1)

Other issues [24]
- Research (2)
- Less insurance company interference in care decisions (4)
- Less government interference in health care (2)
- No religious restrictions on insurance coverage (2)
- Church support groups (1)
- More health insurance company accountability (3)
- Reform malpractice industry (2)
- More accountability for Medicare/Medicaid (2)
- More enrollment eligibility restrictions on Medicaid (3)
- Get rid of Obamacare (3)

Non-answers [40]
- Don't know (31)
- No comment (4)
- Everything (2)
- Don't understand question (2)
- Too many problems (1)

Genesee

Q. 18 Health Problem Medicaid + dual eligible

Substance abuse [7]
- Smoking (5)
- Drugs (1)
- Alcohol (1)

Mental health issues [4]

Weight-related issues [3]
- Obesity (3)

Access to care [2]
- Lack of psychiatrist (1)
- Lack of information (1)

Cancer [1]

Respiratory issues [1]
- Asthma (1)

Cost of care [1]
- Putting off care until they have no choice (1)

Other health issues [3]
- Medication side effects (2)
- Stomach problems (1)

Non-answer [2]
- Don't know (2)

Q. 18 Health Problem All other insurance

Cost of care [3]
- High cost of private insurance compared to employer insurance (1)
- High cost of healthy food (1)
- High cost of everything health related (1)

Weight-related issues [3]
- Obesity (3)

Access to care [2]
- Lack of access to specialists (1)
- Lack of employer support for health and wellness (1)

Mental health issues [2]
- Mental health integration to primary care (1)
- Mental health (1)

Education [1]
- Lack of health, wellness and nutrition education (1)

Diabetes [1]

Diet and exercise [1]

Substance abuse [1]
- Alcohol and drugs (1)

Cancer [1]

Cardiac health [1]
- Blood pressure (1)

Coordination of care [1]
- Availability of doctors and staff to answer questions on phone (1)

Non-answers [1]
- None (1)

Q. 19 System Need Medicaid + dual eligible

Diet and exercise [9]
- Health education, including nutrition (4)
- Exercise (3)
- Better nutrition (2)

Access to care [5]
- More mental health providers (3)
- Access to adequate care regardless of insurance status (2)

Getting to care [4]
- Better public transportation (4)

Substance abuse [4]
- Smoking cessation programs (2)
- Drugs (1)
- Less advertising about painkillers (1)

Prevention [1]
- More preventive care (1)

Other issues [1]
- Religious practices (1)

Non-answers [5]
- Don't know (5)

Q. 19 System Need All other insurance

Access to care [10]
- More primary care doctors (2)
- Access to mental health (2)
- Access to drug abuse programs (2)
- Access to social services (1)
- Holistic health care (1)
- More weight loss and nutrition programs (1)
- More specialists (1)

Cost of care [2]
- Affordable dental care (1)
- Insurance coverage of dental care (1)

Coordination of care [1]
- Convenient doctor's office hours (1)

Other issues [1]
- Limit access to processed foods (1)

Non-answers [4]
- None (4)

Niagara

Q. 18 Health Problem Medicaid + dual eligible

Substance abuse [57]
- Drugs (28)
- Alcohol (15)
- Prescription abuse (4)
- Addiction (3)
- Smoking (2)
- Second-hand smoke (2)
- Crack (2)

Mental health issues [37]
- Mental health (25)
- Depression (3)
- Anxiety (2)
- Bi-polar disorder (1)
- Stress (1)
- Schizophrenia (1)
- No psychiatrists (1)
- Affective disorders (1)
- Fear (1)
- PTSD (1)

Weight-related issues [35]
- Obesity (19)
- Overweight (16)

Diet and exercise [18]
- Diet/Nutrition (12)
- Exercise (3)
- Nutrition education (1)
- Food access/cost (2)

Cardiac health [13]
- Heart (8)
- High blood pressure (4)
- Cholesterol (1)

Diabetes [12]

Cost of care [12]
- Cost (2)
- Lack of insurance (10)

Provider-patient relationships [12]
- Communication (3)
- Doctors not listening (3)
- Information from doctors (2)
- Frequent hospital readmission due to poor quality care (2)
- Bad attitudes/ingratitude (1)
- More time w/ patient (1)

Pain issues [10]
- Muscle and body pain (4)
- Not giving needed medications to patients with chronic pain for fear of prescription abuse (3)
- Back problems (3)

Cancer [8]

Getting to care [6]
- Transportation (6)

Socio-economic issues [5]
- Finances (2)
- Poor quality housing (1)
- Homelessness (1)
- Unemployment (1)

Access to care [4]
- Not enough doctors (2)
- Lack of knowledge (1)
- Loss of work time (1)

Patient responsibility [4]
- Laziness (2)
- Self-care (2)

Infectious diseases [4]
- STDs (3)
- HIV/AIDS (1)

Coordination of care [3]
- Waiting for doctors (2)
- Providers come and go (1)

Environment [2]
- Water (1)
- Bad air quality (1)

Cold/Flu [2]

Respiratory issues [1]

Multiple sclerosis [1]

Other health issues [3]
- Insomnia (1)
- Renal disease (1)
- Fatigue (1)

Non-answers [12]
- None (9)
- Don't know (2)
- Too many problems to list (1)

Q. 18 Health Problem All other insurance

Mental health issues [78]
- Mental health (35)
- Drug addiction (21)

- Depression (7)
- Smoking (6)
- Alcoholism (5)
- Prescription drug abuse (2)
- Anxiety (1)
- Stress (1)

Weight-related issues [65]
- Obesity (43)
- Overweight (22)

Issues about the cost of healthcare [44]
- Cost/Affordability (18)
- Insurance (12)
- Medicaid cost (5)
- Out-of-pocket/Co-pay (3)
- Tweeners (3)
- Money (3)

Cancer-related issues [29]
- Cancer (22)
- Environmental causes of cancer (6)
- Breast cancer (1)

Heart health issues [23]
- Heart disease (16)
- Hypertension (5)
- Stroke (2)

Diet and exercise [21]
- Diet/Nutrition (13)
- Exercise (6)
- Food access (2)

Access to care [15]
- More doctors (6)
- More PCP (2)
- Elder care (2)
- Access (2)
- Need urgent care (1)
- Dental (1)
- Other short staff (1)
- Availability of doctor 1

Respiratory issues [7]
- Asthma (5)
- COPD (2)

Environment [5]
- Toxic dump/pollution (5)

Coordination of care [5]
- Waiting for a doctor (4)
- Over-medication (1)

Getting to care [5]
- Transportation (5)

Provider-patient relationship [4]
- Better doctors (2)
- More time w/ doctor (1)
- Bad hospital (1)

Prevention [4]
- Preventive care (4)

Education [3]
- Health knowledge (3)

Multiple sclerosis [3]

Patient responsibility [2]
- Non-compliance (2)

Pain issues [2]
- Arthritis (2)

Cold/Flu [1]
- Flu (1)

Aging [1]

Other health issues [6]
- Prescriptions (2)
- Unprotected sex (2)
- Auto-immune disease (1)
- Allergies (1)

Other issues [2]
- Insurance dictates doctor choice (1)
- Government involvement (1)

Non-answers [11]
- Don't know (3)
- None (4)
- N/A (4)

Q. 19 System Need Medicaid + dual eligible

Access to care [32]
- ER (5)
- Accept Medicaid (4)
- More doctors (4)
- Equal access to care (3)
- More providers (3)
- Care for disabled (3)
- Access to nurse (2)
- Choice of doctors (2)
- Availability of doctors (2)
- Better doctors (1)
- Care for youth (1)
- Orthopedic care (1)
- Clinics (1)
- Urgent care (1)

Mental health [19]
- Mental health (17)
- Adolescent mental health (1)
- Depression (1)

Cost of care [16]
- Cost (6)
- Affordable insurance (1)
- Insurance (5)
- Insurance for homeless and other uninsured (2)
- Better insurance (2)

Substance abuse [14]
- Drug treatment (9)
- Smoking cessation (3)
- Suboxone (1)
- Alcohol (1)

Diet and exercise [13]
- Nutrition (7)
- Exercise (6)

Provider-patient relationships [12]
- Compassion/communication (5)
- Responsiveness (3)
- Unbiased care (2)
- Quality of care (2)

Education [8]
- Health education (6)
- HIV, STD, Teen pregnancy, education (2)

Getting to care [8]
- Transportation (8)

Socio-economic issues [7]
- Financial help (4)
- Food access (2)
- Jobs (1)

Weight-related issues [6]
- Weight loss (5)

Aging [5]
- Services for seniors (2)
- Elder care (1)
- Home care (1)
- Fall prevention (1)

Cardiac health issues [2]

Patient responsibility [1]
- Self-help/care (1)

Pain issues [1]
- Pain management (1)

Prevention [1]
- Preventive care (1)

Diabetes [1]

Respiratory issues [1]
- COPD (1)

Cancer [1]
- Cancer neuropathy (1)

Education [1]
- Knowledge of Multiple Sclerosis (1)

Other health issues [1]
- Renal disease (1)

Other issues [4]
- Spiritual (2)
- Youth activities (2)

Non-answers [21]
- No complaints (10)
- Don't know (8)
- Everything (3)

Q. 19 System Need All other insurance

Access to care [64]
- More doctors (10)
- Care for uninsured (6)
- Access (6)
- Senior care (6)
- Urgent care center (4)
- Coverage of dental services (3)
- More providers (2)
- Keep Newfane open (2)
- Primary care clinics (2)
- Urgent care hours (1)
- Rehabilitation services (1)
- Care for uninsured children (1)
- ER alternative (1)
- More specialists (1)
- More Doctors not Physician's Assistants or Nurse Practitioners (1)
- Keep LKPR Ambulance (1)
- Lack of fully functional hospital (1)
- Natural care facility (1)
- Evening/weekend hours (4)
- Shorter wait times (3)
- Less waiting at the ER (3)
- Too long to get appointments (2)
- Shorter wait times at Lockport hospital (1)
- Wait for services (1)

Cost of care [42]
- Affordable care (16)
- Affordable insurance (12)
- Co-Pays (4)
- Free healthcare (2)
- Prescriptions (2)
- Out-of Pocket (1)
- Free services (1)
- Healthcare assistance for low income (1)
- Better insurance (3)

Diet and exercise [26]
- Diet counseling (13)
- Gym/membership (8)
- Exercise (1)
- Food access (4)

Mental health issues [23]
- Mental health (18)
- Depression (2)
- More child psychiatrists (2)
- Anxiety (1)

Substance abuse [14]
- Drug treatment (9)
- Drug treatment for kids (2)
- Awareness of alcoholism (2)

- Alcohol (1)

Education [14]
- Health education (12)
- Bullying awareness (1)
- Outreach to poor (1)

Prevention [13]
- Preventive care (13)

Provider-patient relationships [12]
- Better doctors (3)
- Better ER (2)
- Treat patients equally (1)
- Communicate with patience (1)
- More attentive (1)
- Doctors that take time (1)
- LGBT-friendly doctors (1)
- Better hospital (LKPR) (1)
- Quality (1)

Getting to care [12]
- Transportation (12)

Heart issues [9]
- Cardiac care (6)
- Hypertension (1)
- Stroke (1)
- Heart disease (1)

Care coordination [7]
- Care coordination (6)
- Overmedication (1)

Weight-related issues [6]
- Weight management (6)

Pain issues [3]
- Arthritis/Chronic pain (2)
- Pain management (1)

Diabetes [2]

Cancer [2]

Issues of equity [2]
- Stop giving free health care to illegal aliens (1)
- Medicaid abuse (1)

Patient responsibility [1]
- Patient compliance (1)

Respiratory issues [1]
- Pulmonary (1)

Infectious diseases [1]
- STDs (1)

Socio-economic issues [1]
- Poverty (1)

Other health issues [1]
- Preventing teen pregnancy (1)

Other issues [13]
- Rental services (2)
- Jesus (1)
- Research (1)
- Marketing of urgent care (1)
- Security near hospital (1)
- Problems with health insurance exchange (1)
- Keep funding Newfane (1)
- Change in leadership (1)
- Children/teens (1)
- Insurance that gives more choice of doctors (3)

Non-answers [11]
- Don't know (11)

Orleans

Q. 18 Health Problem Medicaid + dual eligible

Substance abuse [8]
- Drug addiction (4)
- Alcohol (3)
- Smoking (1)

Weight-related issues [4]
- Obesity (4)

Access to care [2]
- Lack of doctors /specialists (1)
- Wait times to get appointment (1)

Cold/Flu [2]
- Common cold/flu (2)

Mental health issues [2]
- Mental health (2)

Diabetes [2]

Diet and exercise [2]
- Poor diet (1)
- Ability to afford health foods (1)

Provider-patient relationships [1]
- Need for quality health insurance (1)

Cardiac health [1]
- High blood pressure (1)

Aging [1]
- Old age (1)

Socio-economic issues [1]
- Unemployment (1)

Cost of care [1]
- Access to health insurance (1)

Prevention [1]

Other issues [1]
- People don't want help (1)

Non-answers
- Don't know (2)

Q. 18 Health Problem All other insurance

Weight-related issues [15]
- Obesity (15)

Cost of care [10]
- Cost of health care and medications (1)
- Lack of health insurance (5)
- Lack of money or high costs prevents from going to doctor (4)

Access to care [7]
- Access to specialists (2)
- Urgent care (1)
- Finding doctor who is **accepting** new patients (1)
- Providers cutting back services (1)
- Lack of doctors in area (1)
- Wait times for appointments (1)

Cardiac health [7]
- Heart problems/diseases (3)
- Blood pressure (3)
- Cholesterol (1)

Substance abuse [7]
- Drugs and alcohol (6)
- Smoking (1)

Education [5]
- Health education especially nutrition (5)

Diet and exercise [4]
- Poor nutrition due to lack of money (4)

Getting to care [3]
- Transportation (3)

Diabetes [3]

Provider-patient relationships [2]
- Lack of bedside manners (1)
- Doctors not taking enough time to understand patients' problems (1)

Cold/Flu [2]
- Common colds (2)

Mental health [2]
- Mental health (2)

Care coordination [1]
- Overuse of medication (1)

Pain issues [1]
- Arthritis (1)

Respiratory issues [1]
- Asthma (1)

Cancer [1]

Other health issues [2]
- Neurological problems (2)

Non-answers
- Don't know (3)

Q. 19 System Need Medicaid + dual eligible

Access to care [9]
- More specialists (2)
- More doctors (2)
- Health care available whenever needed (2)
- Mental health providers needed (1)
- A hospital (1)
- Ability to get on pain meds w/o pre-approval (1)

Weight-related issues [1]
- Obesity (1)

Diet and exercise [1]
- More exercise facilities (1)

Provider-patient relationships [1]
- Better care at the ER (1)

Pain issues [1]
- Pain management (1)

Cost of care [1]
- Lower med costs (1)

Substance abuse [1]
- Alcohol (1)

Prevention [1]

Other health issues [1]
- Illness and injury (1)

Other issues [3]
- Animal walking park (1)
- Activities for teens (1)
- Excess place for kids (1)

Non-answers [1]
- I don't know (1)

Q. 19 System Need All other insurance

Access to care [23]
- Need for more providers, esp. taking new patients (10)
- Specialists needed (5)

- Nutritionists needed (2)
- Choice of health insurance (1)
- More local skilled nursing facilities (1)
- After-hours care (3)
- Wait times for appointments (1)

Cost of care [6]
- Access to affordable care (2)
- Affordable preventive care (1)
- Funding for rural hospitals (1)
- Help paying co-pays and costs after insurance pays (1)
- Affordable transportation (1)

Prevention [4]
- Access to preventive care (3)
- Wellness/recreation programs (1)

Mental health [3]
- Mental health (3)

Provider-patient relationships [2]
- Better quality care/providers (1)
- Bedside manners (1)

Education [2]
- Health education (2)

Coordination of care [1]
- Continuity of care (1)

Misuse of the ER [1]
- Too much use of ER (1)

Diabetes-related issues [1]
- Diabetes (1)

Non-answers [3]
- No need (2)
- Don't know (1)

Wyoming

Q. 18 Health Problem Medicaid + dual eligible

Mental health issues [9]
- Mental health (5)
- Depression/anxiety (3)
- Child molesters (1)

Substance abuse issues [7]
- Drugs (3)
- Alcohol (3)
- Smoking (1)

Weight-related issues [6]
- Obesity (6)

Getting to care [4]
- Transportation, especially for the blind and elderly (4)

Access to care [3]
- Lack of dental and vision doctors (1)
- Lack of health food stores (1)
- Health care (1)

Provider-patient relationships [2]
- Prejudice (1)
- Having to see too many doctors because they're busy (1)

Diabetes [1]

Aging-related issues [1]

Cancer issues [1]

Cost of care [1]

Cardiac health issues [1]
- Heart disease (1)

Socio-economic issues [1]
- Poverty (1)

Environment [1]
- Water problems (1)

Non-answers [7]
- Don't know/unsure (5)
- None (1)
- All (1)

Q. 18 Health Problem All other insurance

Mental health issues [6]
- Mental health (4)
- Mental health stigmas among patients and providers (1)
- Knowing how to access mental health service (1)

Weight-related issues [6]
- Obesity (6)

Access to care [5]
- Not enough doctors (3)
- Hospital (1)
- Lack of other types of providers (nurses, pharmacies, labs) (1)

Cost of care [5]
- Cost (4)
- Lack of sufficient coverage for elderly (1)

Education [3]
- Education (1)
- Nutrition education (2)

Provider-patient relationships [2]
- Non-judgmental care (1)
- Not enough time w/ doctor (1)

Socio-economic problems [1]
- Lack of income (1)

Diabetes [1]

Diet and exercise [1]
- Diet (1)

Other health problems [1]
- Dental problems (1)

Non-answers [8]
- None (4)
- Don't know / not sure (3)
- Too many to list (1)

Q. 19 System Need Medicaid + dual eligible

Access to care [9]
- More doctors and specialists (3)
- Dental and vision (1)
- Home visitors (1)
- Insurance (1)
- More choice of doctors (1)
- Availability (1)
- Urgent care (1)

Mental health issues [5]
- Emotional support (2)
- Mental health (1)
- Better mental health (1)
- Depression (1)

Diet and exercise [4]
- Exercise (2)
- Healthier restaurants (1)
- Ban on sugar (1)

Provider-patient relationships [3]
- Better doctors (1)
- Better medications (1)
- Communication (1)

Drug abuse [3]
- Drug abuse (2)
- Rehab in jail (1)

Cost of care [3]
- Affordable elder care (1)
- Lower copays (1)
- Lack of affordable care in general as barrier to receiving care (1)

Getting to care [2]
- Transportation (2)

Cancer [1]

Socio-economic issues [1]
- Higher employment wages (1)

Education [1]
- Awareness (1)

Non-answers [9]
- I don't know (6)
- None (2)
- Everything (1)

Q. 19 System Need All other insurance

Access to care [9]
- A primary doctor/pharmacy/lab (3)
- Hospital (1)
- Access to doctor's office-based care managers and patient advocates (1)
- Help for those who can't help themselves access medical care and food (1)
- More counselors understanding nerve pain or pain affecting nerves (1)
- More home visits (1)
- Less wait times for appointments (1)

Cost of care [4]
- Affordability of care (3)
- Free or affordable exercise programs (1)

Getting to care [3]
- Transportation (2)
- Senior care to help transition from independent living to total skilled care (1)

Education [3]
- Better health information and awareness (3)

Coordination of care [2]
- Better and faster follow up (1)
- More time w/ patients (1)

Drug abuse [2]
- Drug addiction (2)

Prevention [2]
- Preventive care (2)

Mental health [1]
- Mental health (1)

Critique of modern medicine [1]
- Integration of physical and mental health (1)

Non-answer [7]
- Don't know (5)
- None (2)

1b. Community Conversations

Introduction

"Listen to the people. Everyone here is saying the same thing and it seems that no one is listening."
Participant at the Medina Memorial Hospital focus group hosted at the Calvary Tabernacle food pantry"

The P2 Collaborative of Western New York held a series of focus groups with area residents to better understand from the patient's point-of-view what aspects of the regional health care system work well or need improvement. The focus groups were a component of a broader community engagement effort associated to the Community Needs Assessment process taking place in the region under the directive of the New York State Department of Health's Delivery System Reform Incentive Program. The feedback received through the focus groups is expected to inform the projects being developed by participating health care providers, especially the projects that will impact traditionally underserved individuals.

The focus group meetings took place between August 26 and September 30, 2014 at various locations throughout the region. Host organizations and venues were selected based on geographic location, current affiliation with a performing provider system (PPS) project plan application, type of community residents served (e.g. the unemployed, individuals with developmental disabilities), and past participation in a P2 Collaborative community engagement project. Balancing the perspectives of urban and rural residents and reaching concentrations of Medicaid members were also considered.

Host organizations received flyers and advertising suggestions to invite people to the meetings. Attendance was incentivized by offering refreshments and a $10 Tops gift card at the meeting. Two hundred and ten people attended the meetings, including employees and volunteers of a few health care providers (which may have increased the proportion of commercially insured individuals present). The majority of participants attended a focus group held at an urban location (75 percent). The meetings consisted of a discussion and an optional personal background information questionnaire. P2 Collaborative-trained staff and consultants facilitated the meetings.

Approximately, 90 percent of attendees completed the questionnaire. Questionnaire responses reveal that slightly more than half of all focus group participants were female (65 percnet), and that the most represented age groups were those of people 50-64 years old (35 percent) and 18-34 years old (23 percent). Although there were individuals from several racial and ethnic groups, the majority of participants identified as White (60 percent). Only 12 percent of attendees said they lacked health insurance, and among those who did have health insurance, the most common sources of insurance were (1) a current or former employer (39 percent); (2) Medicaid, medical assistance, or another kind of government assistance plan for those with low incomes or a disability (33 percent); and (3) Medicare for people 65 and older or for certain disabilities (30 percent). When asked about their overall health, approximately one third of participants said their health is average, about a fifth said it was worse than average, and the rest said it was better than average. When asked about their mood over the past month, which was taken as an indicator of mental health, the vast majority of participants indicated that it had been "happy, positive or optimistic" (43 percent) or "neutral or content" (42 percent). (For detailed results, please refer to Appendix 1.)

Discussion Summary

The main points from the discussions at each focus group are described in the following three sections.

What's working well

Some of the most common positive experiences in the healthcare system reported were:

- Coverage of home care aids, independent living, nursing homes, and hospice care.
- Technological improvementsa, including visit summary print outs to help patients remember important things, immediate results, online medication lookup, sending prescriptions directly to pharmacy, and patient portals.
- Availability of safety net clinics in high need areas with open access hours, functioning like urgent care centers.
- Providers that slow down and listen to patients, are receptive to patient advocacy and engagement, and are compassionate and non-judgmental to people with mental health issues.
- Providers sharing information before procedures, especially across disciplines.
- Insurance companies that reach out to the uninsured to get coverage, and are helpful and explain options well.
- Good referral systems. Primary care providers that send people to good/the right specialists.

What's not working well

Some of the most common negative experiences in the healthcare system included:

Affordability

Despite the fact that most participants had some kind of health insurance or assistance managing the costs of health care, many still perceive that the cost of care is too expensive. The most common complaint was that out-of-pocket expenses are high, especially for the working poor. Another frequent critique was that transportation to medical appointments and to related services, and certain types

List of Focus Group Locations

Date	Venue	Host Organization	Setting	Attendees
8.26.14	Niagara Falls Memorial Medical Center (NFMMC)	Same as venue	Urban	35
9.9.14	Mt. St. Mary's Neighborhood Health Center	Same as venue	Urban	0*
9.17.14	Group Ministries	Same as venue	Urban	25
9.18.14	Eastern Niagara Hospital - Lockport	Same as venue	Urban	29
9.22.14	The Resource Center	Same as venue	Rural	11
9.23.14	Mercy Comprehensive Care Center (Catholic Health)	Same as venue	Urban	12
9.24.14	WCA Hospital	Same as venue	Rural	9
9.25.14	Community Health Center of Buffalo	Same as venue	Urban	8
9.25.14	Calvary Tabernacle Food Pantry	Medina Memorial Hospital	Rural	11
9.25.14	Bethany Lutheran Church	Olean General Hospital	Rural	8
9.26.14	University at Buffalo Family Medicine	Patient Voices Network/ UB Family Medicine	Urban	7
9.26.14	Buffalo Urban League	Same as venue	Urban	13
9.29.14	St. Vincent's Clinic (Catholic Health)	Same as venue	Urban	17
9.30.14	Towne Garden Pediatrics (Kaleida Health)	Same as venue	Urban	7
9.30.14	OLV Family Care Center (Catholic Health)	Same as venue	Urban	4
9.30.14	Tuscarora Nation House	Tuscarora Nation, NFMMC	Rural**	14

Notes:
*Focus group included on list, as conversation with host staff led to improved recruitment strategy **Focus group classified as rural due to unique needs of Tuscarora members (e.g. preferring care providers to be located on the Nation.

of medical equipment are generally not covered by insurance. Transportation, equipment, and medications cost more than what many patients can pay.

"We all know that the better insurance someone has, the better care they get." – Participant at Community Health Center of Buffalo focus group

Transportation

Many participants indicated that they have difficulty accessing care or following up with care due to transportation difficulties. Although the types of difficulties experienced (for example, lack of own vehicle or public transportation) were not recorded in the focus group notes, the notes did mention factors that make those difficulties even more challenging. These factors include: a perceived trend in doctors relocating their offices away from populated areas; the providers covered by the insured's network being far away from the insured's residential location, especially for those on Medicaid and those seeking specialist care; non-emergency transportation services not being included in coverage.

Quality of care for low income patients

Low income patients, including those on Medicaid, perceive that they receive substandard care and fewer options than privately insured patients. The source of these perception problems appears to come from provider communication and administration issues.

Communication

This took many forms: providers (including ancillary staff) speaking "down" to patients and treating them with a lack of dignity or respect; providers unable to speak with patients in a culturally or linguistically appropriate manner; or providers speaking medical jargon and confusing instructions to patients at a level which they cannot understand. Take for instance the Tuscarora Nation focus group's discussion about the importance of pre- and perinatal care

that is culturally appropriate. Nation-based community health workers visit new moms and babies in the hospital and tie a piece of leather around the babies' wrists as a traditional practice, only to find out on a follow-up visit that hospital providers have cut the piece of leather off without the mother's permission. This enforces the belief of an "us versus them" stance as it pertains to the healthcare system.

Wait times

Care is not always available when patients seek it. For primary care and specialist visits, they have to wait too long to get appointments. Several said they would rather go to an urgent care clinic or the emergency room. A few mentioned that office administration can be slow and disorganized.

"If I'm really sick, I'll just go to the ER because it's quicker. If I go to [hospital name redacted], I know I'll be out within the hour." – Participant at Community Health Center of Buffalo focus group

"They just make you wait. They don't care if you're going to bleed out in the ER waiting room. They don't care if you die there. They just make you sit there and wait." - Participant at Group Ministries focus group

Continuity of care

Whether for the same condition or for different conditions, patients often see many different providers, frequently in very different settings and find it hard or tiring to communicate their health issues and needs to each one. Many are also frustrated by staff turnover linked to student/residency rotations, provider retirement and attrition in rural settings. With regards to insurance providers, some mentioned dissatisfaction with not having received instructions on how to switch insurance when the company dropped Medicaid.

Behavioral health

Reported challenges with the current behavioral health system varied. They included the following:

- Lack of behavioral health providers in urban and rural areas
- Lack of behavioral health providers which accept Medicaid
- Lack of knowledge in how to access behavioral health providers when in need
- Lack of behavioral health providers within primary care settings to address comorbid mental illness and its effect on treatment adherence
- Insurance company regulations which limit the extent patients can access behavioral health providers (e.g. only paying for 7 days of a 30 day inpatient substance use detox stay)
- Stigma surrounding initiating and maintaining behavioral health treatment

Other

Other issues mentioned included: lack of enough specialists; insufficient amount of social workers to deal with issues that aren't strictly medical, including those linked to generational poverty; and confusion navigating the new health insurance system.

What needs to be improved

Among the PPS-identified projects that received the most support from focus group attendees were:

- Lower costs
- Improve provider communication across the board
- Local PPSs adoption of culturally appropriate practices in their maternal and child health work and beyond.
- Guarantee quality care regardless of insurance type. Go beyond bare minimum for Medicaid patients.
- Allow more Medicaid coverage.
- Integration of primary care and behavioral health.
- Number of clinics with evening and/or weekend hours to accommodate patients that have difficulty finding time off work to get care. More clinics without need for appointments. More places that function as "one stop shops," where the patient could see a primary care provider, get diagnostic tests or imaging, and receive prescription refills all in one visit.

Questions	Data sought from responses
"Based on your experience and knowledge of the healthcare system, what are some things that work well?"	• Facilitators of appropriate utilization of the healthcare system • Positive aspects of care process from a patient perspective • Opportunities for DSRIP strategies to become better accepted by the public and more patient-centered
"What are some of the negative aspects of the healthcare system – what are some things that make it harder to get the care you need, when and where you need it?"	• Barriers to appropriate utilization of the healthcare system • Previously unknown factors that may limit success of DSRIP initiatives • Potential "trouble spots" for DSRIP initiatives to address prior to implementation
"Suppose you were in charge of the healthcare system. What change(s) would you make to make it work better for patients?"	• Opportunities for DSRIP development and improvement

Conclusion and Recommendations

The conclusions that can be drawn from these meetings are limited due to the following factors: small sample size (210 participants), short turnaround time, limited ability of the host organizations to work in partnership, participant recruitment challenges (e.g. holding meetings during the busy "back to school" weeks), and influence of host organization volunteers and staff in some of the meetings. However, it is clear that many of the concerns voiced by the community through the focus group process resulted from effects of a siloed healthcare system that is not integrated in a manner that addresses patients' healthcare needs.

Solutions that can be adapted from this feedback to make improvements in Domain 2: System Transformation include:

- Care coordination, electronic health record interoperability, and "one-stop-shop" care settings – This could ensure better navigation of appropriate care once it is accessed and better transitions of care across settings, which would reduce the risk of gaps or missed services, and increased likelihood of patient adherence to treatment protocol.
- Increased focus on social service organizations and their unique role within the healthcare system – This can address many social determinants of health, which affect treatment adherence and other patient-level barriers to appropriate care.
- Telemedicine – This was noted in rural focus groups as an opportunity to expand access to a limited rural provider network.
- Better "bedside manners" – Defined as a key factor in patients' desire and ability to trust the recommendations of their providers, patients' sense of distrust in the healthcare system is very real and an essential point to consider in service delivery reform as it can lead to inappropriate utilization of the health care system. For example, it can affect patients' ability to comply with instructions and foster a sense of hostility when determining provider credibility. Care must be delivered in a culturally competent, understandable fashion with a focus on respect and a sense of value to every patient, regardless of background. The care that will be delivered must match the needs of the population served.
- Provider turnover – This too can negatively influence the development of relationships and rapport with patients, a risk factor for inconsistent or inappropriate care.

Solutions applicable to Domain 3: Clinical Improvements include:

- Integration of hospice and palliative care expansion in DSRIP project plans.
- Integration of primary care and behavioral health.

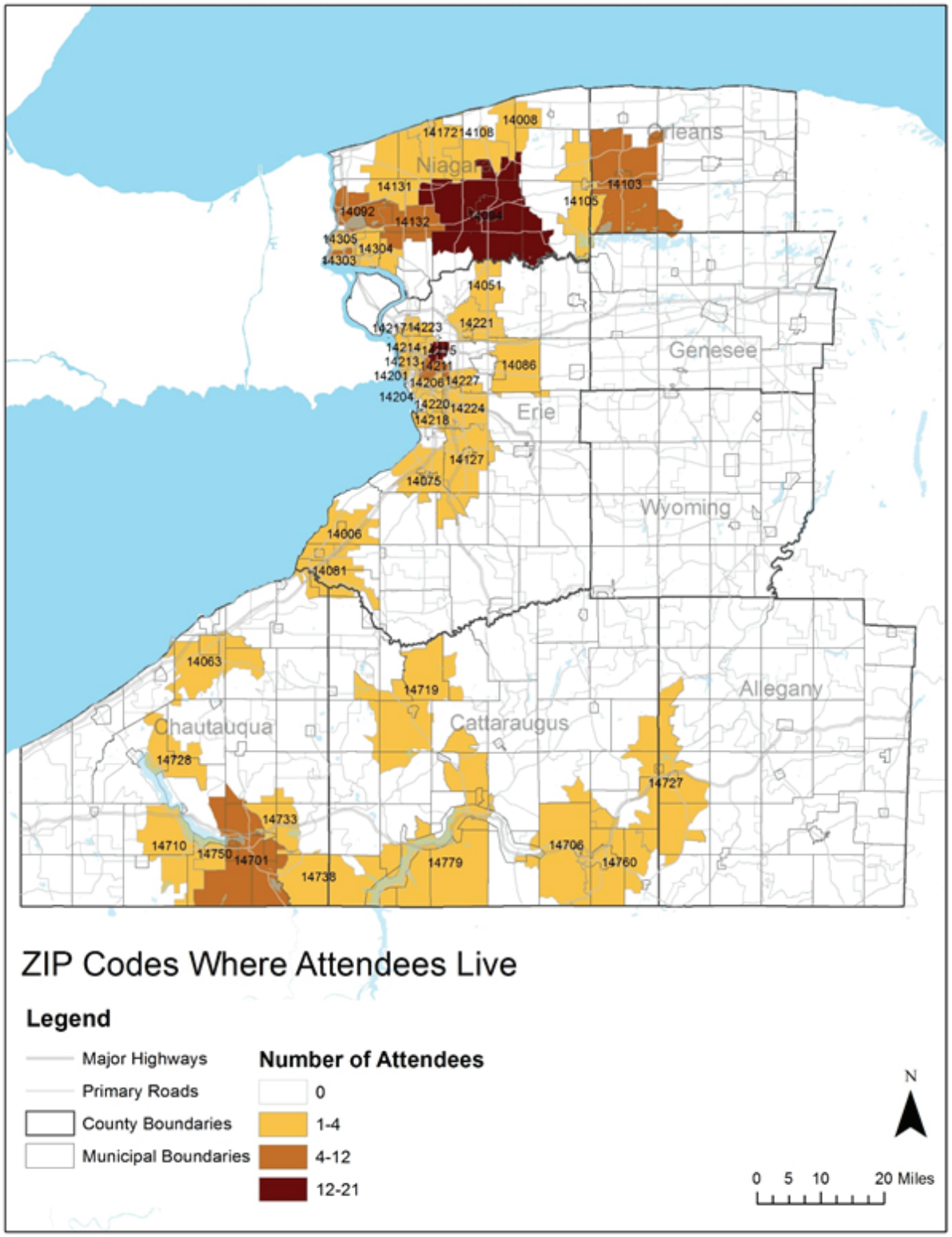
Solutions that apply to Domain 4: Population Wide Strategies/NY Prevention Agenda include:

- Promotion of mental health and prevention of substance abuse.

Community Conversations

Personal Background Information Questionnaire Results

1. In what Zip Code is your home located?



2. What is your gender?

Gender	#	%
Male	124	66%
Female	65	34%
Other (please specify)	0	

3. What is your age?

Age	#	%
17 years or under	6	3%
18-34	42	23%
35-49	37	20%
50-64	65	35%
65+	35	19%
Prefer not to answer	1	0.5%

4. What is your race?

Race	#	%
American Indian	16	8%
Hispanic/Latino	6	3%
African American	54	29%
White/Caucasian	109	59%
Asian/Pacific Islander	2	1%
Other (please specify)	0	-
Prefer not to answer	1	0.5%

5. Do you have health insurance?

	#	%
Yes	160	88%
No	21	12%

5a. If yes, which of the following types of health insurance are you currently covered by?

	#	%
Insurance through a current or former employer	62	38%
Insurance purchased directly from the New York State of Health Marketplace (the exchange)	4	2%
Medicare for people 65 and older or for certain disabilities	47	29%
Medicaid, Medical Assistance or any kind of government assistance plan for those with low incomes or a disability	52	32%
TRICARE or other military health care	5	3%
VA (including those who have ever used or enrolled for VA health care)	4	2%
Indian Health Service	7	4%
Unsure	2	1%
Other (please specify) • BCBS • Tuscarora Nation Clinic • Parent employer-based coverage	3	

6. In general, how would you rate your overall health?

1-Very unhealthy	2	3	4-Average health	5	6	7-Excellent health
3	10	23	57	30	34	20
2%	6%	13%	32%	17%	19%	11%

Average rating: 4.60

7. How would you describe your mood on most days over the past month?

	#	%
Happy, positive, or optimistic	75	42%
Neutral or content	76	43%
Sad, blue, or depressed	13	7%
Worried, tense, or anxious	11	6%
Angry	1	1%
I don't know	1	1%

1c. Provider Interviews

Introduction

An extended panel of health care provider interviews sketches a portrait of a regional health care system struggling to address the needs of an economically distressed Medicaid population beset by serious chronic health problems including obesity, diabetes, heart disease, mental illness, substance abuse, teen-age pregnancy and more.

Medicaid patients face a range of barriers to getting care, especially transportation and geographic access to providers, burdensome out-of-pocket costs for care, and shortages of primary care and mental health providers, particularly in rural areas of the region. Those who serve them must address, in turn, high rates of broken appointments, patients misusing emergency departments, not following doctors' instructions, not taking prescribed medications and engaging in a range of dangerous our self-destructive behaviors including smoking, substance abuse, poor eating habits, lack of exercise and more.

Lack of coordination and continuity of care – both in general and for difficult populations – is a challenge that often presents in terms of resource-intensive "frequent flyers" in emergency and in-patient settings. But it is challenge that is beginning to be addressed through the Patient Center Medical Home, hospital-based Health Homes, Accountable Care Organizations and other home-grown population health management approaches.

