Western New York
Primary Care Assessment

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Submitted to:
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for Western and Central New York
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Health Foundation for Western & Central New York
Investing in Better Health for People and Communities

I am pleased to present the final report of the Western New York Primary Care Safety-Net Assessment. This report is the culmination of a collaborative effort on behalf of more than 100 stakeholders from throughout the region and around the state.

Since its inception, the Health Foundation has focused on improving the health and health care of two of the most vulnerable and underserved populations in our regions: frail elders and young children. However, we recognize that the health of frail elders and children in poverty cannot improve without building community capacity and strengthening the health care systems that serve them.

It is with this in mind that we hired John Snow Inc. to update the objective primary care assessment that was conducted in 2007-2008 for the western New York region. The project engaged health care providers, social service agencies, health departments, academic institutions, advocacy and planning organizations, and foundations as well as community members. Dozens of these collaborators provided their expertise, guidance, and perspective through interviews. Other collaborators provided support related to data management and analysis, consumer survey data collection, and website development. Still others allowed us to conduct site visits at their clinics or generously shared their technical reports and research efforts. This ambitious initiative could not have happened without the support of all of these partners.

Our health care system is facing unprecedented change. This change is transforming how health care, public health, and social service organizations are delivering services, how service providers are being paid, and how consumers are engaging in care. Many of these changes and reforms will not succeed without a stronger, more integrated, more patient-centered primary care system capable of providing the highest quality care to everyone in our communities. We hope this initiative will guide regional, collaborative efforts to expand and strengthen the region's primary care system and ultimately improve the health of our communities.

On behalf of the Health Foundation's staff and Board of Trustees, as well as the project team at John Snow, Inc., I want to express my deepest appreciation to everyone who was involved in this project. If you have any questions, or need more information, please feel free to contact me at amonroe@hfwcny.org.

Best Regards,

Ann F. Monroe

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I. EXECUTIVE SUMMARY

A. Purpose and Rationale

The purpose of this assessment effort was to collect information from quantitative and qualitative sources that would allow the HFWCNY and regional primary care stakeholders to better understand community need as well as primary care safety-net strength and capacity.

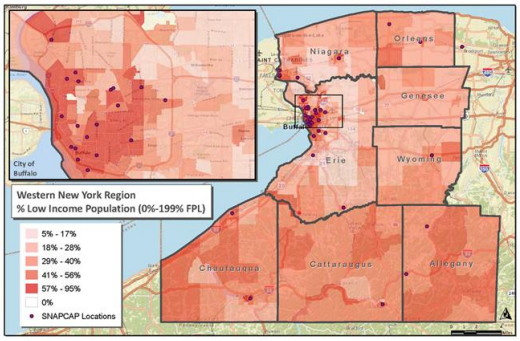
The objectives of this project were to:

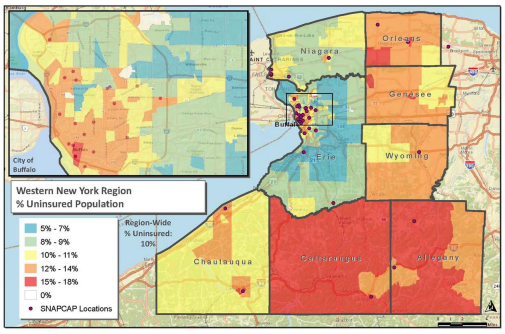
1) Describe and assess the **underlying demand for primary care services** including the identification of at-risk populations, priority health issues, service gaps, and barriers to access.
2) Describe and assess the existing **primary care system** with respect to capacity, quality, and strength.
3) Assess **consumer experience** with primary care.
4) Assess the i**mpact and consequences of health care reform** with respect to internal operations and external collaboration.

B. Key Findings

1. Primary care demand and community need

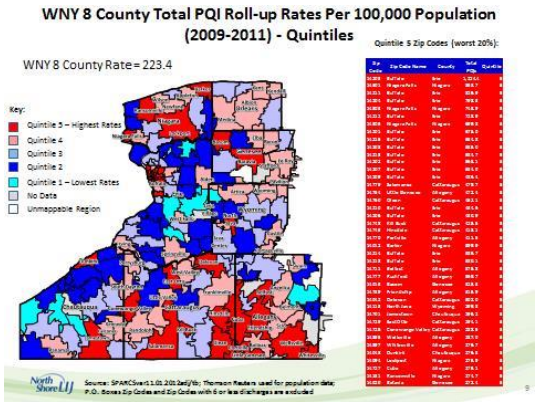
- Large numbers and percentages of low income, racial/ethnic minority, and refugee/immigrant populations throughout the region that struggle with access and face disparities in outcomes, particularly in the region's urban areas but also throughout rural areas too.





- Large numbers of uninsured populations throughout the region who struggle with access will exist even after the implementation of the ACA.

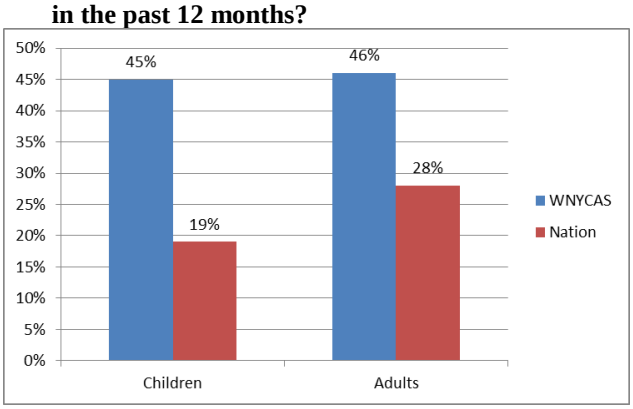
- High rates of morbidity for the leading health conditions throughout the western New York region, particularly in Buffalo and Niagara Falls.
- High rates of preventable inpatient service utilization exist throughout the region, indicating gaps in primary care capacity.



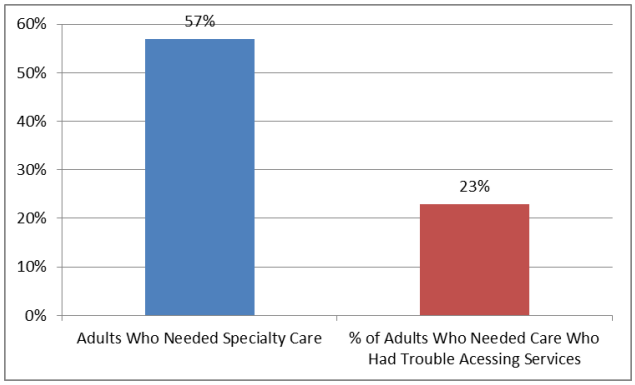
2. Consumer input and barriers to access

- Relative to the nation, adults and children are more likely to use the emergency room that adults and children nationally,
- While the rate of preventive dental access in western New York is less than the national rate (77%), this is large improvement compared to the 2007-08 WNYCAS survey, where only 61% of children had a preventive dental care visit.

Have you visited a hospital emergency room in the past 12 months?

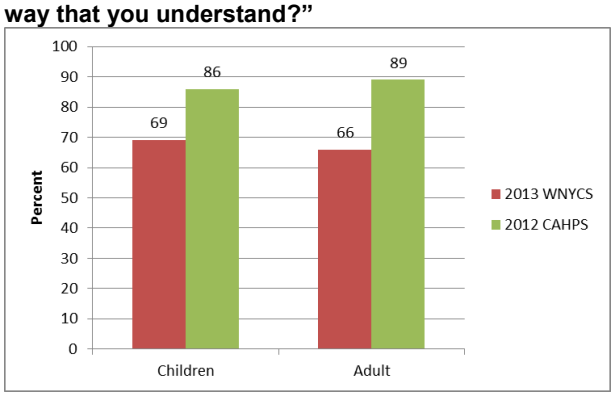


"Were you able to access medical specialty care services?"



- Fifty-seven percent of adult respondents reported needing medical specialty care, and 23% of these reported some problem accessing a medical specialty care provider.
- 64% of adults said their provider always listens carefully to them. Sixty-six percent 66% of adults said their health provider always explains things in a way they understand.

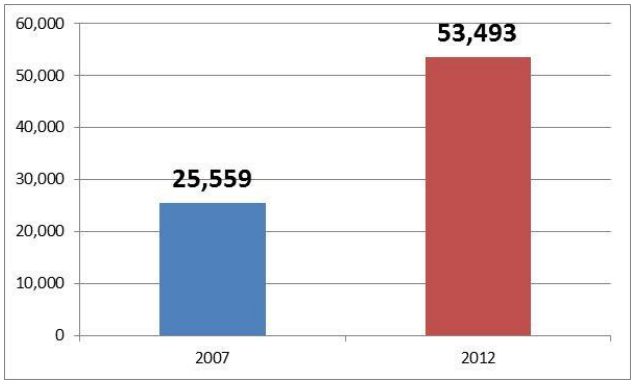
"How often does your provider explain things in a way that you understand?"



3. Primary care structure, supply, capacity

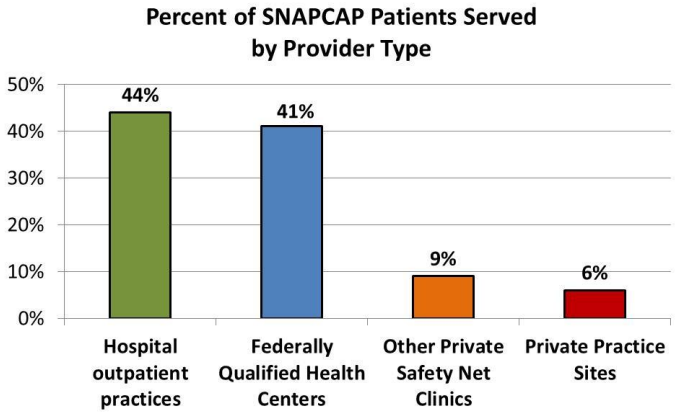
- FQHCs play a major role in the region, particularly in Buffalo. Since 2007, the number of patients served by FQHCs in western New York has increased by more than 100%, from approximately 25,000 patients in 2007 to more than 50,000 patients in 2012.

Patients Served by FQHCs in western New York



- Despite the dramatic growth in core safety-net provider organizations, there is still substantial unmet need in the region, particularly among low-income segments of the population. In some communities the safety-net's penetration into the low income population may be as low as 20-30%.

- Private, hospital-affiliated and independent primary care providers play a major role in the safety in most communities in the region and are often the leading primary care providers in their market areas. These efforts are often part of broader hospital strategies to develop integrated delivery systems that are incented to keep patients and communities healthy rather than to provide certain scope of services.



- The fact that hospitals are taking steps to become part of the primary care safety-net is generally perceived positively, however, there are some people who are concerned that their involvement may be temporary or inconsistent, given that these practices are not typically driven by mandate or mission to serve low-income, Medicaid-insured patients.

- Urgent care clinics are evolving in many markets as a way of expanding capacity to more timely care while simultaneously reducing the burden that non-emergent, emergency department utilization has on hospitals and patients. To many this is a positive evolution but others feel that it threatens core safety-net providers whose goal and financial position is often dependent on promoting a more stable medical home.

4. Primary care internal operational strengths and weaknesses

	Strengths	Weaknesses
Outreach, Eligibility/Enrollment, and Primary Care Engagement	• FQHCs and other core safety-net providers are conducting extensive outreach, insurance eligibility screening, and insurance enrollment efforts. • In some cases, these efforts are being accomplished with outreach workers who are proactively going out into underserved communities and/or working with other community partners.	• Need for greater outreach, insurance eligibility screening, and enrollment efforts particularly among non-FQHC providers. • Lack of primary care engagement, particularly for those with chronic illness or with risk-factors • Emergency department diversion programs to promote engagement in more appropriate primary care.
Patient-Centered Medical Home	• Most primary care safety-net practices have embraced patient-centered medical home (PCMH) principles, such as: ○ Implementation of EHR ○ Tracking of quality indicators ○ Implementation of quality systems ○ Case and care management services ○ External referral systems	• Need to invest resources to bridge the gap between theory and practice and promote the full implementation and practice of PCMH principles, such as: ○ Population-based panel management to manage preventive services and chronic disease ○ Provider communication ○ Information transfer across specialists
Utilization of Interdisciplinary Teams	• Specialty care and mental health integration through co-located and enhanced referral mechanisms. • Some level of case and care management services is provided at most safety-net practice sites. • Appointment reminder calls and specialty care referral scheduling.	• Team-based approaches to providing primary care, that involve physicians as well as nurse practitioners, physician assistants, and other mid-level providers, have shown to be very effective and efficient, yet there is limited evidence of these models being applied in the region.
Health Information Technology (HIT) and Quality Improvement	• Most safety-net practices are using robust electronic medical record systems. • Most are tracking quality indicators and many have applied quality improvement protocols.	• Most practice sites lack the time, resources, and understanding on how to train providers on how to fully use their medical record systems to identify those at-risk, manage follow-up, communicate with other providers, and coordinate care.
Administrative Operations and Procedures		• One of the most significant barriers to safety-net growth is primary care provider recruitment, especially in rural areas. • Many practices struggle with coding, billing, and other financial procedures.