Approach

Research for the assessment included interviews with a wide range of health care providers. These were conducted in order to gain a better understanding of the issues behind the numbers in our analysis of data on demographics, community structure and health care analytics. These front-line providers offered us valuable insights into the dynamics of health care provision on the ground in Western New York – what the problems are, how they have developed and what needs to be done to solve them.

Those interviewed (listed at right) included hospital administrators, emergency department staff, urgent care providers, primary care doctors in a range of settings, mental health providers, discharge planners, care managers, wellness educators, health care researchers, plus providers who focus variously on maternal and infant care, childhood asthma, tobacco cessation, addiction treatment and more.

All told, 45 people were interviewed. All interview subjects were suggested by representatives of the Performing Provider Systems. Nearly all of the interviews were conducted in person. Some were one-on-one conversations. Others involved two or three individuals from the same organization. In one case a small focus group of six mental health providers was held. All followed a generally unstructured format seeking, in each case, what the interview subject had to contribute to the research behind the assessment. The interviews were not recorded but hand-written notes were transcribed as text files.

The analysis below is, of necessity, an intuitive and high-level summary of more than 40 hours of conversation with health care providers. In some cases, the sources for a particular observation are identified, but in most instances they are not. Indeed, most of the observations reflect the input of more than one interviewee.

Analysis

Poverty

Looming over nearly all the conversations with providers was the issue of the persistent poverty of the Medicaid population. Of course, Medicaid enrollees are poor – or nearly poor – by definition. But the interwoven issues of education, employment, housing, transportation, environmental quality and more at every turn make health needs greater and make getting proper health care more difficult.

The poor are more likely than others to have limited access to healthy food choices, our informants told us, and more likely to suffer from the effects of poor diet. They have less access to recreation and fitness facilities and activities. And the results are seen in high rates of obesity, diabetes and complications of diabetes.

The poor are far more likely to lack access to an automobile and more likely to be dependent on public transit. In securing access to health care, they are often dependent on special transportation services for Medicaid members. Primary care providers attribute some of the high rates of broken appointments to the transportation barriers their patients face. Lack of an automobile also makes it harder to the poor to get to the pharmacy to fill a prescription or to visit a therapist or specialist when they are referred to one.

The poor are more likely to live in older housing, often substandard, more frequently with problems of lead based paint or poor indoor air quality which can be connected with the incidence of asthma and other maladies. Even in more rural areas where rates of home-ownership are higher the value of owner-occupied homes may be far lower. With poor housing, as the Healthy Homes research showed, can come toxic or dangerous neighborhood environments.

Neighborhoods in which the poor reside are more likely to see high rates of violent crime, which can contribute, not only to higher rates of injury and death, but also to high levels of stress as a result of living with the potential for crime, which in turn has been connected to higher rates of obesity.

Low rates of educational attainment are a big part of what determines the poverty condition. Those with only a high school diploma or with no diploma earn significantly less than people with more education. But the less well-educated are also more likely to have less knowledge of health issues specifically, which makes them less capable of meeting their own health care needs.

Interviewees

Name	Title	Affiliation	Date
Hickey, Laura	Director, Emergency Department	Niagara Falls Memorial Medical Center	September 15, 2014
Gorman, Gerald	Emergency Department	Niagara Falls Memorial Medical Center	September 15, 2014
Elman, Richard	Director, Emergency Department	Mercy Hospital	September 19, 2014
Sauret, John	Doctor of Family Medicine	Mount St. Mary's Neighborhood Health Clinic	September 19, 2014
Fincher-Mergi, Melissa	Nurse Practitioner	Mount St. Mary's Neighborhood Health Clinic	September 19, 2014
Mayeaux, Gail	Executive Director	Universal Primary Care	September 24, 2014
Zimmerman, Ann Marie	Medical Director	Universal Primary Care	September 24, 2014
Boser, Andy	Chief Executive Officer	Cuba Memorial Hospital	September 24, 2014
Kerling, Norma	Chief Medical Officer	Cuba Memorial Hospital	September 24, 2014
Strauch, Daniel	Chief Executive Officer	Olean Medical Group	September 24, 2014
Klein, Roger	Doctor of Obstetrics and Gynecology	Olean Medical Group	September 24, 2014
Illustre, Ricky	Doctor of Pediatrics	Olean Medical Group	September 24, 2014
Tkacik, James	Physician's Assistant	Foothills Medical Group	September 24, 2014
Mills, William	Chief Medical Officer	Olean General Hospital	September 24, 2014
Franklin, Diane	Project Manager	Family Health Medical Services	September 25, 2014
Bosek, Mary	Director of Case Management	WCA Hospital	September 25, 2014
O'Brien, Andrew	Director of Chemical Dependency	WCA Hospital	September 25, 2014
Riczker, Steve	Director of Mental Health	The Resource Center	September 25, 2014
D'Angelo, Toni	Program Director, Community Health and Wellness	WCA Hospital	September 25, 2014
Tota, Dan	Director of Physician Services	WCA Hospital	September 25, 2014
Vazquez, Raul	Doctor of Family Medicine	Urban Family Primary Care	September 26, 2014
Bednarczyk, Edward	Chair, Pharmacy Practice	UB School of Pharmacy and Pharmaceutical Sciences	September 30, 2014
Updike, Paul	Doctor of Internal Medicine	St. Vincent Health Center	October 1, 2014
Lehman, Heather	Clinical Associate Professor	UB Department of Pediatrics	October 1, 2014
Johnson, Randy	Physician's Assistant	Orleans Community Health	October 2, 2014
Schuler, Marianne	Nurse Practitioner	Orleans Community Health	October 2, 2014
Glick, Myron	Chief Medical Officer	Jericho Road Community Health Center	October 2, 2014
Treutline, Scott	Chief Medical Officer	Wyoming County Community Hospital	October 3, 2014
Eichenauer, Donald	Chief Executive Officer	Wyoming County Community Hospital	October 3, 2014
Corcimiglia, Michael	Chief Operating Officer	Wyoming County Community Hospital	October 3, 2014
Aronica, Michael	Doctor of Internal Medicine and Pediatrics	Elmwood Health Center, People Inc.	October 6, 2014
Matthews, James	Doctor of Internal Medicine and Pediatrics	Our Lady of Victory Family Care Center	October 6, 2014
Pleskow, Eric	President and CEO	Bry-Lin Hospital	October 6, 2014
O'Herron, Brian	Director of Clinical and Aging Services	Catholic Charities	October 6, 2014
Allen, Paul	Director of Information Systems	Mid-Erie Counseling and Treatment Services	October 6, 2014
Voelker, Cindy	Senior Vice President	Spectrum Human Services	October 6, 2014
Korman, Sheila	Vice President	Child and Adolescent Treatment Services	October 6, 2014
Laughlan, Catherine	VP Community Based Treatments and Supports	Lakeshore Behavioral Health	October 6, 2014
Barnabei, Vanessa	Chair, Department of Obstetrics and Gynecology	University at Buffalo School of Medicine	October 7, 2014
Damiani, Lisa	VP External Affairs	Roswell Park Cancer Institute	October 7, 2014
Baks, Patricia	Marketing Coordinator	New York State Smokers Quit Line	October 7, 2014
Celestino, Paula	Director	New York State Smokers Quit Line	October 7, 2014
Wang, Gloria	Doctor of Pediatrics	Mercy Comprehensive Care	October 8, 2014
Cummings, Michael	Director, Division of Community Psychiatry	Erie County Medical Center	October 8, 2014
Fudyma, John	Vice President for Clinical Integration	Erie County Medical Center	October 8, 2014

Chronic disease and lifestyle

The overarching reality of health care in Western New York is about chronic disease driven mostly by life-style. Informants across the board report high levels of cardiac disease, obesity and diabetes, asthma, cancer and the maladies of aging such as congestive heart failure and chronic obstructive pulmonary disease. The statistics show it. Patients in the WNY DSRIP survey are aware of it. Health care providers live with it every day.

People eat too much and eat badly. They drink too much. Too many people still smoke. Most lead sedentary lives and most don't exercise regularly (although many in the survey for this report claimed they do). Many engage in unprotected sex. Drug abuse is common. The results are both predictable and familiar to providers.

Richard Elman, head of the Emergency Department at South Buffalo Mercy reports that most of his acute admissions are actually patients with long-term chronic illnesses who have reached some kind of crisis. Their route to the emergency room began long ago in the habits of everyday life.

The link to lifestyle may be seen most dramatically, as Myron Glick at Jericho Road observed, in the transition of refugee and immigrant patients suffering from Third World diseases such as tuberculosis, malaria and typhus to acquiring distinctly Western maladies like diabetes, hypertension and emphysema.

"We are not treating root causes," one provider said.

Instead, obesity, among children as well as adults, is rampant. Bariatric surgery, another provider noted, has become "the lobotomy of the 21st century." Gestational diabetes is also common.

But the cause of the problem is more than poor choices by individuals. Gail Mayeaux and Anne Marie Zimmerman at Universal Primary Care in Olean have worked hard to promote healthy snacks at public meetings and in schools and supported the work of food pantries, soup kitchens and farm stands that improve access to healthy food. Implementation of ideas like "complete streets" or "rails to trails" can also change the environment that otherwise supports unhealthy habits.

Smoking is more prevalent among the poor than other segments of the population. The fact that cheap cigarettes are available in the Seneca Nation of Indians has something to do with a 26 percent adult smoking rate in Cattaraugus County. And its effects touch not only smokers but children of smokers and all those exposed to second-hand smoke. Some public housing authorities in the Southern Tier allow smoking in complexes that have common ventilation systems.

Misuse of Emergency Departments

Inappropriate utilization of emergency room services is a significant fact of life for the health care system in Western New York and elsewhere. Rates of preventable visits range from moderate to severe across the region. But the costs to the system are real.

There are multiple reasons patients seek care in the ED rather than with their primary care provider. For some it is simply a matter of convenience. It's necessary to call for an appointment with one's PCP while you can simply walk in to the ED. Emergency rooms are open 168 hours a week compared with 40 at the primary care doctor's office or maybe 72 hours at an urgent care facility.

Some providers say some patients lack "impulse control," unable to wait to see a doctor the next day for a condition that is clearly not acute. Patients insured by Medicaid face no financial penalty for using the ED in place of a primary provider. But many use the ED as a means to avoid missing work. At WCA Hospital in Jamestown, 57 percent of ED cases could be dealt with in a primary care setting – and the majority of those visits come between 4 p.m. and 8 p.m.

Refugees and recent immigrants may be less likely to use the ED as are some rural residents who like to "tough it out." Others however go to the emergency room because they have greater confidence in the quality of care they will receive. Some asthma patients go to the ED because they believe the medicine dispensed there works better than the medicine from the pharmacy (it doesn't).

Some providers suggest that people taking themselves to the hospital for other than acute conditions is a pattern that will never change. Instead, the system should adapt to patient preferences and organize to provide better care more economically at or adjacent to the ED. Unfortunately, patients who use an emergency department for non-acute care might not have the connection to a family doctor and the associated preventive care or continuity of care.

Transportation

As noted above, lack of adequate transportation is a pervasive issue for people seeking health care, especially those located in rural areas or more distant suburbs, providers report. Getting to medical appointments, to specialists, to the pharmacy, even getting to the grocery store for healthy food is a challenge for those who lack access to an automobile. They depend on friends or family, inadequate public transit or specialty van services.

Public transit is relatively weak even at the center of the region. Service to Buffalo's suburbs, Niagara Falls, and Lockport is spotty. OATS in Olean and CATS in Jamestown and Dunkirk areas provide limited service. Van services sponsored by Medicaid require significant advance notice for pick-up. And all of the options may require that patients go very early and stay much later than their appointment just to make connections.

Even for those who have access to an automobile, the cost of gas is an additional out-of-pocket expense attached to a specialist visit in the city. The hardship falls on families, too, when they have to travel to Buffalo or Rochester to visit their loved ones in the hospital.

The result is that patients often don't go for primary care, for well visits, for follow-ups or work with therapists. Part of the issue with primary care "no-shows" is transportation. As one interviewee said, "middle class people who have to wait to see the doctor are annoyed. For the person who took three buses just to get there, it's disrespectful."

Primary care no-shows

Patients making appointments with primary care providers and failing to arrive is a pervasive problem in health care in the region. Rates of 25 or 35 percent no-shows are not un-common across a range of primary care sites. At one OB/GYN clinic, no-shows account for 40 percent of all appointments.

Some have attempted to address the problem by reserving "sick slots" in the schedule for more urgent cases or by offering an early morning walk-in opportunity for people who have gotten sick overnight. Other providers simply work to squeeze people in when they make a late appointment, show up without an appointment or arrive late. Some have experimented with evening and Saturday hours. The Towne Gardens primary care clinic on Buffalo's East Side is first-come, first-served.

These approaches haven't necessarily solved the problem. People still face the barriers of transportation, work schedules and family obligations. And then there's waiting.

Myron Glick at Jericho Road boasts a no-show rate under 10 percent. He says the secret is in how patients get treated when they come to the clinic.

"We see them on time, we treat them well, we show them respect and they'll keep coming back."

Maternal health

Several informants also made a connection between poverty and maternal health. Poor teen-agers are more likely to become teen-age mothers. Teen mothers, in turn are more likely to give birth before full term resulting in very costly post-natal care. Rates of infant mortality and maternal mortality are also higher among the poor. Teen mothers are also more likely to interrupt schooling, lack employment skills and fall into – or perpetuate – a cycle of dependency.

"It sentences these families to a life term of poverty," Vanessa Barnabei, UB Chair of Obstetrics and Gynecology, said. More than that, it is not uncommon for issues such as obesity, drug addiction and mental illness to overlap with teen pregnancy. Rates of teenage pregnancy are high throughout the region. The rate of teen pregnancy in Chautauqua County is two and a half times the statewide average.

Non-compliance

There is great frustration on the part of providers for all the things patients fail to do. They don't take their medications. They don't listen to entreaties to quit smoking or eat a healthier diet. They don't show up for well visits. They are no-shows for any kind of appointment (see "no shows" below). They don't' follow care plans. Sometimes it gets specific as with care-givers too busy to supervise administration of albuterol to childhood asthma sufferers. Providers give advice on wellness and prevention "but they aren't buying it." Patients often present their symptoms late in the process out of fear of what they might learn.

Some providers also understand that patients have their reasons, too, for non-compliance. Changing medications may mean an additional co-pay or other out-of-pocket cost. Being referred to a specialist may involve still another co-pay or an expensive cab ride or time off from work.

Sometimes the failures are very costly. One clinic diagnosed a woman with hepatitis C and administered the very expensive course of medications to cure the disease only to have the woman get re-infected in a very short time.

Another major challenge providers face is working with populations where health literacy is low. They can do wellness education "if we can get them to come." But they start with low levels of educational attainment. Language barriers – not just Spanish anymore but Burmese, Karen, Somali, Nepali, Arabic and others – make transmission of health

Community partnerships

Organizations outside the realm of health care offer some capacity to deal with health issues, interview subjects suggested. Churches, schools, community organizations and others might team up with health care providers to provide health education and information, to host screening events, or to address some of the structural issues underlying community health status.

The Healthy Livable Communities Consortium in the Southern Tier is working in this way tp promote food access and recreational opportunities. Primary care practices in Buffalo are teaming community health workers with church-based ambassadors to improve connections between providers and patients. Schools are providing – or could provide – sex education and access to contraception to prevent teen pregnancy and the spread of STDs.

Intensive case management

An important factor in problems of preventable ED visits, avoidable in-patient utilization and preventable re-admissions is the lack of coordination among providers to make sure patients connect with the next step in their treatment process. Interviewees identified a number of challenges in this regard, but also some steps forward in implementing forms of intensive case management and population management.

It is suggested by some as an "underutilized" approach. Provide a continuum of care. Hospital Health Home is one version being implemented. Patient Centered Medical Home is another for the primary care setting. Organizations like Family Health Medical Services in Chautauqua County has hired now a third care manager. The Resource Center is so committed to the process they have hired ten care managers that are so far unfunded.

In the primary care setting, a number of practitioners are working to get ahead of the curve by instituting their own systems. Urban Family Medicine, led by Raul Vazquez, has applied to be an Accountable Care Organization and is combining high technology, aggressive follow-up, in-house transportation service and internalized risk manage-

ment to deal with an inner-city population.

Jericho Road Community Health Center, a certified PCMH, runs the "Priscilla Project" which targets young immigrant and refugee women who are pregnant to make sure they can navigate the health care system at a crucial time in their lives. Case workers also make sure they can link to social services and other supports.

Not every provider is going to take to the technology like Vazquez, but with the appropriate assistance, it can be integrated in each practice.

Some are leery of implementation of one-size-fits-all solutions to population management. Glick at Jericho Road argues that every population needs a different design. His west-side clinic population is not an anomaly relative to a normal system. Patients in Amherst are different, too. Michael Aronica at Elmwood Health Center calls for "systems designed for us by us."

It's not just about managed costs to the insurance company; it's also about managed care for the patient.

These approaches are particularly important with medically complex cases where patients exhibit multiple co-morbidities. Sometimes medical needs overlap with mental health needs. Other times the profoundly developmentally disabled feature medically complex cases. The ACT program – Assertive Community Treatment – teams social workers, psychiatrists and primary care providers to go out and find their patients on the street -- individuals who are often part of the "frequent flyers" in hospital emergency rooms.

Part of the process is just making sure that appropriate follow-up care is part of the discharge planning process. WCA Hospital in Jamestown, the Catholic Health System, among others have care managers to call back, arrange the next level of care, make sure prescriptions are filled.

Even programs of smoking cessation need a coordinative structure. On the NYS Quit Line counselors call would-be quitters back to see how they're doing. They recognize that it typically takes multiple attempts to finally quit and they offer new help when it's available.

Impacts of the reimbursement system

Many providers struggle with the current system of Medicaid reimbursement. For the most part, the shift of Medicaid from direct fee-for-service reimbursement to Medicaid managed care is complete. Enhanced reimbursement rates made it very attractive for providers to sell the change to their patients. But there are a number of other vexing issues.

Overall, reimbursement rates under Medicaid are so low that private providers need to limit the proportion of their patients that are insured under Medicaid and, of course, some refuse to take Medicaid patients at all. Gorman in Niagara Falls points out that Medicaid reimbursement for urgent care is so low that a practice likely to attract a large proportion of Medicaid patients – like one in his city – is unlikely to be established, let alone survive. An urgent care center is much more likely to open in an affluent suburb of Buffalo where employer-insured patients working to avoid an ER co-pay are happy to go.

On the flip side, Medicaid patients have no incentive to avoid the emergency room – they'll get care – and no alternative in the urgent care realm for reasons already mentioned. Likewise, Medicaid members have no dis-incentive not to break primary care appointments. There's no penalty for not showing up.

Meanwhile, Medicaid may refuse permission to admit certain patients from ED to acute care. But when patients are intoxicated in one form or another or discharging a patient would put them in danger, hospitals admit them for "observation," but at a much lower rate of reimbursement.

Some providers seem to resent the Medicaid population. They describe them as more demanding, carrying a sense of entitlement, less willing to take care of themself and less responsible. But providers from the world of the Federally Qualified Health Center have a more sympathetic view. They're not freeloaders one FQHC manager said. They are the working poor trying to keep their families in health care. "They're strivers."

The resentment of Medicaid patients may extend to the FQHCs that serve them. Private practice providers don't get the operating subsidy or the enhanced reimbursement rates that the FQHCs get. One doctor referred to them as "mascots" of the Federal government. Those who provide care to the Medicaid population understand the feeling. But they say "we're the only ones who are going to love them."

Meanwhile, providers are aware that they are all heading toward a system of value based reimbursement in which systems will assume the risk of providing care for individuals on a capitation basis rather than fee-for-service.

Providers are more generally frustrated with the amount of work they do that is not directly related to caring for patients such as time on the phone to secure pre-authorization of services to the insured and other system paperwork. They have invested a lot of time in the implementation of electronic medical records to meet the federal "meaningful use" standards and further labor-intensive changes lie ahead.

Mental and behavioral health

A wide range of providers describe the needs for mental health care and behavioral health care as exceeding the current capacity of the system. Overall, the demand seems to be rising while the supply can't keep up. As one provider put it, "there is nothing to stem the tide of need."

On the mental health side, providers from Olean to Orleans County report lots of depression, lots of anxiety, and lots of bi-polar disorder. Statistics show the communities at the center of the region somewhat better served. But in outlying areas the supply of providers and the barriers to care are significant.

Some of the barriers are procedural. Patients must meet a standard of medical necessity ("harm to self or others") that some cannot satisfy, as well as multiple and redundant evaluations and approval from insurance companies. "There are beds," Andy O'Brien at WCA Hospital in Jamestown says, but the system is so difficult and user unfriendly it may seem to some as if there are no beds.

Providers around the region have felt the ripple effect of the closure of a number of psychiatric beds at Buffalo General Hospital. Some patients ended up in psych beds in Niagara Falls instead.

The nexus between mental health and physical well-being and social stability is strong. Those with untreated mental illness are ill-equipped to cope with their physical health, disinclined to cooperate with medical providers.

"Without proper mental health care," said one provider, "everything else is irrelevant."

On the behavioral health side there is a similar picture. Alcohol and substance abuse are major problems. Referral to substance abuse providers is poor. Some waiting lists for out-patient treatment are 48 months long. In-patient treatment for drugs and alcohol are not reimbursed by some insurers.

For both mental and behavioral health the lack of providers or the likelihood of long waits to get a patient into treatment leads primary care providers to direct treatment themselves. This might get some help to patients quicker but it also limits the long-term effectiveness of treatment, providers acknowledge.

The impact on emergency department volumes can be significant. Drug and alcohol-related ER visits are a big part of the patient load and one element of the "frequent flyer" population. Gorman in Niagara Falls noted one case where a single person had visited their ED more than a hundred times over several years without getting connected to treatment that dealt with his problems.

There are some bright spots. Paul Updike is a primary care physician in the Catholic Health System who specializes in addiction treatment. He argues that in-patient treatment for opioid addiction is almost universally ineffective because patients more than anything else need to learn to live without drugs at home, not in controlled therapeutic settings. Relapse is common. Instead Updike dispenses Suboxone at his clinics, manages patients' medical care, as well, and sees people get better. The problem is that the persistent chronicity of drug addiction requires long-term care. State regulations limit the number of patients he can treat so there are a lot of people who need treatment but can't get it.

Provider shortages

Interview subjects described provider shortages as serious in many locations for both specialists and primary care providers. The issue for specialists is straightforward. They are in relatively good supply at the core of the region – in Buffalo – but scarce around the periphery. In Niagara County providers report the absence of specialists in neurosurgery, endocrinology and rheumatology, to name a few. In places like Cuba, seeing a specialist often means going to Buffalo.

In Wyoming County the public health system has made a concerted effort to attract a range of new specialists. But Steve Treutline, the Chief Medical Officer at Wyoming County Community Hospital, is still the only obstetrician in Wyoming County. In the Southern Tier, the Foothills Medical Group has a complement of specialists affiliated with their system. But some specialties are offered only in Buffalo or on a circuit-rider basis by physicians headquartered in Buffalo.

The shortage of primary care providers has an even broader impact. If primary and preventive care is the key to improving the health care system overall then current incentives are upside down, said William Mills, Chief Medical Officer at Olean General Hospital. The greatest financial incentives are for "procedural" practitioners – those who might perform a particular procedure or surgery repetitively – and against "cognitive" practitioners – those whose work requires evaluating and treating the whole patient.

If primary care providers are at the bottom of the pay scale for MDs they also face levels of responsibility and demands on their time after hours that the orthopedic surgeon or dermatologist typically does not. Moreover, typical compensation for primary care providers in Western New York is significantly below the national market average.

"Primary care providers aren't in it for the money," one interviewee said, but the rewards for pursuing a specialty are much greater. And it's increasingly common for mid-level practitioners – physician assistants and nurse practitioners – to "work to top of license," putting more pressure on physician pay.

The challenges of recruiting and retaining primary care providers in rural settings are even greater. Often there is family resistance to a physician locating outside of a metropolitan hub. Turnover among primary care providers is relatively high.

"Small town care, I think, is in jeopardy," Treutline said.

This is a partial, interpretive and frankly impressionistic summary of a extensive body of interviews. But generally speaking it reflects and also contextualizes the full range of data sources used to compile this community needs assessment.

2. Demographics

It has been said that "demographics is destiny." It may be. But certainly the composition of a population has a lot to do with the prospects for health among those same people.

The community needs assessment works on an assumption that the age, race and ethnicity, socio-economic standing, educational attainment, family composition and access to transportation of people will say a lot about what the health needs of those people are likely to be. Some people are more vulnerable than others depending on all of these factors. Those vulnerabilities, in turn, help shape the need for health care services, especially for Medicaid.

The analysis here compares each county, first with the other seven counties in the Western New York region, and then against other counties of similar characteristics across Upstate New York. (See the discussion of Eberts Codes in Section 4 of this report). It is useful to know how a county ranks on any given variable against other counties in the region. But it is even more telling to combine that comparison with one between counties of similar urban, suburban or rural compsoition.

The numbers in the chart below reflect the percentile ranking of each county within each category for each variable. The lower the number, the lower the ranking. The cells shaded green indicate a higher or better rnaking. The red cells indicate a lower or more negative ranking. When both regional and statewide rankings are low there is clearly cause for concern.

Overall, it is possible to say that Western New York has an unusually high proportion of people without access to an automobile, a relatively high population of older people, relatively more people in or near poverty, more single parent households and a higher proportion of African-American residents.

The region's carlessness is concentrated in Erie County and especially in the cities of Buffalo and Lackawanna. Indeed, Erie County ranks last among upstate metropolitan regions for households lacking access to a motor vehicle. Chautauqua County also has a relatively high rate of households without a car. Obviously, being without a car in a region that is decidedly not "transit-rich" is a barrier to access to health care and a range of community supports.

Western New York is also a rapidly aging region. Erie, Niagara and Chautauqua counties all have especially high proportions of individuals over the age of 65 -- a population with evidently greater needs for health care than other age-groups.

Households that are headed by a single parent also tend to have

Index Component 1 – Demographics

	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Demographics (Average for Subgroup)	**43**	**24**	**49**	**46**	**70**	**29**	**32**	**59**	**58**	**63**	**49**	**73**	**48**	**39**	**30**	**69**	**53**
Percent African-American population	33	0	13	14	75	72	55	86	91	100	57	57	27	29	0	43	18
Percent Hispanic or Latino	50	14	63	72	100	0	9	86	91	100	72	57	46	29	9	43	36
Percent non-English speaking population	67	0	75	100	100	14	18	29	27	57	43	86	64	72	73	43	46
Percent of population age 65+	17	29	38	14	25	0	18	57	46	72	72	43	27	86	82	100	91
Percent of women of child-bearing age (15-44)	67	29	75	57	100	43	64	86	82	0	0	72	46	14	9	100	27
Percent of population 200% or less of federal poverty level)	33	72	38	43	25	14	9	0	0	29	14	86	36	57	46	100	82
Percent of population age 25+ with less than a high school diploma	50	86	75	72	50	14	9	43	27	57	72	100	64	0	27	29	46
Percent of all households as single parent households	33	14	38	43	50	29	27	57	64	86	43	100	55	0	0	72	36
Percent of Population Foreign-born	83	0	75	14	100	86	91	100	100	72	57	43	55	29	18	57	64
Percent of Households with No Vehicle Available	0	0	0	29	75	14	18	43	55	57	57	86	64	72	36	100	82

Source: U.S. Census Bureau, American Community Survey, 5-year estimates (2008-2012), 2012.

Key Demographics by County

	Western NY		Allegany		Cattaraugus		Chautauqua		Erie		Genesee		Niagara		Orleans		Wyoming	
	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate
White Population	1,273,355	83%	46,573	95%	73,650	92%	120,074	89%	714,236	78%	54,953	92%	188,402	87%	37,561	87%	37,906	90%
African-American/ Black Population	148,931	10%	627	1%	1,111	1%	3,161	2%	122,004	13%	1,603	3%	15,345	7%	2,640	6%	2,440	6%
Hispanic or Latino Population	61,616	4%	686	1%	1,385	2%	8,257	6%	41,901	5%	1,609	3%	4,734	2%	1,783	4%	1,261	3%
Asian/Pacific Islander Population	29,984	2%	548	1%	618	1%	1,013	1%	24,760	3%	350	1%	2,280	1%	232	1%	183	0%
Native American Population	10,785	1%	155	0%	2,206	3%	699	1%	4,793	1%	558	1%	1,985	1%	268	1%	121	0%
Foreign-born Population	75,727	5%	1,053	2%	1,330	2%	2,580	2%	58,001	6%	1,677	3%	8,508	4%	1,633	4%	945	2%
Non-English Speaking Population	40,155	3%	768	2%	1,524	2%	3,231	2%	29,786	3%	792	1%	2,763	1%	595	1%	696	2%
Median Age	40.3	-	37.8	-	40.8	-	40.6	-	40.3	-	41.6	-	41.8	-	40.9	-	40.7	-
Total Population Living in Poverty	216,026	15%	7,467	17%	13,310	17%	24,540	19%	126,414	14%	6,952	12%	28,158	13%	5,194	13%	3,991	11%
Children Under 18 Living in Poverty	70,318	21%	2,370	24%	4,970	27%	8,425	30%	40,671	21%	2,046	16%	8,953	20%	1,651	18%	1,232	15%
Population 25 and over without High School Diploma	115,977	11%	3,700	12%	6,787	13%	11,751	13%	66,144	11%	3,875	9%	15,839	11%	3,995	14%	3,886	13%
Unemployed Civilian Population Over 16	64,902	5%	2,052	5%	3,432	5%	5,277	5%	39,053	5%	2,401	5%	9,179	5%	2,011	6%	1,497	4%
Population Over 16 Not in Labor Force	468,269	37%	16,609	42%	24,545	39%	44,454	41%	271,159	36%	16,207	33%	66,525	38%	14,477	42%	14,293	41%
Total Population with Disability	103,347	11%	3,633	12%	6,003	12%	9,997	12%	59,614	10%	3,481	9%	14,869	11%	3,373	14%	2,377	10%
... Population with a Disability and Employed	31,807	3%	1,124	4%	2,075	4%	2,838	4%	18,472	3%	1,159	3%	4,222	3%	1,013	4%	904	4%
... Population with a Disability and Unemployed	6,629	1%	230	1%	359	1%	562	1%	3,988	1%	199	1%	997	1%	148	1%	146	1%
... Population with a Disability and Not in Labor Force	64,911	7%	2,279	7%	3,569	7%	6,597	8%	37,154	7%	2,123	6%	9,650	7%	2,212	9%	1,327	6%

Source: U.S. Census Bureau, American Community Survey, 5-year estimates (2008-2012)

greater needs for health care than two-parent families. The region ranks below average on this measure with Orleans County at the very end of the line -- last in the region and last among similar counties across New York. Erie, Chautauqua and Niagara all rank below the middle for single parent heads of household.

The region has a relatively high proportion of African-American residents, another indicator of health vulnerability. The largest proportion and the largest number of African-Americans by far is in Erie County with Niagara County a distant second. Orleans and Wyoming counties have small African-American populations -- but rank relatively high for the proportion of African-Americans living there.

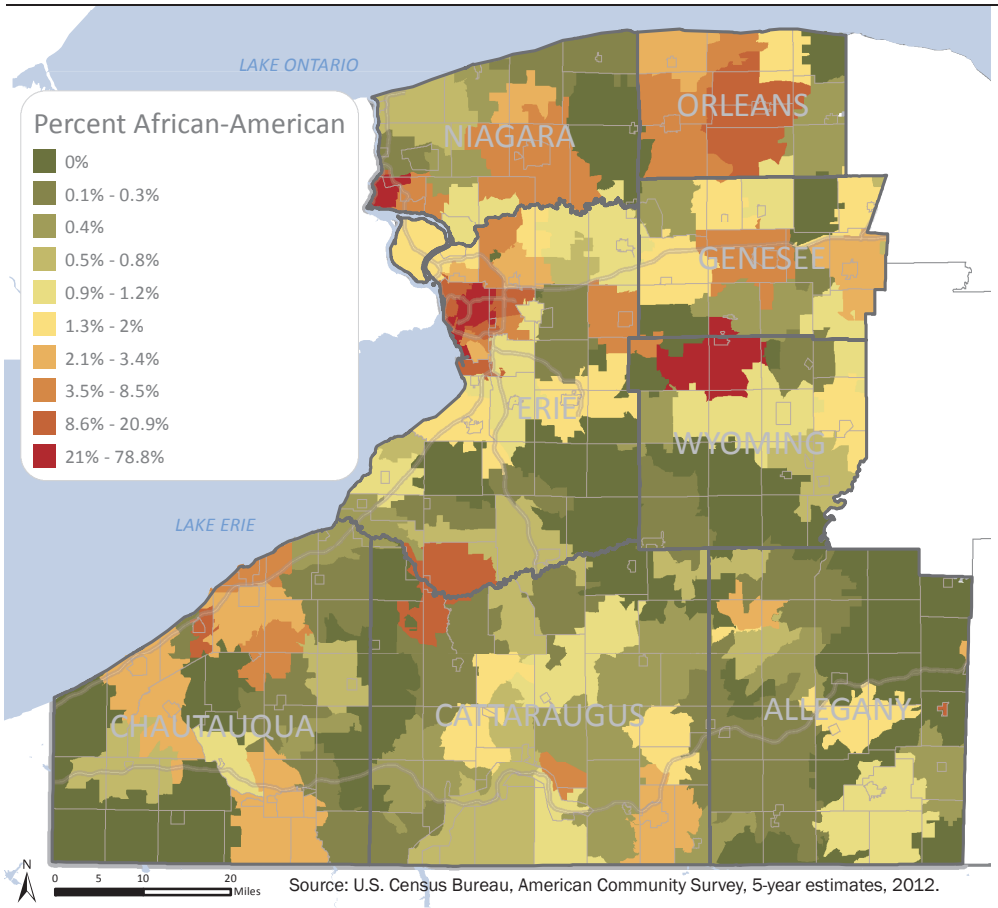
Finally, the region ranks below average for the proportion of persons living at or below 200 percent of the federal poverty limit. Erie and Niagara counties rank below most other upstate metropolitan counties on this measure. But the southern tier counties of Chautauqua, Cattaraugus and Allegany counties ranke even lower -- both within the region and against their kindred counties.

A few other "hot spots" -- counties where certain indicators are decidely negative even when the regional picture is not -- deserve mention.

While Erie County has the largest Latino or Hispanic population by far, Chautauqua County has a higher proportion of Latinos and Orleans County almost as large a share. To the extent that the Latino population is more vulnerable, this increases the overall health need in those counties.

Several counties have relatively high proportions of non-English speakers, including Erie, Chautauqua and Cattaraugus -- a particular barrier for individuals in obtaining health care services.

Finally, Allegany and Orleans counties have particularly high proportions of women aged 15 to 44 years. Women of child-bearing age can be expected to translate into relatively higher needs for health care services.



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

African American persons

As a population segment that has traditionally experienced barriers to high-performing schools, safe neighborhoods, healthy food, employment and more, African Americans account for 10 percent of the region's population or 148,931 individuals altogether.

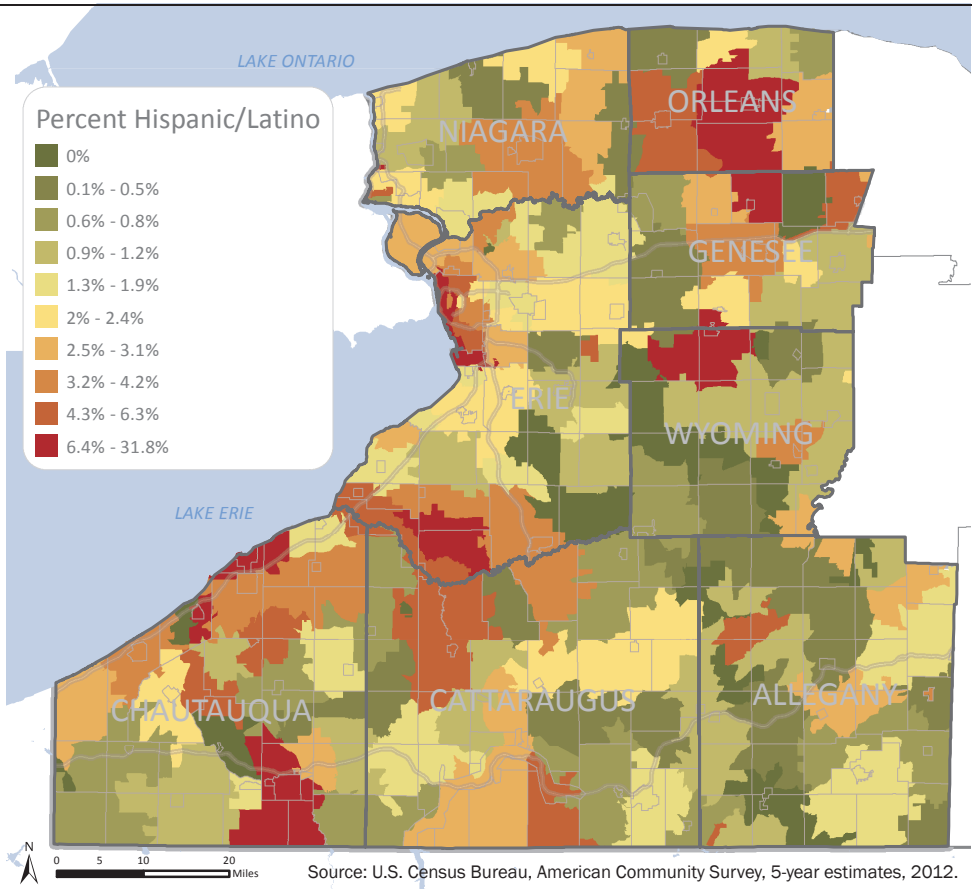
Four out of five African Americans -- more than 122,000 -- live in Erie County, with highest concentrations in the City of Buffalo. African Americans, in fact, account for up to nearly 80% of residents in selected Zip Codes in Buffalo and Niagara Falls.

While absolute population numbers are lower elsewhere outside the metro core, higher percentages of African Americans live in more rural areas, particularly Attica (in Wyoming County), Gowanda (spanning Erie and Cattaraugus Counties) and Albion (in Orleans County).

Persons of Hispanic/Latino heritage

Individuals of Hispanic and Latino ethnicity have been described as one of the fastest growing population segments in America and the region. Yet this is a population segment that sometimes experiences language, work and other barriers that bear on health, health care access and Medicaid use. More than 61,600 residents in WNY – 4 percent of the total -- are Hispanic/Latino. Two-thirds live in Erie County. Proportions are highest on Buffalo's west side and in rural southern Erie County, which may draw a proportion of migrant workers. Lack of English fluency is a key barrier to health care and other wellness supports for this population.

Hispanic/Latino individuals outnumber African Americans in several rural counties, including Allegany, Cattaraugus, Chautauqua and Genesee. In these areas, Hispanic/Latino individuals account for above-average percentages of the overall population, nearing a third in selected ZIP Codes. Contributing to this are employment opportunities on farms for migrant and seasonal workers.

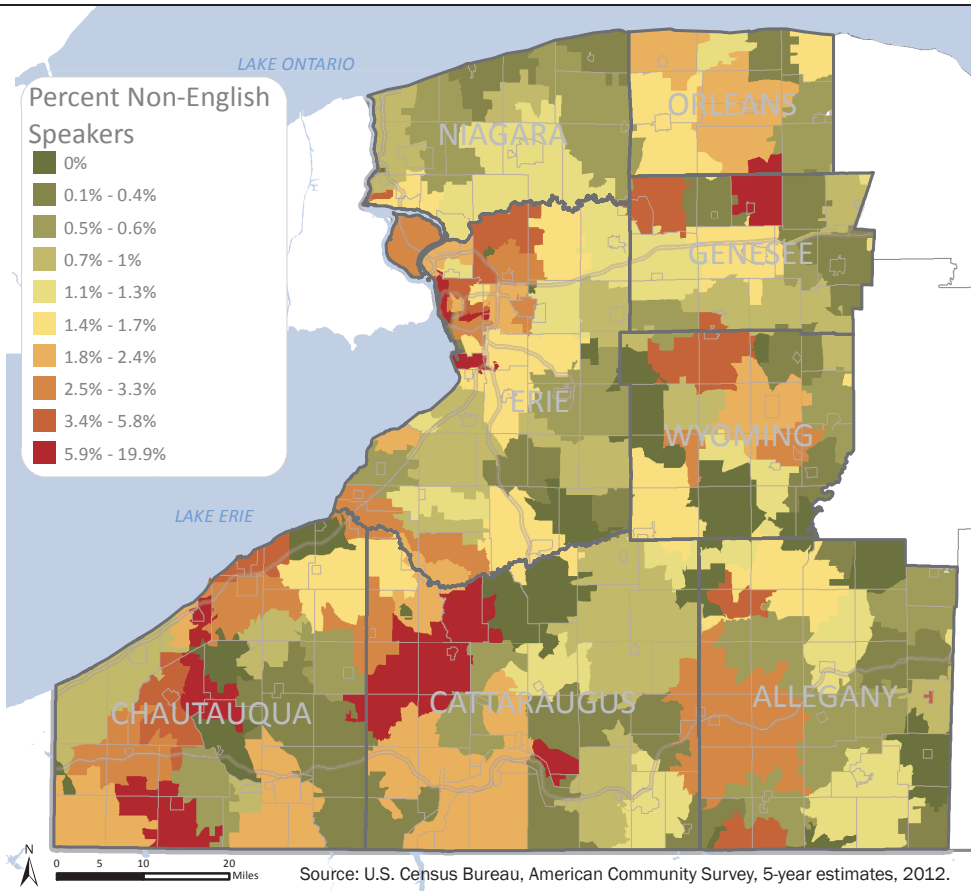


Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

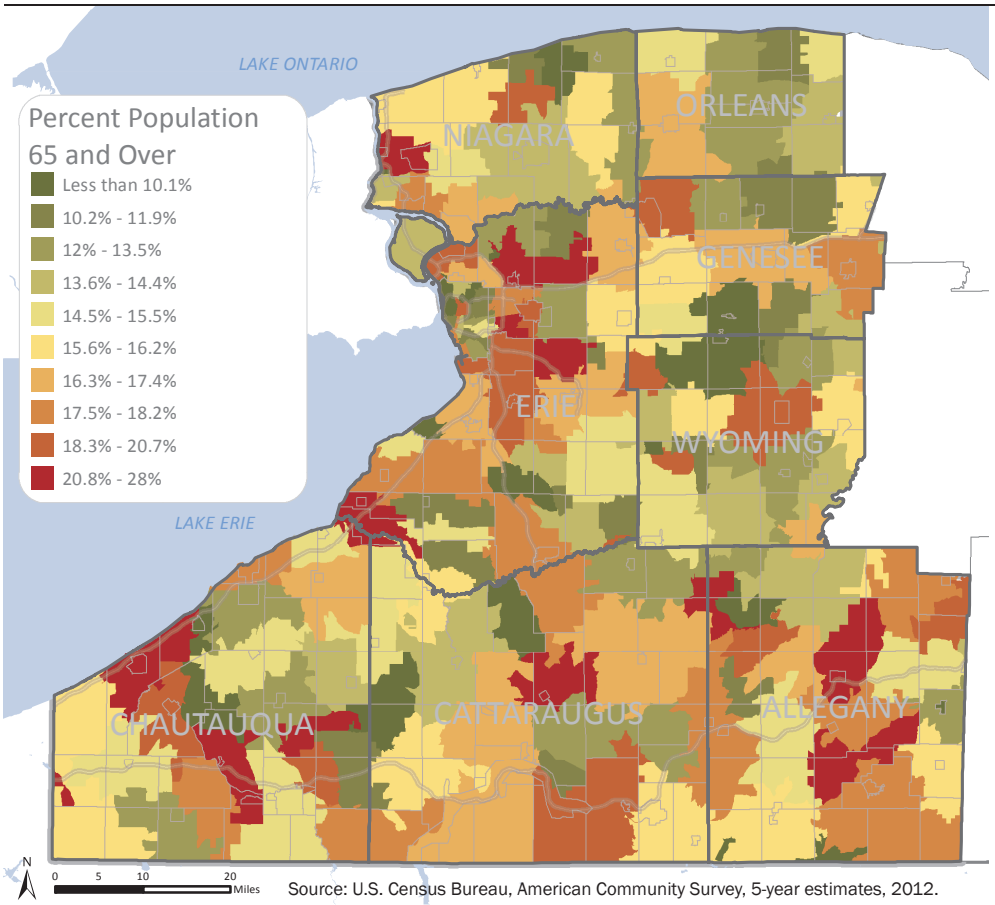
English fluency

Limited fluency in English can directly affect a population's ability to access health care and other resources that bear on health. It also limits opportunities for good-paying jobs with health benefits. In Western New York, 40,155 individuals ages 5 and up speak English less than well. This is 3 percent of the population, or about 1 out of 35 individuals. Three out of four (74 percent) live in Erie County, primarily on the West Side of the City of Buffalo where refugees and immigrants are concentrated, as well as near the University at Buffalo, where international students reflect about 20 percent of total student enrollment.

While relatively fewer non-English speakers live in more rural areas of Western New York, geographic distance from people and services create additional barriers for the 10,369 who do. Percentages are proportionally high in portions of Chautauqua and Cattaraugus Counties as well as northern portions of Genesee County. Spanish-speaking migrant populations in these more rural areas may contribute.



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.



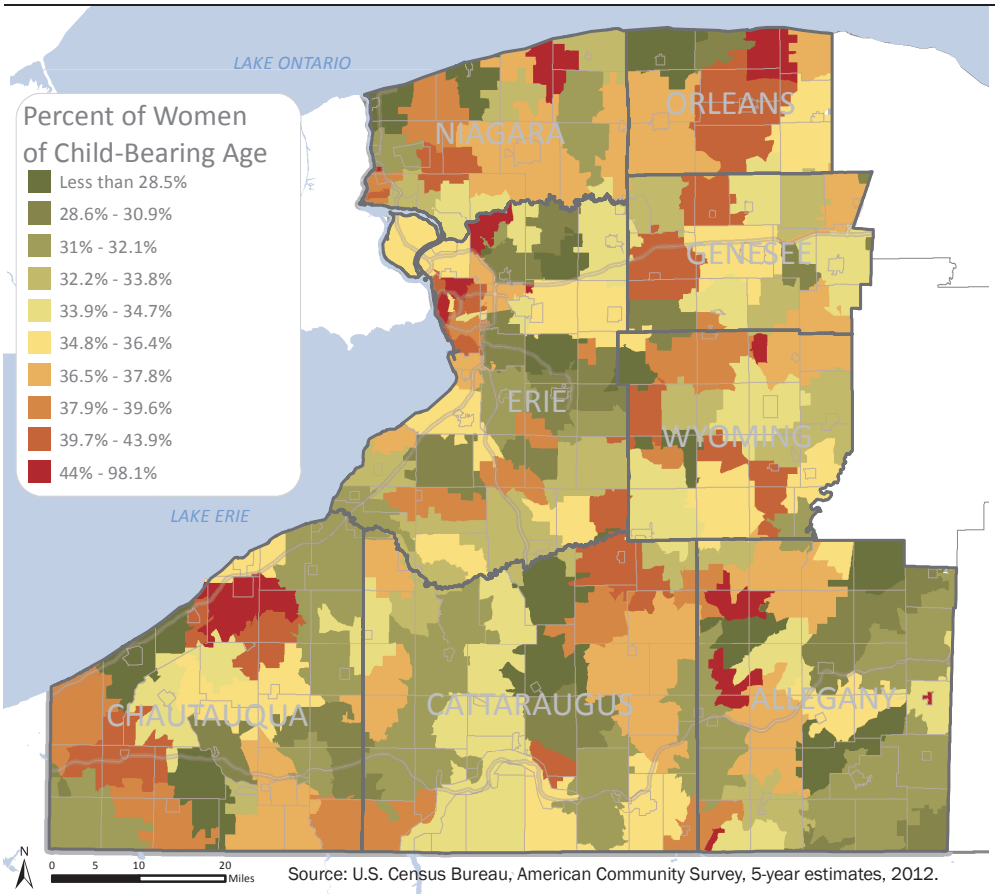
Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

Older adults

Disease and disability become more prevalent during the later decades of life, directly bearing on health care need and consumption. Poor health can also create barriers to health care. Almost one out of six individuals across the region – about 243,400 in all – are age 65 and up. This percentage is higher than in almost every other region of the state, outside NYC.

While the majority (59%) of seniors in Western New York live in Erie County, proportions of seniors are highest not in the city but in inner ring suburbs like Amherst, Cheektowaga and West Seneca. In some Zip Codes, up to one out of four individuals is age 65 or older.

Comparatively high proportions of seniors also live in Niagara, Chautauqua, and Genesee Counties. In each of these areas, the countywide percentage of seniors is high regionally and large compared to what exists in comparable counties statewide.



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

Women of child-bearing age

An indicator of the health care and supports needed for pregnant women, infants and children, nearly 293,000 women of child-bearing age (15 to 44) live in the region. In Erie and Niagara Counties where three-quarters are concentrated, proportions are relatively higher near urban areas like Buffalo, Niagara Falls and Lockport. In selected ZIP Codes nearly half or more of all women are between the ages of 15 and 44.

While absolute numbers are comparatively lower in rural counties of the region, Orleans and Allegany Counties have notably higher proportions of women of child-bearing age than the other six counties. Proportions are also higher here than in most, if not all, comparable counties across the state. Indeed, Allegany County has the highest percentage of women of child-bearing age of all counties in the region and of all comparable counties statewide.

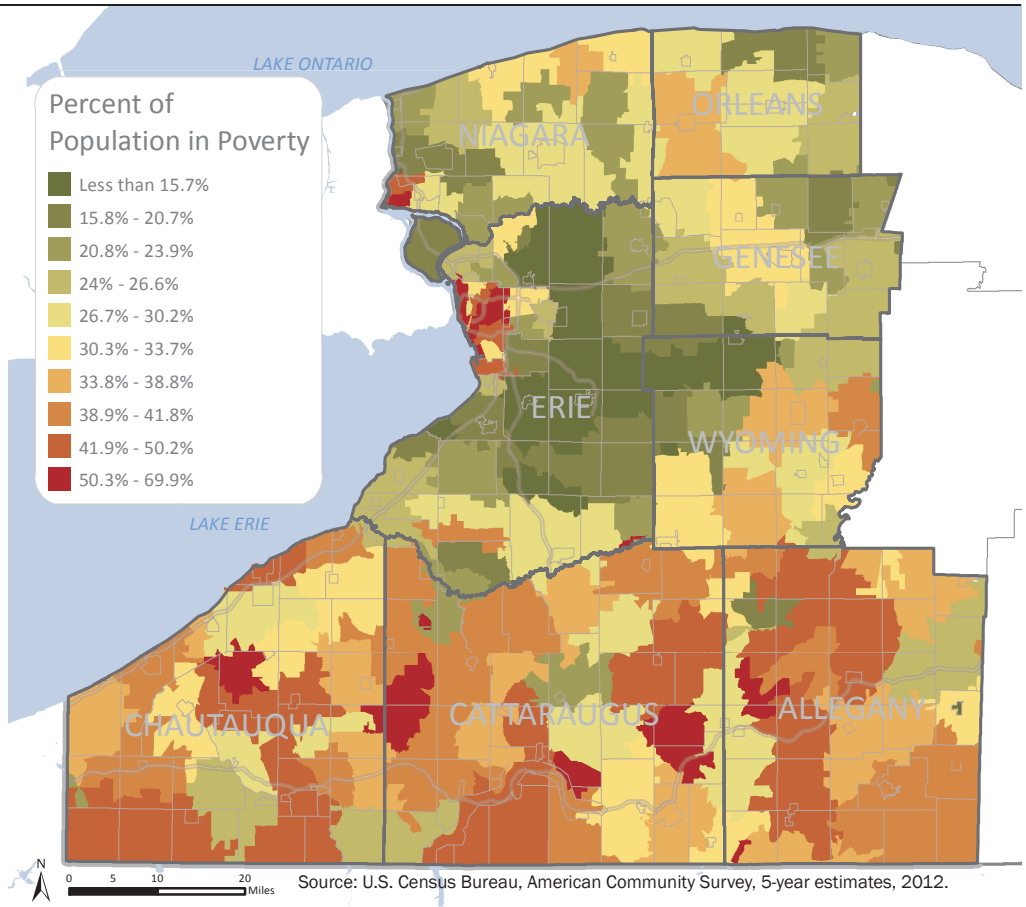
Poverty

Those living in or near poverty are likely to qualify for coverage under Medicaid. Poverty status also impacts financial capacity to access health-promoting resources -- vehicles, computers, healthy foods, preventive care co-pays and more.

Nearly a half million individuals in the region–478,765–live in or near poverty, with incomes under 200 percent of the federal poverty level. This threshold is slightly above Medicaid's income limit, which stands at 133 percent of the federal poverty level.

The economically vulnerable are concentrated in Erie and Niagara Counties, where seven out of 10 live, primarily in Buffalo and Niagara Falls where highest poverty percentages are reported.

Need is also visibly pronounced in Chautauqua, Cattaraugus and Allegany Counties, where, overall, close to 40 percent are in and near poverty.



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

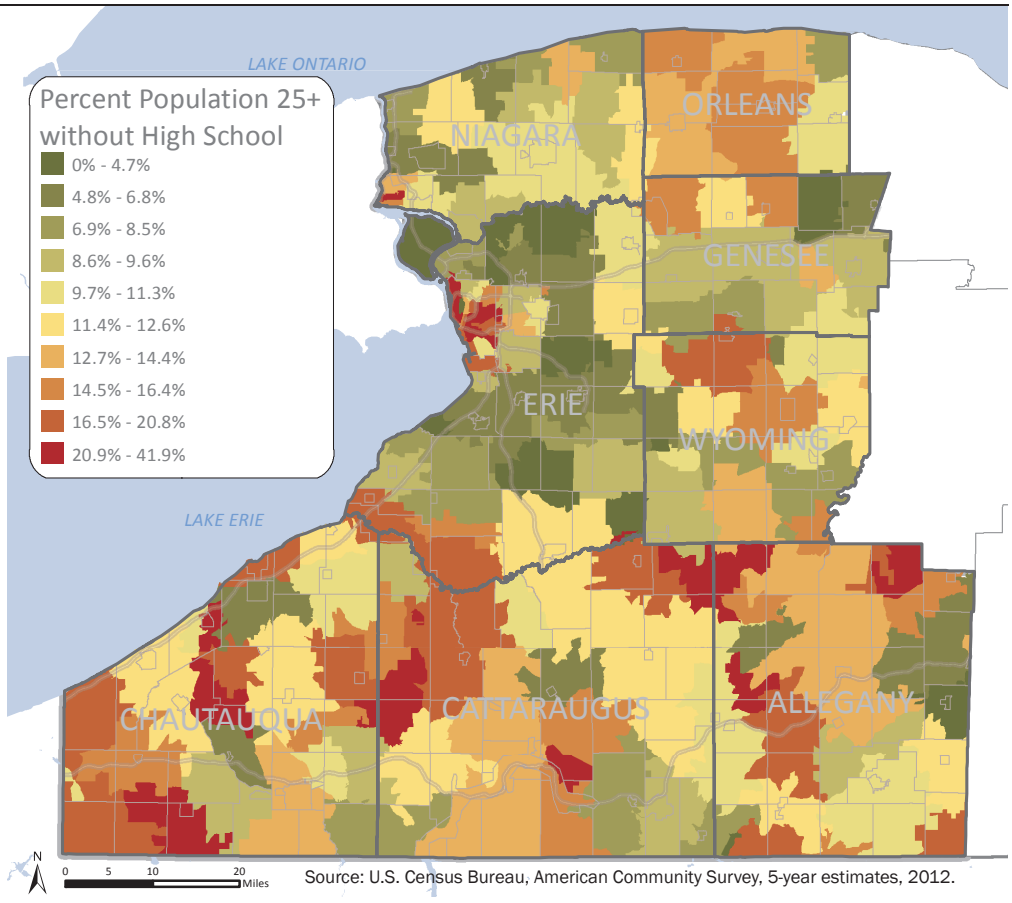
High school dropouts

Education is linked to good health, as limited education creates barriers to jobs, higher incomes, quality neighborhoods, health literacy and more. Nearly 116,000 adults in WNY do not have a high school diploma. This is one out of nine. Yet proportions run at least four times in some ZIP Codes run at least four times this rate.

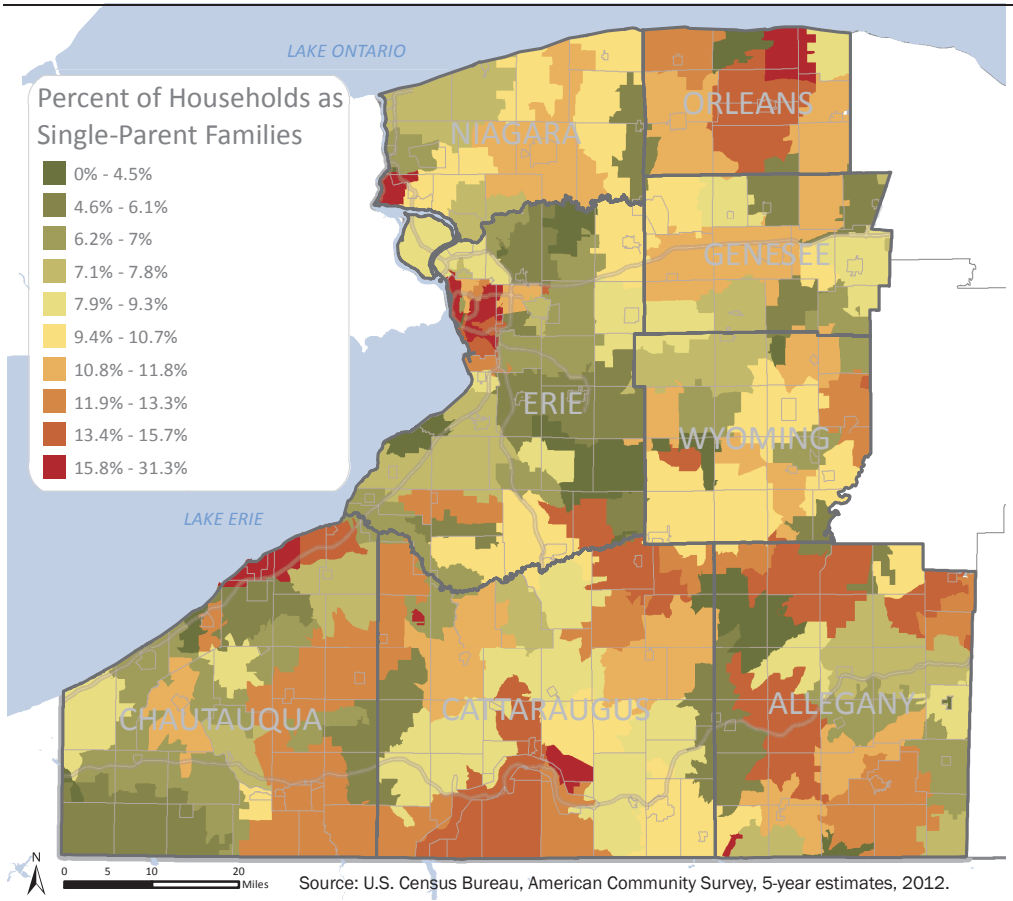
More than half of those without a diploma live in Erie County, with high concentrations in Buffalo and the Towns of Brant and Collins near the county's southwestern border. In selected ZIP Codes, up to 42 percent of adults lack a high school education.

In Niagara County, another 16,000 have no education beyond high school, with concentrations highest in Niagara Falls.

Outside the region's metropolitan core, Chautauqua, Orleans and Wyoming Counties have high percentages of high-school drop-outs, both compared to other counties in the region and to comparable counties statewide.



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.



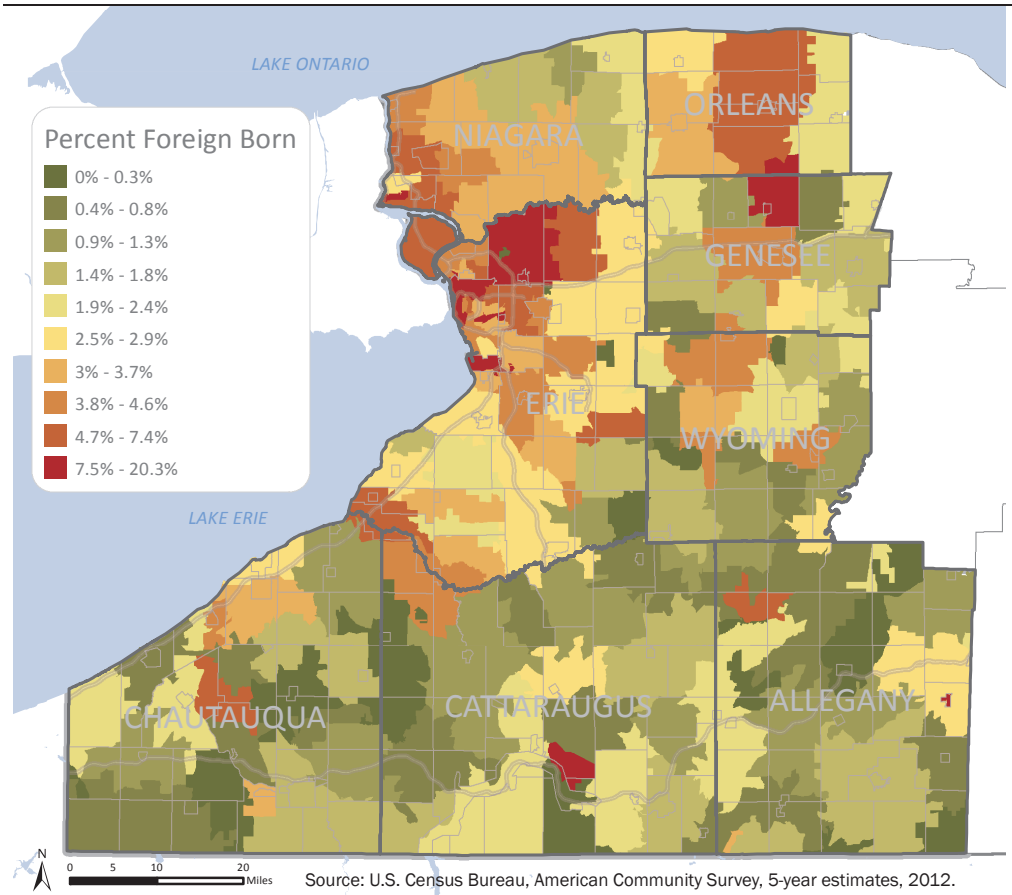
Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

Single-parent families

With one parent and one income, single-parent families are more likely to be vulnerable. About one out of nine households in the region are single-parent households, having one or more children under age 18 and only one parent present. This represents nearly 69,000 households altogether and up to one out of three households in selected ZIP Codes.

Numbers are highest in Erie and Niagara Counties, where three out of four single-parent households reside, concentrated in Buffalo and Niagara Falls.

Proportions are also high throughout Orleans County, which has a higher percentage of single-parent households than the other seven counties. Proportions here are also higher than in comparable counties statewide. High proportions of vulnerable families are also found in Chautauqua County, particularly in the Fredonia/Dunkirk area.



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

Foreign-born persons

Those born outside of the country often experience a sundry of challenges -- cultural, language, informational and other -- to income, health care and supports. One out of twenty persons across the region was born in a foreign country. This is more than 75,700 individuals across Western New York. The large majority of foreign-born residents --76 percent of the total -- live in Erie County, primarily in the City of Buffalo and suburbs to the north. In some ZIP Codes, up to one in five are foreign born. More than 8,500 foreign-born live in Niagara County, with concentrations highest in and around Niagara Falls.

In the region's southern counties, the foreign born account for 2 percent or less of the total population, although a visibly high concentration exists in Cattaraugus County's Salamanca area. In rural northeastern Orleans County, the percentage of foreign born is among the highest in WNY and higher than in most comparable counties statewide.

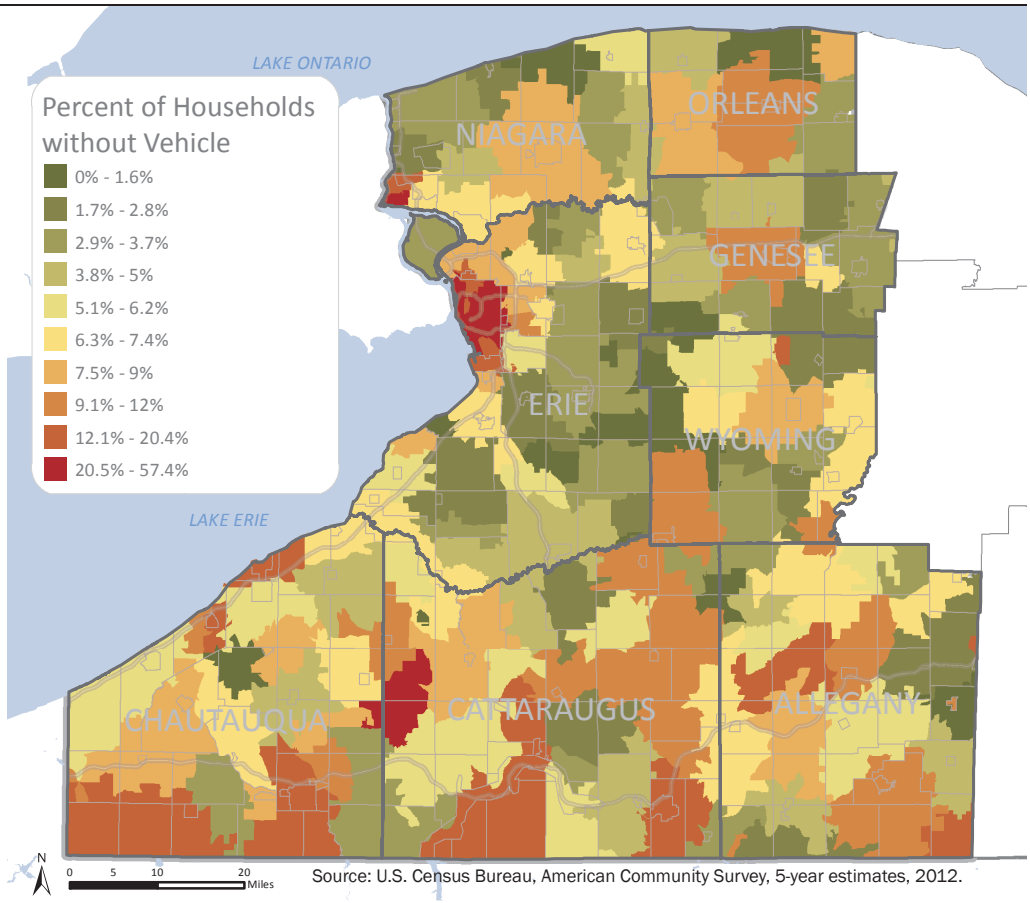
Households with no vehicle

In the absence of affordable, flexible and extensive public transit systems, those without a vehicle often experience barriers to jobs, higher education, healthcare and community supports.

About 74,400 households across WNY do not have a vehicle. Overall, this is about one out of eight that rely on alternative modes of traveling such as walking, biking, and public transit. This percentage is higher than in any other region statewide, outside of NYC.

Numbers and percentages are highest in Erie County, where 51,600 households, primarily in the City of Buffalo and inner-ring suburbs, lack a car. In some ZIP Codes, those who have access to a vehicle are actually in the minority. Another 8,700 in Niagara County live without a car, with concentrations highest in Niagara Falls.

Outside of these urban counties, about 14,100 households are living in more rural areas without a vehicle, with highest concentrations in the region's southern counties.



Source: U.S. Census Bureau, American Community Survey, 5-year estimates, 2012.

3. Community Structure

"Community structure" refers to those characteristics -- not of people but of the physical and social environment -- that shape health need in the region. The age of housing, the quality of water, access to food, the prevalence of violence and the conditions of work all help determine the health of the community, especially for people of lower income. The affluent can usually move to a better place or protect themselves against these hazards. Often the poor cannot.

Four aspects of the community landscape put residents in Western New York at a particular risk and disadvantage as compared to almost every other region in the state outside of New York City. Housing is older, access to healthy food is constrained, rates of violent crime are high, and the proportion of migrant workers in the population is relatively greater.

The most pressing of the four is violent crime, based on our standing against other regions. The region ranks last among all upstate regions for violent crimes per 100,000 population.

Violence in the cities of Buffalo and Niagara Falls -- reflected in the low rankings for Erie and Niagara Counties -- contribute most to this finding. Yet the challenge isn't an urban one alone. Rates of violence in all counties of the region except Allegany are higher than rates in the majority of comparable counties across New York.

Western New York also has a higher percentage of older housing than in almost every other upstate region. This analysis uses structures built prior to 1980 as a proxy for the presence of lead-based paint, asbestos and other residential health hazards. Even Allegany County, which has the newest housing stock of all eight WNY counties, ranks relatively poorly against other similar counties across the state. Meanwhile, Erie, Niagara, Orleans, Genesee and Chautauqua counties have only one out of five housing units built in the last 35 years.

The region also has higher proportions of persons engaged in migrant work than the large majority of regions statewide. Migrant workers are usually foreign-born individuals with limited education who are here to work on farms for the harvest season, usually for minimum wage. This kind of work is most prevalent in rural counties on the eastern border -- Orleans, Genesee and Wyoming. Moreover, five out of the region's eight counties have higher proportions of migrant workers than comparable counties statewide.

Food access is also more of a challenge in Western New York than in most upstate New York regions. The region has higher than average proportions of households where food access is compromised by distance to supermarkets and lack of access to transportation.

Vulnerable households are ones that are more than 10 miles away from a supermarket, or more than a half mile away, if they don't have a vehicle. Counties with large urban and rural populations have the

Index Component 2 – Community Structure

	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Community Structure (Average for Subgroup)	**36**	**38**	**39**	**49**	**52**	**42**	**41**	**69**	**55**	**83**	**60**	**41**	**35**	**38**	**33**	**46**	**39**
Percent of Housing Units built before 1980	17	0	0	43	38	14	9	86	36	100	29	29	18	57	0	72	18
Percent of Households with Water Wells	83	86	75	100	100	72	82	29	27	43	72	0	18	57	100	14	55
Percent of Population with Low Access to Food	33	43	50	57	75	29	55	86	100	72	86	100	55	14	36	0	0
Violent Crime Rate (per 100,000 residents)	0	0	0	14	13	29	0	43	27	100	86	57	27	72	18	86	36
Migrant Workers (per 100,000 residents)	17	100	57	67	0	50	18	83	36	NA	NA	17	0	0	18	33	55
Faith-based organizations (per 100,000 residents)	67	0	50	14	88	57	82	86	100	100	29	43	91	29	27	71	73

Sources: New York State Department of Taxation and Finance, Office of Real Property Tax Services, 2010; NYS Department of Environmental Conservation, 2014; USDA, Economic Research Service, 2010; Federal Bureau of Investigation, Universal Crime Reporting, 2012; USDA, National Agricultural Statistical Survey, US Census of Agriculture, 2012; Internal Revenue Service, 2014.

Key Social Determinants of Health

	Western NY		Allegany		Cattaraugus		Chautauqua		Erie		Genesee		Niagara		Orleans		Wyoming	
	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate	#	rate
Housing units built before 1980	572,162	80%	18,682	72%	29,473	72%	53,871	81%	344,977	82%	20,155	79%	77,208	78%	14,311	78%	13,485	75%
Households with Water Wells	1,957	0%	209	1%	368	1%	323	1%	379	0%	334	1%	34	0%	102	1%	208	1%
Population with Low Access to Food	46,219	3%	1,205	2%	1,934	2%	4,762	4%	26,896	3%	1,184	2%	5,661	3%	1,555	4%	3,022	7%
Violent Crimes (rates per 100,000 residents)	5,607	363	23	47	131	163	287	213	4,184	455	84	140	814	377	49	114	35	83
Faith-based organizations (per 100,000 residents)	1,942	126	112	229	172	215	243	181	895	97	106	177	250	116	74	172	90	214
Migrant Workers (per 100,000 residents)	2,189	142	0	0	42	52	277	206	225	24	382	637	362	168	782	1819	119	283

Sources: New York State Department of Taxation and Finance, Office of Real Property Tax Services, 2010; NYS Department of Environmental Conservation, 2014; USDA, Economic Research Service, 2010; Federal Bureau of Investigation, Universal Crime Reporting, 2012; USDA, National Agricultural Statistical Survey, US Census of Agriculture, 2012; Internal Revenue Service, 2014.

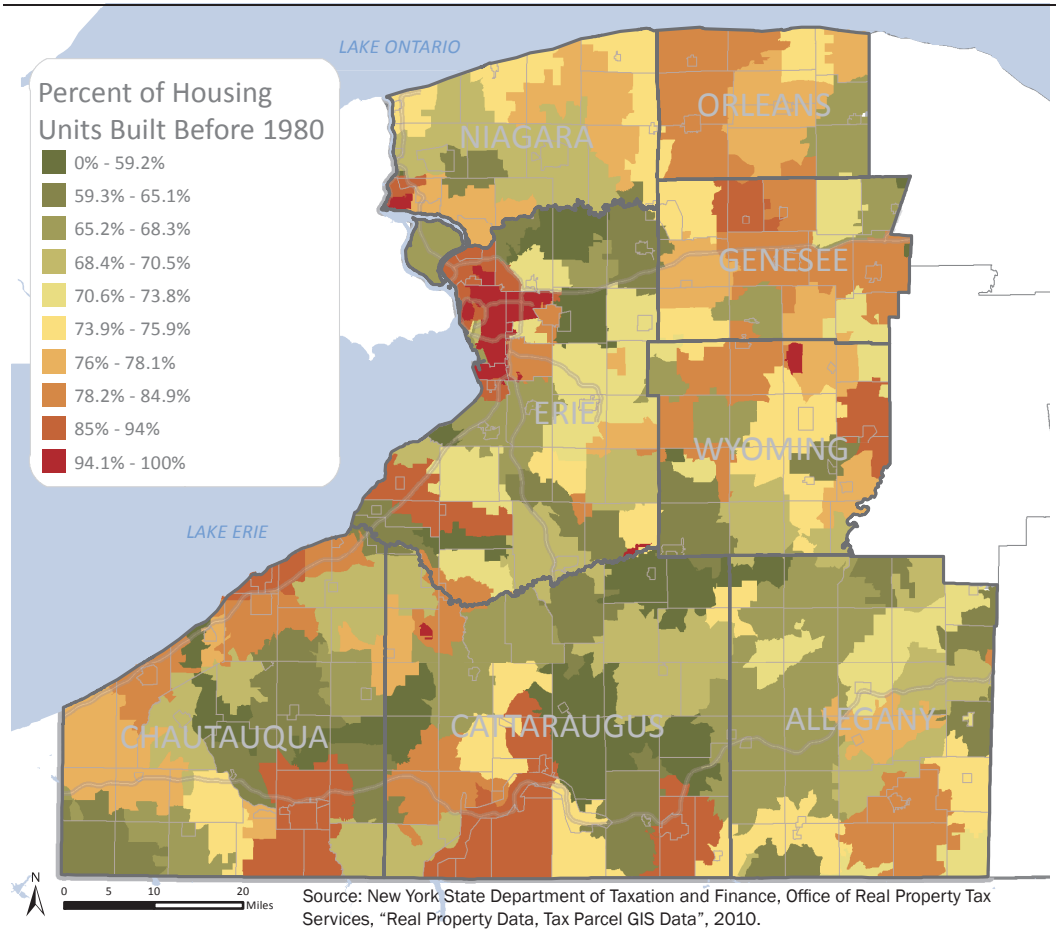
most pressing challenges in meeting food access needs, particularly Erie, Orleans, and Wyoming.