5. Primary care external partnerships and collaboration

- The Safety-net Association of Primary Care Affiliated Providers (SNAPCAP) was created in 2010. The coalition currently includes 16 provider organizations that collectively operate 34 clinic sites and is instrumental in promoting information sharing and partnership across the region's safety-net.
- The ACA have been a powerful force for innovation and collaboration is at the heart of this innovation. Continued efforts need to be made to break down barriers to collaboration so that health and social service providers can explore how to enhance the quality of clinical care, better integrate and coordinate services, enhance the patient experience, and reduce inefficiencies.

D. Recommendations

The findings above highlight the fact that there is a strong, diverse group of safety-net providers that operate throughout the region. No county in western New York is completely lacking in safety-net capacity. However, there is still dramatic unmet need and limited capacity throughout the region. There is also considerable room for improvement among the safety-net providers to improve the quality and efficiency of operations. The following recommendations from the JSI project team are intended to guide how primary care safety-net providers and other stakeholders in the region should work individually and collectively to strengthen and build the capacity of the safety-net as well continue to respond to ACA and other current and emerging health service delivery and payment reform trends.

Strengthen and Expand the Capacity of the Primary Care Safety-net

First, and foremost, the assessment highlights the need to strengthen primary care operations and expand the capacity of the primary care safety to address unmet need, fill capacity gaps, and improve the overall quality and efficiency of the care provided.

1. Focus on operational improvement

Primary care safety-net strengthening efforts should be focused initially on enhancing internal clinical and administrative operations and systems. The ultimate goal of these efforts should be to create truly patient centered, coordinated, integrated, service delivery approaches that are squarely focused on quality, safety, and access.

The following are the leading areas that needed to be addressed:

- Internal clinical and administrative procedures
- Quality and performance improvement
- Chronic disease management

2. Expand primary care capacity

Despite the progress in the past five-years, continued efforts still need to be made to build primary care safety-net capacity. This should be accomplished through a multi-pronged strategy that focuses first on maximizing existing primary care capacity and then on adding additional

providers or practice sites across the spectrum of core, essential, or contributing safety-net categories, as appropriate.

- *Prioritize expanding access through current providers*: Explore how to address unmet need through refining patient flow, developing primary care pods, creating interdisciplinary teams, and other ways that increase productivity and maximize existing capacity.
- *Take a multi-pronged approach to expansion:* Primary care expansion should support not only core but also essential and contributing providers in their ability to serve the safety-net.

3. Support primary care provider recruitment and retention

Almost all safety-net providers in the region struggle to recruit physicians and fill gaps in their clinical staffing. It should be noted that this issue is not unique to western New York and its safety-net providers but rather is an issue that safety-net providers throughout the nation are facing, particularly in rural areas.

- *Support regional approach to recruitment and retention*: Utilize the expertise of agencies and organizations in the state and nationally who are closely involved in provider training and development such as CHCANYS, Area Health Education Centers (AHEC), NYS Primary Care Office, and the National Health Service Corps (NHSC) to develop a regional strategy to primary care providers. This could include development of a toolkit or a resource center that works collectively on behalf of the regions safety-net.

Promote Population-based Approaches to Community Health and Consumer Engagement in a Patient-Centered Medical Home

There is growing appreciation in the health care field regarding the need for communities to act collectively to address health care disparities and improve the overall health and well-being of communities. In this regard, communities need to develop a shared agenda and implement targeted, well-integrated efforts that build on existing programs or assets. There also needs to be shared evaluative metrics and a community infrastructure that guides and monitors these activities.[1]

1. Promote population-based approaches to community health

Support the development of population based-approaches to health by developing well integrated systems of care and working collaboratively on preventive health initiatives. The University of Wisconsin's Population Health Institute has demonstrated the importance of taking action at the community-level to impact health status and reduce

[1] Hanleybrown, F., Kania, J., Kramer, M. Channeling Change: Making Collective Impact Work. Stanford Social Innovation Review. 2012

mortality. Communities that have achieved the most promising results are taking a two-fold approach.

- *Continuum of care:* Communities should work together to ensure that residents have access to a well-intergated contiuum of care.
    - *Address social determinants of health:* Communities and integrated delivery systems that include primary care are working collaboratively to improve physical environments, address social/economic factors to the extent possible, and implement targeted community health programs.

2. Promote consumer/primary care engagement in a patient-centered medical home

Communities and primary care practice sites need to work collaboratively to reach out to the community at-large, as well as to those with chronic conditions in more targeted ways, to promote health education; screen and identify those at-risk; promote healthy behaviors; and promote primary care engagement.

3. Support the development of registries and other HIT tools to identify and promote primary care engagement and chronic disease management

- *Improve use of EHR's to support chronic disease management*: Safety-net practices in the region would benefit from support that would allow them to share information between practice sites and explore how to best use their EHRs to ensure that their patients are fully engaged in their care, receiving tailored follow-up, and the most appropriate case/care management services.
- *Leverage EHRs to improve care management*: Practice sites would also benefit from the formal implementation of primary care engagement and care management protocols/interventions that leveraged their EHRs to identify and manage their chronic disease management patients.

Promote Collaboration and Communication across the Safety-net and a Broad, Collective Understanding of Health Reform/Health System Trends

One of the most significant developments since the 2007-08 assessment is the development of SNAPCAP. SNAPCAP has brought most of the core and essential safety-net providers in the region to a forum that allows practice sites to share information and fosters the development and implementation of safety-net strengthening and expansion initiatives. ACA and the opportunities that are part of the bill have also facilitated collaboration. Despite these positive steps, there is still need to promote greater collaboration and to educate and raise provider awareness regarding various facets of health reform, important trends in health care service delivery and payment, and/or issues related to primary care clinical and administrative operations. These efforts will promote communication and partnership generally as well as encourage services integration, care coordination, and joint planning.

The following recommendations relate to collaboration.

1. Continue to grow and develop SNAPCAP and other market-level coalitions

- *Market-level coalitions:* Regional stakeholders should continue to support SNAPCAP and/or the development of market-level coalitions that would focus on information sharing and respond to opportunities. SNAPCAP could be augmented if providers could

unite at market-level to create a formal community coalition or task force involving, for example, a community hospital, area primary care practices, behavioral health organizations, long-term care facilitates, home health organizations, and public health officials.

2. **Raise awareness and understanding of current mechanisms and tools associated with health service delivery and payment reform**

- *Regional education on ACA:* Regional stakeholders should work to ensure that all safety-net providers (core, essential, and contributing) providers are aware of and have an understanding of current mechanisms and tools associated with health reform and the development of integrated delivery systems so that practice sites can participate in and take advantage of opportunities that arise. Payment reform has the potential to offer new flexibility, investment, and aligned incentives to achieve the Triple Aim. If providers are informed on payment reform concepts they can participate in shaping payment reform efforts to in ways that protect and sustain the safety-net.

3. **Continue to support HIT infrastructure development and health information exchange**

- *RHIO Investment:* Invest in efforts that support the development of the western New York RHIO and the involve core safety-net providers to reduce the "digital divide" that is becoming apparent in the region. Access to total health system utilization data is the first critical step in assuming accountability and eventually increased payment for achieving Triple-Aim goals.

II. PURPOSE AND RATIONALE

The Health Foundation for Western and Central New York (HFWCNY) is committed to improving the health and health care of the people and communities of western and central New York. HFWCNY focuses on two of the most vulnerable and underserved populations: frail elders and young children living in poverty. HFWCNY recognizes that the health and health care of frail elders and children in poverty cannot improve without bolstering the communities in which they live and the health care systems that serve them. As a result, the Foundation invests in strengthening community health capacity—particularly primary care—to ensure that people and communities have what they need to make good health decisions and are supported by high-quality appropriate health care. To that end, HFWCNY invests in:

- **Quality improvement** efforts that ensure that health and social service organization staff understand the fundamentals of quality and performance improvement and have the skills and internal culture to implement effective quality improvement efforts.
- **Health care safety-net strengthening** initiatives that enable primary care providers to access safety-net services to better serve at-risk families, children, and elders through collaborative efforts that improve access and quality of care, increase revenue, and foster efficiencies.
- **Community leadership and collaborations** that expand the network of skilled leaders and teach them to lead collaboratively within and outside their organizations and become advocates for improved health care delivery.

- **Organizational capacity-building** efforts that help health and human services organizations overcome challenges in their environment, particularly related to financing and sustainability.

In 2008, to support HFWCNY's community health strengthening efforts, the foundation hired John Snow, Inc. (JSI), a nationally recognized public health and health care consulting firm, to conduct a primary care safety-net assessment. The 2008 assessment was designed to collect baseline data and information about the safety-net's state with respect to access, quality of care, consumer experience, and health information technology. In 2013, HFWCNY hired JSI again to update the 2008 primary care safety-net assessment.

Figure 1: WNY Primary Care Advisory Group

To support this effort and promote collaboration, HFWCNY convened a western New York Primary Care Advisory Group comprised of senior representatives from the region's health and social service providers, hospitals, local and state health departments, as well as planning, research, philanthropic, and advocacy organizations. The advisory group was involved at key junctures throughout the assessment process and helped to guide the implementation of the assessment. The advisory group will be the primary recipient of this report and will be charged with developing a strategic plan based on the report's findings and recommendations.

Three other organizations, the P^2 Collaborative of Western New York (P^2 of WNY), western New York's Safety-net Association of Primary Care Affiliated Providers (SNAPCAP), and the North Shore-Long Island Jewish Health System (NS-LIJ), were also integrally involved in this assessment. All three organizations helped JSI compile and analyze data for the project. P^2 of WNY has a long history of working with SNAPCAP, whose membership is made up of most of the region's major primary care safety-net providers. SNAPCAP, with the assistance of P^2 of WNY, provided vital information on the patients served by SNAPCAP members as well as the primary care capacity of SNAPCAP member clinics. NS-LIJ contributed their analytic expertise with New York State's Hospital Discharge and New York State's Medicaid large health-related datasets. Specifically, they provided extensive data tables and maps that: 1) summarized the characteristics of western New York's Medicaid population on a county-by-county basis; 2) analyzed overall health status; and 3) identified geographic "hotspots" where there were relatively higher morbidity/mortality, particularly for conditions typically seen in the primary care realm, in order to assess primary care strength.

Figure 2: HFWCNY's Western New York Region

As in 2008, the emphasis of the current assessment is on the primary care safety-net in the eight counties that make up the western New York region: Allegany, Cattaraugus,

Chautauqua, Erie, Genesee, Niagara, Orleans, and Wyoming. Also consistent with the 2008 assessment, the advisory group drew ideas from the Agency for Healthcare Research and Quality's (AHRQ) view of the safety-net, which it defines as:

> "...variety of providers delivering care to low income and other vulnerable populations, including the uninsured and those covered by Medicaid. Many of these providers have either a legal mandate or an explicit policy to provide services regardless of a patient's ability to pay. Major safety-net providers include public hospitals and community health centers as well as teaching and community hospitals, private physicians, and other providers who deliver a substantial amount of care to these populations."

In light of the Patient Protection and Affordable Care Act (ACA), the advisory group chose to take an even broader view of the safety-net by including private solo or group practices and hospital-based primary care practices that are taking steps to serve those who are newly insured through Medicaid Expansion or the plans offered and subsidized through the New York State Health Insurance Exchange (NY State of Health The Official Health Plan Marketplace). One of the major goals of ACA is to promote the importance and emphasis on primary-care medical care as a way of promoting prevention, disease management, primary care engagement, and wellness rather than the treatment of illness. As a result, numerous components of ACA are aimed at either promoting consumer engagement in primary care or encouraging providers to increase primary care capacity. This has led to the expansion of the safety-net, and the assessment's approach reflects this change.

Finally, the advisory group, as it did in 2008, took the holistic view of health as conveyed in the definition of primary care from the Institute of Medicine (IOM):

> "Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community."

For the purposes of this assessment, the advisory group defined the primary care safety-net to include primary medical, oral, and behavioral health services. The specific services included in primary medical care are generally considered those offered by family medicine, pediatrics, internal medicine, and OB/GYN practitioners. Behavioral health care includes mental health and substance abuse services. It should be noted, however, that despite this broad definition, JSI was only able to compile quantitative data on community need and primary care capacity for medical conditions and primary care medical services. The assessment's interviews and site visits did capture qualitative information on medical specialty care, dental, mental health, and substance abuse services, which augmented the JSI's understanding of community need, barriers to care, and service capacity. However, in order to reduce the burden of additional data collection, JSI opted not to request quantitative data for these other non-medical services.

JSI and the advisory group have drawn from the IOM's core competencies for 21st-century health care to clarify and guide its primary care operational assessment. The following core

competencies describe an approach that providers should take in providing care. The basic tenets of this approach are:

- Design of patient-centered care
- Utilization of interdisciplinary teams
- Utilization of informatics
- Application of quality improvement strategies
- Employment of evidence-based practices

The ultimate goal of this assessment and planning effort was to collect vital information from key health and social service providers, other stakeholder organizations, and consumers to guide the collective effort to strengthen the region's primary care system, with an emphasis on the safety-net. Ultimately, the hope is that the findings and recommendations from this assessment will guide the efforts of HFWCNY and its partners to develop and implement projects that will expand primary care capacity, address existing provider needs, improve the quality of services, and strengthen the region's primary care system.

Finally, this project was meant to provide reference data that would enable HFWCNY and its partners to evaluate the effectiveness of their efforts since the 2008 assessment. With this in mind, the report highlights changes in population characteristics, explores how the primary care systems and the policy contexts have changed since 2008, and evaluates the progress since JSI's last assessment.

The primary objectives of this project were to:

1) Describe and assess the **underlying demand for primary care services,** including the identification of at-risk populations, priority health issues, service gaps, and barriers to access.
2) Describe and assess the existing **supply of primary care system** with respect to capacity, quality, and strength.
3) Assess **consumer experience** with primary care.
4) Assess the **impact and consequences of health care reform** with respect to internal operations and external collaboration.
5) Assess the impact of HFWCNY's and their partners' efforts since the last assessment in 2008.

III. APPROACH AND METHODS

At the outset of the project, the JSI project team worked with HFWCNY and the advisory group to develop an overall approach, set of methods, and a work plan that was responsive to the needs of the Foundation and that would allow the project to achieve its goals and objectives. The following is a brief review of the major components of JSI's approach.

A. Primary Care Demand, Supply, and Capacity

With respect to access, the JSI project team identified and described the primary care safety-net and assessed its ability to provide adequate, accessible, high-quality services to low-income, underserved children and their families. In identifying the safety-net JSI made significant efforts to isolate the primary medical health care providers who serve substantial numbers of low-income, uninsured, underserved, and otherwise vulnerable segments of the population. More specifically, the JSI project team worked to identify community health centers, hospital outpatient clinics, residency clinics, public health department clinics, hospital emergency rooms, urgent care centers, and private physicians that served significant numbers of Medicaid[2] insured and low-income, uninsured, and underinsured populations. The overall assessment was not designed to facilitate a full primary care safety-net inventory but rather to identify key players and describe the safety-net's basic structure and strengths. While the JSI project team is confident that it has captured the major safety-net providers, it is possible that the team's efforts have not uncovered all of the primary care providers who play an important role in the safety-net.

1. Categories of safety-net providers

To assist in describing the western New York safety-net, the JSI project team worked with HFWCNY staff to identify and categorize key safety-net providers. These efforts began during the initial round of key informant interviews and were continued throughout the project. Ultimately, organizations and providers were grouped in three categories: core safety-net providers, essential safety-net contributors, and other contributing providers. These categories distinguish how each provider participates in the region's health care safety-net. However, as will be discussed in more detail later in this report, all providers and organizations in western New York that serve low-income children and their families are critical to assuring access to care in the region.

The following are descriptions of the safety-net provider categories that are being used in this assessment.

- **Core safety-net providers.** A core safety-net provider is either a health care organization that provides comprehensive primary medical care services or an organization that provides comprehensive outpatient mental health, substance abuse, or dental services.

[2] In this report, 'Medicaid' refers to both Medicaid and SCHIP programs including Child Health Plus and Family Health Plus.

Core primary medical care providers strive to serve as a patient's medical home, which in the Commonwealth Fund's[3] definition is characterized by:

- A regular doctor or source of care
- Easy access to the provider by telephone
- Easy access to health advice on evenings and weekends or whenever the provider is closed
- Visits with the provider that occur conveniently for patients, are on time and are efficient

Core safety-net providers must also be guided by an explicit funding policy, a public policy mandate, or some intractable mission to serve low-income, Medicaid, and uninsured populations. Core providers do not limit the proportion of Medicaid patients they serve and have explicit policies to serve people without regard for their ability to pay. Policies related to the uninsured/underinsured typically include a sliding fee scale that defines specific discounts based on household income and family size. Some core safety-net providers may have a policy to provide free care to low-income uninsured patients. Furthermore, core providers actively promote these policies and make efforts to reduce barriers to access for those with limited or no means to pay for services.

- **Essential safety-net contributors**. An essential safety-net contributor is a health care organization or provider of primary medical care, oral, or behavioral health services to large proportions and/or large numbers of people insured by Medicaid, as well as some uninsured/underinsured patients. These organizations may provide services at a discount to people who are uninsured on an individual basis without any explicit mandate or mission. These providers often put caps on the proportion of Medicaid or uninsured patients they serve, and many do not have sliding fee scales that are applied across the board without exception. This category also includes organizations that meet the definition of core above in terms of mission and policies on the uninsured, but provide services on a limited part-time basis.

- **Other contributing providers.** Organizations and providers in this category are important contributors to the safety-net but typically provide only a small amount of services to those insured by Medicaid, and an even smaller portion to those who are low-income and uninsured. These organizations are usually private providers who simply do not have the infrastructure or financial means to serve large numbers of low-income, uninsured, or Medicaid patients. They often put caps on the proportions of patients they serve in these groups, do not have a formal sliding fee scale, and do not self-identify as a safety-net provider.

One of the main objectives of this categorization process was to identify providers in western New York that are key to preserving and strengthening the safety-net. The categorization is not meant to diminish the importance or impact that providers across all of the categories have on low-income children and their families. The unfortunate reality is that organizations and providers that do not receive outside grants or have access to financial resources specifically dedicated to providing uncompensated care are limited in their ability to serve uninsured,

[3] There are various definitions of the term "medical home." JSI selected the Commonwealth Fund's for this project.

underinsured, and Medicaid patients. As a result, their participation in the safety-net is fragile and may be dependent on the good will or financial support of another organization—such as a hospital or parent agency—that may be reduced or withdrawn at any time.

B. Approach to Data Collection

In order to focus the project's resources, JSI concentrated on identifying and collecting information from providers and organizations that are part of the core safety-net. Secondarily, the JSI project team worked to define the role of the other types of providers that contribute to the safety-net. As will be discussed later in this report, the western New York safety-net relies heavily on providers that are not among the core of the safety-net as defined above.

This assessment was initiated as a collaborative effort among several organizations interested in the safety-net in western New York. The goal was to include the expertise, insights, and initiatives of organizations working on primary care capacity. Several planning meetings brought together representatives from SNAPCAP, the P^2 of WNY, Long Island Jewish Health System, the State Department of Health, the Western New York Public Health Alliance, the New York State Health Foundation, the Community Health Center Association of New York State, and the HFWCNY. The specific roles that a number of these organizations played in the assessment will be outlined in the report. The JSI project team developed a multi-pronged approach to collecting data. The following is a review of the data that JSI compiled and analyzed to assess primary care provider capacity, primary care demand, and the strengths and weaknesses of the primary care system.

1. **Provider Capacity.** In conducting this work HFWCNY was interested in better understanding the role and the current capacity of core, essential, and other contributing safety-net providers in western New York. Several datasets were used to assess this capacity: 1) provider survey of core safety-net providers conducted by the P^2 Collaborative and supplemented by JSI; 2) analysis of the National Provider Identifier (NPI) dataset; and 3) analysis of Federally Qualified Health Center Uniform Data Set (UDS) data available through the UDS Mapper. Details on each of these data sources are provided below.

    - **Provider survey:** The 2013 provider survey was distributed by the P^2 of WNY to the members of SNAPCAP who represent the majority of the core safety-net in western New York. The results of this survey were shared with the JSI project team to provide aggregate data on the number of patients served and total provider capacity of core safety-net providers.

    - **National Provider Identifier (NPI) dataset:** The NPI list is a comprehensive list of all providers registered with the CMS National Plan and Provider Enumeration System (NPPES) as primary care providers. Each provider has a unique identifier that is required for financial transactions with CMS. This data set was drawn in November 2013. The list is inclusive of primary care providers including MDs, DOs, NPs, PAs, and specialty providers.

For the purpose of this project, the list of providers was reviewed to create a summary of the total of providers who list each of the following specialties: internal medicine, pediatrics, general practice, family medicine, and OB/GYN. Pediatrics, general practitioners, and family medicine were grouped together as "PCP's" and OB/GYN and internists were reported separately. For each county, JSI totaled the number of providers by specialty, and provider type (MD/DOs, NPs, PAs, and certified nurse midwives [CNMs]). These totals include both core and non-core providers, and indicate the total number of providers in the county. There are, however, several limitations to this NPI data. These data may include providers who primarily spend their time in research or other non-clinical activities. In addition, the list, although recent, is an overestimate of the total providers in the county because it includes providers who have retired, providers who have left the county to practice elsewhere, and providers who may provide limited amount of care in that county. Therefore, the number of providers on the NPI list is larger than the actual number of provider full-time equivalents (FTEs) who are practicing in the county.

- **HRSA Federally Qualified Health Center UDS Dataset:** The Health Services and Resources Administration collects the total number of patients served at each of the clinical service sites of FQHCs annually. These data were used to calculate the percentage of the low-income population (below 200% FPL) that is served by FQHC providers.

2. Primary Care Demand. The demand for primary care is based on the total population and the demographics and characteristics of that population. To more deeply understand the demand for primary care and particular "hot spots" where one would expect to see increased demand for care, the project team reviewed data on: 1) demographic and socio-economic characteristics; 2) health care utilization; 3) morbidity and mortality; and 4) estimates of insurance coverage after full implementation of the Affordable Care Act.

- **Demographics and socioeconomic characteristics:** Data from the 2010 Biennial Census was reviewed and mapped at the census tract-level for the following characteristics:
  - Age
  - Minority race
  - Foreign-born status
  - Ratio of poverty (< 100%, <200%, <150%, 150-400%, and 400+%)
  - Uninsured population
  - Estimates of remaining uninsured after ACA
  - Estimates of newly insured due to ACA

- **Health care utilization:** North Shore LIJ analyzed the Statewide Planning and Research Cooperative System (SPARCS) dataset to calculate the rate of prevention quality indicators (PQIs). The PQIs are markers of high-quality community-based primary care. Using hospital discharge data, the PQI rate is the number of hospital discharges that are "ambulatory care sensitive," meaning that they are hospital admissions for which high-quality primary care can prevent complications or later-stage disease. The use of PQIs

allows community-by-community comparison of quality primary care access, and can help pinpoint those communities that have the highest need for primary care.

As a measure of Medicaid utilization, North Shore LIJ provided the total number of Medicaid enrollees, and the total number of Medicaid recipients receiving services in each county. This data is from the New York state -Salient Medicaid Data Version 6.4. This includes claims and encounters through Cycle - Medicaid Enrollees, Recipients & Safety-net Recipients 7/2011 – 6/2012.

- **Morbidity and mortality:** Data on morbidity and mortality and health risk behaviors were compiled from a number of data sources in order to provide a snapshot of the health status of each county in the western New York region. The data sources for the morbidity and mortality data include the Center for Disease Control Behavioral Risk Surveillance System (2007), New York state vital statistics, New York County Health Assessment Indicators (2007-2009), and County Health Rankings (2012).

- **Primary care demand by visits of the newly insured:** With the implementation of the ACA, a number of new individuals will have access to health coverage and as a result better access to primary care. The total number of uninsured individuals by age and income were identified at the census tract-level and then aggregated to the county level by applying rates at larger geographies to smaller (tract) geographies. Rates by insurance status (insured and uninsured) were calculated across 21 different age and ratio-to-poverty categories at the county and state level using ACS 1-year estimates (ACS 2010 1 year, Table B27016). These rates were then applied to census tracts using the same age and ratio-to-poverty categories (Table B17024, ACS 2010 5-year estimates). County-level insurance rates were applied where 1-year estimates were available. Where county level rates were not available (pop < 65,000), a rate from the remainder of the state was used (all counties in each state with less than 66,000 in population).

  The total number of uninsured people was identified by ratio of poverty 0-150%, 150-400%, and 400+%. Newly insured persons were estimated by applying statewide transition metrics from the Urban Institute's Health Insurance Policy Simulation Model (ACS-HIPSM).

  Using this data the number of projected visits of the newly insured population after implementation of ACA were calculated, by insurance status, age, and income using national primary care visit rates from the national Medical Expenditure Panel Survey (MEPS). Added visits for estimated newly insured persons were calculated by applying the difference in utilization between insured and uninsured and among each age, and income group. Visits among insured, newly insured, and remaining uninsured was then aggregated to county levels to produce a total annual visit demand estimate.