With the other community structure indicators, Western New York ranks near the top third or better, but shows some troubling rankings at the county level. For instance, the region has more faith-based organizations per 100,000 residents than two out of three other regions outside of New York City. These are organizations that oftentimes provide critical supports to parishioners and communities such as food pantries and youth programs. They also serve as trusted sources of word-of-mouth information for residents, connecting them to a broader array of services within the community.

However, faith-based organizations are not as prevalent in Erie, Allegany, and Orleans Counties as they are in similarly situated counties across New York State. Per capita, Erie County has the smallest number of these support organizations and fewer than half of all metropolitan counties. This increases the burden on not-for-profit organizations and governmental agencies in these areas and sometimes necessitates stronger information conduits to reach residents with information about services.

Overall, the region also performs comparatively well in terms of the percentage of households that rely on water from wells -- usually associated with lower water quality -- as their source of water. Only 17 percent of regions have a smaller percentage than we do in Western New York.

Yet this overall positive finding is not uniformly found across the region. Rather, Cattaraugus and Genesee Counties have high percentages of households relying on water wells as compared to other counties in the region and similarly situated rural counties across the state.



Source: New York State Department of Taxation and Finance, Office of Real Property Tax Services, "Real Property Data, Tax Parcel GIS Data", 2010.

Older Housing

A total of 562,160 housing units in WNY were built prior to 1980, before the ban on asbestos (throughout the 1970s) and lead in paint (outlawed in 1977). Both materials can create serious health risks for home occupants.

Sixty percent of older homes are in Erie County. Highest concentrations exist in Buffalo and surrounding suburbs, where nine out of ten homes or more are older structures. Erie County's percentage of older homes is higher than any comparable county statewide.

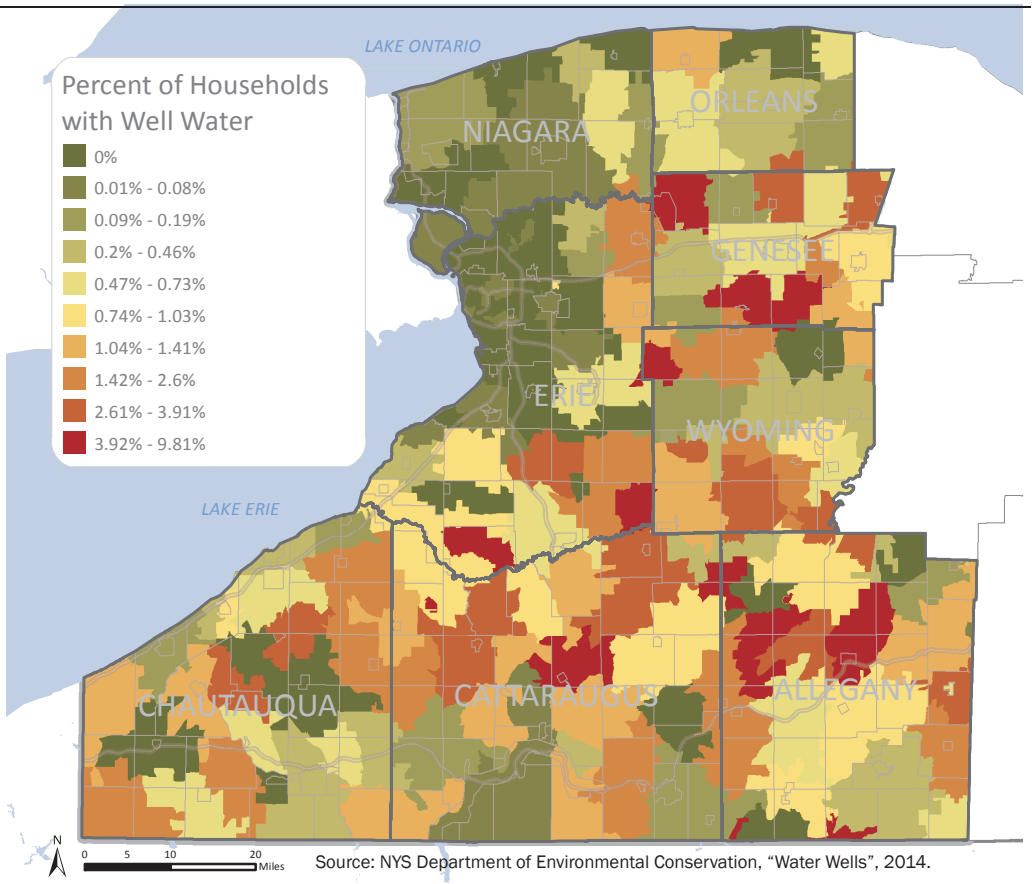
Hot spots of risk are also present in Niagara Falls, Eden/Evans (in southern Erie County), Oakfield (in Genesee County), the Jamestown area (in Chautauqua County), the Salamanca area (in Cattaraugus County) and the mid eastern area in Wyoming County. In some ZIP Codes in the City of Buffalo, Niagara Falls and Wyoming County, close to 100 percent of housing units were built before 1980.

Well Water

Wells are associated with lower water quality because of lack of fluoridation and treatment of potential contaminants by community systems. Nearly 2,000 households across the region rely on wells as their source of water. While this percentage stacks up favorably against other regions in the state, comparably high percentages are reported by some counties.

Households supplied by well water are mostly outside the metropolitan core. Two out of three are in one of the five mostly rural counties of Genesee, Wyoming, Allegany, Cattaraugus and Chautauqua. In Genesee and Cattaraugus, not only are proportions highest in the region but high compared to similar counties across New York State.

Hundreds of households relying on well water also live in southern Erie County. In some ZIP Codes across the region, nearly one out of ten households uses well water.



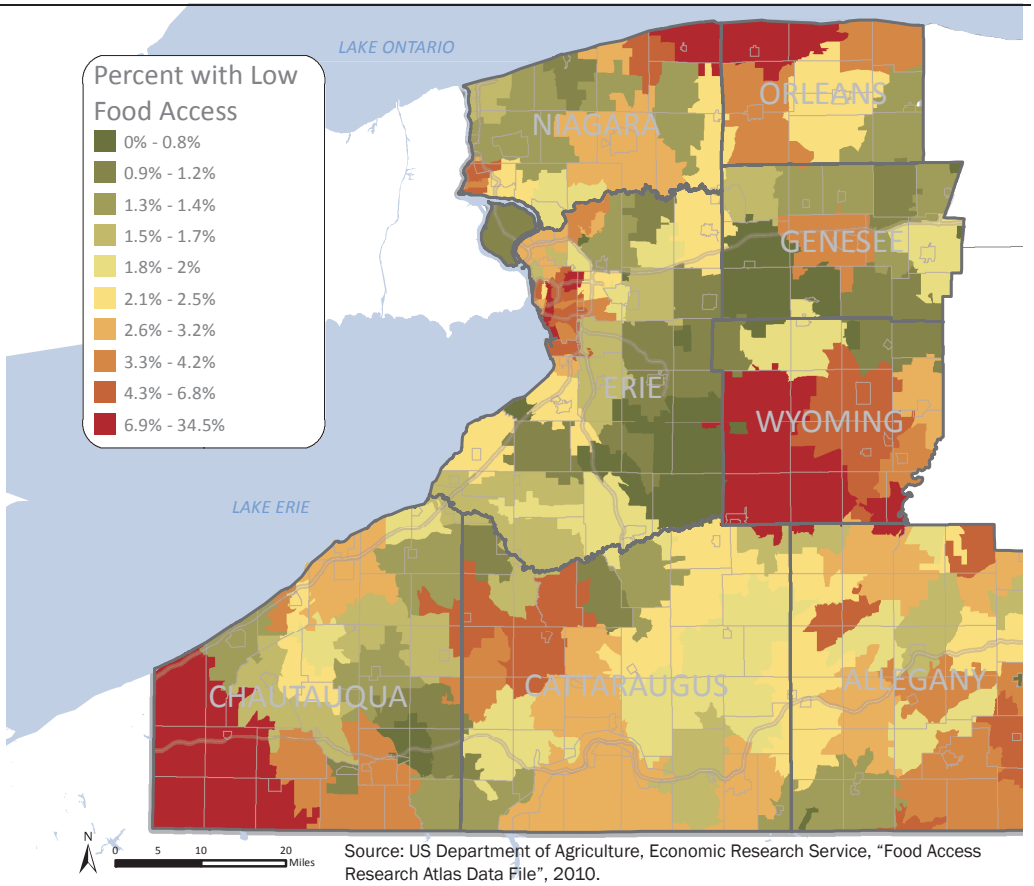
Source: NYS Department of Environmental Conservation, "Water Wells", 2014.

Food Access

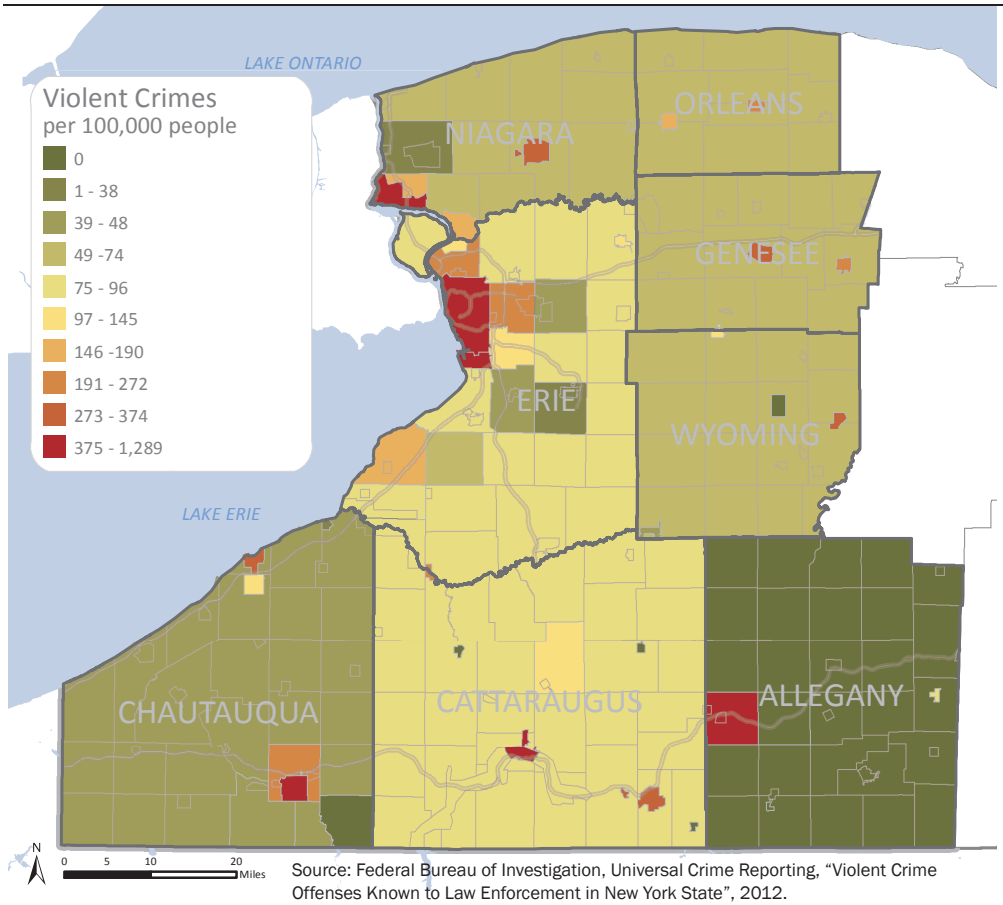
Access to healthy and affordable food helps lay a foundation for good health. More than 46,200 households across the region have low access to food. These are households that are more than 10 miles from a supermarket or further than one half mile if they don't have access to a vehicle.

In the region's metropolitan counties, which account for 70 percent of households with barriers, access to supermarkets is most compromised in Buffalo and Niagara Falls, as well as in the rural northeastern corner of Niagara County. In selected ZIP Codes, up to a third of the population may not be able to get to a supermarket without traveling long distances by car or using alternative modes of transportation.

Access is also particularly low in Wyoming County, the region's least populous county, which has more households with low food access than in four out of the eight counties of the region.



Source: US Department of Agriculture, Economic Research Service, "Food Access Research Atlas Data File", 2010.



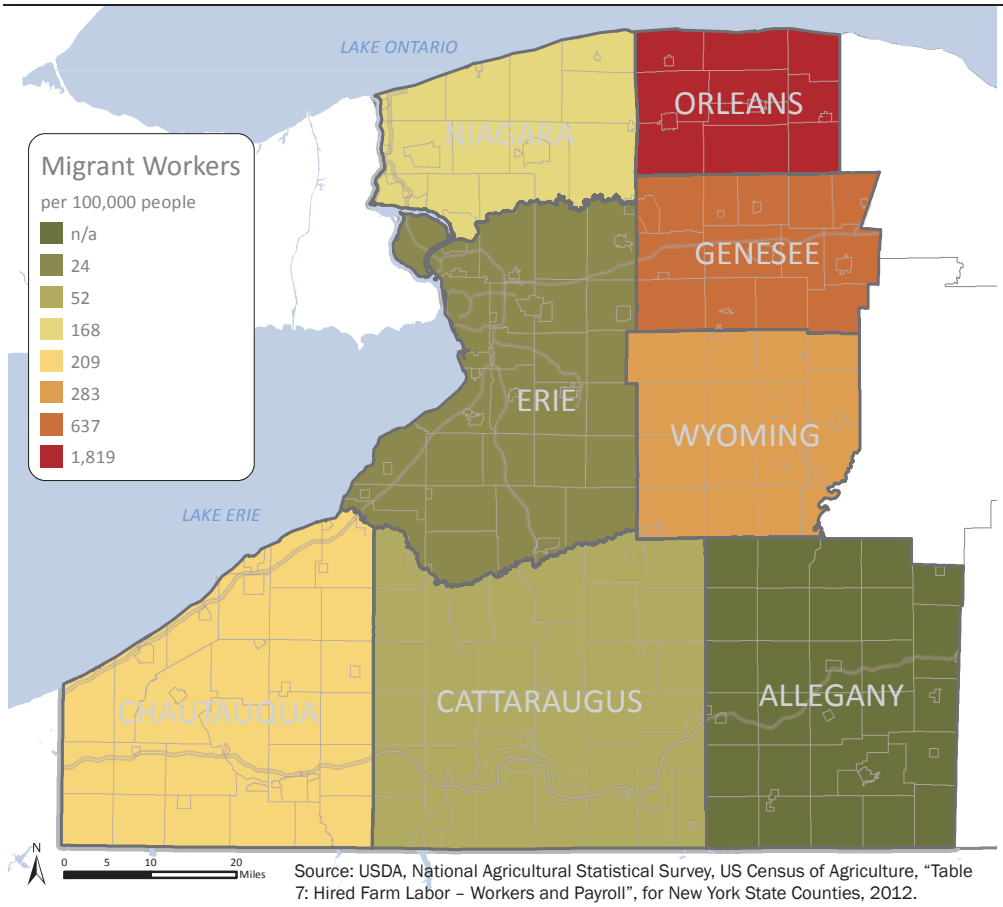
Source: Federal Bureau of Investigation, Universal Crime Reporting, "Violent Crime Offenses Known to Law Enforcement in New York State", 2012.

Violent Crime

Violent crime directly bears on health and health care through personal injury and psychological trauma. It also keeps people indoors, creating barriers to travel by foot and outdoor activity.

Nearly 5,600 violent crimes occurred in the region in 2012. Almost nine out of ten of these happened in Erie and Niagara Counties where rates of violent crime are significantly higher (by up to 26-fold) than in rural counties overall, many of which contain large areas patrolled by a county Sheriff's Office.

Hot spots of highest risk include Buffalo and Lackawanna (in Erie County), Niagara Falls (in Niagara County), Jamestown (in Chautauqua County) and Salamanca (in Cattaraugus County). Violent crime rates in Buffalo and Niagara Falls are among the highest in New York State, among areas with a populations of at least 14,000 or more.



Source: USDA, National Agricultural Statistical Survey, US Census of Agriculture, "Table 7: Hired Farm Labor – Workers and Payroll", for New York State Counties, 2012.

Migrant Workers

One hundred and sixty-four farms across the region report use of migrant labor -- nearly 2,200 migrant workers altogether, commonly foreign-born individuals here for the annual harvest season.

Numbers are highest in one of the region's most rural and remote counties, Orleans, where about 800 migrant workers find work. This is one out of three of the total and represents about 2 percent of the county's population. Migrant workers here likely contribute to county demographics showing high percentages of foreign-born, Hispanic/ Latino individuals and those without a high school education.

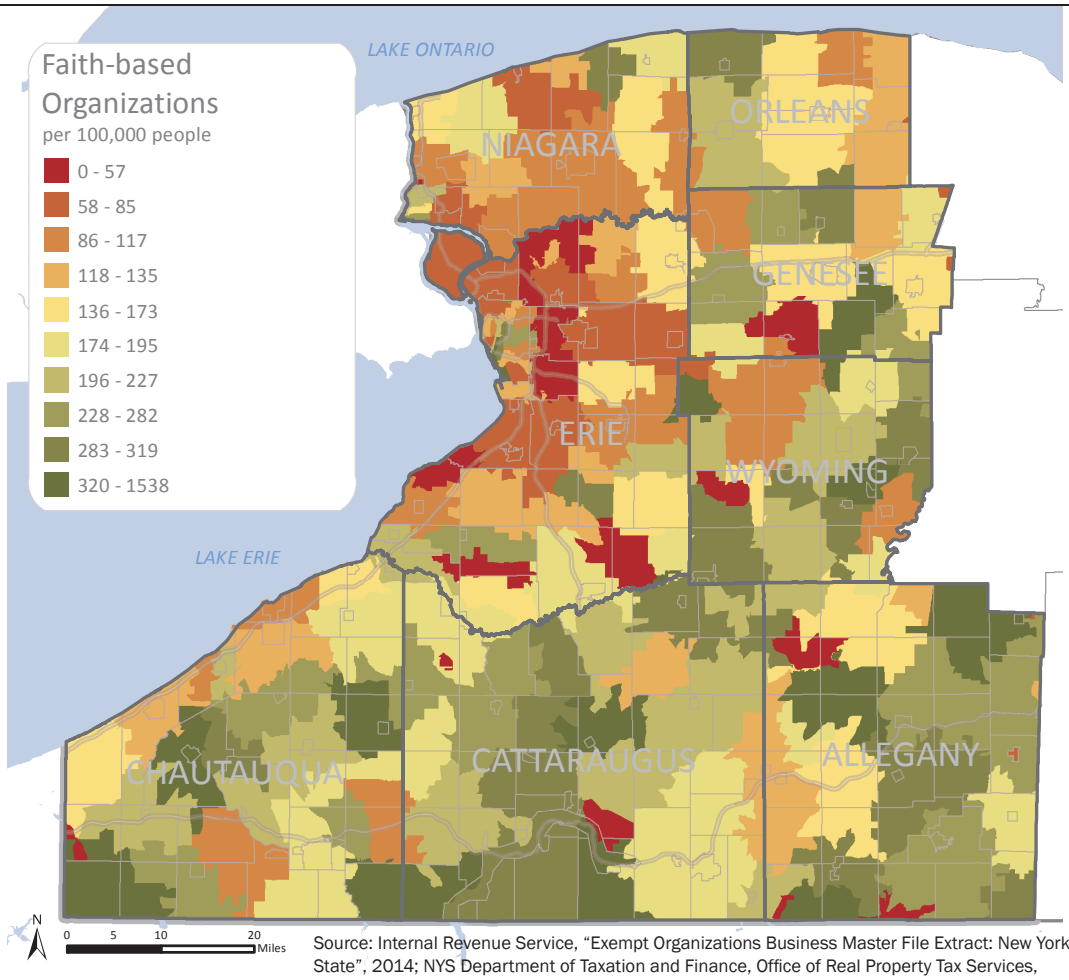
Rates are also comparatively high in Genesee and Wyoming Counties, where together, another 500 migrant workers are found. Nearly 600 migrant workers are in Niagara and Erie Counties, but here they represent relatively small percentages of the overall population.

Faith-based organizations

Nearly 2,000 faith-based organizations exist across the region. These are places of worship -- churches, synagogues, mosques and temples -- that often go beyond the spiritual to address health and social needs of congregations and broader communities. They also create hubs for information and service delivery

These community supports tend to exist in greater numbers, as a percentage of the overall population, in rural counties. In some ZIP Codes, there is close to one or more faith-based organizations for every 100 people.

Proportions are notably lower across Niagara and Erie Counties, with the exception of spots such as the East Side of Buffalo, parts of Niagara Falls, and the Lockport/Newfane area in Niagara County where faith based organizations figure more prominently in the community's structure.



Source: Internal Revenue Service, "Exempt Organizations Business Master File Extract: New York State", 2014; NYS Department of Taxation and Finance, Office of Real Property Tax Services, "Real Property Data, Tax Parcel GIS Data", 2010.

4. Health Care Analytics

Overview

The community needs assessment used an index-based methodology to integrate and analyze quantitative data from a wide range of sources. This was intended to construct a comprehensive and consolidated method to understand information from disparate sources in a way to holistically assess health care need in Western New York. Toward that end, the analysis is based on five interrelated indices, each of which reflects a different aspect of health care need.

Index 1 – Demographics.

Index 1 brings together a range of variables, each of which is correlated with high need for health care services. Variables in Index 1 (detailed in Section 2 of this report) include the proportion of people in poverty (a key marker for vulnerability), the proportion of African Americans and Latinos in the community, non-English speakers and foreign born population (two indicators of the need for culturally-sensitive services), the numbers of elderly and women of child-bearing age, households that have no access to a car, adults without a high school diploma and single parent households.

Index 2 – Community Structure

Index 2 assembles variables that describe, not people, but the environments in which they live. These are also drivers as well as predictors of health care need. Variables in Index 2 (detailed in Section 3) include the proportion of houses built before 1980 as a proxy for lead based paint and other residential environmental hazards, persons with access to clean and fluoridated water, local crime rates as predictors of injury and stress-related illnesses, people with poor access to healthy food, and the percentage of migrant farm workers. The ratio of faith based organizations to population is included as a positive indicator of capacity to respond to health care needs.

Index 3–Systems Transformation (DSRIP Domain 2)

Index 3 contains "Prevention Quality Indicators" (PQI) as measures of system performance in the delivery of health care. These are metrics approved by the Centers for Medicare and Medicaid Services (CMS) and are understood as indicators for the effectiveness of systems of care in treating ambulatory sensitive care conditions. These are measures that when appropriate care is provided, rates go down. When it is not provided, rates go up. A similar set of metrics for children – "Pediatric Prevention Quality Indicators" (PDI) – are also provided in Index 3. Both sets of measures are associated with DSRIP Domain 2, "Systems Transformation."

Two other measures also contribute to our understanding of systems transformation: Potentially Preventable Emergency Room Visits and Potentially Preventable Hospital Readmissions. The effectiveness of health care systems is indicated both by the extent to which primary care can be delivered in primary care settings and the degree to which patients discharged from acute care settings can be connected securely to effective continuing care outside the hospital. Like PQI and PDI, these metrics are approved by CMS.

Index 4 – Clinical Outcomes (DSRIP Domain 3)

Index 4 agglomerates measures of quality of care in terms of the rates at which standard medical procedures or best practices are implemented in clinical settings. These are not indicators of population health but they are predictors of it because they represent what medical science considers appropriate screening, monitoring, medication, and other programs of care that will lead to more positive health outcomes. These indicators are also approved by CMS.

Index 5 – Population Health (DSRIP Domain 4)

Index 5 incorporates a wide range of variables that measure the health of the population in the region. These cover a range of categories, including measures of chronic disease, health status and disparities, promoting a healthy and safe environment, preventing HIV and other sexually transmitted or otherwise infectious diseases, promoting mental health and preventing drug abuse, and promoting maternal and infant health. These are the indicators – also CMS approved – that can help us know if we are "moving the needle" on health.

The CMS-approved metrics included in this assessment are those that were available primarily on the delivery system redesign incentive payment program website. Other data sets were examined but not included in this structured normative needs assessment methodology.

Methodology

The indices are based on the relative ranking of the Western New York region against other Upstate or non-New York City regions and the relative ranking of WNY counties, first against other counties in the region, then against counties of comparable structure across Upstate New York.

This makes it possible to apply a uniform methodology to the relative ranking of all counties and against all data variables. It also makes it possible to create composite measures that combine the rankings of the region and of counties in a way that is statistically consistent and show which areas are doing well and which are doing poorly on every measure and all measures.

The regional comparisons, obviously, make it possible to measure Western New York against all other Upstate regions on any of the metrics involved. New York City is excluded because its demographic and health care dynamics are so strikingly different from those in the rest of the state. When our regional ranking as at the bottom – in most of the tables that follow, the 0 percentile – we know we have a problem.

The county to county comparisons within Western New York allow us to understand the variations in performance across the region.

Comparability of Counties
Eberts Codes for New York State

Downstate-Metropolitan	Rural-Periphery	Rural-Suburban	Rural-Urban	Rural-Urban-Suburban	Upstate-Metropolitan
Bronx	Allegany	Columbia	Cattaraugus	Cayuga	Albany
Kings	Chenango	Greene	Chautauqua	Fulton	Broome
Nassau	Delaware	Herkimer	Chemung	Genesee	Dutchess
New York	Essex	Livingston	Clinton	Madison	Erie
Queens	Franklin	Orleans	Cortland	Montgomery	Monroe
Richmond	Hamilton	Schoharie	Jefferson	Ontario	Niagara
Rockland	Lewis	Schuyler	Otsego	Oswego	Oneida
Suffolk	Sullivan	Seneca	St. Lawrence	Putnam	Onondaga
Westchester		Washington	Steuben	Rensselaer	Orange
		Wayne	Tompkins	Saratoga	
		Wyoming	Ulster	Schenectady	
		Yates	Warren	Tioga	

In comparing WNY counties against counties across the state, it doesn't make sense to compare an urban county with a rural county. The population and health care dynamics in each are very different. It makes more sense to make an "apples-to-apples" comparison, that is, between counties that are alike in structure.

Such a comparison is possible using the categories for New York State as identified in Eberts Codes. This scheme sorts 62 New York counties into six categories organized around their relative mix of urban, suburban and rural environments. The accompanying table shows the six categories and the counties in each one. In the analysis here a second comparison is made that shows the relative ranking for each WNY county on each metric against counties across the state in the same Eberts category. This comparable county comparison adjusts for variables that often influence health care statistics such as population density and proximity to urban centers with high levels of specialty care.

While a WNY county might perform relatively poorly on any given metric against the other counties in the region we might also see that it performs relatively well against similar counties in its Eberts Code category. When a county ranks well against WNY counties and against similar counties across the state, we can see that it is doing very well. Conversely, a county that ranks last in WNY and in its Eberts classification is doing very poorly indeed.

Western New York scored at or slightly below average on all five index values. The lowest or worst index score of 37 was shown in the population health category. The highest score of 50 was for the community structure index. Scores for demographics, system transformation, and clinical outcomes are all very similar and were 42 or 43.

From a comparative standpoint population health issues which are generally more long-standing, chronic and highly influenced by cultural patterns and attitudes proved to be most problematic in Western New York than other areas measured by the index.

Major Findings

Index 1 – Demographics (Score 43)

Ten metrics were studied in this index. Poor scores were the percent of the population over the age of 65 and the percent of households with no vehicles. Chautauqua and Niagara County were among the highest in the region and Erie and Chautauqua Counties had high rates of households with no vehicle available. The elderly consume healthcare services at extremely high rates and hence are in indication of high need for services. The percent of households with no vehicles is an indicator of potential problems in access to care due to the lack of private transportation.

Index 2 – Community Structure (Score 50)

This index contains six variables and Western New York compared poorly on two of those variables, the percent of housing built before 1980 and farms with migrant workers per 100,000 residents. Housing units were especially old in Erie and Chautauqua County and older housing units have a higher probability for environmental hazards such as lead based paint. High rates of farms with migrant workers were notable in Orleans and Wyoming counties and seasonal workers have extensive health care needs which are often unmet due to lack of income, health care insurance and cultural barriers such as language and health literacy.

In the tables and maps in Sections 2 and 3 and below the darkest red always represents a negative result, the darkest green always a positive result and shades in between rankings toward the middle.

4a. System performance metrics

Potentially Preventable Readmissions

New York State Region	Risk Adjusted PPR Rate
Central New York	6.7
Finger Lakes	6.6
Hudson Valley	6.5
Nassau-Suffolk	6.0
New York City	7.9
New York-Penn	5.3
Northeastern New York	5.1
Western New York	5.3

Note: these PPR rates are based on risk-adjusted rates for facilities within each region. They are not population based rates and are average rate of rates for each facility. The analysis is presented with the assumption that the majority of PPRs are from residents of the county in which the hospital is located.

Source: NYS Department of Health, "Medicaid Hospital Inpatient Potentially Preventable Readmission (PPR) Rates ", 2014.

Potentially Preventable ER Visits

Community	PPV Rate
New York State*	35.8
Western New York*	39.9
Allegany	48.4
Cattaraugus	49.5
Chautauqua	52.6
Erie	33.4
Genesee	45.8
Niagara	35.5
Orleans	41.2
Wyoming	34.7

Note: Community (population based rate) regardless of where ER visit occurred. The observed PPV rate (per 100 people) is the number of PPV divided by the population. Lower rates represent better results. The risk adjusted PPV rate (per 100 people) was calculated by dividing the observed PPV rate by the expected PPV rate, multiplied by the statewide observed PPV rate. The statewide rate is the sum of PPV discharges divided by the population of interest (county).

Source: NYS Department of Health, "Medicaid Potentially Preventable Emergency Visit (PPV) Rates by Patient County: Beginning 2011", 2014.

* Denotes observed rates. Other rates are risk adjusted rates. Red is a high rate or poor; green is comparatively low or good.

Major Findings

Index 3 – Systems Transformation (Score 42)

Western New York performed well when ranked against regions across the state for Potentially Preventable Re-admissions (PPR), somewhat less well for Potentially Preventable Visits (PPV) to emergency departments, mixed on a ranking of adult Prevention Quality Indicators (PQI), and significantly worse on an array of Pediatric Quality Indicators (PQI). In composite, the region delivered an index score of 42 for Domain 2 metrics of system transformation.

The region ranked very favorably against other New York regions on Potentially Preventable Readmissions to hospitals. A potentially preventable visit rate was calculated for Western New York based on the allocation of hospital-based statistics to counties in which the hospitals are located. Western New York ranked in a cluster with the New York-Pennsylvania and Northeastern New York regions. Other regions, including Finger Lakes, Central New York and Hudson Valley, were considerably higher for PPR.

For Potentially Preventable Visits to hospital emergency rooms, the region ranked slightly below the middle of the pack statewide with a rate of 39.9 per 100 (compared with 35.5 for the state). Performance was not uniform throughout the region, however. Erie, Niagara and Wyoming counties did slightly better than the statewide rate. Chautauqua, Cattaraugus, Allegany and Genesee all did significantly worse than the statewide rate.

Prevention Quality Indicators

The following variables examine avoidable inpatient care by adults (Performance Quality Indicators (PQI) -Adults). Western New York scored very favorably based on the observed rate of admissions for that set of medical conditions.

Prevention Quality Indicators (PQI) for adults encompassed 18 different measures. The region as a whole ranked dead last among Upstate regions for short term complications due to diabetes, lower extremity amputations due to diabetes and on the diabetes composite. The region also ranked last in the state for angina without procedure. Finally, the WNY score for chronic disease composite was in the bottom third of regional rankings.

Niagara and Orleans counties posted a range of negative rankings with Niagara second from the bottom against the other seven WNY counties and second from the bottom against similar counties state-

Index 3 – Domain 2 – Systems Transformation – Prevention Quality Indicators

		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
Prevention Quality Indicator Name	WNY Observed Rate	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison
Angina Without Procedure	0	86	25	43	0	100	73	57	18	0	0	72	43	14	0	29	9
Asthma in Younger Adults	67	43	88	0	25	29	36	14	27	100	100	57	43	72	36	86	91
Bacterial Pneumonia	100	86	100	43	25	57	91	29	46	100	82	72	57	14	27	0	18
Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	83	72	100	57	75	86	82	14	46	43	36	100	57	0	0	29	9
Dehydration	67	86	75	0	0	72	82	14	18	43	64	57	72	29	36	100	91
Diabetes Long-term Complications	50	43	75	0	0	29	64	100	82	14	0	86	57	72	55	57	27
Diabetes Short-term Complications	0	29	13	0	0	57	46	86	64	43	18	100	57	14	9	72	27
Heart Failure	50	72	63	14	13	29	36	100	91	57	46	43	14	0	0	86	82
Hypertension	83	29	100	0	50	72	82	86	91	43	64	57	72	14	36	100	100
Lower-Extremity Amputation among Patients with Diabetes	0	29	38	43	63	72	64	57	46	0	9	86	43	100	64	14	18
Prevention Quality Acute Composite	100	86	100	0	13	72	91	29	46	100	91	57	57	14	18	43	27
Prevention Quality All Circulatory Composite	50	72	88	14	0	57	73	100	91	29	9	43	14	0	0	86	73
Prevention Quality All Diabetes Composite	0	57	38	0	0	43	46	86	73	29	9	100	57	14	9	72	27
Prevention Quality All Respiratory Composite	83	72	100	57	63	86	82	0	46	43	46	100	57	14	0	29	9
Prevention Quality Chronic Composite	33	72	100	14	13	86	82	57	73	29	18	100	57	0	0	43	27
Prevention Quality Overall Composite	83	86	100	14	13	72	82	43	46	57	55	100	57	0	9	29	36
Uncontrolled Diabetes	50	86	88	0	0	29	46	57	55	100	82	72	29	14	0	43	46
Urinary Tract Infection	100	72	100	0	25	86	91	14	46	100	100	57	43	43	64	29	46

Source: NYS Department of Health, "Hospital Inpatient Prevention Quality Indicators (PQI) by Patient County: Beginning 2009 through 2012", 2014.

wide for the Prevention Quality Composite. Orleans ranked dead last within the region and second to last against other "rural-suburban" counties on the same composite measure.

Niagara County had rankings "in red" for a range of individual metrics including uncontrolled diabetes, dehydration, complications from diabetes long- and short-term, heart failure and asthma in younger adults. Orleans County had bottom rankings for chronic obstructive pulmonary disease or asthma in adults, heart failure, angina without procedure and uncontrolled diabetes.

Across other counties in the region, Erie and Chautauqua counties had the best rankings for Prevention Quality Composite, despite a scattering of lower rankings on individual measures. Wyoming County had the lowest rankings on the composite indictor after Orleans and Niagara Counties.

Pediatric Prevention Quality Indicators

For Pediatric Prevention Quality Indicators (PDI) the region ranked near the bottom against other Upstate regions for the overall composite measure. The composite ranking was driven by similar low regional rankings for asthma, gastroenteritis and short term complications of childhood diabetes. Rankings for Erie County were generally below average. But Allegany County ranked far worse with bottom rung scores for asthma, gastroenteritis and urinary tract infections. Cattaraugus County didn't do much better. In contrast, scores across the board, for individual metrics and composites, Chautauqua, Orleans and Genesee ranked highly.

Index 3 – Domain 2 – Systems Transformation Pediatric Prevention Quality Indicators

		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
Pediatric - Prevention Quality Indicators	WNY Observed Rate	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison	WNY Rank	Statewide Comparison
Asthma	17	29	13	72	88	43	100	14	40	100	90	0	0	86	78	57	22
Diabetes Short-term Complications	17	14	13	29	25	86	70	43	30	100	100	57	33	72	45	0	11
Gastroenteritis	17	29	13	57	75	72	90	14	20	43	50	0	0	100	67	86	56
Pediatric Quality Acute Composite	67	29	50	57	75	86	100	14	0	72	80	0	0	100	100	43	45
Pediatric Quality Chronic Composite	33	43	25	57	63	72	80	29	20	86	90	0	17	100	78	14	0
Pediatric Quality Overall Composite	17	43	38	57	63	72	90	14	10	86	100	0	0	100	89	29	11
Urinary Tract Infection	100	29	38	43	63	100	100	14	50	86	80	0	17	72	78	57	56

Source:NYS Department of Health, "Medicaid Inpatient Prevention Quality Indicators (PDI) for Pediatric Discharges by Patient County: Beginning 2011", 2014.

4b. Clinical process metrics

Index 4 Clinical Outcomes (Index Score - 42)

Index 4 includes measures of the delivery of services in clinical settings for behavioral health, diabetes mellitus, HIV/AIDs and other sexually transmitted diseases, perinatal care and others. As such these metrics are understood as indicative of quality of care.

Western New York had a middle ranking for the behavioral health group but with some weak scores within it, especially for adherence to anti-psychotic medications for people living with schizophrenia, diabetes screening for people living with schizophrenia or bi-polar disorder using anti-psychotic medications, and diabetes monitoring for people living with schizophrenia and diabetes.

Low rankings for adherence to medication for schizophrenia were posted for Erie, Niagara and Orleans counties. Genesee County, meanwhile, ranked at the bottom for both diabetes screening and diabetes monitoring for schizophrenics.

Other behavioral health "hot spots" for Western New York included Cattaraugus and Chautauqua counties for initiation of alcohol and other drug dependence treatment; and, Orleans County for follow up care for children prescribed ADHD medication and follow up care within 30 days of a hospitalization for mental illness.

The region also was ranked at bottom for diabetes care in general, although a composite ranking was calculated on the basis of one individual metric: comprehensive diabetes care HbA1c testing. Moreover, the poor score for diabetes mellitus care was attributable to less populated counties in the region – Genesee, Allegany and Cattaraugus. Erie, Niagara and Wyoming counties actually had relatively high rankings. Other data in this assessment, however, would warn against underestimating the need around diabetes.