C. Primary Care System Strengths and Weaknesses

Beyond the number of providers available, a critical part of the assessment was to understand the operational strengths and weaknesses of the primary care safety-net. This portion of the

assessment included both the internal operations of providers and their relationships with other providers in the community. Collaboration across providers was assessed by the ability for safety-net providers to connect their patients to complimentary services, share information, and work collaboratively in order to keep pace in the dynamic health care environment. Guiding this assessment was the use of the Institute of Medicine's framework of core competencies for 21st-century health care. These core competencies were developed more than ten years ago in the IOM report, "Addressing the Quality Chasm," and include provide patient-centered care, work in interdisciplinary teams, employ evidence-based practices, apply quality improvement, and utilize informatics.[4] Today these core competencies are used to frame most publicly reported measures of quality and have guided changes to the curriculum of health professions.[5]

1. **Key informant interviews.** JSI conducted X key informant interviews with core and non-core health care providers taken from a list of potential interviewees that was developed with HFWCNY. These interviews were less comprehensive than the site visit interviews but helped the JSI project team to further define the safety-net, understand the environmental and political context of the region, and gain a better understanding of the role that these provider organizations play in the safety-net. Finally, these interviews continued the engagement of key stakeholders in the work to improve the regional safety-net.

2. **Site visits with safety-net providers.** The JSI project team conducted site visits with a selection of primary medical care providers that fell within the category of core and essential safety-net providers. Efforts were made to select sites that were geographically representative of the eight-county region, were newly or expanding Federally qualified health centers, and were representative of the different types of providers that comprise the area's safety-net. A list of the five provider organizations that were visited is included in Appendix C.

   Site visits were conducted by the JSI project team and included a series of on-site interviews with key administrative and clinical staff, and a clinic walk-through. The purpose of these visits was to gather information on the services provided, the site's staffing profile, the characteristics of the patients served, the organization's capacity, its role in the safety-net, as well as information on the site's resource needs and major challenges. The site visits also allowed JSI to gather information on the site's physical, clinical, and administrative infrastructure as well as to generally assess the extent to which the site applied evidence-based, patient centered, integrated, well-coordinated services. Finally, the site visits allowed the JSI project team to gather insights from key providers on how HFWCNY could best support them in their efforts to expand access to services and strengthen their ability to serve low-income children and their families. The visits were guided by a site visit protocol to ensure that a standard set of information was collected at each of the sites. The Site Visit Protocol is included in Appendix C.

[4] Institute of Medicine, Crossing the Quality Chasm: A New Health System for the Twenty-first Century (Washington: National Academy Press, 2001).
[5] Quinn D, Bingham JW, Garriss GW, and Dozier EA. Residents learn to improve care using the ACGME Core Competencies and Institute of Medicine Aims for improvement: the health care matrix. Journal of Graduate Medical Education.2009; 1(1).

IV. FINDINGS RELATED TO THE UNDERLYING DEMAND, SUPPLY, AND STRENGTH OF THE PRIMARY CARE SAFETY-NET

The western New York region, except for the cities of Buffalo and Niagara Falls, is predominantly a rural area. As such, there are a range of common themes that describe the underlying population characteristics (primary care service demand), primary care system structures and capacity (primary care supply), and the overall strengths/weaknesses of the primary care system across the eight counties in the region. The urban areas of Buffalo and Niagara Falls, while quite different from each other, share features with respect to the health-related characteristics of their populations and their primary care systems that are consistent with urban areas across the country. It is important to note, however, that despite these commonalities, there is also considerable variation, particularly in safety-net capacity and strength. In order to build and improve the safety-net's capacity to serve more people more efficiently in consideration of the specific geographic and population context, it is important to articulate both the commonalities and the variations.

The first part of this section is a discussion of the common regional themes that emerged from the assessment. These themes apply either throughout the entire region or to major geographic segments of the region, certain types of provider groups, or certain major segments of the population. Specifically, this regional review will include a discussion of the common themes with respect to: 1) primary care demand (underlying population characteristics, community needs, and barriers to care); 2) consumer input and barriers to access; 3) primary care supply (primary care structure, capacity, service gaps, and strengths/weaknesses); 4) primary care internal operations (outreach/enrollment, patient flow/scheduling, staffing, quality of care, and internal infrastructure); and 5) external collaboration among primary care safety-net providers.

The second part of this section includes a discussion of the demographic and health-related characteristics of the populations in the eight counties in central New York as well as the characteristics and capacity of the counties' primary care systems. This section highlights variations in population characteristics and primary care system structure and capacity, and, more generally, the strengths/weaknesses of the primary care operations and systems.

A. Common Themes across the Region

1. Primary care demand, community need, and barriers to care

When assessing primary care strength and capacity it is critical to understand the population characteristics and trends, as well as their health related-needs, health status, and major morbidity and mortality factors. This information is essential to whether, from a geographic perspective, there is sufficient raw health service capacity. It is also essential to assess the extent to which existing providers are capable of meeting the needs the at-risk population.

The following is a discussion of the common themes and relative variation across the western New York region related to demographic and socio-economic population characteristics (social determinants of health), health status, and morbidity/mortality rates. With respect to demographic and socio-economic characteristics, the most important factors to consider are

poverty or low-income status, race/ethnicity or foreign born status, and age. These factors are closely associated with health care disparities and community need and help identify the most at-risk population segments. With respect to health status and morbidity, the most important factors are disease rates, hospital emergency department utilization, and hospitalization rates. These factors help identify geographic "hotspots" where there is particularly poor health status. Information about hospital emergency department and hospital inpatient utilization also indicates where primary care systems are limited, as there tends to be disproportionately higher utilization of certain hospital and emergency department services in communities that have limited primary care systems. NS-LIJ specifically analyzed AHRQ's set of prevention quality indicators (PQIs) to facilitate this analysis.

Common Themes Related to Demographic and Socio-economic Characteristics

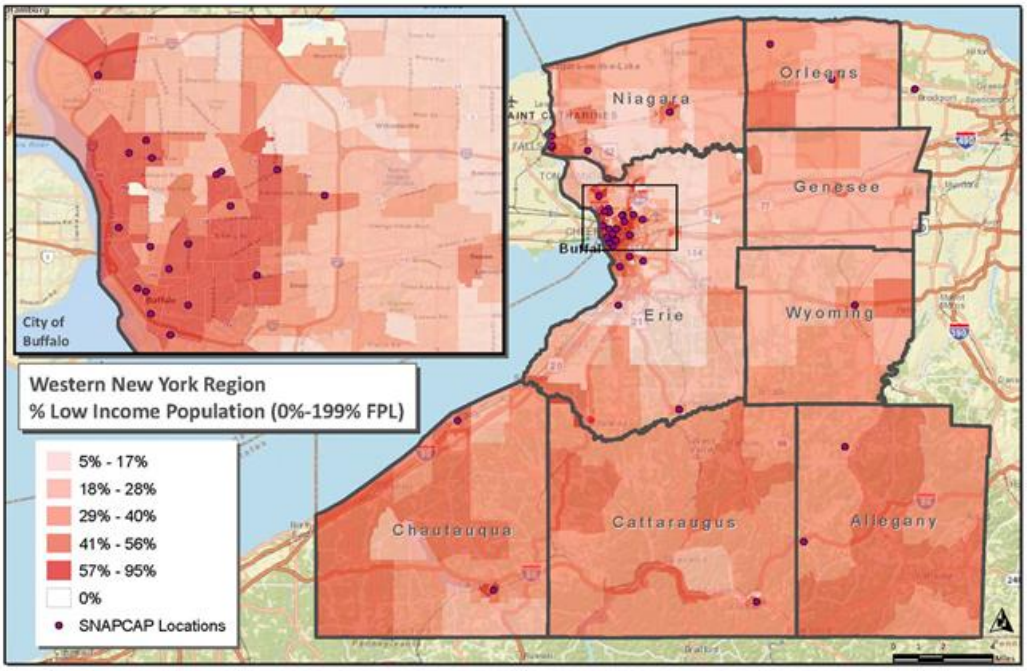
In 2008, western New York's counties had negative population growth, high poverty rates, high unemployment rates, and faced greater disparities in health status across most health-related indicators as compared to the state overall and other counties throughout the upstate New York region. While in recent years there have been improvements across many of the leading indicators, western New York remains one of the poorest, highest-need regions in the state. The following are a description of the common themes with respect to demographic and socio-economic characteristics.

- **Large numbers and percentages of low-income populations.** Living in poverty or in a low-income household is one of the leading factors associated with vulnerability, as those who are in these income brackets face economic barriers to care and tend have stress in their individual or family lives that limit access to care. According to data from the U.S. Census Bureau, every county in the western New York region had a loss in total population between 2000 and 2010,[6] while at the same time there was an overall increase in the total numbers of residents in the region living in low-income households, defined as those living in households earning less than 200% of the Federal Poverty Level (FPL). In 2000, the low income population comprised xx% of the total population region-wide, compared to 26% in 2010. By 2012, 31% of the total population in the region was living in households earning < 200% FPL.

  As is true throughout the nation, poverty and low-income population rates tend to be highest in urban and lowest in suburban areas. A review of the map in Figure 3 shows that this trend applies in western New York. The highest numbers and highest density of those living in poverty or in low-income households are located in the inner-city areas of Buffalo and Niagara Falls. In many of the neighborhoods, more than 50% of the population lives in low-income households. However, a high percentage of the region's rural population also lives in poverty. In Allegeny, Chautauqua, Cattaraugus, Genesee, Orleans, and Wyoming, approximately 30-50% of the population lives in low-income households. Only in the more suburban areas of the region outside Buffalo, Niagara Falls, Jamestown, and Olean, as well as in Mayfield on the banks of Lake Chautauqua, are the rates lower than 20%.

[6] http://labor.ny.gov/nys-data-center/population-change-2000-2010-NYS-counties.shtm

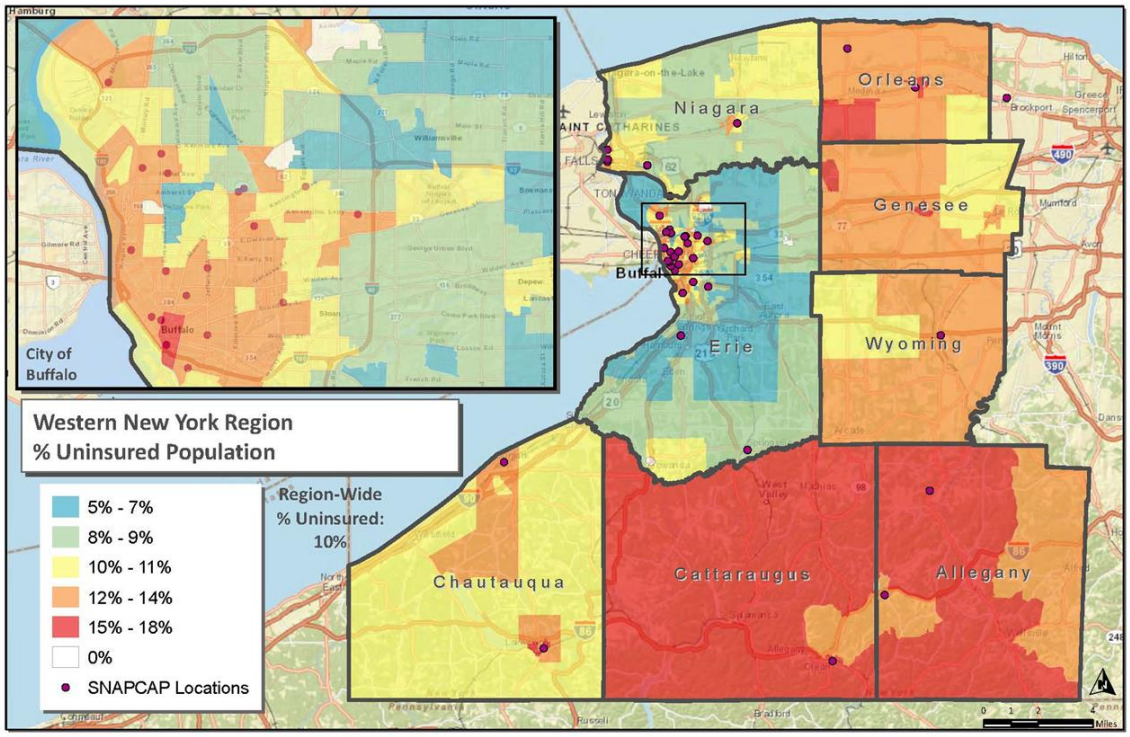
Figure 3: Percent of Population Living in Low-Income Households (< 200% FPL)



- **Large but decreasing numbers and percentages of uninsured populations.** Lack of insurance has always been one of the leading factors associated with high-need, at-risk populations because those who are uninsured tend to have less access to health services and face disparities across the leading health indicators. In the context of health reform, high rates of uninsurance are also indicators of where there might be new, additional primary care demand following full implementation of the ACA. Under the ACA, many individuals from these populations will become newly insured as a result of the expansion of Medicaid and the creation of new subsidized plans under the State Health Insurance Exchange.

  The possible gains that can be made statewide from improved health insurance coverage are less significant in New York State due to the fact that New York State has a robust and progressive Medicaid program compared to other states in the nation. Statewide, residents of New York are more likely to be insured than residents nationally. In 2013, 12% of New York residents were uninsured compared to 15% nationally. In western New York, the uninsurance rates are comparable on a region-wide basis; however, there are significant pockets of the population both geographically and demographically who are uninsured and will remain uninsured even after the implementation of ACA. In western New York, the areas with the highest percentage of uninsured residents are located in Cattaraugus and Allegany counties. Per the map included as Figure 4, nearly all areas of these counties have rates of uninsurance between 15 and 18%. There are also small geographic pockets in the counties of Orleans and Genesee, as well as a small area of Buffalo, that have rates in this range. Outside these areas, the highest

Figure 4: Percent of Population without Health Care Insurance



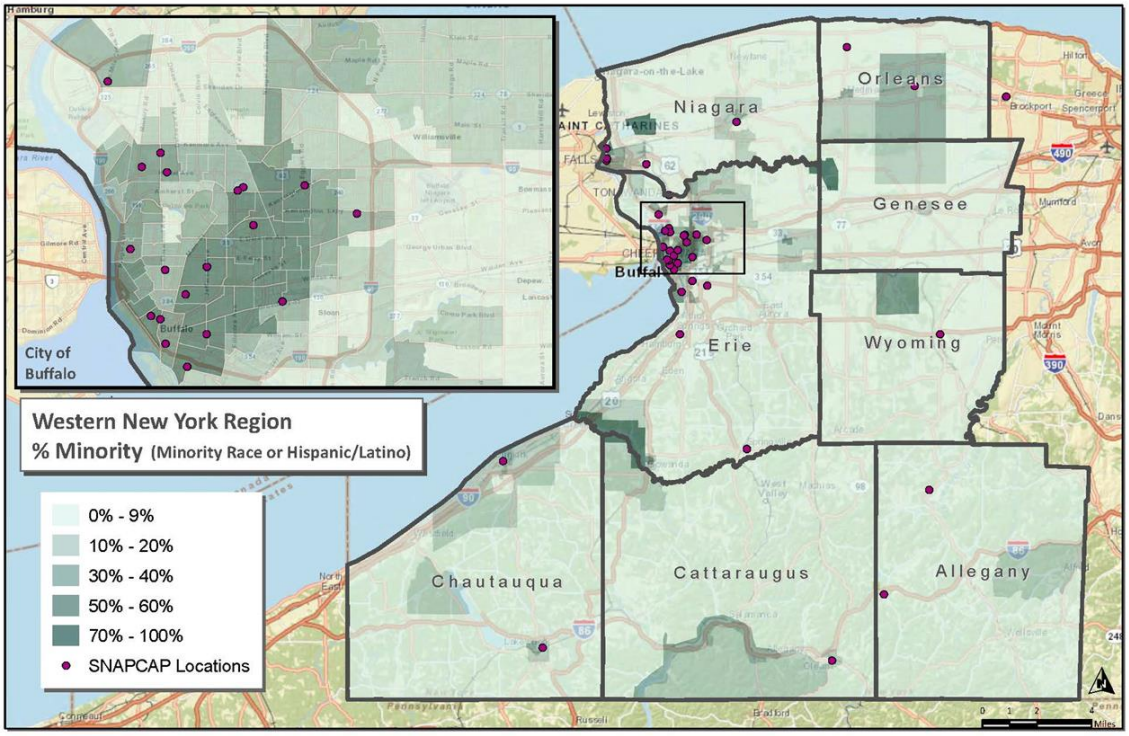
numbers and rates of uninsurance are found in other rural areas of the region and in the region's urban areas in Buffalo, Niagara Falls, Jamestown, Dunkirk, and Olean. The highest rates of insurance are in suburban areas of Buffalo.

In order to better understand the impact, opportunities, and challenges related to ACA, JSI compiled and analyzed data on the distribution of the region's residents who are projected to be newly insured due to various elements of ACA as well as the distribution of those who are projected to remain uninsured after ACA. The areas with high projected percentages of newly insured populations represent opportunities for growth, and the areas with high percentages of remaining uninsured represent areas where providers will likely be challenged in their efforts to serve those in need.

- **Large and Increasing Numbers and Percentages of Racial/Ethnic Minority and Foreign-Born Populations, Particularly in Buffalo.** Another leading factor associated with limited access to care and disparities in health outcomes is whether one is foreign born, a recent immigrant, or part of a racial/ethnic minority group. In 2010, 54% of the population in Buffalo categorized themselves as white race alone, compared to 50% in 2000. The numerical change was a decline of about ~27,000 white residents, which represents about a 17% decline in population. The Hispanic population in the same period increased from approximately 8% to approximately 11% of the population. In some communities, the percentages of the population that are in racial/ethnic minority groups are as high as 80-90%. African American/black is the leading racial/ethnic minority group, followed by those of Hispanic/Latino descent. There are also extremely large and growing immigrant and refugee populations in Buffalo who struggle with access, health

literacy, and various health conditions. The largest immigrant/refugee populations are from the nations of Somalia, Burma, Thailand, Bosnia, and Central America. While the vast majority of the region's racial/ethnic minority and foreign-born populations are in Buffalo, there are significant pockets of non-white, Hispanic/Latino populations in other parts of the region, particularly in Niagara Falls and some of the other more urban areas of region. Once again the largest segment of this population is African American/black but there are also significant numbers of Native Americans in Niagara and Cattaraugus counties. See Figure 5 for specific details.

Figure 5: Percent of Population in Minority Race Categories



Common Themes Related to Health Status and Rates of Preventable Health Conditions

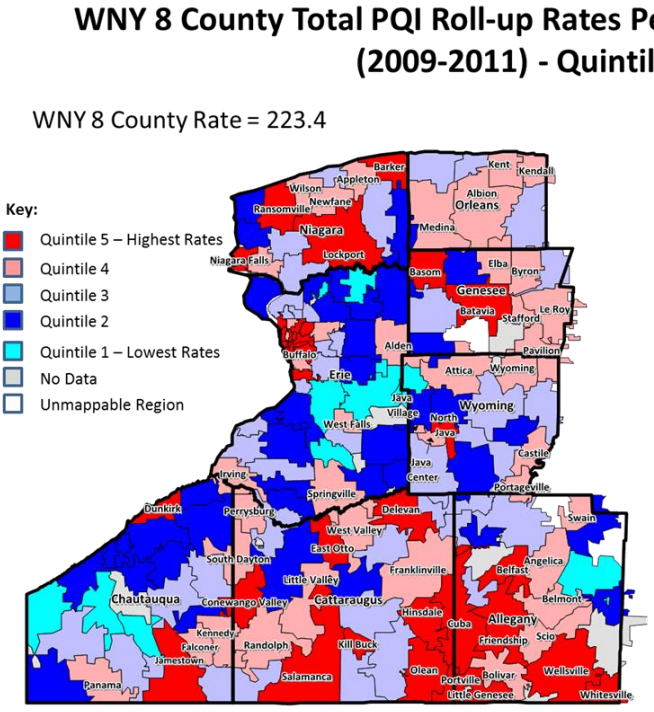
- **High Rates of Morbidity for the Leading Health Conditions.** According to data compiled by JSI and NS-LIJ, there are high rates of mortality and morbidity throughout the western New York region and particularly in Buffalo and Niagara Falls. The rates for the leading chronic diseases and priority health conditions are generally higher across all the counties in the region when compared to statewide and upstate New York rates. A review of NS-LIJ's maps, an example of which is included below, shows that there are geographic hotspots with higher morbidity distributed throughout the region. The highest rates tend to be in the more urban areas but there are hotspots throughout the region, even the most rural areas.

- **High Rates of Preventable Inpatient Service Utilization.** As discussed in the methods and introduction to this section above, NS-LIJ compiled and analyzed a great deal of hospital discharge data, particularly on AHRQ's preventable quality indicators (PQIs).

These indicators help identify geographic areas or segments of the population with high rates of illness, and they also help identify areas that may have limited access to primary care. The conditions that are part of the PQI data set are thought to be preventable or controllable if appropriate, timely, high-quality primary care is provided. Specifically, areas that have high rates in one or more PQIs are associated with limited primary care access or a lack of engagement in primary care on behalf of consumers. High PQI rates usually indicate a need for preventive and chronic disease management services, health education and health promotion services, and/or care coordination and case management services.

A review of NS-LIJ's maps and data tables, an example of which is included below, shows that there are geographic hotspots with higher PQI rates distributed throughout the region. Once again, the highest rates tend to be in the more urban areas but there are hotspots throughout, even in the most rural areas of the region.

Figure 6: Total PQI Rates per 100,000 in Western New York



Source: SPARCSver11.01.2012adj/tb; Thomson Reuters used for population data; P.O. Boxes Zip Codes and Zip Codes with 6 or less discharges are excluded

Quintile 5 Zip Codes (worst 20%):

Zip Code	Zip Code Name	County	Total PQIs	Quintile
14203	Buffalo	Erie	1,224.4	5
14301	Niagara Falls	Niagara	858.7	5
14211	Buffalo	Erie	826.9	5
14204	Buffalo	Erie	798.3	5
14303	Niagara Falls	Niagara	743.9	5
14212	Buffalo	Erie	728.9	5
14305	Niagara Falls	Niagara	699.8	5
14201	Buffalo	Erie	675.0	5
14215	Buffalo	Erie	634.8	5
14208	Buffalo	Erie	585.0	5
14213	Buffalo	Erie	584.7	5
14202	Buffalo	Erie	563.1	5
14207	Buffalo	Erie	534.0	5
14209	Buffalo	Erie	486.4	5
14779	Salamanca	Cattaraugus	479.7	5
14754	Little Genesee	Allegany	472.4	5
14760	Olean	Cattaraugus	452.1	5
14210	Buffalo	Erie	434.6	5
14206	Buffalo	Erie	430.9	5
14748	Kill Buck	Cattaraugus	425.5	5
14743	Hinsdale	Cattaraugus	413.1	5
14770	Portville	Allegany	411.5	5
14012	Barker	Niagara	399.9	5
14214	Buffalo	Erie	386.7	5
14218	Buffalo	Erie	380.1	5
14711	Belfast	Allegany	375.8	5
14777	Rushford	Allegany	369.7	5
14013	Basom	Genesee	323.3	5
14739	Friendship	Allegany	315.9	5
14042	Delevan	Cattaraugus	302.0	5
14113	North Java	Wyoming	299.8	5
14701	Jamestown	Chautauqua	296.2	5
14729	East Otto	Cattaraugus	294.1	5
14726	Conewango Valley	Cattaraugus	288.5	5
14895	Wellsville	Allegany	287.0	5
14897	Whitesville	Allegany	276.7	5
14048	Dunkirk	Chautauqua	276.3	5
14094	Lockport	Niagara	275.9	5
14727	Cuba	Allegany	275.1	5
14131	Ransomville	Niagara	274.7	5
14020	Batavia	Genesee	272.4	5

9

2. Consumer Input and Barriers to Access

The 2013 Western New York Consumer Access Survey (WNYCS) was developed to assess consumer experience with regional primary care services. The primary objective is to understand gaps in services encountered by adults accessing care for themselves and/or children. The survey

separates access to services into four categories: medical, dental, mental health, and specialty care. The survey questions, which were designed to mirror and complement the qualitative interviews with providers and other key informants, assesses consumers' experience scheduling appointments, reaching providers by phone, and ability to communicate with providers to access care and a medical home. The survey covered general health access barriers such as insurance status and communication as well as specific barriers to different types of medical services. A copy of the survey is included in Appendix D.

The survey was based on the 2007-08 WNYCAS survey, which was developed primarily by drawing questions from existing state and national health surveys. Where questions were not available to address specific issues of interest to HFWCNY, JSI adapted questions similar from previous JSI surveys. The 2013 survey added questions on adult access to care, as the 2007-08 survey was focused on children's access. The four national surveys from which questions were pulled were: the 2003 National Survey of Children's Health (NSCH);[7] The Commonwealth Fund 2006 Health Quality Survey;[8] CDC Behavioral Risk Factor Surveillance System 2006 (BRFSS);[9] and the 2011/2012 Consumer Assessment of Healthcare Provider and Systems (CAHPS) Patient-Centered Medical Home Item Set.[10]

The goal of survey distribution was to capture families in two distinct groups: 1) those waiting for services and affiliated with one of the community health centers or other pediatric providers that serve low-income families; and 2) families in the community whose status related to the safety-net utilization were unknown. The survey was distributed face-to-face to parents at community agencies, events, and provider offices with the cooperation of numerous organizations and individuals across the western New York region. A total of 582 surveys were collected from September through October 2013.

A complete discussion of the methodology and the limitations of the survey are listed in Appendix D.

Summary of Survey Results

A comprehensive safety-net provides children and their family access to preventive and acute care and enables communication between providers and families. Comparing data from this survey with state and national statistics as well as the 2007-08 Western New York Children's Access Survey (WNYCAS) provides a context for the data and highlights areas where western New York residents have better access to care than is typical, and areas that may be targets for improvement within the safety-net.