Index 4 -- Clinical Outcomes -- Behavioral + Diabetes

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
A. Behavioral Health (Average for Subgroup)	**44**	**32**	**45**	**56**	**64**	**41**	**40**	**35**	**36**	**77**	**60**	**49**	**43**	**20**	**26**	**70**	**70**
Adherence to Antipsychotic Medications for People Living With Schizophrenia	0	0	13	0	13	57	27	86	73	71	18	100	57	29	0	43	10
Antidepressant Medication Management - Effective Treatment for Acute Phase	67	0	50	67	100	50	45	17	18	100	90	83	71	NA	NA	33	60
Diabetes Monitoring for People Living With Diabetes and Schizophrenia	22	80	50	80	50	20	13	60	50	40	0	0	0	NA	NA	NA	NA
Diabetes Screening for People Living With Schizophrenia or Bipolar Disorder Using Antipsychotic Medications	11	29	0	71	50	57	50	14	10	71	50	0	0	43	38	100	88
Follow-Up Care for Children Prescribed ADHD Medication- Initiation Phase	67	43	50	100	100	29	36	57	45	86	70	14	29	0	22	57	100
Follow-up After Hospitalization for Mental Illness within 30 Days	44	43	63	14	38	57	82	14	36	100	91	71	57	0	0	86	60
Initiation of Alcohol and Other Drug Dependence Treatment	100	29	88	57	100	14	27	0	18	71	100	71	86	29	70	100	100
C. Diabetes Mellitus (Average for Subgroup)	**0**	**86**	**63**	**71**	**13**	**57**	**18**	**29**	**0**	**14**	**0**	**0**	**0**	**43**	**0**	**100**	**90**
Comprehensive Diabetes Care HbA1c Testing	0	86	63	71	13	57	18	29	0	14	0	0	0	43	0	100	90

Source: NYS Department of Health, "Hospital Inpatient Prevention Quality Indicators (PQI) by Patient County: Beginning 2009 through 2012", 2014.

Variations and/or extremes in rates are difficult to interpret for units of analysis with low numbers of enrollees. For this reason, all rates based on denominators of less than 30 enrollees are suppressed

The region ranked strongly overall for HIV/AIDs care. Only Wyoming County had negative rankings for a set of HIV-related indicators: engagement in care, viral load monitoring and syphilis screening. Other hot spots in the group included relatively low rankings for Allegany, Genesee and Orleans counties for cervical cancer screening and Cattaraugus and Genesee counties for chlamydia screening in young women.

For perinatal care based on the single metric of well visits in the first 15 months of life the region ranked just below the middle against other upstate regions. But at the county level the performance might seem a bit weaker. Only Genesee and Allegany counties scored at or above the 50th percentile when compared with their Eberts Code cousins.

The region ranked low on metrics for screening for breast cancer and screening for colorectal cancer. While Erie and Niagara counties ranked relatively high in the region for colorectal cancer screening, they did poorly when compared with similar upstate metropolitan counties. Meanwhile, Orleans, Allegany, Genesee and Wyoming counties had very low rankings on the same metric.

A similar pattern was also evident for breast cancer screening. Erie and Niagara were leaders within the region but lagged behind kindred counties and Wyoming, Orleans, Genesee and Allegany fared even poorer.

Index Component 4 -- Clinical Outcomes-- HIV + Perinatal

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
E. HIV/AIDS (Average for Subgroup)	**76**	**60**	**57**	**50**	**40**	**82**	**80**	**39**	**25**	**29**	**36**	**60**	**56**	**29**	**50**	**11**	**16**
Comprehensive Care for People Living with HIV or AIDS - Engagement in Care	44	40	13	20	0	80	60	60	20	NA	NA	80	50	NA	NA	0	0
Comprehensive Care for People Living with HIV or AIDS - Viral Load Monitoring	100	25	86	50	100	75	100	NA	NA	NA	NA	100	100	NA	NA	0	0
Comprehensive Care for People Living with HIV or AIDS - Syphilis Screening	89	50	75	25	38	100	67	NA	NA	NA	NA	75	100	NA	NA	0	0
Cervical Cancer Screening	56	86	38	71	25	86	73	57	55	14	27	29	29	0	20	29	50
Chlamydia Screening Among Young Women	89	100	75	86	38	71	100	0	0	43	45	14	0	57	80	29	30
F. Perinatal Care (Average for Subgroup)	**44**	**57**	**38**	**14**	**25**	**0**	**36**	**14**	**45**	**86**	**50**	**43**	**57**	**71**	**10**	**86**	**30**
Well-Child Visits in the First 15 Months of Life	44	57	38	14	25	0	36	14	45	86	50	43	57	71	10	86	30
G. Other (Average for Subgroup)	**17**	**64**	**0**	**71**	**13**	**100**	**100**	**57**	**36**	**14**	**0**	**36**	**14**	**7**	**5**	**21**	**5**
Breast Cancer Screening Among Women	11	71	0	71	0	100	100	43	9	14	0	43	14	14	10	0	0
Colorectal Cancer Screening	22	57	0	71	25	100	100	71	64	14	0	29	14	0	0	43	10
Clinical Metrics (Average of all Subgroups)	**41**	**59**	**50**	**48**	**35**	**45**	**44**	**29**	**27**	**51**	**37**	**38**	**39**	**41**	**21**	**67**	**51**

Source: NYS Department of Health, 2014.

Variations and/or extremes in rates are difficult to interpret for units of analysis with low numbers of enrollees. For this reason, all rates based on denominators of less than 30 enrollees are suppressed.

4c. Population Health

Index 5 – Population Health (Index Score - 37)

Index 5 comprised six subdomains with a total of 68 metrics focusing on prevention of chronic disease; improving health status and reducing health disparities; promoting a healthy and safe environment; preventing HIV, sexually transmitted and other preventable diseases; promoting mental health and preventing substance abuse; and promoting healthy women, infants and children.

Health status and health disparities

The region's best rankings were for the group "improve health status and reduce health disparities" with an overall score of 44. One of the notable exceptions to generally good scores on individual metrics was for the percentage of premature deaths (before age 65) for which WNY ranked behind most other Upstate regions. Erie, Allegany and Wyoming counties had better scores for this metric but the others lagged behind.

The region also scored poorly on preventable hospitalizations for non-Hispanic blacks above age 18 – with much of the issue concentrated in Erie County. Other hot spots included Orleans and Niagara counties for preventable hospitalizations per 10,000 people over age 18. That age-adjusted rate ranked the two counties at the bottom in the region and last among their Eberts cohort.

Cattaraugus County, meanwhile, ranked dead last for the percentage of adults age 18-64 with health insurance with Orleans and Allegany counties not doing much better.

Index Component 5 – Domain 4 – Population Health – Health Status and Disparities

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Improve Health Status and Reduce Health Disparities (Average for Subgroup)	**44**	**47**	**56**	**65**	**55**	**58**	**45**	**52**	**48**	**53**	**33**	**24**	**49**	**37**	**36**	**66**	**61**
Percentage of premature deaths (before age 65 years), 2012	17	72	63	57	38	43	46	43	46	100	55	0	43	14	27	86	73
Ratio of Black non-Hispanics to White non-Hispanics for percentage of premature death (before age 65 years), 2010-2012	67	0	63	100	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Hispanics to White non-Hispanics for percentage of premature death (before age 65 years), 2010-2012	66	0	63	100	100	50	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Age-adjusted preventable hospitalization rate per 10,000 - Aged 18+ years, 2012	83	100	88	14	0	86	91	29	64	43	36	72	57	0	0	72	36
Ratio of Black non-Hispanics to White non-Hispanics for age-adjusted rate of preventable hospitalizations Aged 18 + years, 2010-2012	0	0	13	29	50	86	30	86	30	43	18	14	0	57	45	100	89
Ratio of Hispanics to White non-Hispanics for age-adjusted rate of preventable hospitalizations - Aged 18 + years, 2010-2012	33	60	13	80	25	40	0	100	50	20	0	0	25	NA	NA	NA	NA
Percentage of adults with health insurance - Aged 18-64 years, 2011	NA	100	88	71	50	86	73	0	0	29	0	57	100	14	9	43	73
Age-adjusted percentage of adults who have a regular health care provider - Aged 18+ years, 2008-2009	NA	43	63	71	88	14	73	57	100	86	91	0	71	100	100	29	36
Population Health (Average of all Subgroups)	**37**	**46**	**43**	**45**	**42**	**54**	**44**	**47**	**43**	**55**	**45**	**56**	**59**	**43**	**36**	**63**	**58**

Source: NYS Department of Health, 2014.

Improve Health Status and Reduce Health Disparities

	New York State Rate	Upstate NY Rate (non-NYC)	WNY		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
			Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate
Premature deaths % (before age 65), 2012	24%	22%	3,521	23%	2,089	22%	509	23%	320	23%	179	23%	130	22	113	24	100	24	81	22
Black premature death ratio to White, 2010-12	2.0	2.1	NA	2.1	NA	2.2	NA	2.0	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s
Hispanic premature death ratio to White, 2010-12	2.0	2.3	NA	2.4	NA	2.6	NA	1.2	NA	2.5	NA	s	NA	s	NA	s	NA	s	NA	s
Age-adjusted preventable hospitalization rate per 10K	136	121	16,593	116	8,775	104	3,087	151	1,370	108	943	130	740	128	533	125	699	181	446	125
Black preventable hospitalizations ratio to White, 2010-12	2.1	1.9	NA	2.1	NA	2.5	NA	2.2	NA	1.4	NA	1.4	NA	1.8	NA	2.4	NA	1.5	NA	0.6
Hispanic preventable hospitalizations ratio to White, 2010-12	1.5	1.7	NA	1.6	NA	1.4	NA	1.1	NA	1.7	NA	0.7	NA	2.4	NA	3.2	NA	s	NA	s
Percent adults with health insurance	84	NA	NA	NA	NA	88%	NA	87	NA	88	NA	84	NA	86	NA	87	NA	86	NA	86
Percent adults w/ regular health care provider.	83%	87%	NA	NA	NA	88%	NA	91%	NA	86%	NA	90%	NA	93%	NA	84%	NA	95%	NA	87%

Healthy women, infants and children

Western New York also had a relatively high ranking for the group "promote the health of women, infants and children" – a score of 43. There were, however, some trouble spots among the 25 separate variables that made up that average score.

The region ranked last against other Upstate regions for the percentage of pre-term births, the ratio of pre-term Medicaid births to non-Medicaid pre-term births and the maternal mortality rate per 100,000 births. Niagara County ranked at bottom and Cattaraugus County also did poorly on the percentage or pre-term births. Erie County ranked near the bottom for the ratio of pre-term Medicaid births to non-Medicaid pre-term births. Cattaraugus and Erie counties did poorly on measures of maternal mortality rate.

Breast-feeding was another problem area. The region also scored relatively low for the proportion of non-Hispanic black mothers who exclusively breast-fed their babies in the hospital with the lowest county score in Niagara. Meanwhile, Chautauqua County ranked at the bottom for the proportion of Hispanic mothers who exclusively breast-fed babies in the hospital. Orleans County ranked last in the region and last in its Eberts cohort for the proportion of Medicaid mothers who exclusively breast-fed their babies.

Some of the outlying counties in the region also performed poorly in providing the recommended number of well child visits. Genesee and Orleans had low scores for the percentage of children who had the recommended number of well child visits to age 15 months and among those in government sponsored insurance programs. Genesee

Index Component 5 – Domain 4 – Population Health – Women Infants and Children

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Promote Healthy Women, Infants, and Children (Average for Subgroup)	**43**	**53**	**49**	**50**	**49**	**51**	**38**	**34**	**31**	**58**	**49**	**45**	**49**	**49**	**35**	**63**	**63**
Percentage of preterm birth, 2012	0	57	25	0	0	43	18	29	9	72	46	29	17	100	64	100	64
Ratio of Black non-Hispanics to White non-Hispanics for percentage of preterm birth, 2010-2012	50	100	50	0	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Hispanics to White non-Hispanics for percentage of preterm birth, 2010-2012	67	100	63	50	50	0	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Medicaid births to non-Medicaid births for percentage of preterm birth, 2010-2012	0	14	0	29	25	57	9	100	91	14	18	86	33	72	55	43	46
Percentage of infants exclusively breastfed in the hospital, 2012	33	14	25	0	13	57	18	43	9	71	64	100	83	29	18	86	64
Ratio of Black non-Hispanics to White non-Hispanics for percentage of infants exclusively breastfed in the hospital, 2010-2012	17	100	50	0	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Hispanics to White non-Hispanics for percentage of infants exclusively breastfed in the hospital, 2010-2012	33	50	50	100	75	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Medicaid births to non-Medicaid births for percentage of infants exclusively breastfed in the hospital, 2010-2012	67	57	63	29	38	0	9	100	100	86	91	43	17	0	0	57	64
Maternal mortality rate per 100,000 births, 2010-2012	0	14	13	43	63	29	27	0	18	100	100	100	100	100	100	100	100
Percentage of children who have had the recommended number of well child visits in govt. sponsored insurance programs, 2012	83	86	75	100	88	71	55	29	45	57	45	0	29	14	27	43	45
Percentage of children aged 0-15 months who have had the recommended number of well child visits in govt. sponsored insurance progs. 2012	33	43	63	29	38	71	71	57	29	86	90	0	33	14	0	100	100
Percentage of children aged 3-6 years who have had the recommended number of well child visits in govt. sponsored insurance progs. 2012	100	100	88	86	63	71	55	57	36	29	36	0	43	43	45	14	27

Source: NYS Department of Health, 2014.

Promote Healthy Women, Infants, and Children

	New York State Rate	Upstate NY Rate (non-NYC)	WNY		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
			Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate
Percentage of preterm birth, 2012	11	11	1,771	12	1,067	12	284	14	156	12	94	12	55	11	53	12	31	9	31	9
Black preterm birth ratio to White, 2010-12	1.6	1.6	NA	1.5	NA	1.6	NA	1.7	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s
Hispanic preterm birth ratio to White, 2010-12	1.3	1.2	NA	1.2	NA	1.2	NA	1.3	NA	1.3	NA	s	NA	s	NA	s	NA	s	NA	s
Preterm births, Medicaid to non-Medicaid ratio, 2010-12	1.1	1.2	NA	1.3	NA	1.4	NA	1.4	NA	1.2	NA	0.9	NA	1.4	NA	1.1	NA	1.2	NA	1.2
Percentage infants breastfed only in hospital, 2012	41	49	7,590	51	4,398	49	940	48	733	55	461	54	363	64	284	65	189	51	222	65
Black breastfed infants ratio to White, 2010-12	0.5	0.6	NA	0.5	NA	0.5	NA	0.5	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s
Hispanic breastfed infants ratio to White, 2010-12	0.6	0.6	NA	0.7	NA	0.7	NA	0.8	NA	0.5	NA	s	NA	s	NA	s	NA	s	NA	s
Breastfed infants, Medicaid to non-Medicaid ratio, 2010-12	0.6	0.7	NA	0.8	NA	0.8	NA	0.7	NA	0.6	NA	1.0	NA	0.8	NA	0.7	NA	0.6	NA	0.8
Maternal mortality rate per 100K births, 2010-12	22	21	13	27	10	34	1	15	1	24	1	36	0	0	0	0	0	0	0	0
Percent children recommended well visits, 2012	69	68	46,458	70	29,719	71	6,309	71	4,672	69	2,062	66	1,286	67	920	56	1,205	62	285	67
Percent children 0-15 mos. recommended well visits, 2012	83	86	4,253	87	2,604	86	581	85	535	93	214	90	112	95	92	83	106	84	9	100
Percent children 3-6 yrs. recommended well visits, 2012	82	79	18,383	81	11,621	82	2,496	81	1,848	80	844	79	531	77	405	71	539	78	99	76

and Wyoming counties also did relatively poorly for well child visits for children aged 3 to 6, while Genesee and Orleans ranked poorly for the percentage of children age 12 to 21 in government sponsored insurance programs who had the recommended number of well visits.

Cattaraugus and Allegany had relatively low rates for the percentage of children under 10 with any kind of health insurance while Cattaraugus also ranked at bottom for the percentage of women aged 18 to 64 who had any kind of health insurance at all.

The region did poorly on measures of teen-age pregnancy. It ranked last among Upstate regions for adolescent pregnancy per 1,000 girls age 15-17 with Niagara, Orleans and Cattaraugus with especially low rankings. It also rated poorly for the proportion of teen-age pregnancies to black and Hispanic mothers with especially low rankings for Erie County. The proportion of unintended pregnancies was also relatively high regionally with especially poor numbers in Cattaraugus County.

Index Component – Domain 4 – Population Health – Women Infants and Children (part 2)

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Percentage of children aged 12-21 years who have had the recommended number of well child visits in govt. sponsored insurance progs. 2012	83	86	75	100	88	57	55	29	45	43	55	0	0	14	9	71	73
Percentage of children with any kind of health insurance - Aged under 19 years, 2011	NA	100	88	86	63	71	45	0	9	29	0	14	100	29	45	57	55
Percentage of third-grade children with evidence of untreated tooth decay, 2009-2011	NA	57	50	86	63	0	9	43	46	14	30	29	67	86	45	100	78
Ratio of low-income children to non-low income children for percentage of untreated tooth decay, 2009-2011	NA	43	72	100	100	29	50	14	20	72	55	86	100	57	46	0	9
Adolescent pregnancy rate per 1,000 females - Aged 15-17 years, 2012	0	29	50	0	25	43	27	14	9	72	46	86	29	57	9	100	100
Ratio of Black non-Hispanics to White non-Hispanics for adolescent pregnancy rate - Aged 15-17 years, 2010-2012	33	0	0	50	38	100	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Hispanics to White non-Hispanics for adolescent pregnancy rate - Aged 15-17 years, 2010-2012	33	0	13	33	25	100	20	NA	NA	NA	NA	NA	NA	67	0	NA	NA
Percentage of unintended pregnancy among live births, 2012	17	86	63	43	25	14	27	0	0	100	64	57	33	29	9	72	46
Ratio of Black non-Hispanics to White non-Hispanics for percentage of unintended pregnancy among live births, 2012	50	0	38	100	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Hispanics to White non-Hispanics for percentage of unintended pregnancy among live births, 2012	67	0	38	50	75	100	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of Medicaid births to non-Medicaid births for percentage of unintended pregnancy among live births, 2012	100	83	100	33	63	50	36	67	55	NA	NA	17	0	100	78	0	33
Percentage of women with health coverage - Aged 18-64 years, 2011	NA	100	88	71	38	86	91	0	0	57	27	29	100	14	36	43	82
Percentage of live births that occur within 24 months of a previous pregnancy, 2012	33	14	0	43	50	71	64	0	0	29	18	86	50	57	45	86	91

Source: NYS Department of Health, 2014.

Promote Healthy Women, Infants, and Children (part 2)

	New York State Rate	Upstate NY Rate (non-NYC)	WNY		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
			Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate
Percent children 12-21 yrs. recommended well visits	60	59	23,822	61	15,494	62	3,232	63	2,289	59	1,004	55	643	58	423	44	560	49	177	62
Percent children w/ any health insurance under 19 yrs. 2011	96	NA	NA	NA	NA	96	NA	96	NA	95	NA	95	NA	95	NA	95	NA	95	NA	95
Percent third-grade children w/ untreated tooth decay	NA	24	NA	NA	NA	23	NA	21	NA	33	NA	24	NA	27	NA	25	NA	21	NA	16
Low-income children untreated tooth decay, ratio to non-low-income	NA	2.5	NA	NA	NA	1.9	NA	0.7	NA	2.0	NA	2.8	NA	1.4	NA	1.2	NA	1.7	NA	2.9
Adolescent pregnancy rate per 1K females 15-17 yrs.	23	15	605	21	383	22	91	23	49	20	34	22	19	15	10	11	16	20	3	4
Black adolescent pregnancy rate, ratio to White, 2010-12.	5.4	4.0	NA	4.8	NA	6.0	NA	5.1	NA	0.8	NA	s	NA	s	NA	s	NA	s	NA	s
Hispanic adolescent pregnancy rate, ratio to White, 2010-12.	4.5	2.9	NA	3.7	NA	4.5	NA	4.4	NA	2.2	NA	s	NA	s	NA	s	NA	3.0	NA	s
Percent unintended pregnancy/ live births	26	28	4,272	33	2,559	31	657	35	320	39	310	43	87	30	137	34	102	36	100	33
Black unintended pregnancy ratio to White, 2012	2.2	2.1	NA	2.0	NA	2.3	NA	1.9	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s
Hispanic unintended pregnancy ratio to White	1.7	1.4	NA	1.6	NA	1.8	NA	1.6	NA	1.4	NA	s	NA	s	NA	s	NA	s	NA	s
Medicaid unintended pregnancy ratio to non-Medicaid, 2012	1.7	1.9	NA	1.7	NA	1.6	NA	1.8	NA	1.7	NA	1.7	NA	s	NA	2.3	NA	1.4	NA	2.3
Percent women with health coverage 18-64 yrs., 2011	86	NA	NA	NA	NA	90	NA	89	NA	90	NA	86	NA	89	NA	88	NA	88	NA	88
Percentage births within 24 mos. of previous pregnancy	19	21	3,471	21	2,027	20	469	22	356	26	181	20	125	21	123	26	92	23	98	26

Safe and healthy environment

Western New York had a somewhat lower score – 38 – for indicators toward promoting a healthy and safe environment. It ranked last among Upstate regions for the rate of emergency department visits due to falls for children aged 1 to 4 with particularly low ranks in Genesee and Chautauqua counties. Genesee County also ranked poorly for the rate of hospitalizations due to falls for people over age 65.

The region also ranked last for the rate of occupational injuries treated in emergency departments for people age 15 to 19. Orleans County ranked at bottom and Wyoming, Allegany and Niagara counties also had poor returns on that measure. WNY also did poorly on the proportion of assault related hospitalizations for non-Hispanic blacks with Allegany and Erie counties with particularly low rankings.

On measures of community sustainability, Western New York also performed poorly. The region ranked last for the percentage of population that lives in a jurisdiction that has adopted the Climate Smart Communities pledge and for the percentage of workers who use alternate modes of transportation or work from home.

A couple of other hot spots appeared. Both Allegany and Cattaraugus counties had very low rankings for the percentage of population with low income and low access to a supermarket or large grocery store. Niagara County did poorly in relation to the Healthy Neighborhood Program aimed at reducing asthma triggers in residences.

Index Component 5 – Domain 4 – Population Health – Healthy and Safe Environment

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. **Green is a good score.** **Red is a poor one.**	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Promote a Healthy and Safe Environment (Average for Subgroup)	**38**	**50**	**48**	**60**	**48**	**50**	**34**	**60**	**52**	**41**	**35**	**59**	**60**	**41**	**39**	**41**	**40**
Rate of hospitalizations due to falls per 10,000 - Aged 65+ years, 2012	50	0	38	72	100	100	82	43	36	29	46	86	57	57	64	14	0
Rate of emergency department visits due to falls per 10,000 - Aged 1-4 years, 2012	0	100	63	86	13	14	27	29	46	72	36	0	14	57	36	43	18
Assault-related hospitalization rate per 10,000, 2010-2012	33	0	50	14	88	72	55	72	55	86	64	100	60	29	22	43	33
Ratio of Black non-Hispanics to White non-Hispanics for assault-related hospitalization rate, 2010-2012	17	25	0	75	100	75	20	NA	NA	0	0	100	100	NA	NA	NA	NA
Ratio of Hispanics to White non-Hispanics for assault-related hospitalization rate, 2010-2012	100	0	100	NA	NA	NA	NA	100	100	100	100	100	100	NA	NA	100	100
Ratio of low income ZIP codes to non-low income ZIP codes for assault-related hospitalization rate, 2010-2012	20	0	29	100	57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rate of occupational injuries treated in ED per 10,000 adolescents - Aged 15-19 years, 2012	0	86	25	43	0	57	30	100	90	29	0	72	67	0	0	14	18
Percentage of population that lives in a jurisdiction that adopted the Climate Smart Communities pledge, 2013	0	100	38	86	25	0	0	71	45	0	0	0	0	0	0	0	0
Percentage of employed civilian workers age 16 and over who use alternate modes of transportation or work from home, 2008-2012	0	43	38	14	0	71	27	86	45	29	0	100	86	0	0	57	45
Percentage of population with low-income and low access to a supermarket or large grocery store, 2010	67	86	88	71	38	43	18	14	0	0	0	29	43	100	91	57	82
Percentage of homes in Healthy Neighborhood Program that have fewer asthma triggers during the home revisits, 2009-2012	75	100	50	0	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Percentage of residents served by community water systems with optimally fluoridated water, 2013	100	57	63	100	88	14	45	29	55	71	100	0	71	86	100	43	64

Source: NYS Department of Health, 2014.

Promote a Healthy and Safe Environment

	New York State Rate	Upstate NY Rate (non-NYC)	WNY		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
			Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate
Hospitalizations due to falls per 10K 65+	193	202	4,932	198	3,191	216	600	169	358	155	230	180	188	192	123	159	113	174	129	212
ED visits due to falls per 10K Age 1-4, 2012	504	495	3,419	516	1,781	454	496	537	405	693	239	622	146	552	159	775	97	555	96	577
Assault-related hospitalizations per 10K, 2010-12	4	2	1,217	3	859	3	179	3	60	2	36	2	25	1	14	1	23	2	21	2
Black assault-related hospitalizations, ratio to White	7.4	7.3	NA	9.8	NA	10.9	NA	6.1	NA	6.1	NA	s	NA	16.6	NA	0.0	NA	s	NA	s
Hispanic assault-related hospitalizations, ratio to White, 2010-12	3.1	2.6	NA	1.3	NA	1.3	NA	s	NA	s	NA	0.0	NA	0.0	NA	0.0	NA	s	NA	0.0
Low income ZIP assault-related hospitalizations ratio to high income	3.2	3.1	NA	5.5	NA	7.3	NA	5.3	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s
ED-treated occupational injuries per 10K adolescents, 2012	28	39	652	61	315	50	111	80	69	69	20	35	46	113	25	52	38	128	28	114
Percent population in Climate Smart Communities, 2013	27	47	181,085	12	147,023	16	33,355	15	0	0	707	1	0	0	0	0	0	0	0	0
Percent employed 16+ use alt transport mode or work at home.	45	23	124,859	18	76,314	18	14,329	15	11,027	19	7,159	21	4,615	16	5,526	27	2,551	14	3,338	18
Percent pop.low-income and low-access to food, 2010	2	4	79,662	5	54,115	6	11,413	5	5,594	4	1,581	2	947	2	1,401	3	2,572	6	2,039	5
Percent homes fewer asthma triggers at home revisits	21	21	117	24	100	28	17	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Percent residents with community/ fluoridated water, 2013	71	47	1,264,625	90	860,253	96	223,884	100	54,083	49	27,909	60	36,805	97	6,650	22	38,556	98	16,485	73

Chronic disease

Western New York ranked even lower on measures of preventing chronic disease – a score of 36. Problem areas included diabetes, heart attacks, asthma and obesity, all of which were issues prominently raised in the community engagement elements of the assessment process.

The region ranked dead last for the rate of hospitalizations for short-term complications of diabetes for adults with Niagara and Orleans counties both performing poorly on that measure. WNY ranked second to last among Upstate counties for hospitalizations for short-term complications of diabetes for adolescents with the poorest rates in Genesee and Cattaraugus counties.

Niagara and Orleans counties, again, drove a negative regional ranking – second from the bottom – for the age-adjusted rate of hospitalizations due to heart attacks.

The region had relatively poor rankings for two measures of asthma – emergency department visits per 10,000 people and ED visits per 10,000 for children age 1 to 4. Much of that problem could be pegged to experience in Erie County which ranked last in the region and third from bottom within its Eberts Code cohort.

Other hot spots included the percentage of adults who are obese in Wyoming and Cattaraugus counties; the percentage of children and adolescents who are obese in Niagara, Orleans and Allegany counties; the percentage of adults who smoke with worst scores in Orleans, Niagara and Erie counties; and the percentage of adults 50 to 75 years old who receive colorectal cancer screening where Niagara County ranked last in the region and last among similar counties.

Index Component 5 – Domain 4 – Population Health – Prevent Chronic Disease

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Prevent Chronic Diseases (Average for Subgroup)	**36**	**43**	**36**	**33**	**25**	**59**	**48**	**37**	**31**	**59**	**50**	**57**	**50**	**41**	**31**	**75**	**60**
Percentage of adults who are obese, 2008-2009	NA	57	13	86	38	100	73	14	18	72	46	29	29	43	55	0	18
Percentage of children and adolescents who are obese, 2010-2012	67	86	88	29	0	57	55	43	36	14	18	100	86	0	18	72	91
Percentage of cigarette smoking among adults, 2008-2009	NA	29	13	14	0	43	9	72	36	100	73	57	29	0	0	86	64
Percentage of adults who receive a colorectal cancer screening based on the most recent guidelines - Aged 50-75 years, 2008-2009	83	43	88	0	0	57	64	43	46	14	46	100	72	86	82	72	55
Asthma emergency department visit rate per 10,000, 2012	33	0	25	43	88	29	27	57	55	72	73	14	43	100	73	86	64
Asthma emergency department visit rate per 10,000 - Aged 0-4 years, 2012	33	0	25	14	63	57	27	29	9	43	73	86	86	72	27	100	100
Age-adjusted heart attack hospitalization rate per 10,000, 2012	17	72	38	14	0	100	100	43	27	29	27	57	43	0	0	86	46
Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 6-17 years, 2010-2012	17	57	25	100	38	29	30	14	20	100	27	0	0	43	20	72	40
Rate of hospitalizations for short-term complications of diabetes per 10,000 - Aged 18+ years, 2010-2012	0	43	13	0	0	57	46	14	27	86	64	72	67	29	0	100	64
Population Health (Average of all Subgroups)	**37**	**46**	**43**	**45**	**42**	**54**	**44**	**47**	**43**	**55**	**45**	**56**	**59**	**43**	**36**	**63**	**58**

Source: NYS Department of Health, 2014.

Prevent Chronic Diseases

	New York State Rate	Upstate NY Rate (non-NYC)	WNY		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
			Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate
Percent adults who are obese, 2008-2009	23	25	NA	NA	NA	29	NA	28	NA	27	NA	31	NA	28	NA	30	NA	30	NA	32
Percent children and adolescents obese, 2010-2012	NA	18	NA	18	NA	16	NA	21	NA	19	NA	19	NA	21	NA	15	NA	22	NA	18
Percent cigarette smoking adults, 2008-2009	17	19	NA	NA	NA	26	NA	26	NA	25	NA	24	NA	18	NA	25	NA	29	NA	22
Percent adults 50-75 colorectal cancer screening, 2008-2009	66	NA	NA	67	NA	67	NA	73	NA	64	NA	67	NA	68	NA	56	NA	63	NA	64
Asthma ED visits per 10k	89	51	8,010	52	5,251	57	1,053	49	672	50	349	44	178	30	264	55	122	29	121	29
Asthma ED visits per 10K 0-4 years, 2012	225	117	967	118	687	141	118	103	56	77	49	103	26	80	11	43	15	69	5	24
Age-adjusted heart attack hospitalizations per 10K, 2012	15	16	3,566	18	1,955	17	723	25	153	8	209	21	168	22	118	21	168	31	72	15
Hospitalizations short-term complications diabetes per 10K, 6-17yr	3.0	2.8	284.0	4.1	167.0	4.1	35.0	3.7	29.0	4.9	20.0	5.3	10.0	3.7	13.0	6.0	3.0	4.6	7.0	3.9
Hospitalizations short-term complications diabetes per 10K, 18+yr	6.1	5.4	2,673.0	7.3	1,585.0	7.3	485.0	9.5	203.0	6.4	142.0	7.7	73.0	5.2	66.0	5.7	74.0	7.4	45.0	4.5

Mental health and substance abuse

The region's second lowest ranking was for promoting mental health and preventing substance abuse – a score of 33. The number of metrics was smaller for this group and the statistical evidence not as strong, but the general direction of the numbers seems consistent with other data sources gathered for this assessment.

The lowest ranking for an individual metric was for the age-adjusted death rate from suicide per 100,000 people. However, this was the only measure in the group which produced a regional ranking, thus making it also the average for the whole group. Lowest county rankings for this metric were for Wyoming, Allegany and Niagara.

There were, however, several other hot spots. Scores for binge drinking were very high for Wyoming, Cattaraugus and Erie counties. And Orleans County ranked poorly for the age-adjusted rate for adults who reported poor mental health 14 or more days in the previous month.

Index Component 5 – Domain 4 – Population Health – Promote Mental Health + Prevent Substance Abuse

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Promote Mental Health and Prevention Substance Abuse (Average for Subgroup)	33	62	38	29	25	57	49	38	33	52	49	86	76	43	36	38	36
Age-adjusted percentage of adults with poor mental health for 14 or more days in the last month, 2008-2009	NA	72	88	14	63	57	64	43	46	43	46	86	72	0	9	100	100
Age-adjusted percentage of adult binge drinking during the past month, 2008-2009	NA	29	0	43	13	57	46	0	9	100	91	72	57	86	73	14	9
Age-adjusted suicide death rate per 100,000, 2010-2012	33	86	25	29	0	57	36	72	46	14	9	100	100	43	27	0	0
Population Health (Average of all Subgroups)	37	46	43	45	42	54	44	47	43	55	45	56	59	43	36	63	58

Source: NYS Department of Health, 2014.

Promote Mental Health and Prevention Substance Abuse

	New York State Rate	Upstate NY Rate (non-NYC)	WNY		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
			Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate
Age-adjusted % adults w/ poor mental health 14+ days previous mo.	10	11	NA	NA	NA	10	NA	11	NA	10	NA	11	NA	11	NA	9	NA	12	NA	7
Age-adjusted percent adult binge drinking past mo. 2008-2009	18	20	NA	NA	NA	24	NA	22	NA	21	NA	25	NA	16	NA	19	NA	17	NA	24
Age-adjusted suicide death per 100K 2010-12	8	10	549	11	292	10	93	14	52	12	28	12	28	14	13	9	17	13	26	20

HIV, STDs and other infectious diseases

Western New York's very lowest ranking – a score of 27 – was for the group "prevent HIV/ STDs, vaccine preventable diseases and health care associated infections. But the heart of the problem was HIV and other sexually transmitted diseases and the location was almost exclusively Erie County.

The region ranked last against other Upstate regions for the disparity of HIV diagnoses between white and both black and Hispanic individuals. It ranked second to last for the rate of newly diagnosed cases of HIV. On the latter measure, Orleans County had nearly as poor a ranking as Erie.

The region -- and again, with the problem concentrated mostly in Erie County -- also ranked very low for rates of gonorrhea in men and women and chlamydia in women. Niagara and Orleans also had relatively poor rankings on these measures as well but not as low as Erie County.

There were several additional hot spots -- poor county rankings in the context of better regional rankings. These included rates for primary and secondary syphilis cases -- high in Erie County; low rates of immunization for HPV in Orleans County; and low rates of immunization for influenza in Cattaraugus County.

Index Component 5 – Domain 4 – Population Health – Prevent HIV/STDs etc.

The number in each cell represents the percentile ranking of each county for the variable listed at left. The first column ranks WNY against all other regions outside of New York City. Then each county is ranked against the seven other WNY Counties and against comparable counties across the state. Green is a good score. Red is a poor one.	WNY	Erie		Niagara		Chautauqua		Cattaraugus		Allegany		Genesee		Orleans		Wyoming	
	Region Versus non-NYC Regions	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties	WNY Ranking	Comparable NYS Counties
Prevent HIV/STDs, Vaccine Preventable Diseases and Healthcare-Associated Infections (Average for Subgroup)	27	19	30	33	53	49	54	60	61	67	58	68	70	46	40	95	88
Percentage of children with 4:3:1:3:3:1:4 immunization series - Aged 19-35 months, 2012	100	57	75	14	50	71	82	86	91	43	64	29	57	0	45	100	100
Percentage of adolescent females with 3 or more doses of HPV immunization - Aged 13-17 years, 2012	50	57	50	29	25	71	55	43	36	86	73	14	71	0	18	100	82
Percentage of adults with flu immunization - Aged 65+ years, 2008-2009	NA	86	63	43	38	57	45	0	0	29	45	14	43	71	55	100	82
Newly diagnosed HIV case rate per 100,000, 2010-2012	17	0	13	43	100	29	18	86	91	57	46	72	43	14	0	100	91
Difference in rates (Black and White) of new HIV diagnoses, 2010-2012	0	0	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Difference in rates (Hispanic and White) of new HIV diagnoses, 2010-2012	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gonorrhea case rate per 100,000 women - Aged 15-44 years, 2012	0	14	25	0	13	29	27	72	73	57	27	100	100	43	27	86	100
Gonorrhea case rate per 100,000 men - Aged 15-44 years, 2012	0	0	0	14	25	29	55	57	64	72	55	86	14	43	18	100	100
Chlamydia case rate per 100,000 women - Aged 15-44 years, 2012	0	0	13	14	38	29	18	86	64	57	9	100	100	43	0	72	36
Primary and secondary syphilis case rate per 100,000 males, 2012	33	0	13	43	88	29	82	14	27	100	100	100	100	100	100	100	100
Primary and secondary syphilis case rate per 100,000 females, 2012	67	0	50	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: NYS Department of Health, 2014.

Prevent HIV/STDs, Vaccine Preventable Diseases and Healthcare-Associated Infections

	New York State Rate	Upstate NY Rate (non-NYC)	WNY		Erie		Niagara		Chautauqua		Cattaraugus		Genesee		Allegany		Orleans		Wyoming	
			Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate	Raw number	Rate
Percentage of children with 4:3:1:3:3:1:4 immunization series	NA	51	13,904	61	8,596	61	1,596	58	1,272	63	784	65	543	60	416	60	331	54	366	67
Percentage of adolescent females with 3 or more doses of HPV immunization	NA	26	14,876	30	9,171	30	1,837	29	1,366	31	715	30	613	34	377	26	314	24	483	38
Percentage of adults with flu immunization	75	76	NA	NA	NA	76	NA	75	NA	75	NA	68	NA	72	NA	71	NA	75	NA	78
Newly diagnosed HIV case rate	18	7	351	8	277	10	26	4	19	5	5	2	7	4	5	3	11	9	1	1
Difference in rates (Black and White) of new HIV diagnoses	47	24	NA	29	NA	32	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s
Difference in rates (Hispanic and White) of new HIV diagnoses	24	11	NA	19	NA	21	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s	NA	s
Gonorrhea case rate in adult females	236	193	1,180	408	922	521	205	523	28	116	8	56	9	84	0	0	7	88	1	15
Gonorrhea case rate in adult males	284	149	929	315	748	421	145	372	17	68	7	49	4	35	2	20	5	61	1	10
Chlamydia case rate in adult females	1,625	1,242	5,053	1,748	3,489	1,971	694	1,771	363	1,503	127	895	136	1,272	55	590	119	1,498	70	1,051
Primary and secondary syphilis case rate in adult males	12	4	28	4	25	6	1	1	1	2	1	3	0	0	0	0	0	0	0	0
Primary and secondary syphilis case rate in adult females	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5. Project Specific Analytics

Introduction

FTI's Center for Healthcare Economics and Policy prepared the following section to offer project by project information comparing Western New York to the rest of the state and demonstrate, for each project, that the region and its component counties lie beyond what should be considered acceptable. It is meant to supplement Section 4 by providing more specific data for each project. It pulls from many different sources including those available through the DSRIP site and NY's Department of Health and carefully describes the differences between the counties, the region, and the state.

Data Sources

SPARCS Data

Primarily, the SPARCS (Statewide Planning and Research Cooperative System) data includes information about the patient, information about the diagnoses and procedures, and information about the providers involved. It also includes many other data that could be relevant based on the topic (such as birthweights). Throughout this section, both Inpatient and Outpatient SPARCS data are included. The Inpatient data is from 2012 the Outpatient (and ED) data are from 2013).

SALIENT Dashboards

Primary Care Utilization – Salient has provided information on primary care utilization among Medicaid beneficiaries by ZIP code and county for the state. It can be broken down by age group. It contains a count of enrollees, the number of visits, the number of enrollees with visits, and it calculates a visit rate by enrollee-month. It should be noted that the number of enrollees provided is different from that used for other tables in this section.

NPI Data

The National Provider Identifier (NPI) database contains all providers with an NPI number in the nation along with their practicing address, name, and specialties. It is updated monthly. For the tables in this document, the October-2014 data were used.

CDC Mortality Data

Mortality data for cardiovascular conditions come from the Centers for Disease Control (CDC) website. Mortality can be calculated by county and by cause of death. Data are available up to 2011. For this analysis, mortality data were calculated over 2010-2011 to help average out shocks.

Medicaid Inpatient Prevention Quality Indicators for Adult Discharges by Patient County: Beginning 2011

PQI admissions are defined by the Agency for Healthcare Research and Quality (AHRQ) and are designed to highlight conditions where proper ambulatory care could possibly obviate further treatment. For example, with proper out-of-hospital care, certain conditions would be rare among diabetics. The PQI metrics focus on those types of conditions to provide information on the quality of the out-of-hospital care.

Medicaid Chronic Conditions, Inpatient Admissions and Emergency Room Visits by County: Beginning 2012

From NY DOH: This dataset contains Potentially Preventable Visit (PPV) observed, expected, and risk-adjusted rates for Medicaid beneficiaries by patient county and patient ZIP code beginning in 2011. The Potentially Preventable Visits (PPV), obtained from software created by 3M Health Information Systems, are emergency visits that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or eliminated with adequate patient monitoring and follow up. The rates were calculated using Medicaid inpatient and outpatient data for the numerator and Medicaid enrollment in the county for the denominator. The observed, expected and risk adjusted rates for PPV are presented by resident county (including a statewide total).

Medicaid Potentially Preventable Emergency Visits (PPV) by Patient County: Beginning 2011

From NY DOH: This dataset contains Potentially Preventable Visit (PPV) observed, expected, and risk-adjusted rates for Medicaid beneficiaries by patient county and patient ZIP code beginning in 2011. The Potentially Preventable Visits (PPV), obtained from software created by 3M Health Information Systems, are emergency visits that may result from a lack of adequate access to care or ambulatory care coordination. These ambulatory sensitive conditions could be reduced or eliminated with adequate patient monitoring and follow up. The rates were calculated using Medicaid inpatient and outpatient data for the numerator and Medicaid enrollment in the ZIP code for the denominator. The observed, expected and risk adjusted rates for PPV are presented by resident ZIP code (including a statewide total).

New York State Prevention Agenda

From NY DOH: The Prevention Agenda is a blueprint for state and local organizations to improve the health of New Yorkers in five priority areas and to reduce health disparities for racial, ethnic, disabled, and other socioeconomic groups who experience them. Tracking indicators were developed to assess the current population's health status and to monitor how the overarching goal and five Prevention Agenda priority area objectives are being met. The original table includes baseline data and the Prevention Agenda 2017 objectives for numerous indicators that are organized under the overarching goal and the five major priority areas.

5a. Create Integrated Delivery Systems that Are Focused on Evidence-Based Medicine/Population Health Management (2.a.i)

Summary

Using data sources available through the DOH's websites supplemented with internal data, outlined below is the state of the health care delivery system in Western New York. The analysis focuses on metrics that provide an overall sense of the health care system such as preventable readmission rates and primary care utilization. The information below shows WNY compares unfavorably to New York State in a variety of aspects. The analysis indicates the extent of work that needs to be done to address these challenges in the area.

Project Description

The health care system in the US and New York is characterized by its fragmentation — different categories of providers interact with each other along with a multitude of payers including government-run, non-profit, and for-profit. With so many entities participating, many times the patient does not receive the care he or she should because of mis-coordination or no coordination at all. The integrated delivery system (IDS) is being explored throughout the country in an effort to put the patient back at the center of treatment and reconfigure an infrastructure where all of the different participants work together, focus on their piece, and disseminate important information to ensure the patient receives the medical attention s/he requires.

This project intends to begin building the relationships between the system's components such as primary care, post-acute care, long term care, behavioral health, and acute care to name a few. After they have formed this relationship, they will also be able to look at the health of the community as a whole and develop efforts to address the most significant issues.

Rationale

The tables and figures below present some information relevant to an integrated delivery system, specifically hospital readmissions and primary care utilization. Data are compared by county in Western New York, the Western New York region, and the state.

The information available is used to highlight the evidence that WNY's data indicate substantially poorer performance than those for New York State or Western New York. These tables and figures will support the inclusion of the IDS Project in the DSRIP Workplan.

The data sources used in this section include those designated on the NY DSRIP website as critical healthcare data; statewide discharges from NY State from the SPARCS dataset. Primarily, it includes information about the patient, information about the diagnoses and procedures, and the providers involved. It also includes many other data that could be relevant based on the topic (such as birthweights). The analyses rely on 2012 Medicaid Utilization data from the Health Data NY website, Primary Care Physician Utilization data provided by Salient on the DSRIP dashboards (Dashboard 8), the Medicaid Chronic Condition data provided on the Health Data NY website.

Table 1 breaks down PQI hospitalizations by PQI Category and county for the counties in Western New York. Not surprisingly Erie County has the highest number of PQI hospitalizations for the region, followed by Niagara. COPD has the highest number of hospitalizations, followed by Heart Failure and Bacterial Pneumonia. This suggests that CVD issues are important in the region, while diabetes occurring at places four and five also indicate the prevalence of that chronic condition. These both will be discussed in the pertinent projects later

Table 1 - County Level Detail WNY Medicaid Preventable Hospitalizations by PQI Category and County (2012)

PQI Name	Allegany	Cattaraugus	Chautauqua	Erie	Genesee	Niagara	Orleans	Wyoming	Total
Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	20	57	70	460	29	126	39	27	828
Heart Failure	19	21	71	325	13	105	21	8	583
Bacterial Pneumonia	24	59	43	273	13	101	28	23	564
Diabetes Short-term Complications	7	13	46	306	9	65	8	10	464
Diabetes Long-term Complications	7	12	38	208	9	63	7	7	351
Urinary Tract Infection	9	22	28	152	6	86	5	10	318
Dehydration	5	13	22	143	9	46	6	2	246
Hypertension	0	0	3	87	0	13	4	0	107
Asthma in Younger Adults	0	3	11	59	1	16	2	1	93
Uncontrolled Diabetes	1	3	9	41	0	17	1	1	73
Angina Without Procedure	0	2	1	27	8	20	4	3	65
Lower-Extremity Amputation among Patients with Diabetes	2	1	3	41	3	4	1	1	56
Grand Total	**94**	**206**	**345**	**2,122**	**100**	**662**	**126**	**93**	**3,748**

Source: NY Department of Health Prevention Quality Indicators by County

Table 2 - County Level Detail Medicaid Prevention Quality Indicator (Overall Composite 2012)

County/ Region	PQI Hospitalizations	Observed Rate (per 10,000 Ben.)	Risk-Adjusted Rate (per 10,000)
Allegany	93	1,205	1,407
Cattaraugus	206	1,490	1,701
Chautauqua	344	1,374	1,588
Erie	2,107	1,530	1,506
Genesee	100	1,368	1,551
Niagara	660	2,047	2,240
Orleans	126	1,928	2,289
Wyoming	93	1,978	2,259
WNY	**3,729**	**1,586**	**1,651**
NY State	**69,084**	**1,784**	**1,784**

Source: NY Department of Health Prevention Quality Indicators by County

Table 3 - County Level Detail Medicaid Potentially Preventable ED Visits (2012)

County/ Region	Medicaid PPV Events	Observed Rate (per 10,000 Ben.)	Risk-Adjusted Rate (per 10,000)
Allegany	5,446	4,675	4,835
Cattaraugus	10,090	4,793	4,949
Chautauqua	20,160	5,267	5,261
Erie	74,912	3,532	3,339
Genesee	5,041	4,544	4,585
Niagara	18,017	3,692	3,548
Orleans	4,162	4,110	4,116
Wyoming	2,385	3,313	3,473
WNY	**140,213**	**3,892**	**3,759**
NY State	**2,111,519**	**3,608**	**3,608**

Source: NY Department of Health ED PPV by County

Table 4 - County Level Detail Medicaid Primary Care Utilization (2013)

County/ Region	Beneficiaries	PCP Visits	Beneficiaries w/ PCP Visits	PCP Visit Rate	% with PCP Visit
Allegany	12,896	30,186	7,576	237.99	58.7%
Cattaraugus	21,862	52,627	13,057	246.16	59.7%
Chautauqua	41,477	102,723	25,338	244.93	61.1%
Erie	230,555	516,329	140,155	219.08	60.8%
Genesee	12,122	26,161	6,579	221.87	54.3%
Niagara	54,016	120,699	31,249	222.51	57.9%
Orleans	11,481	33,798	6,942	307.62	60.5%
Wyoming	7,785	17,116	4,487	228.68	57.6%
WNY	**387,539**	**899,430**	**233,900**	**227.01**	**60.4%**
NY State	**6,252,720**	**19,426,166**	**4,013,332**	**314.62**	**64.2%**

Source: Salient PCP Visit Dashboard

Table 2 shows the count and rate of PQI admissions as a measure of preventable admissions. PQI admissions are defined by AHRQ and are designed to highlight conditions where proper ambulatory care could possibly obviate further treatment. For example, with proper out-of-hospital care, certain conditions would be rare among diabetics. The PQI metrics focus on those types of conditions to provide information on the quality of out-of-hospital care.

There are 16 PQI metrics and several aggregated measures. In Table 2, the number of Medicaid PQI Hospitalizations (patients with one of the conditions of interest) is the first column. The second column calculates the rate of PQI hospitalizations for the county by dividing by the number of adult Medicaid beneficiaries. The final column risk-adjusts the rate which reveals what the rate would be in the county, if the demographics matched those of NY State. WNY has an 11 percent lower observed rate of these admissions than NY State. Niagara and Wyoming counties have the highest observed rates in WNY, which are respectively 15 and 11 percent higher than the state average of 1,784. The observed rate in Allegany County is 32 percent lower than the state average. While WNY's rate is 8 percent lower than the State average, this average is largely driven by Erie County, and Niagara, Orleans, and Wyoming would benefit most with regard to PQI from steps to better coordinate care.

Table 3 shows counts and rates of preventable ED visits. WNY has an eight percent higher observed rate of ED visits compared to NY State, indicating a high rate of utilization and that the area's Medicaid patients are using the ED more than necessary. The table presents potentially preventable ED visits, and then also observed and risk-adjusted rates per 10,000 Medicaid Beneficiaries.

Higher levels of ED preventable visits rates and counts are due to many factors, which are discussed more in the next section, but an important reason could be access to primary care or low Primary Care utilization. This project is designed to address these issues. Six out of the 8 counties have higher observed and risk-adjusted rates of preventable ED visits per 10,000 beneficiaries than the State average, and WNY as a whole exceeds the State average. Chautauqua and Cattaraugus counties have the highest observed rates of ED utilization in WNY, 46 and 33 percent higher than the NY State rate. Wyoming County has the lowest observed rate in WNY of 3,313 ED visits, eight percent lower than the state average.

Table 4 presents information on primary care utilization for the counties in WNY and NY State, including beneficiary counts, PCP visit counts, and the PCP visit rate. WNY has a 28 percent lower PCP visit rate and a lower proportion of beneficiaries (only 60 percent) with a PCP visit compared to NY State (64 percent). Erie and Genesee Counties have the lowest PCP Visit rates, about 30% lower when compared to the state average and five counties have less than 60 percent of their Medicaid beneficiaries visiting a Primary Care Physician. One of the possible challenges that would need to be addressed is to ensure beneficiaries have access to PCPs (e.g., that there is an adequate supply of physicians who accept Medicaid and they are conveniently located).

Table 5 - County Level Detail Medicaid Readmissions by Major Diagnostic Category (2012)

Major Diagnostic Category	Patients	Avg. Adm./ Patient	Patients w/ >1 Adm.	% Patients w/ >1 Adm. (WNY)	% Patients w/ >1 Adm. (NY State)
Myeloproliferative DDs (Poorly Differentiated Neoplasms)	176	1.93	66	37.5%	**36.4%**
Mental Diseases and Disorders	4,230	1.50	1,178	27.8%	**26.6%**
Blood and Blood Forming Organs and Immunological Disorders	541	1.49	120	22.2%	**20.8%**
Alcohol/Drug Use or Induced Mental Disorders	2,070	1.40	538	26.0%	**33.1%**
Respiratory System	3,992	1.32	746	18.7%	**19.1%**
Circulatory System	3,605	1.32	744	20.6%	**21.2%**
Hepatobiliary System And Pancreas	1,140	1.30	200	17.5%	**17.7%**
Digestive System	3,429	1.24	549	16.0%	**14.7%**
Endocrine, Nutritional And Metabolic System	1,872	1.22	219	11.7%	**11.9%**
Nervous System	2,572	1.20	362	14.1%	**13.9%**
Kidney And Urinary Tract	1,605	1.19	205	12.8%	**14.3%**
Infectious and Parasitic DDs	2,066	1.14	225	10.9%	**13.3%**
Skin, Subcutaneous Tissue And Breast	1,148	1.13	105	9.1%	**9.4%**
Pregnancy, Childbirth And Puerperium	7,519	1.11	609	8.1%	**10.6%**
Musculoskeletal System And Connective Tissue	2,562	1.10	229	8.9%	**9.3%**
Injuries, Poison And Toxic Effect of Drugs	1,022	1.09	79	7.7%	**8.1%**
Newborn And Other Neonates (Perinatal Period)	7,325	1.05	309	4.2%	**19.3%**

Source: SPARCS Inpatient Data

Readmissions for inpatient services represents additional utilization and potential source of increased expenditure. Table 5 documents information on readmissions in WNY and presents it by categories of healthcare service. It shows the proportions of patients who have multiple admissions, and shows this by major diagnostic category (MDC) for WNY and NY State.

The patients column shows the number of unique Medicaid patients who were admitted to a hospital from WNY for that MDC. The second column, average admissions/patient divides the total number of admissions for that MDC by the number of Medicaid patients to determine, on average, how many times patients are admitted for that MDC.

The third column shows how many patients were admitted more than once for that MDC and the next column calculates the percentage of patients who were readmitted. The final column shows the percentage for NY State as a reference.

The MDCs with the highest readmission rates included Myeloproliferative DDs, Mental Diseases and Disorders, and Blood/Blood Forming Organs and Immunological Disorders. For these MDCs, WNY had a higher proportion (consistently 1 percentage point) of patients with multiple admissions compared to NY State. The Mental Health readmissions are a cause for particular concern and are addressed in more detail in subsequent sections.

For many of the MDCs in Table 5, the WNY rate exceeds that of NY State, and one of the goals of this project in particular would be to get those rates closer to or below NY State's rates.

5b. ED Care Triage (2.b.iii)

Summary

Using the data sources available to us through the DOH's websites and internal data, outlined below is the state of ED care in Western New York and New York State. The data show that the region performs worse than the state with regard to Emergency Department care and overutilization.

Project Description

Emergency Department utilization is a significant issue in Western New York. Medicaid beneficiaries use the ED for several reasons: foremost among them potentially is perceived convenience since the ED's hours are much longer than those of primary care physicians. Secondly, many beneficiaries do not have an on-going relationship with a primary care physician, so many of them rely on the ED for routine care that EDs were not meant to treat. Reducing ED utilization by encouraging patients to build a relationship with a primary care physician could reduce the pressure on the overly strained resources in the region and allow those resources to be redirected towards those with urgent needs that the ED was meant to serve.

Rationale

In the tables below, we characterize and evaluate the state of Emergency Department utilization in Western New York. We have included all pertinent information available to date to highlight the evidence that WNY's data indicate substantially poorer performance than those for New York State. These tables and figures will support the inclusion of the ED Care Triage Project in the DSRIP Workplan.
The data sources we draw from include the materials designated on the NY DSRIP website as critical information and data as well as supplementary data such as SPARCS discharge data. This ED utilization analyses, uses the 2012 Medicaid Utilization data from the Health Data NY website, Primary Care Physician Utilization data provided by Salient on the DSRIP dashboards (Dashboard 8), the Medicaid Chronic Condition data provided on the Health Data NY website, and the 2013. SPARCS ED data.

Table 6 shows the count and rate of PQI discharges as a measure of preventable admissions. WNY has an 11 percent lower observed rate of these admissions than NY State. Niagara and Wyoming counties have the highest observed rates in WNY, which are respectively 15 and 11 percent higher than the state average of 1,784, while the observed rate in Allegany County is 32 percent lower than the state average. While WNY's rate is 8 percent lower than the states', this is mostly driven by Erie County. Niagara, Orleans, and Wyoming would benefit most with regard to PQI from steps to better coordinate care.

Table 6 - County Level Detail Medicaid Prevention Quality Indicator (Overall Composite 2012)

County/ Region	PQI Hospitalizations	Observed Rate (per 10,000 Ben.)	Risk-Adjusted Rate (per 10,000)
Allegany	93	1,205	1,407
Cattaraugus	206	1,490	1,701
Chautauqua	344	1,374	1,588
Erie	2,107	1,530	1,506
Genesee	100	1,368	1,551
Niagara	660	2,047	2,240
Orleans	126	1,928	2,289
Wyoming	93	1,978	2,259
WNY	**3,729**	**1,586**	**1,586**
NY State	**69,084**	**1,784**	**1,714**

Source: NY Department of Health Prevention Quality Indicators by County

Table 7 - County Level Detail Medicaid Potentially Preventable ED Visits (2012)

County/ Region	Medicaid PPV Events	Observed Rate (per 10,000 Ben.)	Risk-Adjusted Rate (per 10,000)
Allegany	5,446	4,675	4,835
Cattaraugus	10,090	4,793	4,949
Chautauqua	20,160	5,267	5,261
Erie	74,912	3,532	3,339
Genesee	5,041	4,544	4,585
Niagara	18,017	3,692	3,548
Orleans	4,162	4,110	4,116
Wyoming	2,385	3,313	3,473
WNY	**140,213**	**3,892**	**3,759**
NY State	**2,111,519**	**3,608**	**3,608**

Source: NY Department of Health ED PPV by County

Table 7 shows counts and rates of preventable ED visits. WNY has an eight percent higher observed rate of ED visits compared to NY State, suggesting that Medicaid patients are using the ED more than necessary. Often, this is due to factors such as the lack of Primary Care utilization. This problem would be one of the most significant issues this project would work to address. Chautauqua and Cattaraugus Counties have the highest observed rates in WNY, 46 and 33 percent higher than the NY State rate. Wyoming County has the lowest observed rate in WNY of 3,313 ED visits, eight percent lower than the state average.

Table 8 presents information on primary care utilization for the counties in WNY and NY State, including beneficiary counts, PCP visit counts, and the PCP visit rate. Taken with Table 7, it suggests that Medicaid patients in the region rely on the ED for care instead of using primary care. WNY has a 28 percent lower PCP visit rate and a lower proportion of beneficiaries (60 percent) with a PCP visit compared to NY State (64 percent). Erie and Genesee Counties have the lowest PCP Visit rates, about 30 percent lower compared to the state average and five counties have less than 60 percent of their Medicaid beneficiaries visiting a Primary Care Physician. One of the possible challenges that would need to be addressed is to ensure beneficiaries have access to PCPs which are conveniently located.

Table 8 - County Level Detail Primary Care Utilization Rates (2013)

County/Region	Beneficiaries	PCP Visits	Beneficiaries w/ PCP Visits	PCP Visit Rate	% with PCP Visit
Allegany	12,896	30,186	7,576	237.99	58.7%
Cattaraugus	21,862	52,627	13,057	246.16	59.7%
Chautauqua	41,477	102,723	25,338	244.93	61.1%
Erie	230,555	516,329	140,155	219.08	60.8%
Genesee	12,122	26,161	6,579	221.87	54.3%
Niagara	54,016	120,699	31,249	222.51	57.9%
Orleans	11,481	33,798	6,942	307.62	60.5%
Wyoming	7,785	17,116	4,487	228.68	57.6%
WNY	**387,539**	**899,430**	**233,900**	**227.01**	**60.4%**
NY State	**6,252,720**	**19,426,166**	**4,013,332**	**314.62**	**64.2%**

Source: Salient PCP Visit Dashboard

Table 9 - County Level Detail Percent of ED Visits that Are Medicaid (2013)

County/ Region	Medicaid ED Visits	Total ED Visits	% Medicaid
Allegany	7,747	19,218	40.3%
Cattaraugus	3,748	9,675	38.7%
Chautauqua	26,474	54,667	48.4%
Erie	135,532	298,749	45.4%
Genesee	5,277	17,601	30.0%
Niagara	28,604	72,902	39.2%
Orleans	3,173	13,012	24.4%
Wyoming	3,799	11,168	34.0%
WNY	**214,354**	**496,992**	**43.1%**
NY State	**2,949,441**	**6,613,157**	**44.6%**

Source: SPARCS Outpatient Data

Table 9 indicates that there are several counties where a larger proportion of total ED visits are from Medicaid beneficiaries than the rate in the state. Erie County, the largest county in the region, is one such county. Chautauqua, too, has a high percentage of ED Medicaid utilization.

Table 10 - County Level Detail ED Re-Visits by ICD9 Diagnosis Code (2013)

Diagnosis Category	Diagnosis	Patients	Patients w/ >1 Visit	Visit/ Patient	% Patients w/ >1 Visit (WNY)	% Patients w/ >1 Visit (NY State)
Respiratory	ACUTE URIS OF UNSPECIFIED SITE	5,186	326	1.07	6.3%	**7.5%**
Respiratory	ACUTE PHARYNGITIS	2,708	118	1.05	4.4%	**5.0%**
Respiratory	ACUTE BRONCHITIS	2,434	124	1.06	5.1%	**4.3%**
Respiratory	ASTHMA UNSPECIFIED WITH EXACERBATION	1,509	210	1.26	13.9%	**19.2%**
Mental Disorders	NONDEPENDENT ALCOHOL ABUSE UNSPEC PATTERN OF USE	1,214	237	1.56	19.5%	**23.9%**
Respiratory	ASTHMA, UNSPECIFIED, UNSPECIFIED STATUS	1,476	111	1.10	7.5%	**9.9%**
Mental Disorders	ANXIETY STATE, UNSPECIFIED	1,270	167	1.22	13.1%	**11.3%**
Respiratory	PNEUMONIA, ORGANISM UNSPECIFIED	1,242	53	1.05	4.3%	**4.5%**
Respiratory	UNSPECIFIED SINUSITIS	970	54	1.06	5.6%	**3.3%**
Respiratory	BRONCHITIS NOT SPECIFIED AS ACUTE OR CHRONIC	968	42	1.05	4.3%	**3.3%**
Mental Disorders	DEPRESSIVE DISORDER NOT ELSEWHERE CLASSIFIED	862	75	1.11	8.7%	**9.4%**
Respiratory	INFLUENZA WITH OTHER RESPIRATORY MANIFESTATIONS	932	17	1.02	1.8%	**1.7%**
Respiratory	CROUP	757	50	1.08	6.6%	**6.8%**
Circulatory	UNSPECIFIED ESSENTIAL HYPERTENSION	689	52	1.09	7.5%	**8.5%**
Respiratory	ACUTE TONSILLITIS	595	24	1.04	4.0%	**3.4%**

Source: SPARCS ED Data

Table 10 shows the top 15 Circulatory, Respiratory, and Mental Health diagnoses with re-visits to the ED in Western New York. Several of them have worse rates than NY state, including bronchitis and anxiety. These conditions are the most responsible for ED re-visits.

Table 11 - County Level Detail ED Re-Visits by ICD9 Category (2013)

ICD9 Classification	Patients	Patients w/ >1 Visit	Avg.Visit/ Patient	% Patients w/ >1 Visit (WNY)	% Patients w/ >1 Visit (NY State)
Injury and poisoning	39,448	6,176	1.22	15.7%	**12.3%**
Symptoms, signs, and ill-defined conditions	26,210	4,566	1.32	17.4%	**17.0%**
Diseases of the respiratory system	20,006	3,103	1.23	15.5%	**17.5%**
Diseases of the digestive system	13,813	1,981	1.23	14.3%	**11.9%**
Diseases of the musculoskeletal system and connective tissue	10,780	1,732	1.27	16.1%	**14.6%**
Diseases of the genitourinary system	9,550	1,507	1.23	15.8%	**13.4%**
Diseases of the skin and subcutaneous tissue	9,055	1,232	1.19	13.6%	**12.0%**
Diseases of the sense organs	7,717	703	1.11	9.1%	**9.6%**
Infectious and parasitic diseases	7,218	505	1.08	7.0%	**8.9%**
Mental disorders	6,794	1,548	1.49	22.8%	**26.1%**
External causes of injury and supplemental classification	6,491	790	1.20	12.2%	**12.5%**
Complications of pregnancy, childbirth, and the puerperium	4,142	1,260	1.51	30.4%	**35.0%**
Diseases of the nervous system	4,111	766	1.38	18.6%	**15.1%**
Diseases of the circulatory system	2,700	295	1.15	10.9%	**9.2%**
Endocrine, nutritional and metabolic diseases, and immunity disorders	2,344	308	1.22	13.1%	**12.6%**
Diseases of the blood and blood-forming organs	547	70	1.78	12.8%	**14.8%**
Certain conditions originating in the perinatal period	363	16	1.04	4.4%	**7.6%**
Neoplasms	203	15	1.09	7.4%	**5.5%**
Congenital anomalies	78	2	1.03	2.6%	**2.7%**

Source: SPARCS ED Data

Table 11 breaks down visits to the Emergency Department by diagnosis category. The results are sorted by the number of patients for that category. Both the third and fourth columns indicate readmissions. The third column shows how many admissions, on average, each patient admitted has. Taking the second row—mental disorders—of the 1,260 patients in WNY who were admitted to the ED with that diagnosis, each one, on average visited 1.51 times. The fourth column contains a correlated, but different metric, the percentage of patients admitted who returned at least once with the same diagnosis. The WNY rate exceeds the NY State rate for more than half of the ICD9 classifications. Although not higher than the state rate, the re-visit rate for mental disorders is extremely high.

5c. Implementing the INTERACT Project (2.b.vii)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of skilled nursing facilities in Western New York. Western New York is compared to New York State across several indicators. The information shows how due to high demand for SNF in WNY Counties, coordination is vital and Project 2.b.vii is especially suited for the DSRIP.

Project Description

Because avoidable readmissions are unnecessary and costly, and because Skilled Nursing Facilities have the resources and infrastructure to ensure patients receive the proper and crucial care that can prevent patients from returning to the hospital, it is advantageous to strengthen the connections between hospitals and SNFs and ensure information is passed reliably in both directions. The DSRIP SNF project seeks to improve the care coordination between the staffs at the SNF and the hospital.

Some suggested strategies include enhancing or ensuring discharge summaries, building direct informational ties between SNFS and hospitals, and standardized care transitions.

Rationale

In the tables and figures below, we characterize and evaluate the state of Skilled Nursing Facilities in Western New York. We have included all pertinent information available to date to highlight the evidence that WNY's data indicate poorer performance than those for New York State. These tables and figures will support the inclusion of the SNF INTERACT project in the DSRIP Workplan.

The data sources we draw from are more limited for SNFs, and we rely only on SPARCS discharge data.

Table 12 provides high-level information about SNF utilization by county in WNY, including counts of SNF visits, SNF patients, and beneficiaries. The table was generated using SPARCS inpatient data, and patients were flagged as SNF patients if they were admitted from or discharged to an SNF. Beneficiaries receiving SNF care are dual eligible, and so tend to use more healthcare resources. Though half of the eight WNY counties have admission rates higher than NY State, WNY at large has fewer SNF admissions/beneficiary than the state.

The highest utilization rates in WNY are in Genesee and Wyoming Counties, which are 64 and 35 percent greater than the state average of about 16.1, respectively. The lowest is Chautauqua County with a visit rate 38 percent lower than the state average.

The percentage of beneficiaries who visit SNFs is slightly higher in WNY than the state. Again, the counties with the greatest proportions of SNF users are Genesee and Wyoming, while the lowest is in Chautauqua.

Table 12 - County Level Detail Medicaid SNF Patients by Region (2012)

County/Region	Total SNF Adm.	Total SNF Patients	Beneficiaries	Adm. / 1000 Ben.	% of Ben.
Allegany	199	132	11,638	17.10	1.13%
Cattaraugus	321	226	20,806	15.43	1.09%
Chautauqua	379	293	38,095	9.95	0.77%
Erie	2,983	2,181	211,266	14.12	1.03%
Genesee	290	206	11,046	26.25	1.86%
Niagara	856	596	48,685	17.58	1.22%
Orleans	130	92	10,093	12.88	0.91%
Wyoming	155	121	7,142	21.70	1.69%
WNY	**5,313**	**3,817**	**358,771**	**14.81**	**1.06%**
NY State	**93,636**	**61,011**	**5,835,794**	**16.05**	**1.05%**

Source: SPARCS Inpatient Data

Table 13 - County Level Detail SNF Admissions/ Readmissions (2012)

County/ Region	Total SNF Visits	Total SNF Patients	SNF Average Visit/Admittee
Allegany	199	132	1.51
Cattaraugus	321	226	1.42
Chautauqua	379	293	1.29
Erie	2,983	2,181	1.37
Genesee	290	206	1.41
Niagara	856	596	1.44
Orleans	130	92	1.41
Wyoming	155	121	1.28
WNY	**5,313**	**3,817**	**1.39**
NY State	**93,636**	**61,011**	**1.53**

Source: SPARCS Inpatient Data

Table 14 - County Level Detail SNF Admission Rates Compared to Non-SNF Admission Rates (2012)

County/ Region	Average Visit/ Admittee	SNF Average Visit/ Admittee	Rate Comparison
Allegany	1.26	1.51	119.9%
Cattaraugus	1.27	1.42	111.5%
Chautauqua	1.34	1.29	96.3%
Erie	1.41	1.37	97.3%
Genesee	1.35	1.41	104.2%
Niagara	1.44	1.44	100.0%
Orleans	1.39	1.41	101.9%
Wyoming	1.23	1.28	104.1%
WNY	**1.40**	**1.39**	**99.6%**
NY State	**1.60**	**1.53**	**96.1%**

Source: SPARCS Inpatient Data

Table 13 shows the total counts of SNF discharges and SNF patients, as well as the average number of discharges per patient. Allegany has the highest admission rate (1.51), and is still below the state average (1.53). The lowest visit rates are in Chautauqua and Wyoming Counties (1.29 and 1.28 visits/admittee).

Table 14 compares the average number of dischargers per patient for patients ever discharged to a SNF compared to all other inpatients. WNY's SNF/non-SNF discharge ratio is greater than NY State's, suggesting that SNF patients are visiting more often compared to a baseline in WNY than in NY State.

Table 15 - County Level Detail SNF Re-Admissions by MDC (2012)

Major Diagnostic Category	SNF Average Adm./ Admittee	Average Adm./Admittee	Rate Comparison
Musculoskeletal System And Connective Tissue	1.06	1.10	96.6%
Respiratory System	1.21	1.30	93.3%
Circulatory System	1.17	1.30	89.6%
Infectious and Parasitic DDs	1.16	1.10	105.2%
Kidney And Urinary Tract	1.08	1.21	89.3%
Nervous System	1.09	1.20	91.0%
Digestive System	1.10	1.24	88.9%
Endocrine, Nutritional And Metabolic System	1.06	1.23	86.3%
Skin, Subcutaneous Tissue And Breast	1.08	1.12	96.3%
Factors Influencing Health Status	1.00	1.06	94.0%
Hepatobiliary System And Pancreas	1.09	1.30	84.1%
Mental Diseases and Disorders	1.11	1.50	73.9%
Blood and Blood Forming Organs and Immunological Disorders	1.05	1.53	68.6%
Injuries, Poison And Toxic Effect of Drugs	1.05	1.09	96.1%
Ear, Nose, Mouth And Throat	1.00	1.07	93.9%
Male Reproductive System	1.00	1.03	97.2%
Eye	1.00	1.01	98.6%
Female Reproductive System	1.00	1.04	95.8%
Alcohol/Drug Use or Induced Mental Disorders	1.00	1.40	71.6%
Multiple Significant Trauma	1.00	1.07	93.1%
Myeloproliferative DDs (Poorly Differentiated Neoplasms)	1.00	1.95	51.3%
Pregnancy, Childbirth And Puerperium	1.00	1.11	90.3%
Newborn And Other Neonates (Perinatal Period)	1.00	1.05	95.4%
Burns	1.00	1.04	95.8%

Source: SPARCS Inpatient Data

Table 15 compares the admissions of SNF Medicaid patients to that of all other Medicaid Patients by Major Diagnostic Category. In the third column, percentages over 100 percent indicate that SNF patients have more admissions for that MDC than do non-SNF patients (in Medicaid). Figures under 100 percent mean SNF patients have fewer admissions/ patient. Surprisingly, only one MDC exceeds 100 percent – Infectious and Parasitic DDs.

5d. Hospital-Home Care Collaboration Solutions (2.b.viii)

Summary

Using the data sources available through the DOH's websites and internal data, outlined below is information related to home health care. The data show that the region fares worse than the state.

Project Description

Many patients, Medicaid and non-Medicaid, have trouble accessing the health system due to a number of issues — they live far from providers (both hospitals and physicians) or they have limited mobility. To ensure that these patients have the highest level of access, it is sometimes necessary and prudent to bring health services to them. As technologies advance, utilization of them to increase access to care and care itself should be a prime objective of the health system, and the community's providers should expand use of those technologies to ensure patients have the option of recovering at home and receive proper treatment for chronic conditions. To do so, the providers must work together to coordinate such home health services.

Rationale

The data sources we draw from include the materials designated on the NY DSRIP website as critical information and data as well as supplementary data such as SPARCS discharge data.

Table 16 includes information on SNF patients in Western New York. Home health would offer an alternative to discharging patients to skilled nursing facilities, and allow them to be cared for in more comfortable surroundings. Table 16 shows that WNY (and especially Cattaraugus, Genesee, Niagara, and Orleans Counties) have higher SNF occupancy rates than the state. This project would help reduce those numbers by diverting patients home and possibly reducing lengths of stay for those in the SNFs.

Table 17 shows average length of stay for the counties and region. By implementing the home care collaboration project, those lengths of stay could be reduced as patients could be discharged to their homes with the assurance that they'll be taken care of by the new services that are part of this program.

Table 16 - County Level Detail SNF Bed Utilization (2014)

County/ Region	Total Beds	Available Beds	Utilization
Allegany	360	17	95.3%
Cattaraugus	552	16	97.1%
Chautauqua	1,044	156	85.1%
Erie	6,933	757	89.1%
Genesee	488	25	94.9%
Niagara	1,499	76	94.9%
Orleans	310	12	96.1%
Wyoming	218	26	88.1%
WNY	**116,654**	**8,337**	**92.9%**
NY State	**128,058**	**9,422**	**92.6%**

Source: NY Weekly SNF Bed Census

Table 17 - County Level Detail Average Lengths of Stay by County (2012)

County/ Region	LOS	Patients	LOS/Patient
Allegany	7,474	1,216	6.15
Cattaraugus	14,818	2,409	6.15
Chautauqua	29,457	3,996	7.37
Erie	221,623	24,469	9.06
Genesee	11,759	1,398	8.41
Niagara	57,598	6,379	9.03
Orleans	7,387	1,016	7.27
Wyoming	6,411	833	7.70
WNY	**356,527**	**41,360**	**8.62**
NY State	**6,018,352**	**609,698**	**9.87**

Source: NY Department of Health Prevention Quality Indicators by County

5e. Telemedicine (2.c.ii)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, the case for inclusion for telemedicine is laid out below. Western New York is compared to New York State across several indicators. The information shows how due to high demand for SNF in WNY Counties, coordination is vital and Project 2.c.ii is especially suited for the DSRIP.