[7] Child and Adolescent Health Measurement Initiative. *2003 National Survey of Children's Health*, Data Resource Center for Child and Adolescent Health website. http://childhealthdata.org/content/Default.aspx
[8] The Commonwealth Fund 2006 Health Quality Survey http://www.commonwealthfund.org/surveys/surveys_show.htm?doc_id=50684
[9] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2006**.** The CDC Behavioral Risk Factor Surveillance Survey (BRFSS) http://www.cdc.gov/brfss/
[10] The CAHPS Patient-Centered Medical Home Item Set https://cahps.ahrq.gov/Surveys-Guidance/CG/PCMH/index.html

Demographic Characteristics

Figure 7: Demographic Characteristics

Children	**Age Range:** <1 year11% 1-5 years 27% 6-12 years 35% 13-18 years 28%	**Children with special needs:** 21% of children need more health services than usual* *Determined by question 12 of survey		
Adults	**Age range:** 18-40 years 44% 41-65 years 46% 65+ years 8%	**Gender:** 70% female 30% male	**Race:** 63% white 25% black or African American 3% Native American <1% Asian 3% multi-racial 7% Hispanic	**Employment:** Fulltime: 22% Part time (one job): 16% Part time (multiple jobs): 2% Not employed -retired: 13% Not employed -student: 5% Not employed for pay: 7% Not employed –disability: 29% Other: 6%
Household	**Income:** <10,000 35% 10,000-15,000 20% 15,000-25,000 16% 25,000-35,000 9% 35,000-50,000 9% 50,000-75,000 6% 75,000+ 5%		**Number of children living at home** 89% 1-3 children living at home 11% 4+ children living at home	

Respondents were asked to fill out the adult portion of the survey, and if the adult was a parent with a child under the age of 18, s/he was also asked to complete the portion of the survey on the child's access to care. Of the 582 surveys completed, 572 respondents completed the adult portion of the survey, and 225 respondents completed both the adult and the children's access-to-care portions.

Sixty-six percent (62%) of those surveyed identified themselves as white alone; 25% identified as black or African-American alone; 4% as Native American or Alaskan Native alone; 3% as multi-racial; <1% as Asian alone; and 0% as Native Hawaiian or Pacific Islander alone. When asked specifically about Hispanic ethnicity, 7% of survey respondents identified as Hispanic/Latino.

Twenty-one percent (21%) of children in the WNYCS were perceived by their parents as having a health condition that requires more services than usual. This is comparable to the 2007-08 survey, in which 19% of children were identified as requiring more services than usual. According to the CDC's National Survey of Children with Special Healthcare Needs, 12.8% of children nationwide have special health needs. The definition of a child with special health care needs is complex, and the difference in these numbers is based on the kinds of questions used to determine special needs. The WNYCS asked a single question, while the CDC survey asks

parents a series of more detailed questions to determine whether the child has special health care needs.

Health Care Access and Utilization

- **Location of care**. Families were asked where they usually take their children when he or she needs health care. For most families, their primary source of care is a doctor's office or private clinic (75%), followed by community health centers (11%), urgent care (6%), hospital outpatient clinics (1%), and the emergency room (2%). Three percent (3%) said they don't have a place where they usually take their children.

Table 1.

Where do you usually go for health care?		
Location	**Children**	**Adults**
Doctor's office or private clinic	75.2	66.9
Community health center or other public clinic	11.0	15.0
Hospital outpatient dept.	0.9	1.8
Urgent care	6.4	8.4
Hospital ER	1.8	1.1
Some other place	0.9	0.2
Don't know	0.4	2.3
Don't have a place I usually go	3.2	4.3

Among adults, the primary source of care is a doctor's office or private clinic (67%), community health center (15%), urgent care (8%), and the emergency room (1%). Four percent (4%) of adults reported they do not have a usual place that they go, and 2% said they don't know.

It is important to note that many people do not differentiate a community health center from a doctor's office or private clinic, so it is likely that many of those that responded "doctor's office or private clinic" may go to a community health center.

- **Health coverage.** The rate of insurance among the children surveyed was 92%. This is the same rate of coverage that was seen in the 2007-08 WNYAS survey, and is somewhat lower than the state and national rates of children's coverage. The lower rate of insurance is likely due to the deliberate over-sample of low-income children in the WNYCS. According to the National Survey of Children's Health (2011-12),[11] 95% of children nationally have coverage, and in New York state 97% have coverage.
Among adults, 91% of adults surveyed have coverage, which is slightly higher than the rate in New York state. According to the March 2013 US Census Current Population survey, 88% of adults in New York state have health insurance. The rate of coverage of adults surveyed is significantly higher than the adults surveyed in the 2007-08 WNYCAS survey, which was only 83%.

  Continuity of coverage is a concern for children and adults but may be improving. Eleven percent (11%) of children and 13% of adults had some period of time in the last 12 months without health insurance. This shows some improvement over 2007, when 17%

[11] http://www.childhealthdata.org/browse/survey

of children surveyed had experienced a lapse in coverage in the previous 12 months. Nationally, 11% of children in the last 12 months have had a gap in coverage. The majority of the population surveyed has public coverage, 61% of children have Medicaid, and 48% of adults have Medicaid (Figure 7). In comparison, 23% of the total population in New York state is covered by Medicaid. The high percentage of respondents with Medicaid is again biased by the deliberate surveying of low-income families.

Table 2.

Health Insurance Coverage		
Insurance	**Children**	**Adults**
Medicaid	61%	48%
Medicare	3%	21%
Private Insurance or Private HMO	32%	26%
Other	3%	4%
Don't know	1%	0%

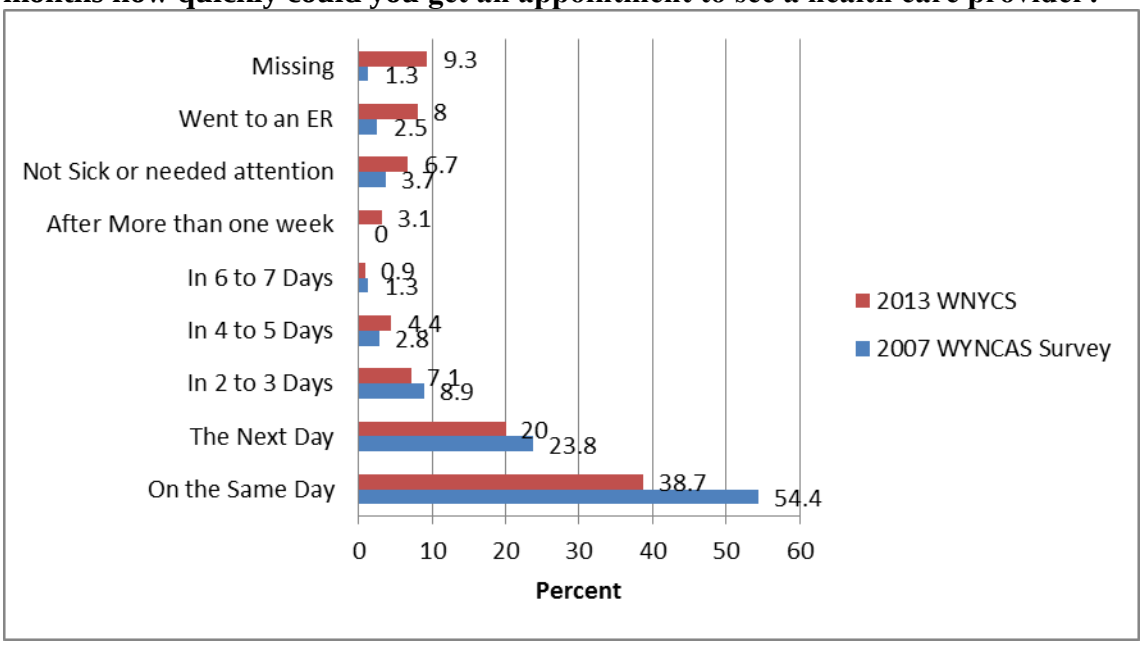
- **Preventive Care.** Regular preventive care is associated with lower rates of emergency room use and inpatient hospitalization. Among children, the rate of accessing preventive care is consistent with the state average and with the experience of families surveyed in western New York in 2007. In 2013, 89% of children surveyed had a preventive care visit in the last year. This compares to the state of New York rate of 92%,[12] and the 2007-08 WNYCAS survey rate of 91%. There was no difference in rate of preventive care access between those children surveyed in community locations such as Head Start and provider locations such as health centers.

  Parents were asked about the wait time to schedule a preventive care visit. The majority (68%) of children could access a preventive care visit within a week, and only 8% had to wait more than a month. These wait times are comparable to the 2007-08 WYNCAS survey in which 72% of children had access to a preventive care visit within a week. Adults had a lower rate of accessing preventive care than children. Eight-three percent (83%) of adults had a preventive care visit in the last year. Comparison data is not available for adults, as this question is no longer part of the standard Behavior Risk Factor Surveillance System questionnaire. Adults were not asked the wait time for scheduling a preventive care visit.

- **Acute Care.** In addition to wait times for preventive care visits, adults and children were asked how long a wait they had for an urgent care visit. Just 39% of parents reported that they were able to get an appointment to see a provider the day that their child became sick. An additional 27% were able to get an appointment in 1-to-3 three days, and 8% went to the emergency room. In comparison to the 2007-08 WNYCAS survey, access to acute care visits has declined with fewer families able to access same-day appointments and more families choosing the emergency room (Figure 8).

[12] National Survey of Children's Health (2011/2012)

Figure 8: "The last time your child was sick or needed medical attention in the past 12 months how quickly could you get an appointment to see a health care provider?"



Among adults who were sick in the last year, 34% were able to get care on the same day they called, 17% the following day, 39% had to wait two or more days, and 4% went to the ER. The Commonwealth Fund Survey 2006 Quality Survey found that 41% of adults were able to schedule an appointment on the same day they called, 16% the following day, and 28% had to wait two or more days.[13] While a different question, a more recent benchmark is that 67% of adults in the CAHPS Survey (2011-12) said they got an appointment for urgent care as soon as was needed.

- **Use of the Emergency Room.** Among children, 45% had an emergency room visit in the last year, compared to 40% in the 2007-08 WNYCAS survey. The National Survey of Children's Health no longer includes a question on emergency room use in its survey, but for the last year data were available (2003), the rate was 18.9% for children nationally.

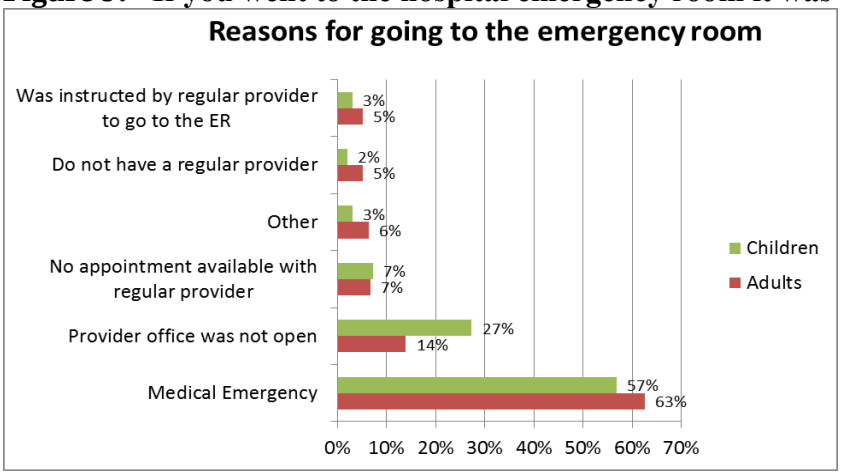
The rate of emergency room utilization of adults surveyed was even higher, at 46%. In comparison, in 2012, the Commonwealth Fund Insurance Tracking Survey for Adults found

High rates of emergency room use were a critical finding in the 2007-08 WNYCAS survey, and high utilization rates have persisted through 2013. Among children, 45% had an emergency room visit in the last year, compared to 40% in the 2007-08 WNYCAS survey.

[13] The 2006 Commonwealth Fund Quality Survey has not been repeated, and this was the original question source.

that 28% of adults nationally visited the emergency room (Figure 8.)

Figure 9: "If you went to the hospital emergency room it was because:…"



Access to Oral, Mental Health and Specialty Care

- **Dental Care.** Dental care access was determined by two questions: 1) Did you see a dentist for preventive care in the last twelve months? 2) Did you receive all the dental care needed in the last 12 months? Of those children who are older than one year,[14] 72% received a dental visit in the last 12 months, and 70% reported their child received all the dental care he or she needed. While the rate of preventive dental access in western New York is less than the national rate (77%), this is large improvement compared to the 2007-08 WNYCAS survey, where only 61% of children had a preventive dental care visit. The location for preventive dental care was a dental office (82%), health center or primary care office (11%), and school or daycare (4%). Children reported much higher rates of dental access than adults: 70% of children received all of the preventive dental care they needed, compared to 53% of adults.

While the rate of preventive dental access in western New York is less than the national rate (77%), this is large improvement compared to the 2007-08 WNYCAS survey, where only 61% of children had a preventive dental care visit.