Project Description

Many patients, Medicaid and non-Medicaid, have trouble accessing the health system due to a number of issues—they live far from providers (both hospitals and physicians) or they have limited mobility. To ensure that these patients have the highest level of access, it is sometimes necessary and prudent to bring health services to them. One method of doing so is telemedicine. As technologies advance, utilization of them to increase access to care and care itself should be a prime objective of the health system. Telemedicine is also suited for chronic disease management, psychiatry, and primary care utilization.

Rationale

Table 18 shows the proportion of the population who don't have a vehicle. In an area such as Western New York that lacks a robust public transportation system, vehicle ownership is fundamental for adequate access to care. Overall, in WNY, 12.2 percent of households do not own a vehicle. Erie County has the lowest rate of ownership, followed by Chautauqua, Cattaraugus, and Niagara Counties.

Figure 1 (taken from Section 3) shows how near populations are to acute care hospitals. Acute care hospitals in Western New York are concentrated around population centers. Of the 42 acute care hospitals in the region, more than half (25) are located in the region's two metropolitan counties -- Erie and Niagara. This concentration leads to higher proximity scores for zip codes in the cities of Buffalo, Niagara Falls and their adjacent suburbs where the concentrations of Medicaid enrollees are lower.

In the region's more rural counties, cities like Jamestown, Olean and Batavia also have hospitals and generate relatively high proximity scores. However, the dispersed populations just beyond these centers are relatively underserved by hospitals. This is most apparent in the northern swath of Allegany County and the southern edge of Wyoming County, which includes the highest intensity of the relatively low proximity scores across the region.

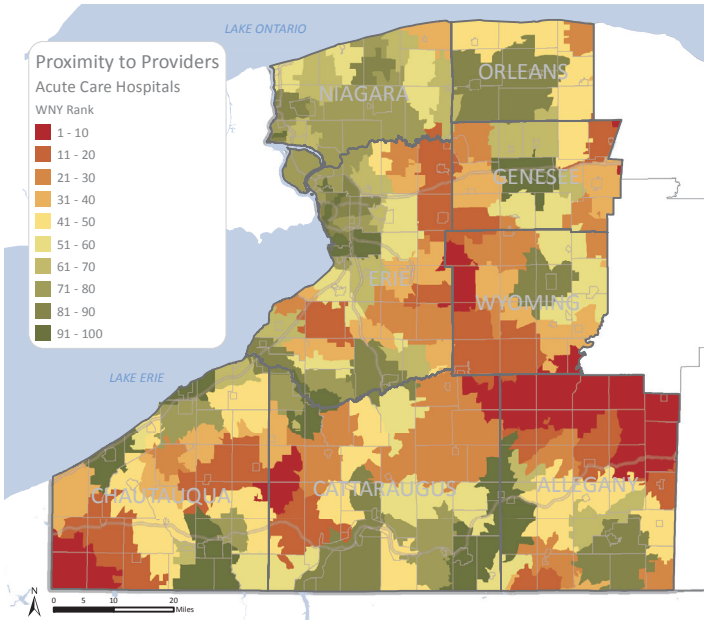
In sum, Figure 1 corroborates the commonly-held assumption that populations in rural areas distance from care is much greater than their urban counterparts. Unlike all subsequent proximity assessments, this measure is based solely on distance and does not factor in for the number of people in each ZIP code.

Table 18 - County Level Detail Access to Transportation

County/ Region	Total Households	Households Without a Vehicle	% without Vehicle
Allegany	18,490	1,579	8.5%
Cattaraugus	31,979	3,461	10.8%
Chautauqua	54,416	5,932	10.9%
Erie	380,476	52,771	13.9%
Genesee	24,044	1,652	6.9%
Niagara	88,548	9,582	10.8%
Orleans	15,743	1,066	6.8%
Wyoming	15,724	872	5.5%
WNY	**629,420**	**76,915**	**12.2%**

Source: ACS 2011-2013 3-year Estimates

Figure 1 - Proximity to Providers



5f. Implementation of Patient and Community Activation Activities (2.d.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of the uninsured and under-utilizing Medicaid Patients in Western New York. Western New York is compared to New York State across several indicators. The information shows how underutilization is an especially critical issue in Western New York

Project Description

In Western New York (and the state in general) there are many people who are eligible to use Medicaid who choose not to. For the uninsured, too, the reasons are myriad. For some it is too difficult to go through the process either because their work lives don't permit or families don't allow them the time to do so. People disconnected from the health care economy, though, will eventually have to interact with it. Problematically, the longer they have been away, the more likely they'll need to use it suddenly, and the more drastic will be their condition.

By ensuring that all have access to the system, we can better promote healthy living and prevent many health issues that require years of poor living to develop. Project 2.d.i is meant to address these issues by identifying and reaching out to those who are not part of the system to improve the long-term health of the community.

Rationale

The tables and figures below characterize and evaluate the state of under-utilization in Western New York. All pertinent information available to date is included to highlight the evidence that WNY's data indicate poorer performance than those for New York State. These tables and figures will support the inclusion of Project 2.d.i in the DSRIP Workplan.

While it would be useful to compare the take-up of Medicaid among the eligible, data on Medicaid eligibility are not available at the county level and are currently being included.

Table 19 shows the Medicaid utilization of inpatient, outpatient, ED, and primary care services to determine what percentage of beneficiaries are not using the health care system. The OP, IP, and ED figures were calculated by dividing the number of unique Medicaid beneficiaries in the SPARCS discharge data by the total number of beneficiaries in the county.

While WNY Medicaid patients are more likely to use IP, OP, and ED facilities than the state in general, despite their poor health they are less likely to see a PCP. Orleans County is the only county where the PCP visit matches the State's, all other counties in WNY have lower PCP utilization, with Genesee having the lowest. The low rate of PCP utilization in the area must be addressed to ensure that Medicaid beneficiaries have the proper access to care. Doing so would help the state achieve its Innovation Plan goals—especially the State goal for Pillar 1 'to reduce by 50 percent the proportion of adults without a usual source of care', among others (as taken from the New York State Health Innovation Plan submitted to CMS in December 2013).

Table 20 shows uninsured rates for WNY and the state. WNY has a lower proportion of uninsured (10.8 percent) compared to NYS (13.7 percent); Cattaraugus County has the highest proportion of uninsured in WNY (14.1 percent), slightly higher than the state average. Erie County has the lowest proportion of uninsured (10 percent) in WNY.

Table 19 - County Level Detail Medicaid Health System Utilization (2012-13)

County/ Region	% of Medicaid Visiting OP	% of Medicaid Visiting IP	% of Medicaid Visiting ED	% of Medicaid Not Visiting PCP
Allegany	9%	10%	38%	35%
Cattaraugus	11%	12%	13%	37%
Chautauqua	8%	10%	36%	33%
Erie	7%	12%	35%	34%
Genesee	7%	13%	27%	40%
Niagara	8%	13%	33%	36%
Orleans	5%	10%	21%	31%
Wyoming	10%	12%	33%	37%
WNY	**8%**	**12%**	**33%**	**35%**
NY State	**5%**	**10%**	**28%**	**31%**

Source: SPARCS Inpatient Data and Salient Dashboard Data

Table 20 - County Level Detail Uninsured Rates (2011-13)

County/ Region	Uninsured Population	Total Population	% Uninsured
Allegany	4,920	47,907	10.3%
Cattaraugus	9,243	78,605	11.8%
Chautauqua	11,366	130,915	8.7%
Erie	59,275	907,651	6.5%
Genesee	5,471	59,191	9.2%
Niagara	16,269	212,789	7.6%
Orleans	3,436	39,479	8.7%
Wyoming	3,466	38,193	9.1%
WNY	113,446	1,514,730	7.5%
NY State	2,122,052	19,323,884	11.0%

Source: American Community Survey 2011-2013

5g. Integration of Primary Care and Behavioral Health Services (3.a.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of mental and behavioral healthcare in Western New York and New York State across several indicators. The information shows how the region has several challenges to overcome in this area, and Project 3.a.i is especially needed.

Project Description

Mental health issues are difficult to address because unlike physical health issues, the patients themselves do not have the same capacity for self-treatment. This challenge makes necessary special provisions for treatment of these patients. Examples of the additional needs include early diagnosis of any conditions and attention to all the treatments patients are receiving. The latter example requires that care be more integrated so that providers and physicians have access to all of a patient's medical records. Without that information and data, the physician could prescribe a medication that could adversely interact with other medications causing harm to the patient.

Lastly, de-stigmatizing mental health issues is of primary importance. The negative impression from mental health issues leads to delay or even avoidance of necessary treatment. One goal of this project is to bring patients who need treatment into the healthcare system.

Rationale

Mental health issues are an especially challenging problem in Western New York. As is the case in many low income areas, mental health problems are prevalent in the population. The sections below support the notion that mental health issues are a significant challenge to the healthcare system in the region.

The data sources include the materials that the NYS DSRIP website directs us to as well as supplementary data such as SPARCS discharge data. We draw from the 2012 Medicaid Utilization data from the Health Data NY website, the Medicaid Chronic Condition data provided on the Health Data NY website and the 2012 SPARCS Inpatient data.

Table 21 shows average admission rates for chronic mental health conditions by county in WNY and for the state. Admission rates were determined as the number of inpatient admissions per beneficiary with the condition. Of the included conditions, Western New York's rate exceeded that of NY State for Depression, and was 12 percent higher. Niagara County's rate exceeds NY's by 65 percent. For the first three behavioral conditions, there are several counties that exceed NY State's rate. Niagara County exceeds it in all categories, for instance.

Table 21 - County Level Detail Medicaid Admission Rates by Chronic Condition (2013)

County/Region	Beneficiaries	Schizophrenia	Depression	Bi-Polar	Alcohol-related	Opioid
Allegany	12,896	14.8	33.1	9.8	8.2	2.2
Cattaraugus	21,862	16.2	36.9	13.5	13.1	5.1
Chautauqua	41,477	17.5	40.6	10.7	11.5	11.0
Erie	230,555	18.5	42.7	12.6	21.8	20.6
Genesee	12,122	19.6	48.5	19.1	17.7	18.6
Niagara	54,018	23.9	67.0	19.5	20.6	21.5
Orleans	11,481	11.8	37.8	8.2	8.4	2.7
Wyoming	7,785	12.5	30.1	11.8	3.1	0.0
WNY	**387,551**	**18.8**	**45.5**	**13.5**	**19.0**	**17.5**
NY State	**6,251,767**	**21.4**	**40.6**	**16.5**	**23.7**	**22.3**

Source: Medicaid Utilization Data via Health Data NY

Table 22 - County Level Detail Medicaid Readmissions for Mental Health Issues (2012)

County/ Region	Patients	Patients w/ >1 Adm.	Avg. Adm./ Patient	% Patients w/ >1 Adm. (WNY)
Allegany	92	15	1.24	16%
Cattaraugus	164	30	1.27	18%
Chautauqua	610	146	1.44	24%
Erie	2,179	621	1.49	28%
Genesee	135	27	1.34	20%
Niagara	927	299	1.60	32%
Orleans	77	15	1.31	19%
Wyoming	92	14	1.25	15%
WNY	**4,230**	**1,178**	**1.50**	**28%**
NY State	**50,840**	**13,527**	**1.47**	**27%**

Source: SPARCS Inpatient Data

Table 23 - County Level Detail Psychiatrists and Psychologists by County (2014)

County/ Region	Beneficiaries	Psychiatrists/ 10,000 Ben	Psychologists/ 10,000 Ben
Allegany	11,638	0.0	5.2
Cattaraugus	20,806	3.8	3.4
Chautauqua	38,095	5.8	2.9
Erie	211,266	8.9	13.8
Genesee	11,046	3.6	10.0
Niagara	48,685	2.5	4.5
Orleans	10,093	0.0	3.0
Wyoming	7,142	5.6	1.4
WNY	**358,771**	**6.6**	**9.8**
NY State	**5,835,794**	**12.4**	**18.9**

Source: NPI Data

Table 22 presents information on readmissions for patients with mental health conditions, as defined by Major Diagnostic Category. The table includes the proportion of patients with multiple admissions and the average number of readmissions per patient. It indicates that readmissions due to mental health issues are a problem in WNY, as it had a slightly higher proportion of patients with multiple admissions compared to NY State, and the admissions/patient were higher for WNY. Again, we see that Niagara County fares worse than the rest of WNY and NY State as a whole.

Table 23 presents information on access to psychiatrists and psychologists in WNY compared to NY State. The table contains count of beneficiaries, as well as the number of psychiatrists/psychologists per 10,000 beneficiaries. On average, NY State has almost twice as many psychiatrists/psychologists per beneficiary compared to WNY. This is indicative of a critical shortage of access to care for Mental Health issues in the area.

5h. Behavioral Health Community Crisis Stabilization Services (3.a.ii)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of mental and behavioral healthcare in Western New York and New York State across several indicators. The information shows how the region has several challenges to overcome in this area, and Project 3.a.ii is especially needed

Project Description

To ensure that the most unstable behavioral health patients have access to the proper medical treatment, it's important to guarantee that emergency departments and other health providers have the ability to call on specialty expert care management for these patients. This supplementary management would include monitoring in a safe location and access to psychiatric stabilization if short-term monitoring is unsuccessful.

Rationale

Table 24 presents information on ED re-visits for behavioral health conditions in WNY sorted by patient volume. The table contains patient counts, average number of readmissions and the proportion of patients with re-visits by diagnosis code. Diagnoses where WNY's rate is worse than NY State's are highlighted in red. Schizophrenia and alcohol-related diagnoses tended to be associated with higher re-visit rates.

Table 24 - County Level Detail Medicaid ED Re-Visit Rates for Top Behavioral Health Diagnoses (2013)

Diagnosis	Patients	Patients w/ >1 Visit.	Avg. Visit/ Patient	% Patients w/ >1 Visit (WNY)	% Patients w/ >1 Visit (NY State)
ANXIETY STATE NOS	1,270	167	1.22	13.1%	11.3%
ALCOHOL ABUSE-UNSPEC	1,214	237	1.56	19.5%	23.9%
DEPRESSIVE DISORDER NEC	862	75	1.11	8.7%	9.4%
ADJUSTMENT REACTION NOS	473	34	1.10	7.2%	4.5%
DRUG WITHDRAWAL SYNDROME	348	46	1.17	13.2%	8.6%
OPIOID DEPENDENCE-UNSPEC	301	31	1.11	10.3%	12.3%
SCHIZOPHRENIA NOS-UNSPEC	276	62	1.37	22.5%	15.7%
DRUG ABUSE NEC-UNSPEC	262	15	1.06	5.7%	10.2%
ALCOH DEP NECNOS-UNSPEC	236	32	1.22	13.6%	18.8%
TENSION HEADACHE	198	4	1.02	2.0%	1.4%
PANIC DISORDER	190	6	1.05	3.2%	6.2%
AC ALCOHOL INTOX-UNSPEC	188	30	1.41	16.0%	25.0%
MANIC-DEPRESSIVE NOS	187	22	1.13	11.8%	14.6%
SCHIZOAFFECTIVE-UNSPEC	122	21	1.30	17.2%	25.7%
-PSYCHOSIS NOS-	112	7	1.08	6.3%	9.9%
OPIOID ABUSE-UNSPEC	112	4	1.04	3.6%	7.1%
POSTCONCUSSION SYNDROME	109	3	1.03	2.8%	2.5%
COCAINE ABUSE-UNSPEC	97	4	1.05	4.1%	7.7%
ALCOHOL WITHDRAWAL (Begin 1996)	86	7	1.30	8.1%	11.6%

Source: SPARCS ED Data

5i. CVD Management in High Risk/Affected Populations (3.b.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of cardiovascular disease in Western New York. The information shows how WNY has a population with high rates of cardiovascular disease (CVD), and that Project 3bi is especially needed.

Project Description

Heart disease is the leading cause of death of Americans, and one of the leading drivers of health care costs. According to the CDC, about 1 of every 6 dollars spent in health care is directly or indirectly caused by heart disease. Reducing the prevalence of heart disease, therefore, should be one of the top priorities of any health reform program. Because of the potential upside, this project advocates the adoption of evidence-based practices to reduce the costs and prevalence of heart disease, such as increased disease management through enhanced treatment guidelines, additional assistance for patient self-management, and more pro-active intervention with the community.

Rationale

The Western New York Region has a higher incidence of cardiovascular disease than the rest of New York. In the tables and figures below, the counties of Western New York are compared to each other and the state to demonstrate that CVD is a major factor in the area and that this project (3.b.i.) is necessary and beneficial to the region.

The information included is drawn from CDC mortality data from 2010-2011 (the most recent two years available), SPARCS 2012 Inpatient data, and the Medicaid Chronic Conditions data made available from New York's Department of Health. For both the CDC data and SPARCS data, the patient's condition was categorized as a CVD condition in one of two ways — either using the major diagnostic category 5 designation or by using the ranges of ICD-9 codes related to cardiovascular disease (390-459).

Table 25 details mortality by county due to CVD conditions. The mortality due to CVD is much higher (24.5 percent) in WNY than in the state at large, although the percent of deaths attributable to CVD is lower in WNY, suggesting that WNY has an overall higher mortality rate. Cattaraugus, Niagara, and Chautauqua Counties all have rates above 300/100,000 people (while WNY's rate is 286.5 and NY State's is 230.1). Wyoming County has the lowest rate 205.7. Niagara, Orleans, and Cattaraugus all have a higher proportion of their mortality due to CVD than the state.

Table 25 - County Level Detail Mortality due to CVD (2010-2011)

County/Region	CVD Deaths	Population (combined)	Rate	Total Deaths	% Attributable to CVD
Allegany	249	97,750	254.7	903	27.6%
Cattaraugus	624	160,110	389.7	1,678	37.2%
Chautauqua	855	269,175	317.6	2,983	28.7%
Erie	4,928	1,838,249	268.1	18,923	26.0%
Genesee	326	120,116	271.4	1,212	26.9%
Niagara	1,454	432,160	336.4	4,556	31.9%
Orleans	235	85,619	274.5	773	30.4%
Wyoming	173	84,083	205.7	738	23.4%
WNY	**8,844**	**3,087,262**	**286.5**	**31,766**	**27.8%**
NY State	**89,473**	**38,880,830**	**230.1**	**295,606**	**30.3%**

Source: CDC Mortality Data

Table 26 lays out the same information by ICD10 group, comparing WNY's rate to NY State's. By ICD-10 Group, WNY's mortality rates are higher for acute myocardial infarction, "All Other Forms of Heart Disease," Heart Failure, and Hypertensive Heart Disease. The rates are lower for "All other forms of chronic ischemic heart disease" and Atherosclerotic cardiovascular disease. This kind of information would allow more specific targeting for the CVD project in Western New York.

Table 27 shows CVD Inpatient Medicaid Admissions for WNY. CVD Admission rates are generally lower for WNY than the rest of the state. In no county are they higher than the state average, though Niagara, Orleans, and Genesee counties have the highest rates within WNY. Breaking down by diagnosis, WNY fares better than the state for many of the diagnoses; the exceptions are Cerebrovascular disease and Pulmonary Circulation. Counties sometimes exceed the state average for certain disease.

Table 26 - County Level Detail CVD Mortality Rates by ICD10 Group (2010-2011)

ICD-13 Group	WNY	NY State
Acute myocardial infarction	73.3	38.8
All other forms of chronic ischemic heart disease	100.8	108.2
All other forms of heart disease	48.6	29.7
Atherosclerotic cardiovascular disease	13.4	21.2
Heart failure	27.3	13.7
Hypertensive heart disease	20.3	15.0

Source: CDC Mortality Data

Table 27 - County Level Detail Medicaid CVD Admission Rates (2012)

County/Region	CVD Admissions	CVD Days	Beneficiaries	CVD Admissions/ 1000 Ben.	CVD Days/ 1000 Ben.
Allegany	143	825	11,638	12.3	70.9
Cattaraugus	284	1,170	20,806	13.6	56.2
Chautauqua	346	1,865	38,095	9.1	49.0
Erie	2,778	15,947	211,266	13.1	75.5
Genesee	168	701	11,046	15.2	63.5
Niagara	795	3,655	48,685	16.3	75.1
Orleans	155	595	10,093	15.4	59.0
Wyoming	80	469	7,142	11.2	65.7
WNY	**4,749**	**25,227**	**358,771**	**13.2**	**70.3**
NY State	**111,536**	**552,465**	**5,835,794**	**19.1**	**94.7**

Source: 2012 SPARCS Inpatient

Table 28 - County Level Detail Medicaid CVD Admission Rates by Region and Diagnosis (2012)

County/Region	Arteries arterioles and capillaries	Cerebrovascular disease	Hypertensive disease	Ischemic heart disease	Other forms of heart disease	Pulmonary circulation	Veins and lymphatics and other diseases of circulatory system
Allegany	1.03	1.12	0.52	3.44	4.12	1.03	1.12
Cattaraugus	1.30	2.40	0.43	3.56	4.52	0.58	0.72
Chautauqua	0.55	1.81	0.63	1.58	4.07	0.45	0.79
Erie	0.84	2.75	1.08	2.53	4.86	0.67	1.09
Genesee	0.54	1.81	0.27	4.07	5.70	0.63	1.09
Niagara	0.66	2.98	0.55	4.35	5.71	0.72	1.13
Orleans	0.20	2.77	0.40	4.95	5.75	0.40	1.19
Wyoming	0.84	2.38	0.00	2.38	3.78	0.42	0.84
WNY	**0.79**	**2.58**	**0.84**	**2.88**	**4.88**	**0.64**	**1.04**
NY State	**0.91**	**2.46**	**1.51**	**3.75**	**5.80**	**0.48**	**1.35**

Source: SPARCS Inpatient Data

Table 29 - County Level Detail Medicaid CVD Chronic Condition Admission & ER Rates (2013)

County/Region	Angina and Ischemic Heart Disease	Congestive Heart Failure	Coronary Atherosclerosis	Hypertension	Other
Allegany	0.0	6.6	10.6	155.4	4.6
Cattaraugus	17.0	19.3	41.8	185.2	47.9
Chautauqua	17.2	19.1	24.3	180.7	84.4
Erie	22.3	35.1	37.7	210.4	123.6
Genesee	18.7	21.9	49.2	190.2	45.4
Niagara	28.5	31.4	49.7	203.5	101.6
Orleans	13.7	21.9	47.9	148.2	16.7
Wyoming	0.0	6.4	7.4	109.6	8.5
WNY	**20.8**	**29.7**	**37.3**	**198.7**	**100.5**
NY State	**24.0**	**30.2**	**42.6**	**165.0**	**159.2**

Source: Medicaid Chronic Condition Data via Health Data NY

Table 28 lays out Medicaid CVD Inpatient Admission rates by diagnosis to understand which particular conditions are most responsible for CVD utilization in the area and compared to the state. As far as Chronic Conditions, Hypertension is the only one with higher rates for WNY than in NY State, though, again some counties (such as Niagara for Angina and Ischemic Heart Disease surpass the state rate).

Finally, Table 29 breaks down the Medicaid Chronic Condition data provided by the Department of Health by condition. Again, Hypertension rates in WNY exceed those in NY State, supporting the inclusion of this project into the program. Reducing rates of hypertension would be one of the primary objectives of the CVD project.

5j. Increase Support Programs for Maternal & Child Health (3.f.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of maternal health in Western New York. The information shows how WNY has several health issues regarding maternal health, and that Project 3.f.i is especially needed to address them.

Project Description

Newborns who were considered high risk pregnancies due to their mother's age or medical conditions continue to be at increased risk of developing health problems in their early years. Support programs targeting these newborns and mothers would be a small intervention that could yield substantial long-term results.

Rationale

To support this project, Table 30 reproduces the Prevention Agenda Dashboard available from the Department of Health. These lay out multiple characteristics the state considers important to support women's and children's health. The data are for the entire population and are not restricted to Medicaid, though there are Medicaid-specific metrics included. Only WNY as a whole is included in Table 5, but the component counties are also available if needed.

Also included are NY State's 2017 goals. There are fifteen metrics in which Western New York performs worse than the state goals. Western New York performs well in the breastfeeding category (only the black-white ratio is worse than the 2017 goal), and it's performing well compared to goals in adolescent birth. For the latter, however, the goals are worse than the state performance. WNY is doing much worse than the state on these metrics, even though it is outperforming the goals.

Table 30 - County Level Detail Prevention Agenda Statistics 2010-2012

Improve Health Status and Reduce Health Disparities	Year	Western NY	NY State	NY Goal
Percentage of preterm births	2012	12.1	10.9	10.2
Ratio of Black non-Hispanics to White non-Hispanics	2010-12	1.51	1.56	1.42
Ratio of Hispanics to White non-Hispanics	2010-12	1.19	1.19	1.12
Ratio of Medicaid births to non-Medicaid births	2010-12	1.26	1.12	1
Percentage of infants exclusively breastfed in the hospital	2012	51.3	48.9	48.1
Ratio of Black non-Hispanics to White non-Hispanics	2010-12	0.53	0.55	0.57
Ratio of Hispanics to White non-Hispanics	2010-12	0.69	0.64	0.64
Ratio of Medicaid births to non-Medicaid births	2010-12	0.75	0.72	0.66
Maternal mortality rate per 100,000 births	2010-12	26.8	20.6	21
Percentage of children who have had the recommended number of well child visits in government sponsored insurance programs	2012	69.5	67.9	76.9
Percentage of children aged 0-15 months who have had the recommended number of well child visits in government sponsored insurance programs	2012	87	85.7	91.3
Percentage of children aged 3-6 years who have had the recommended number of well child visits in government sponsored insurance programs	2012	81	79.3	91.3
Percentage of children aged 12-21 years who have had the recommended number of well child visits in government sponsored insurance programs	2012	60.7	58.5	67.1
Percentage of children (aged under 19 years) with any kind of health insurance	2011			100
Percentage of third-grade children with evidence of untreated tooth decay	2009-11		24	21.6
Ratio of low-income children to non-low income children	2009-11		2.46	2.21
Adolescent pregnancy rate per 1,000 females - Aged 15-17 years	2012	20.5	14.8	25.6
Ratio of Black non-Hispanics to White non-Hispanics	2010-12	4.78	3.99	4.9
Ratio of Hispanics to White non-Hispanics	2010-12	3.7	2.92	4.1
Percentage of unintended pregnancy among live births	2012	33.2	28.1	23.8
Ratio of Black Non-Hispanic to White non-Hispanic	2012	2.02	2.05	1.9
Ratio of Hispanics to White non-Hispanics	2012	1.6	1.38	1.43
Ratio of Medicaid births to non-Medicaid births	2012	1.71	1.9	1.54
Percentage of women with health coverage - Aged 18-64 years	2011			100
Percentage of live births that occur within 24 months of a previous pregnancy	2012	21.4	21.1	17

Source: NY Department of Health

Table 31 - County Level Detail Age of Delivering Mother (2012)

County/Region	Less than 16	17 years old	18 years old	19 years old	20 years old
Allegany	1.3%	0.9%	3.4%	4.0%	9.6%
Cattaraugus	1.3%	1.5%	1.7%	5.1%	9.6%
Chautauqua	1.6%	1.4%	3.4%	5.8%	12.1%
Erie	1.1%	1.1%	2.2%	3.2%	7.6%
Genesee	0.9%	0.9%	2.0%	2.6%	6.4%
Niagara	1.1%	1.7%	2.0%	3.6%	8.4%
Orleans	0.9%	1.9%	1.9%	3.9%	8.6%
Wyoming	0.3%	0.5%	2.8%	3.3%	6.9%
WNY	**1.1%**	**1.2%**	**2.3%**	**3.6%**	**8.2%**
NY State	**0.8%**	**0.9%**	**1.6%**	**2.5%**	**5.7%**

Source: SPARCS Inpatient Data

Table 32 - County Level Detail Length of Stays of Premature Babies vs. Normal Births (2012)

ICD-13 Group	WNY	NY State
Acute myocardial infarction	73.3	38.8
All other forms of chronic ischemic heart disease	100.8	108.2
All other forms of heart disease	48.6	29.7
Atherosclerotic cardiovascular disease	13.4	21.2
Heart failure	27.3	13.7
Hypertensive heart disease	20.3	15.0

Source: SPARCS Inpatient Data

Table 31 breaks down mothers' age at delivery. For the state, 94.3% of mothers are at least twenty years old. For the region, that number is only 91.8%. The region has a higher percentage of births at every age level under 20. Particularly high are Chautauqua, Allegany, and Cattaraugus Counties, though each county is above the state average.

Table 36 compares the average inpatient lengths of stay (LOS) for pre-mature vs. normal births and presents the ratio of premature/ normal LOS for WNY. WNY overall has a higher ratio, indicating an average LOS that is longer for pre-mature births, compared to NY State.

Distressingly, the table shows that premature newborns are in the hospital 7-8 times as long as normal newborns, and during their stays they require much more medical attention than do the full-term newborns, so the costs to Medicaid would be even higher (than 7-8 times). Any effort to decrease the proportion of premature newborns would substantially benefit the newborns, their parents, and the healthcare system.

5k. Integration of Palliative Care into PCMH Model (Project 3.g.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of palliative care in Western New York. The information shows how WNY has a population with greater need for palliative care, and that Project 3.g.i would promote the well-being of the region's population.

Project Description

A large proportion of medical spending (and Medicaid spending) is focused on End of Life care. It focuses on relieving symptoms, pain, and stress of serious illness and is provided by both doctors and nurses. People of any age could be candidates for palliative care. Increasing access can help ensure end of life planning needs are met before they become urgent so that the patients receive the treatment they prefer.

Rationale

Palliative care programs have experienced rapid growth since 2000 with the major expansion primarily in the area of inpatient consultations. A growing body of evidence supports outpatient palliative care. In the United States, fiver percent of the population is responsible for nearly half of all health care expenditures, with a large concentration of spending driven by individuals with expensive chronic conditions in their last year of life. Outpatient palliative care under the Medicare Hospice Benefit excludes a large proportion of the chronically ill and there is widespread recognition that innovative strategies must be developed to meet the needs of the seriously ill while reducing costs.

A local team of physicians including Chris Kerr and John Tangeman have published "Clinical Impact of a Home-Based Palliative Care: A Hospice and Private Payer Partnership" in the Journal of Pain and Symptom Management February 2014 reporting that home based palliative care improved symptom management, advance directive completion and patient satisfaction. Cost savings were apparent in the last three months of life ($6,804 per member per month (PMPM) cost for palliative care participants vs. $10,712 for usual care). During the last two weeks of life, total allowed PMPM was $6,674 vs. $13,846 for usual care. Enhanced hospice entry (70 vs. 25 percent) and longer length of stay in hospice (median 34 vs. 9 days) were observed. In addition there was clear evidence of both patient and caregiver satisfaction. This WNY based program a team of nurses, social workers, trained volunteers cared for patients in the home. Unlike hospice, home based palliative care requires neither a limited prognosis nor patients forgoing curative treatments. The current fee for service environment limits provision of home based palliative care despite its potential for cost savings and decreased hospitalizations.

This program and outcome study supports the expansion of palliative care into the increasing number of PCMH practices in WNY.

Table 18 - County Level Detail Percentage of Medicaid Patients who Died in Hospital (2012)

County/ Region	Medicaid Patients who Died in Hospital	Medicaid Patients	% of Medicaid Patients Died in Hospital
Allegany	29	1,216	2.4%
Cattaraugus	58	2,409	2.4%
Chautauqua	58	3,996	1.5%
Erie	602	24,469	2.5%
Genesee	33	1,398	2.4%
Niagara	147	6,379	2.3%
Orleans	24	1,016	2.4%
Wyoming	13	833	1.6%
WNY	**964**	**41,360**	**2.3%**
NY State	**16,268**	**609,698**	**2.7%**

Source: ACS 2011-2013 3-year Estimates

5I. Promote Mental, Emotional, and Behavioral Well-Being (4.a.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of mental and behavioral healthcare in Western New York and New York State across several indicators. The information shows how the region has several challenges to overcome in this area, and Project 3.a.ii is especially needed

Project Description

Mental health issues are difficult to address because unlike physical health issues, the patients themselves do not have the same capacity for self-treatment. This challenge makes necessary special provisions for treatment of these patients. Examples of the additional needs include early diagnosis of any conditions and attention to all the treatments patients are receiving. The latter example requires that care be more integrated so that providers and physicians have access to all of a patient's medical records. Without that information and data, the physician could prescribe a medication that could adversely interact with other medications causing harm to the patient.

Lastly, it is essential to recognize the importance of de-stigmatizing mental health issues. The negative impression from mental health issues leads to delay or even avoidance of necessary treatment. One goal of this project is to bring patients who need treatment into the healthcare system.

Rationale

Table 34 contains information on select health prevention metrics, including the percentages of adults with poor mental health and adults who binged on alcohol, as well as the suicide death rate. WNY did not meet the state goals for these metrics, and performed worse on two of the three metrics compared to NY State.

Table 34 - County Level Detail Prevention Agenda Statistics (2010-2014)

County/ Region	Age-adjusted % of adults with poor mental health 14+ days in last month	Age-adjusted % of adult binge drinking during the past month	Age-adjusted suicide death rate per 100,000
Allegany	12.3	16.9	8.5
Cattaraugus	11.7	20.8	11.7
Chautauqua	16.4	11.9	12.4
Erie	10.8	19.9	10.3
Genesee	9.7	16.9	14.2
Niagara	13.8	18.8	13.6
Orleans	17.9	17.1	13
Wyoming	7.7	20.7	19.5
Western NY	**11.7**	**18.9**	**11.4**
NY State	**11.8**	**17.4**	**9.5**
NY Goal	**10.1**	**18.4**	**5.9**

Source: NY Department of Health

5m. Promote Tobacco Use Cessation (4.b.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of tobacco utilization in Western New York and New York State across several indicators. The information shows how the region has several challenges to overcome in this area, and Project 4.b.i is especially needed. WNY will also participate to help the state reach its statewide goals of decreasing tobacco use.

Project Description

Tobacco use is New York's leading cause of preventable deaths. Oral Cancer, Lung Cancer, Heart Disease, Stroke, COPD, are among the consequences of tobacco addiction. By reducing the smoking rate in the area, not only could the utilization of healthcare fall but thousands of lives could be saved. Furthermore, substantial productivity is lost every year by smokers with health problems. The low-income and poor mental health populations are especially at risk of tobacco addiction.

According to Tobacco Free NY, the state spends $8.17 billion caring for people as a result of smoking, which comes out to $883/household. Medicaid alone spends $3.3B on treatment related to tobacco. Additionally, more than 25,000 people die annually across the state from their own smoking, and 570,000 New Yorkers have a serious disease directly tied to their smoking.

Because of these facts, the state has identified several goals to reduce smoking usage, decreasing tobacco use among school-age students, decreasing it among adults, and increasing the number of municipalities that restrict tobacco marketing.

Rationale

Table 35 shows the percentage of adults who smoke cigarettes in WNY compared to NY State. WNY has a higher proportion of smokers among adults compared to NY State and the goal for the state. Every county in Western New York exceeds the goal for the state as well as the state average.

Table 35 - County Level Detail Tobacco-Related Prevention Agenda Statistics

County/Region	% of cigarette smoking among adults
Allegany	26.8
Cattaraugus	28.4
Chautauqua	24.7
Erie	18.8
Genesee	25.8
Niagara	20.8
Orleans	25.7
Wyoming	21.6
Western NY	**20.8**
NY State	**17.3**
NY Goal	**15**

Source: NY Department of Health

5n. Reduce Premature Births (4.d.i)

Summary

Using the data sources available through the DOH's websites and supplementing with internal data, outlined below is the state of pre-mature births in Western New York and New York State across several indicators. The information shows how the region has several challenges to reduce the prevalence of prematurity in WNY, and Project 4.d.i is especially needed.

Project Description

Babies born before the full term require increased medical attention both early on and throughout their lives. They are susceptible to a range of health problems relating to their under-developed organs. Furthermore, the health problems common among pre-term newborns often cause emotional stress among parents. Reducing the prevalence of pre-term births would help reduce the stress on the region's Health System.

Rationale

The data below show how Western New York compares to the rest of the state and provides information for the individual counties that comprise the region to get a sense of how the prevalent the issue is over Western New York.

Table 36 compares the average inpatient lengths of stay (LOS) for pre-mature vs. normal births and presents the ratio of premature/normal LOS for WNY. WNY overall has a higher ratio, indicating an average LOS that is longer for pre-mature births, compared to NY State.

Distressingly, the table shows that premature newborns are in the hospital 7-8 times as long as normal newborns, and during their stays they require much more medical attention than do the full-term newborns, so the costs to Medicaid would be even higher (than 7-8 times). Any effort to decrease the proportion of premature newborns would substantially benefit the newborns, their parents, and the healthcare system.

Table 36 - County Level Detail Length of Stays of Premature Babies vs. Normal Births (2012)

County/Region	LOS - Premature	LOS - Normal	Ratio
Allegany	23.5	2.11	11.13
Cattaraugus	17.4	2.20	7.87
Chautauqua	9.4	2.01	4.68
Erie	19.9	2.26	8.80
Genesee	17.9	1.92	9.35
Niagara	19.5	2.17	8.95
Orleans	22.1	2.09	10.58
Wyoming	19.2	1.97	9.75
WNY	**18.5**	**2.19**	**8.46**
State	**16.8**	**2.34**	**7.19**

Source: SPARCS Inpatient Data

6. Resource Inventory

Assessing regional proximity of health care resources

Many factors influence an individual's access to health care services and community support. One of the most important is the simple geographic proximity of providers to the populations they serve. This analysis, therefore, attempts to show where services are located in relation to the residents who use them, especially those insured by Medicaid.

The major observation to be made for Western New York is simply that health care resources tend to be concentrated in center cities and their suburbs while they are relatively sparse in rural areas. Services are most frequently located and most densely concentrated where the most people are. Rural areas, with fewer people, have proximate access to fewer providers. The key question is whether those resources are proportionate to the need.

The greatest concentration of health care providers for acute care, primary care, and mental and behavioral care are in the region's two largest cities, Buffalo and Niagara Falls. With the exception of primary care, the greatest concentration of "safety net" providers -- those with a significant share of volume with Medicaid patients -- are also in the metropolitan core.