- **Mental Health Care.** Parents were asked whether their child received mental health services in the last 12 months and if all the services needed were received. Thirteen percent (13%) reported that their child had received mental health services in the last 12 months. This is almost double the number of children nationwide, according to the National Survey of Children's Health (6.8%). This might indicate that children in western

[14]The determination of age of 1 year and older for recommended dental care is based on the guidelines used by the National Survey of Children's Health. Casamassimo P. Bright Futures in Practice: Oral Health. Arlington, VA: National Center for Education in Maternal and Child Health, 1996.

New York have better access to mental health services, a higher degree of need than children nationally, or both.

Of children who needed mental health services, 39% (n=22) did not get all of the services they needed. This is higher than the 12% found in the 2007-08 western New York survey. The most frequently reported reasons that children did not get all the care they needed were cost (n=2), no health insurance (n=2), and transportation (n=1). All other reasons were reported once or not at all. Fifty-nine percent (59%) of adults reported that their provider talks with them about things in their life that worries them or causes stress. Adults were not asked about mental health utilization but they were asked about behavioral health screening in their primary care office (see 'Medical Home' below).

- **Specialty Care.** Access to specialty care was assessed by asking parents (1) if their children had needed specialty care in the past 12 months, how much of a problem was it to get care from the specialty provider. Fifty- seven percent of respondents reported needing specialty care, and 23% of these reported some problem accessing a specialty provider. Forty-two percent (42%) of parents said their child did not need specialty care in the last year. Nine percent (9%) said accessing a specialist was a small problem; 12% said it was a moderate problem; and 2% said it was a big problem. The most common reason specialty care was a problem was that they did not have health insurance (7%), followed by that it was too long to wait for an a appointment (6%). Many families (11%) sited multiple reasons including cost, lack of transport, inability to find a provider who accepts their health insurance, distance, and not having child care.

  Fifty-seven percent of respondents reported needing specialty care, and 23% of these reported some problem accessing a specialty provider.

  Compared to the 2007-08 WYNCAS survey, children's access to specialty care has remained consistent. In the 2007-8 survey, 20% reported some problem accessing a specialty care provider, compared to 23% in the 2013 survey. Access to specialty care was comparable for adults. Twenty-two percent of adults reported some problem with specialty access (22%) and of that group; 39% said it was a small problem, 32% said it was a moderate problem, and 28% said it was a big problem. The most frequently cited reasons were too long a wait for an appointment (8%); cost (5%); no insurance (5%); and distance (5%). Seven percent cited multiple reasons.

Access to a Medical Home

Access to a medical home is increasingly being identified as a standard for high quality primary care. The Consumer Assessment of Health Providers and Services (CAHPS) has developed a Patient Centered Medical Home (PCMH) survey to assess whether a practice has adopted features of a medical home. Several questions were drawn from this survey to assess adult access to a medical home.

- **Ability to get advice from provider by phone.** Access to advice by phone is considered an important part of medical home access. Both children and adults were asked about phone access to their provider; however, different questions were used to allow for comparison to national surveys. Parents were asked, "During the past 12 months when you have called your child's health care provider for help or advice over the phone because your child was sick, how often were you able to get the help or advice you needed?" About half (51%) said that if they called they were got all the help they needed. While this is comparable to the rate in the 2007-08 WYNCAS survey of 48%, phone access remains significantly poor compared to the 80% of families who were always able to get the advice they needed over the phone in 2003 National Survey of Children's Health.[15]

  Adults were asked a similar question: "In the last 12 months, when you phoned this doctor's office during regular office hours, how often did you get an answer to your medical question the same day?" Forty-three percent of adults said that if they called, their provider responded the same day. Compared to the national CAHPS survey, which found that 63% of adults were able to get a response from their provider the same day, western New York patients experienced poorer phone access.

- **Provider and Patient Communication.** Provider communication was assessed by asking: "How often does your provider explain things in a way that you understand?" And "How often did your provider listen carefully to you?" Among children, 75% of parents said that their child's provider always listens carefully to them, and among adults, 64% said their provider always listens carefully to them. Sixty-six percent (66%) of adults and 69% of parents said their health provider always explains things in a way they understand. Provider communication in western New York could be improved as compared to national rates of quality communication in the 2012 CAHPS survey (Figures 10 and 11).

  Among children, 75% of parents said that their child's provider always listens carefully to them, and among adults, 64% said their provider always listens carefully to them. Sixty-six percent (66%) of adults and 69% of parents said their health provider always explains things in a way they understand.

[15] Note that the National Survey of Children's Health has not included the question on phone access to providers in the more recent 2011/2012 survey.

Figure 10: "How often does your provider explain things in a way that you understand?"

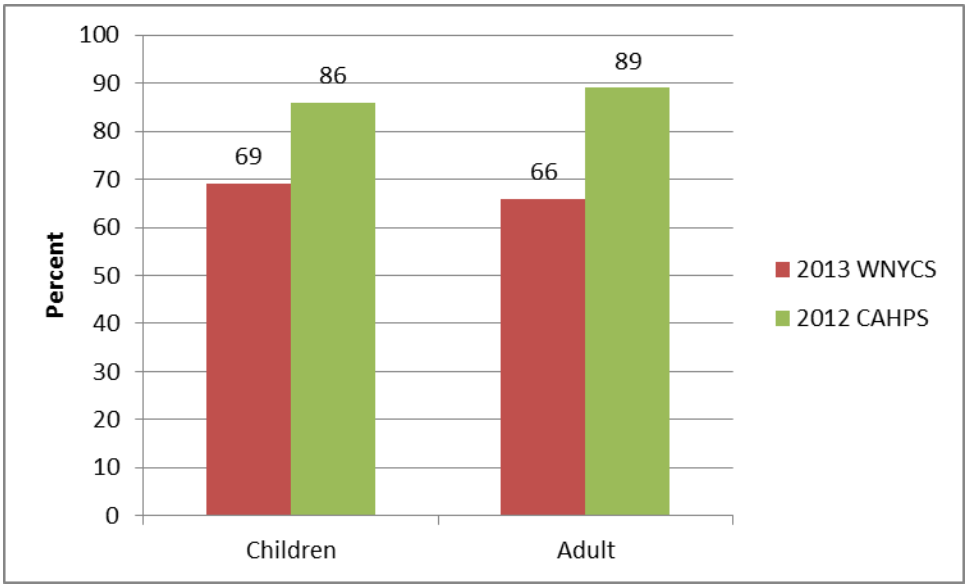
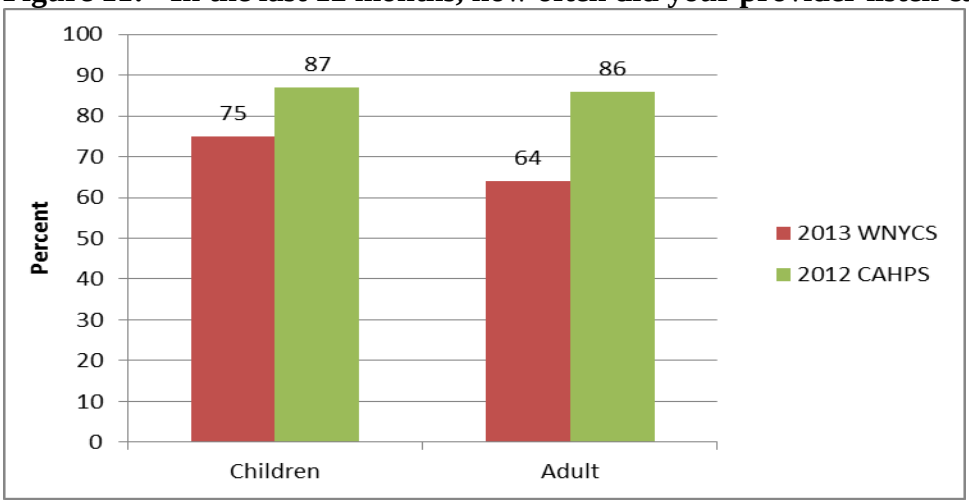


Figure 11: "In the last 12 months, how often did your provider listen carefully to you?"

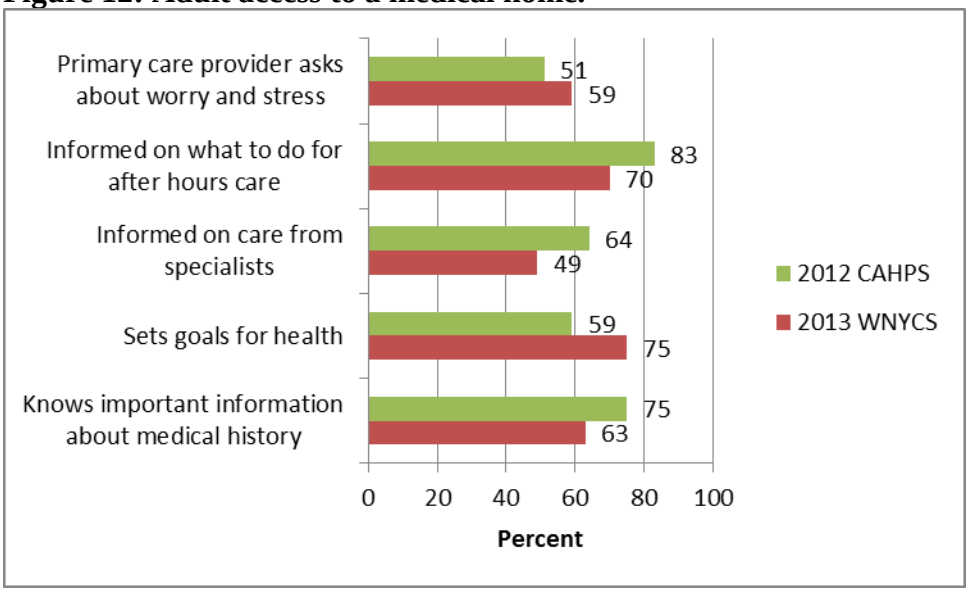


- **Adult access to medical home.** In addition to questions on provider communication and phone access, adults were asked a series of questions from the CAHPS PCMH survey to assess whether they have access to a provider who offers medical home access. Eighty-one percent (81%) of adults have someone they think of as their personal doctor or primary care provider. Among adults surveyed, 63% reported that their provider seems to know important information about his/her medical history. With respect to setting goals for health, 75% reported that their provider talked with them within in the last 12 months about goals. In comparison, only 49% reported that their provider was informed on care received from specialists. Seventy percent (70%) said their provider gave them information on what to do for care during evenings, weekends, or holidays. Access to integrated behavioral health in primary care is predicated on screening in the primary care office. Of those that had seen their regular provider in the last year 59% reported that their provider had talked to them about things in their life that worry them or cause stress.

Relative to CAHPS national benchmark data, western New York adults have good access to screening for behavioral health and goal setting. There is room for improvement in access to providers who have information on their medical history and their care from specialists

Relative to CAHPS national benchmark data, western New York adults have good access to screening for behavioral health and goal setting. There is room for improvement in access to providers who have information on their medical history and their care from specialists. Further, 30% of adults in western New York were not informed about what to do if they needed care on nights, weekends, or holidays, compared to 17% of adults nationally (Figure 12).

Figure 12: Adult access to a medical home.



3. Primary Care Structure, Supply, and Capacity

As stated above, there are a number of themes that are cross-cutting with respect to the structure, capacity, and strength of western New York's primary care safety-net and the primary care system overall. However, there is also considerable variation, particularly in the degree to which some of these cross-cutting factors impact specific counties and geographic areas. If HFWCNY and the region's other stakeholders are going to engage communities, provider organizations, and groups of providers and develop targeted strategies to strengthen the primary care safety-net or primary care system overall, they must understand nature of the commonalities and variation that exist in the region.

It should be noted that in the past five years since the last assessment, the common themes have not changed dramatically. There have been some remarkable improvements in access and primary care capacity that have had a positive effect on certain geographic and demographic

segments of the population. However, many if not most of the underlying strengths and weaknesses persist to varying extents.

As described in the final report, the common themes in 2008 were:

- Limited primary care capacity
- Over-utilization of hospital emergency rooms
- Lack of access to oral and behavioral health services.
- Lack of after-hours care
- Administrative barriers to Medicaid enrollment and re-enrollment
- Lack of awareness or access to preventive services
- Provider shortages, recruitment, and retention

The following section is a review and discussion of the common themes across the region based on data and information collected from the current assessment. In addition, it takes an historical perspective and highlights how the region's primary care system has changed, progress since JSI's last assessment in 2008, and the changes that are underway due to ACA.

Primary Care Safety-Net Structure and Capacity

As mentioned above, the basic structure and characteristics of the primary care safety-net in the region have not changed dramatically since 2008. The safety-net is still made up of a diverse collection of primary care clinics or primary care practice sites that fall into one of three categories. The first category is a group of publically and/or privately subsidized, full-service primary care clinics, which are formally committed, either by mission or mandate, to serve low-income uninsured or insured patients. Federally qualified health centers (FQHCs), New York State, Article 28 clinics, and clinics run by faith-based organizations are the leading entities in this category. The practices in this group are categorized as "core" safety-net providers.