Rural residents typically find themselves farther from needed services than their urban counterparts. Even residents near small cities in rural counties may be more distant from providers than residents in the metropolitan area. How do we assess whether or not these communities are underserved?

This analysis considers the distance of providers from population combined with the ratio of providers to population. Is the supply of providers big enough? is it close enough? There's a more extensive explanation of the methodology below. The short answer is that in many cases small cities in the outlying counties as well as rural areas are relatively underserved. Yet this analysis will suggest that these gaps in proximity to services might be addressed with the addition of only a few providers if positioned strategically in the region.

Methodology

The following analysis uses proximity as a proxy for access to find which areas within Western New York have relatively low or high access to certain types of health care providers. A proximity score based on the number of providers per population and their relative distance to the population is calculated for each ZIP code for a key set of provider types. The proximity score for each ZIP code is determined by counting the number of providers per population within specified linear distances of each ZIP code's center of population, weighting them based on their distance from the zip code and adding them together (see formula below).

Proximity Score = $\sum a+.4b+.2c+.1d$

Where:
a = # of providers within 2 miles (per 100,000 people);
b = # of providers within 2-5 miles (per 100,000 people);
c = # of providers within 5-10 miles (per 100,000 people); and
d = # of providers within 10-20 miles (per 100,000 people).

For example, this means that one provider within two miles of a ZIP code's population center is equivalent to twenty providers within twenty miles of that ZIP's population center. Also, if one ZIP code has a large population and another has a small population, but the number and distances to providers are equal, the ZIP code with the lower population will produce a higher proximity score. After initial scoring, all 198 included ZIP codes are ranked on a 0-100 scale, with lower numbers indicating lower proximities to health care providers.

The analysis is performed for key types of health care providers: (1) hospitals, (2) Safety Net primary care providers, (3) Safety Net Primary Care providers, (4) Safety Net mental health care providers, (5) non-Safety Net mental health care providers, (6) Safety Net behavioral health care providers, (7) non-Safety Net behavioral health care providers, and (8) all specialty care providers.

A different method is used to measure proximity to hospitals. This simply measures the linear distance of each ZIP code's center of population to the nearest acute care hospital. ZIP codes are sorted by these distances and ranks are assigned to each ZIP code, where greater distances from the ZIP code to the nearest hospital indicate lower proximities.

The analysis does not account for health care providers beyond the eight-county area of Western New York and therefore may underestimate the proximity to health care providers for ZIP codes near the borders of the region, especially along the eastern border.

These findings are discussed in further detail on the following pages and in an appendix to this report. In the pages that immediately follow, we show maps that indicate the relative ranking of ZIP codes for proximity to providers in several key categories. As with other maps and tables in this report, green is good (more proximate supply) and red is bad (less proximate supply).

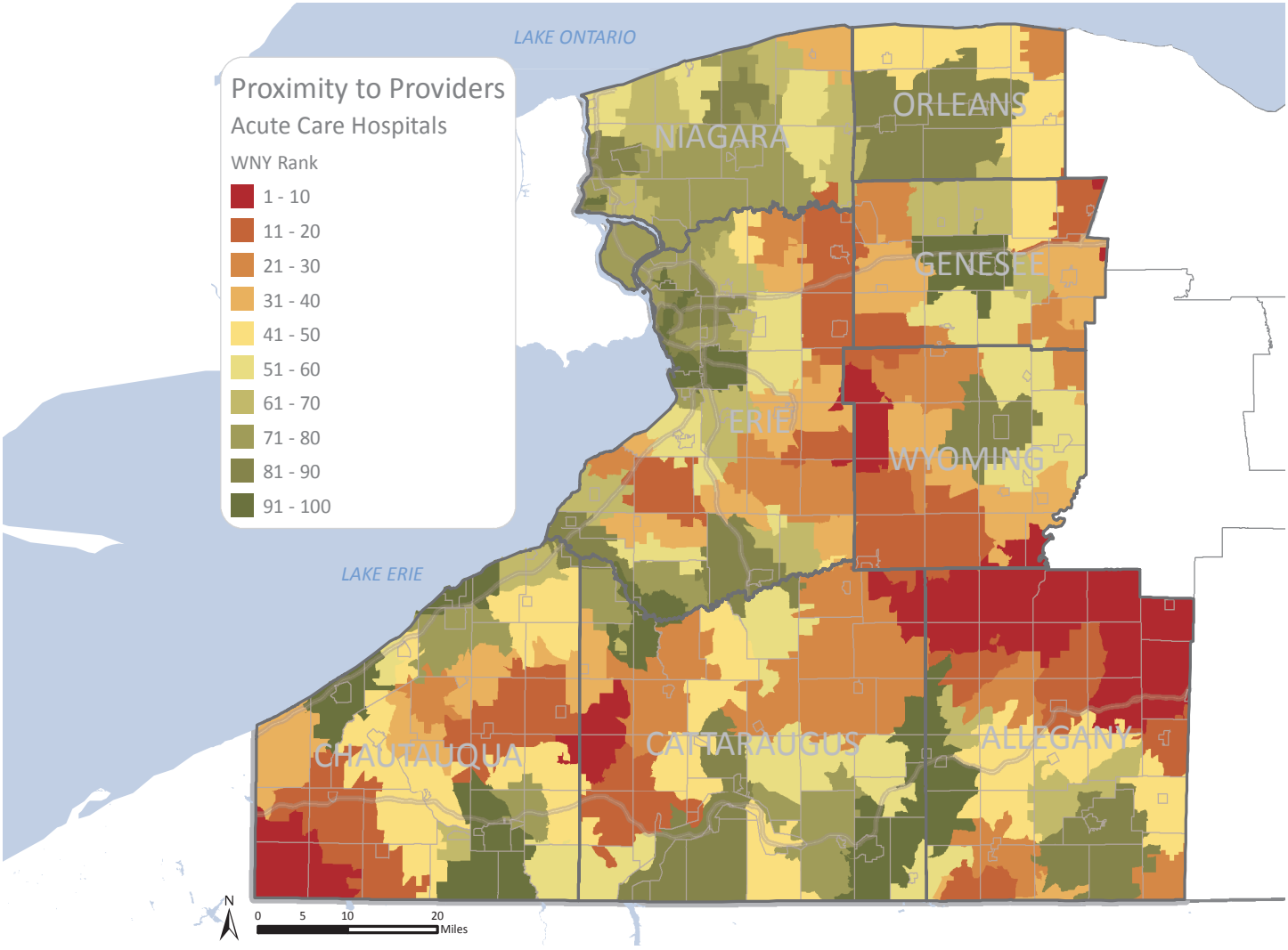
The appendix to this report includes an exhaustive listing of providers, including community support resources, organized by category and mapped across the region with a narrative discussion of key findings.

Hospitals

Acute care hospitals in Western New York are concentrated around population centers. Of the 42 acute care hospitals in the region, more than half (25) are located in the region's two metropolitan counties, Erie and Niagara. This concentration leads to higher proximity scores for ZIP codes in the cities of Buffalo, Niagara Falls, and also in their adjacent suburbs, which have lower concentrations of Medicaid enrollees.

In the region's more rural counties, cities like Jamestown, Olean and Batavia also have hospitals and show relatively high proximity scores. However, the dispersed populations just beyond these centers are the most underserved by hospitals in Western New York. This is most apparent in the northern swath of Allegany County and the southern edge of Wyoming County, which includes the highest intensity of the relatively low proximity scores across the region.

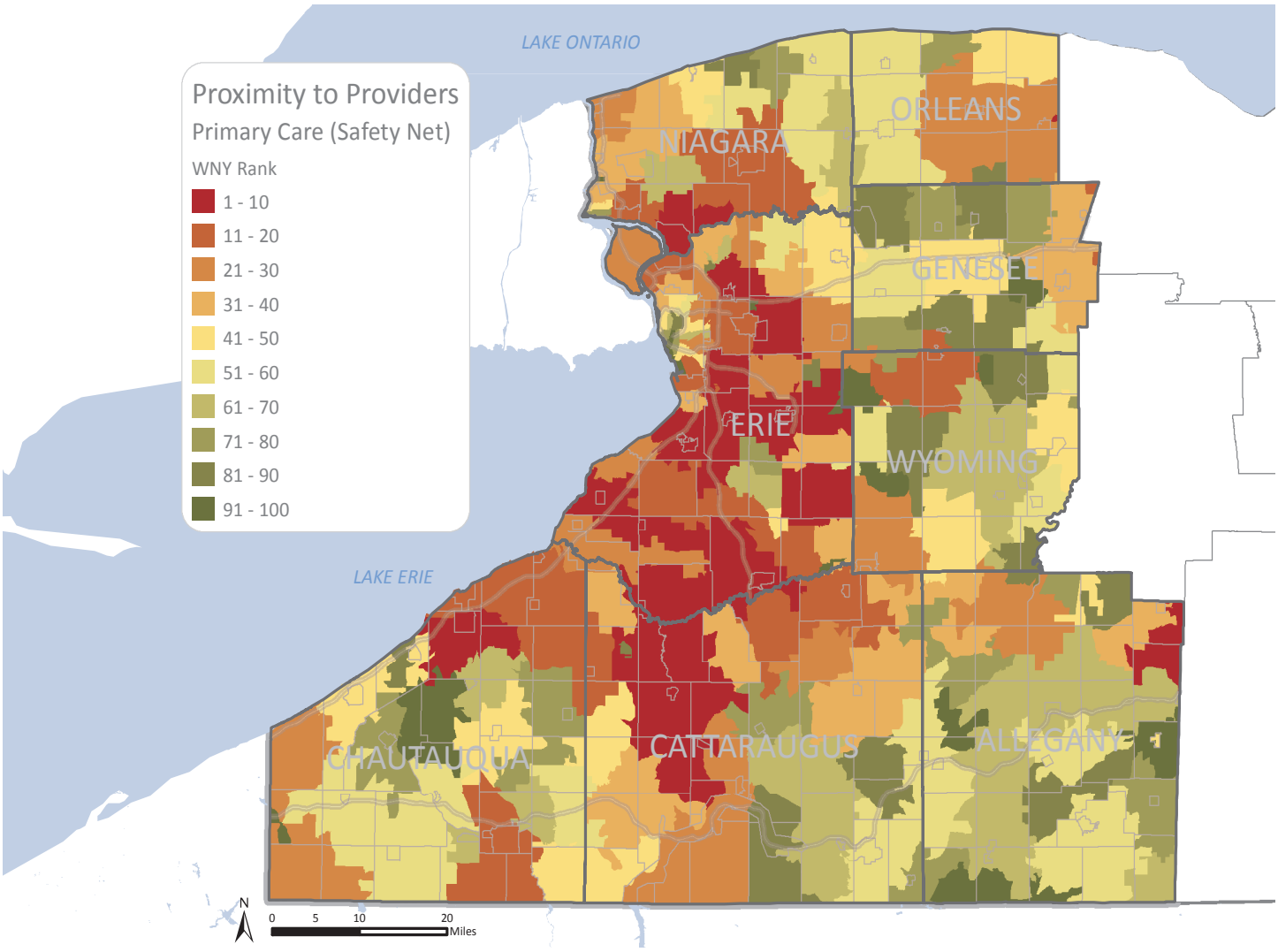
In sum, the map confirms the commonly-held assumption that rural populations are more isolated from, and therefore have poorer access to hospitals, than their urban counterparts. Unlike all subsequent assessments, this proximity measure is based solely on distance and does not factor in for the number of people in each ZIP code and thus may overstate low access to hospitals for rural populations.



Safety Net Primary Care Providers

Safety Net primary care providers are also concentrated in the region's cities, while other places with relatively high population densities, like the suburbs of Buffalo, have a comparatively small number of facilities offering Safety Net Primary care. Although these towns may have one or two Safety Net primary care providers nearby, and also may be within twenty miles of several others in nearby cities, they hold many residents and, therefore, yield lower proximity scores. However, since these towns have many non-Safety Net primary doctors and generally more affluent populations, low proximity to Safety Net doctors in these places may not be as problematic as it is for rural populations on the southern and eastern borders of Erie County and wide stretches of Cattaraugus, Chautauqua, and Niagara counties where there are higher proportions of low-income residents and fewer Safety Net providers.

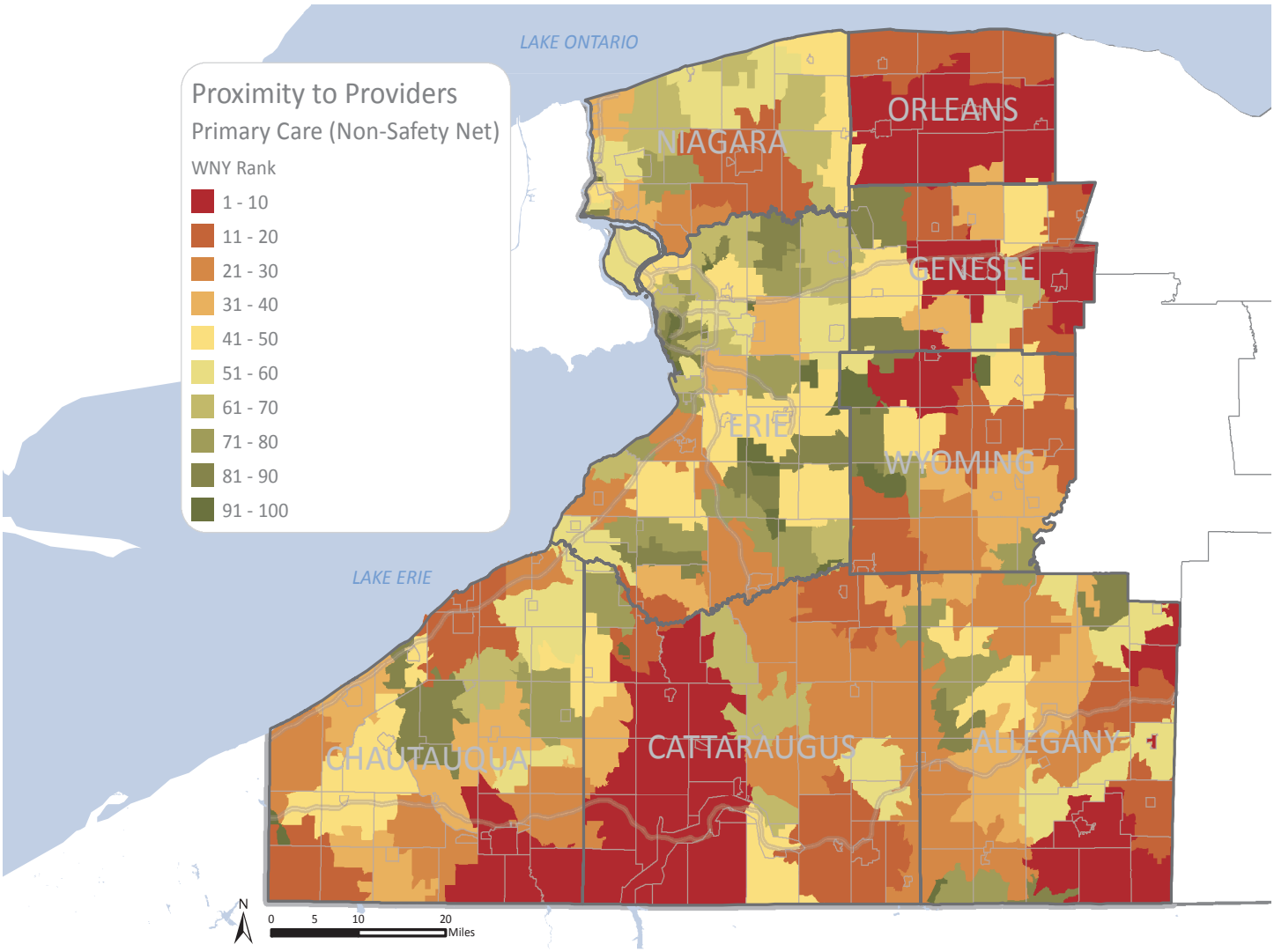
Many of Western New York's rural ZIP codes show high measures of proximity to Safety Net primary care providers even though providers are dispersed broadly throughout these communities. This is partly due to the low population in these locations, but also because Safety Net primary care providers here, though few, are strategically scattered in rural centers, like Wellsville, Albion, Warsaw and Arcade, that are commonly within a reasonable distance of most of the surrounding rural populations.



Non-Safety Net Primary Care Providers

Even while accounting for their smaller populations in the proximity score, rural ZIP codes still generate the lowest proximity scores for non-Safety Net primary care providers. For instance, all ZIP codes within Orleans County, which has only four non-Safety Net primary care providers within its borders, fall in the bottom twenty percent of the region's ZIP codes on this measure. Many ZIP codes in other rural counties also produce low proximity scores for non-Safety Net primary care providers, including those within cities like Jamestown, Batavia and Salamanca.

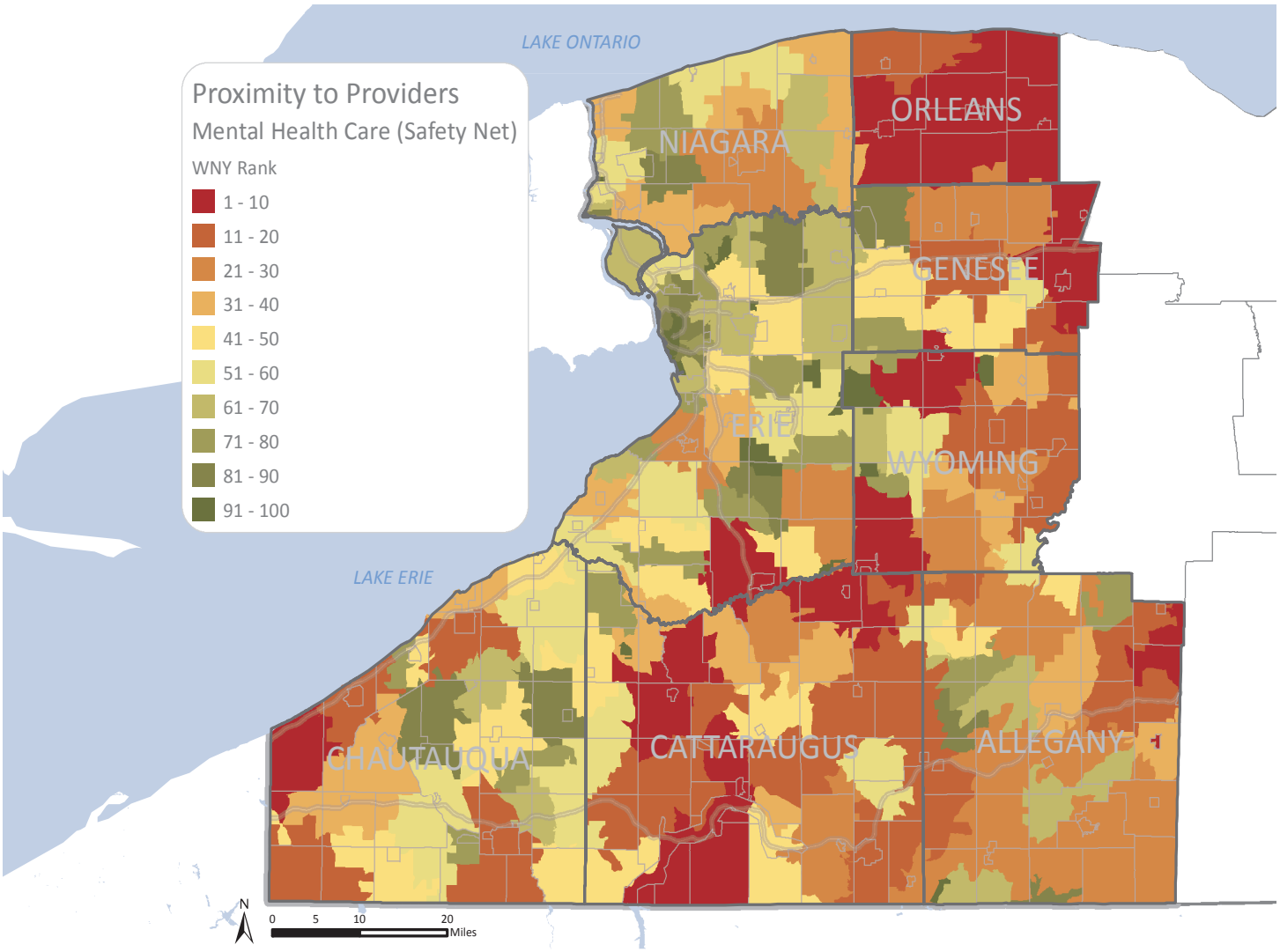
The communities where low access to primary care is most severe lie in western Cattaraugus County, especially zip codes 14719, and 14755 which fall within the bottom ten percent of proximity scores for both Safety Net and non-Safety Net primary care providers. Conversely, many suburban areas that received low proximity scores for Safety Net primary care providers reveal high, or at least fair, proximity scores for non-Safety Net providers. And in Niagara County, Lockport and North Tonawanda ZIP codes that score relatively low on this measure also showed low scores of proximity to Safety Net primary care providers.



Safety Net Mental Health Care Providers

The relative proximity to mental health care providers reveals a similar general trend as proximity to other key providers – high access in urban areas and low access in rural areas, which remains true even after factoring for population size. Many of the most densely populated zip codes within Western New York, which also hold the largest concentrations of those in need of mental health support, have the best geographic access to mental care providers. However, some zip codes in the metropolitan counties of Western New York, around Springville, Hamburg and Lockport for instance, do not own as many mental health care providers within close proximity as zip codes in Buffalo and Niagara Falls.

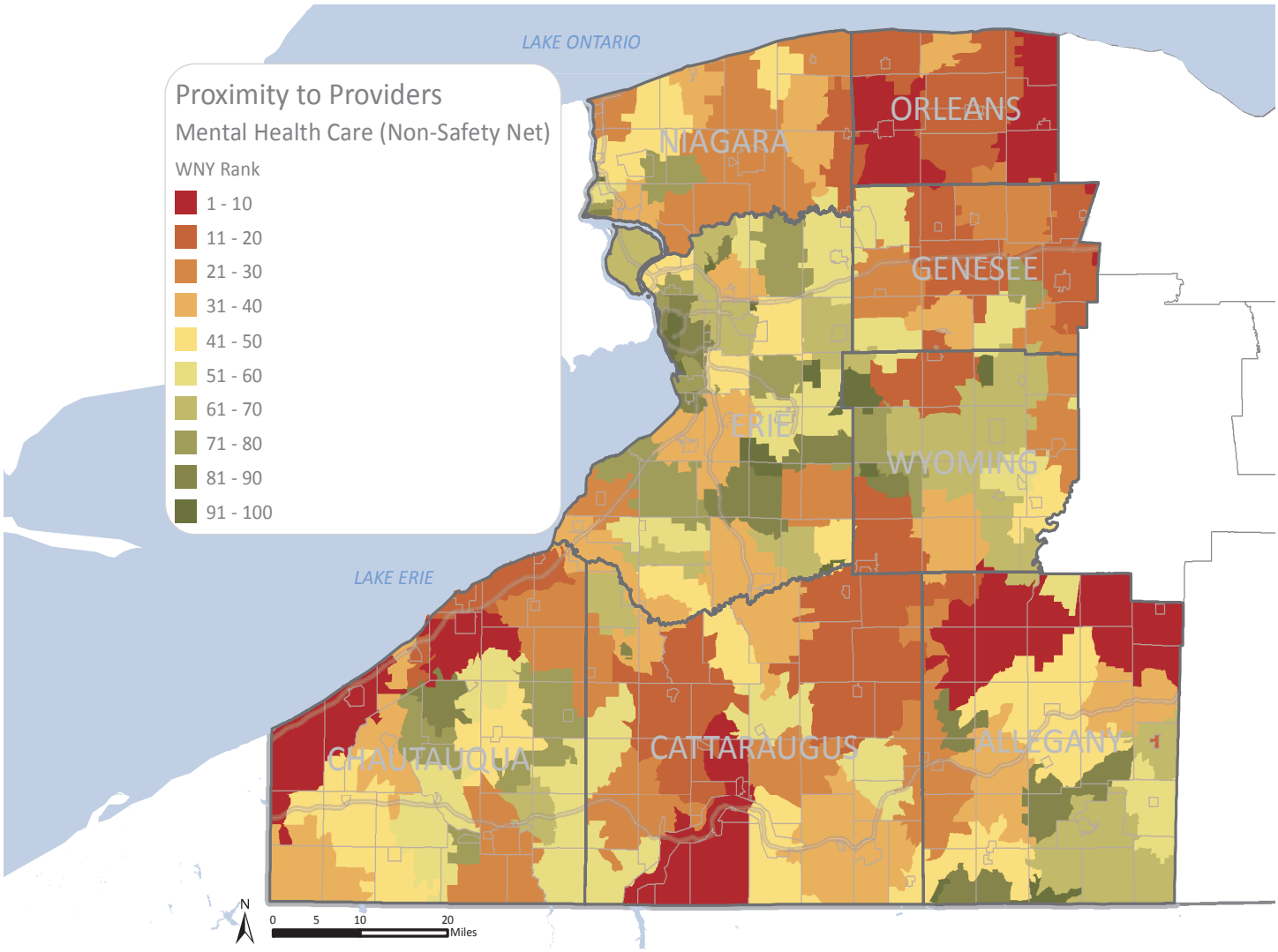
Low access to mental health care providers is most extreme in rural counties. Orleans County again shows the lowest overall access with all of its zip codes falling within the bottom twenty percent of proximity scores across the region. Low access is slightly less pervasive in other rural counties, but many cities and villages in these counties – places with relatively high concentrations of people in need of mental support services – rank as having the lowest access to providers relative to the region. For instance, the zip codes of Jamestown, Salamanca, Wellsville, Attica, Batavia and Medina all fall within the bottom ten percent of Safety Net mental health care provider proximity scores. Though these places may have one provider close by, since there are surrounded by vast stretches without any mental health providers, and since they have relatively high populations, they have particularly low access to mental health support.



Non-Safety Net Mental Health Care Providers

Relative proximity to non-Safety Net mental health care providers shows the same general pattern as for Safety Net providers: closer proximity in metropolitan counties than in rural areas. However, there are some differences. While most of the rural areas with poor proximity to Safety Net mental health care resources also score low on this proximity measure, some places, like parts of Allegany and Wyoming counties, show reasonable proximity to non-Safety Net mental health care providers. Yet all ZIP codes within Orleans County fall near the bottom of this proximity measure once again, as does much of the northern half of Allegany County, parts of Chautauqua County (e.g., Dunkirk) and ZIP code 14779 in Cattaraugus County (containing Salamanca and the Allegany Reservation).

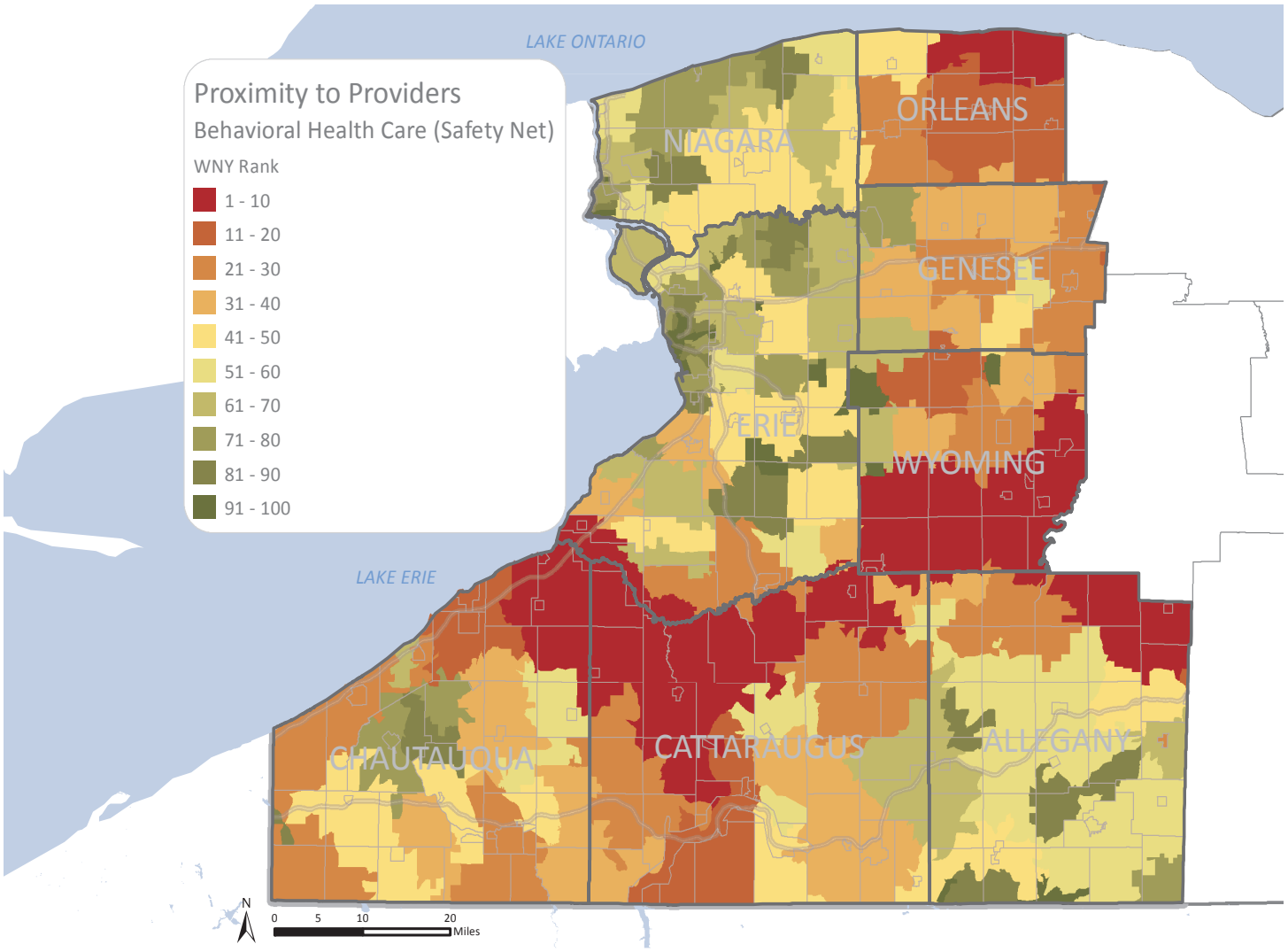
The City of Buffalo is the best-served by mental health care providers, even after accounting for its large population. Niagara Falls is also in close proximity to non-Safety Net mental health care providers, but the bulk of Niagara County, especially the eastern half, reveal low proximity scores for these providers. Meanwhile, most suburban residents in Erie and Niagara counties are generally within reasonable proximity to these providers. In sum, this map shows that, even though rural areas have less people overall, because providers are so dispersed, they in fact contain more people beyond close proximity to mental health care providers.



Safety Net Behavioral Health Care Providers

As is the case for mental health care providers, proximity to behavioral health care providers again underscores the urban-rural dichotomy. The cities of Buffalo and Niagara Falls, which contain among the highest concentrations of people in need of addiction and abuse treatment services, have the highest proximity to Safety Net behavioral health care providers. This high proximity extends to most surrounding villages and suburbs in Erie and Niagara counties, although some towns and villages like Hamburg, Angola, Brant and Springville, do have low proximity to Safety Net behavioral health resources.

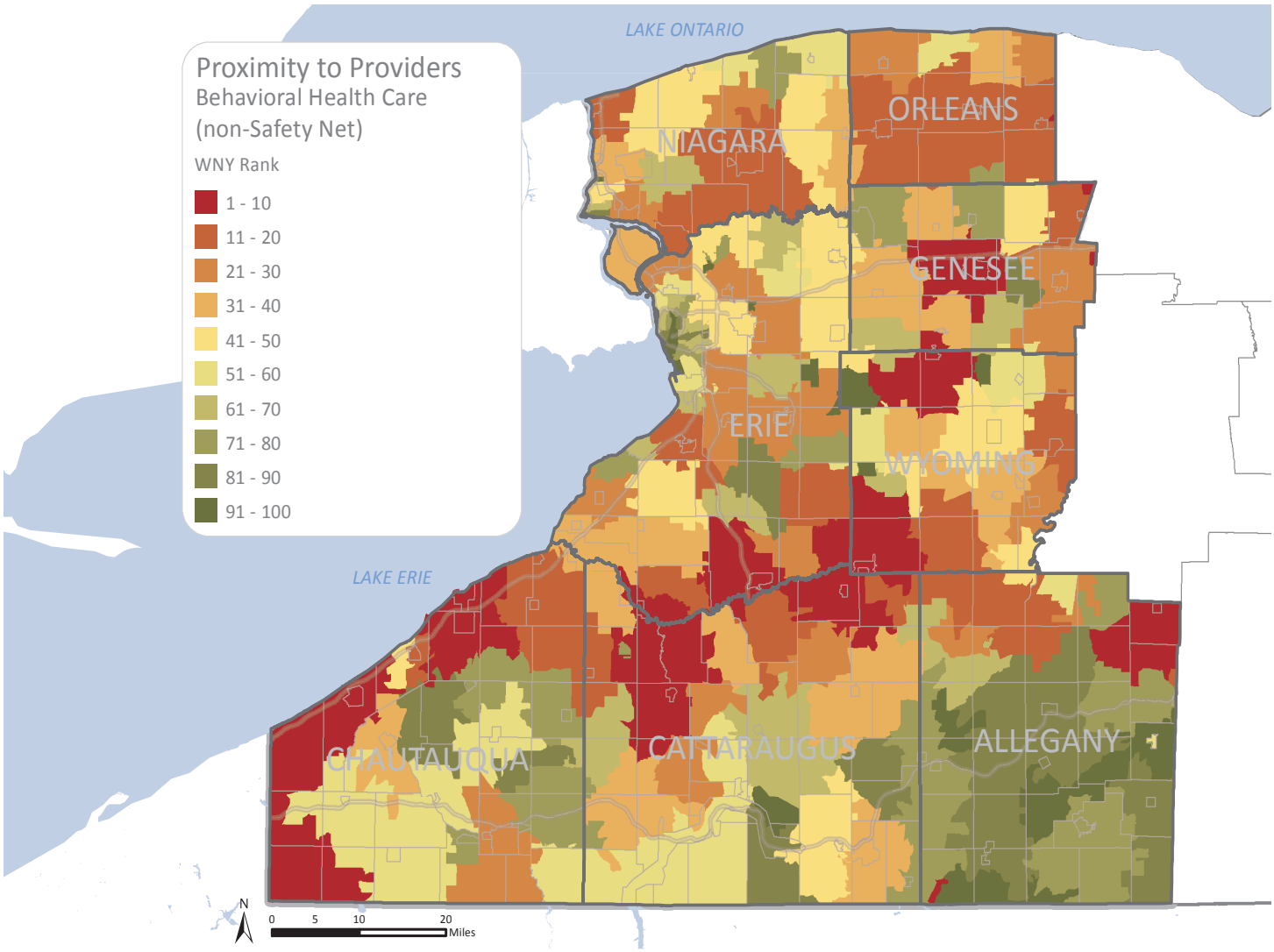
Rural counties again generate the most extreme low proximity scores for a key provider type. In the case of Safety Net behavioral health care providers, the lowest proximity scores concentrate in rural towns of Chautauqua, Cattaraugus and Wyoming counties bordering the southern portion of Erie County. Orleans County shows strikingly low relative proximity to yet another key type of provider. The bulk of Allegany County has relatively high proximity, in part due to low population in this area, while most of Genesee County has somewhat low proximity to Safety Net behavioral health care providers.



Non-Safety Net Behavioral Health Care Providers

Looking at relative proximity to non-Safety Net behavioral health care providers tells a slightly different story of access to health care in Western New York. While urban areas, particularly Buffalo and Niagara Falls, still show some of the highest proximity scores for this provider category, many rural areas, like most of Allegany County, also rank high. Conversely, though notable ZIP codes in rural areas again score low on this proximity measure, some of the lowest proximity scores appear in ZIP codes within the region's metropolitan counties (e.g., around Springville, Hamburg and Lockport).

The most severely low proximity scores for non-Safety Net behavioral health care providers seem to converge on population centers within the more rural counties of Western New York. For instance, Attica, Batavia, Dunkirk, Fredonia and Westfield all lie within ZIP codes ranking in the bottom ten percent of the region for this measure. Orleans County ZIP codes, though not among the most extremely low proximity scores, show relatively low access overall for yet another key provider category.



Specialty Care Providers

Though this measure cannot be used to assess relative proximity to specific types of specialty care providers, the map does prove a basic and powerful point – specialty care providers are generally much harder to reach for rural residents than for their urban counterparts. In fact, the urban-rural dichotomy of proximity to health care is most clearly shown in this metric evaluating relative access to all specialty care providers. Only a few ZIP codes within Erie and Niagara counties (e.g., Lockport, Hamburg, Somerset and Springville) fall outside of the top fifty percent on this proximity score. Meanwhile, only 31 (27%) of the 111 ZIP codes lying primarily within the six most rural counties of Western New York rank better than the bottom fifty percent.

The area with the highest proximity to specialty care providers within Western New York, in general, falls in the City of Buffalo. Concentrations of specialty care providers in Niagara Falls, Amherst, Clarence and Orchard Park also produce high proximity scores for these locales. Areas with the most severely low proximities to specialty care providers lie within rural counties, even after controlling for lower populations here. This includes Albion and its surrounding ZIP code while all other ZIP codes primarily within Orleans County rank in the bottom thirty percent of this score, again highlighting the low access to providers of all types for Orleans County residents. Batavia's ZIP code scores in the bottom twenty percent for proximity to specialty care providers, as do the ZIP codes of Le Roy, Wellsville, Attica, and Arcade. Most of the other ZIP codes with the lowest proximity to specialty care providers are overwhelmingly rural and sparsely populated which further stresses the severity of limited access to specialty care in these areas.