The second category is a group of hospital-owned or affiliated primary care clinics or practices that are typically part of larger, integrated delivery systems. These practices are most often located directly on or adjacent to the hospital campuses but many are scattered throughout the hospital service areas as well. With the implementation of ACA, these hospital-based practice sites are becoming a more and more integral part of hospital's service delivery and business strategies. They serve a broad range of predominantly insured patients across the socio-economic spectrum, including a significant portion of low-income, Medicaid-insured patients. The providers in this category can typically be categorized in the "essential" safety-net category, primarily due to their size and their relatively strong commitment to serving Medicaid-insured residents.

The third category is private, solo, or group primary care practices that operate independently in the community and, like the hospital-based practices, tend to serve insured patients, including those with Medicaid-insured. Practice sites in this category are more likely to be pediatric clinics, given the relatively favorable nature of coverage and Medicaid reimbursement for children in New York state. Often these practices cap the number of Medicaid patient they serve. These practice sites may not make a large individual impact but there tend to be large numbers of these

providers and collectively they can have a major impact. The practice sites of this type are typically considered in the "contributing" safety-net provider category, as they usually fluctuate in and out of the safety-net based on the volume of low-income, Medicaid, or uninsured patients they are seeing at any given time.

In the western New York region, there is considerable variation on a county-to-county basis as to which of these provider types is dominant. Yet except for Genesee County, which does not have a subsidized safety-net clinic, all of the counties safety-nets have at least a portion of each type of provider category.

Following is a discussion of the common themes with respect to primary care system and safety-net structure and capacity.

- **Tremendous Growth in FQHC Capacity.** Typically, safety-nets are bolstered by a set of "core" safety-net providers that are formally or informally mandated to serve low-income Medicaid-insured, underinsured, or uninsured populations. These organizations are often heavily subsidized through grants and enhanced provider payments so that they can tailor their operations to low-income populations, provide a range of enabling and supportive services, and provide uncompensated care to the uninsured. Throughout the United States, FQHCs are often at the heart of these safety-nets and this is true in the western New York region.

  In 2007, there were three FQHCs in the region that served 25,559 patients. Despite the important and substantial efforts these providers made in 2007, these FQHCs served only approximately 5.6% of all low-income residents in the region (low-income penetration), and only 1.6% of all residents across all income brackets in the region (total penetration). The majority of the region's FQHC capacity served residents of Buffalo. Specifically, 52% (13,374 patients) of all the region's FQHC patients were served by two FQHC grantees in Buffalo, which served approximately 5% of Buffalo's low-income population. In 2008, the JSI team recommended that HFWCNY and the other regional stakeholders take steps to grow the "core" safety-net, and one of the leading strategies was to support the development of new FQHCs or expand existing FQHCs.

  Since 2007, the number of patients served by FQHCs region-wide has increased by more than 100%, from approximately 25,000 patients in 2007 to more than 53,000 patients in 2012.

  Since 2007, thanks in large part to support provided by HFWCNY, three new FQHC grantees were funded, bringing the total number of FQHC grantees in the region to six. Two of the new FQHC sites were funded in 2011 (the Chautauqua Center in Dunkirk, and Universal Primary Care in Olean), and one was funded late in 2013 (Jericho Road Community Health Center in Buffalo). In addition to the new FQHC sites there has also been dramatic growth among the existing FQHCs. The Neighborhood Health Center in Buffalo was provided additional funding to operate a new site in Buffalo that opened in

2011, and the Community Health Center of Buffalo acquired a new site in Niagara Falls in 2009. Also, Oak Orchard Community Health Center is slated to open a new site in Wyoming County later in 2014. It is also important that beyond these new sites the FQHCs have been reaching out to their target populations and expanding access to their existing sites.

As a result of these FQHC expansion efforts, the regions FQHCs served a total of 53,493 patients in 2012, more than a 100% increase since 2007. Moreover, these FQHC sites served 11.2% of the low-income population in the region, which represents a 100% increase in low-income penetration since 2008. The new sites are growing fast. Two of the grantees were existing sites that are bringing roughly an additional 18,000 patients under the FQHC category. Including this existing volume and the expected increases over the next 2-3 years, these new FQHCs will bring the total number of patients served by FQHCs up by approximately 33,000, for a total of nearly 85,000 patients served and a low-income penetration level of approximately 18% by 2016.

- **Substantial Unmet Need in Low-Income Population.** With respect to primary care capacity, there has been great progress across all eight counties in western New York, since the 2007-08 assessment, as illustrated by the efforts discussed above. The quantitative and qualitative data captured during this assessment shows that every county in the region has a solid core of providers and stakeholders that are increasing the safety-net capacity and promoting primary care engagement among those most at-risk. Most of these providers are members of SNAPCAP[16] who meet regularly to share information and collaborate to strengthen and expand the safety-net.

Despite the dramatic growth in core safety-net provider organizations, there is still substantial unmet need in the region, particularly for low-income segments of the population. A portion of this unmet need is associated with the lack of primary care capacity and/or inefficiencies in primary care operations. However, a large portion is also associated with a lack of primary care engagement and/or a lack of awareness on the part of the consumer regarding the importance of regular primary care, chronic disease management, and prevention.

What is also clear, however, is that despite the substantial efforts of the SNAPCAP membership, a handful of other primary care practices that are not part of SNAPCAP, and other community stakeholders, there is still substantial unmet need among the low-income population and limited capacity in many of western New York's communities, especially to serve those who are uninsured. A portion of this unmet need is associated with the lack of primary care capacity and inefficient primary care operations. However, a large portion is also associated with a lack of primary care engagement and/or a lack of consumer awareness about the importance of regular primary care, chronic disease management, and prevention. What practice sites are finding is that the expansion of capacity does

[16] Insert SNAPCAP Description

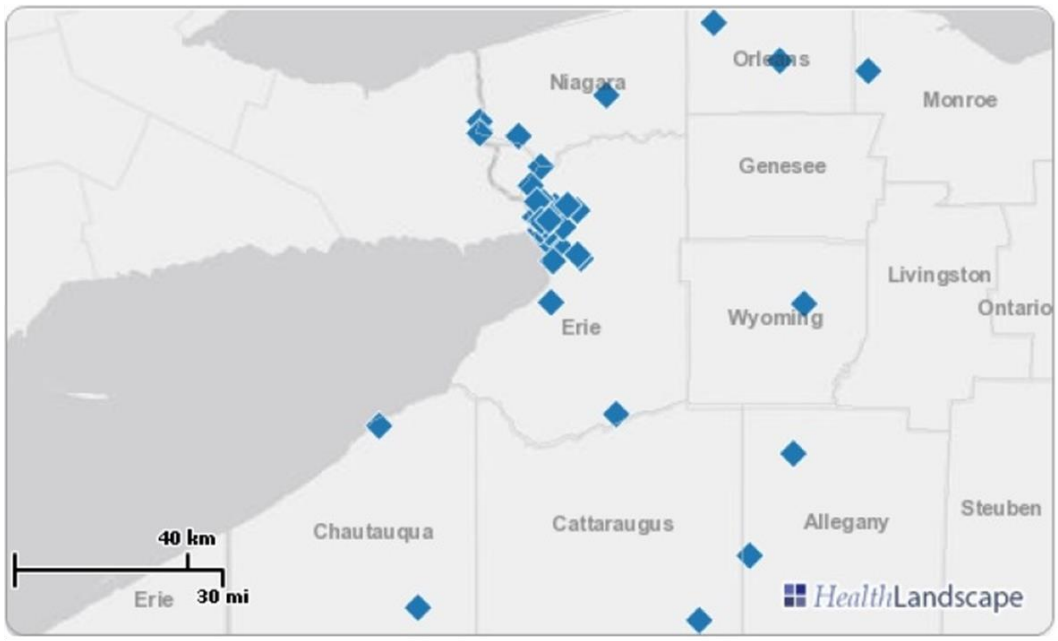
guarantee that people will take advantage of it, even if the penetration rate is relatively low.
Most of the communities have a relatively robust set of providers who are willing and committed to serving Medicaid-insured residents, but people who are uninsured are typically obliged to obtain services through hospital EDs.

The county summaries, included in the next section, describe the capacity and unmet needs of safety-net systems. They also identify geographic hotspots and those segments of the population that are most at-risk.

It is extremely difficult to establish a figure that reliably estimates unmet primary care need. This assessment, thanks to the efforts of P^2 of Western New York and SNAPCAP members, was able to accurately determine the number of patients that the core of the region's safety-net serves. The assessment also made great efforts to identify non-SNAPCAP provider practices that are part of the primary care safety-nets in their communities. But what the assessment could not estimate is the number of low-income patients who are served by private, independent, or hospital-based primary care practice sites. Individually they serve only a small number of Medicaid-insured and uninsured patients but collectively may have a considerable impact. The assessment is also unable to estimate the number of low-income individuals who do not and will not access care regardless of whether there is capacity.

Based on data compiled by P^2 of Western New York that was provided by SNAPCAP's members, the 16 provider organizations that collectively represent the core of the region's safety-net operate 34 practice sites serve 175,735 patients. Due to limitations related to data collection, it is difficult to determine the exact characteristics of this population. However, considering what we know about the nature of the clinic sites that are operated by SNAPCAP members, it is reasonable to assume that the vast majority of these patients are in low-income brackets.[17]

[17] It is important to note that a portion of these patients are not low income, particularly those served by members that operate hospital-based or hospital-owned clinics as these sites serve a broader cross section of the socio-economic spectrum. It is not possible to determine the exact proportion that are not low income so for the JSI project team's primary analysis we assume that all are in low-income brackets.



P² Collaborative of Western New York
Creating the healthiest community, One neighborhood at a time

34 = SNAPCAP Sites (TOTAL)

JSI's assessment of demand revealed 476,098 low-income residents living below 200% FPL, which means that the SNAPCAP providers serve approximately 37% of the total low-income population in the region. The corollary to this figure is that 63% of the population is either not engaged in regular primary care at all, receives primary care at a hospital emergency department, or receives care from a provider that is outside JSI's list of core providers. Surely a portion of the remaining 63% of the population is able to secure high-quality, timely primary care from non-SNAPCAP practice sites, many of whom were identified by this assessment. However, a large portion is either receiving untimely episodic primary care from providers who are not solid parts of the safety-net, or from hospital emergency departments. Based on JSI's experience conducting these analyses throughout the United States, we conservatively estimate that 10-20% of the population, depending on the community, receives relatively high-quality care from independent or hospital-based primary care practices that are not typically considered part of the safety-net. This means that of the 63% of the population not served by SNAPCAP members, approximately 43-53% is in the unmet need category on a regional basis. This number fluctuates tremendously by county and might be as low as 10-20% in Erie, where the safety-net is strongest, to as high as 60-80% in Genesee, where it is weakest.

- **Substantial and Growing Impact of Private, Hospital-based or Independent, Community-based Primary Care Practices.**

  Private hospital-based and independent community-based primary care practices have always played a role in safety-net systems in the United States, particularly in rural areas with low population density. In western New York, these provider types have an even larger role, particularly in some of the region's most rural counties. With the role-out of

ACA, it is likely that these provider groups will increase their role in the primary care safety-net as they take steps to serve those who are newly insured as a result of ACA and take advantage of emerging service delivery and payment reforms.

Historically, these provider types have played a limited role in safety-nets, due primarily to low provider payment rates and the lack of other financial support that would allow them to sustain operations while meeting the complex needs of low-income Medicaid-insured or uninsured patients. Today, numerous components of ACA are aimed at changing this dynamic and encouraging hospitals and independent private practice physicians to become part of the primary care safety-net. These efforts are often part of a hospital's broader strategy to develop multi-service, integrated delivery systems that provide a range of outpatient services—such as primary care, medical specialty, behavioral health, long-term care, and home-based services—in addition to standard inpatient and emergency services. Moreover, the service delivery and payment reforms that are part of ACA are putting a greater emphasis on how well hospitals and these larger integrated service delivery organizations are keeping their patients and communities healthy, rather than on how many services they are providing. In turn, these provider organizations are on their own or with other community partners, developing population-based, community health programming that emphasizes chronic disease management, prevention, and wellness.

Several components of ACA are aimed at getting hospitals and independent private practice physicians to become part of the primary care safety-net. These efforts are often part of broader hospital strategies to develop integrated delivery systems that are putting greater emphasis on how well health care organizations are keeping their patients and their communities healthy, rather than on how many services they are providing.

Increasingly, primary care is being perceived as the heart of service delivery transformation, and, in turn, hospitals are taking steps to expand their primary care market share and develop broader geographically defined target populations that include, rather than avoid, low-income, Medicaid-insured, and even uninsured residents. Changes in payment models are a major factor in this shift. Hospitals are increasingly being held accountable for hospital re-admissions and are being paid or penalized based on health outcome performance. To

The fact that hospitals are taking steps to become part of the primary care safety-net is generally positive. However, because these practices are not driven by mandate or mission to serve low-income, Medicaid-insured patients, some people believe that their involvement will be fleeting and/or inconsistent, depending solely on whether their primary care operations can contribute to their profits.

perform better on these measures of quality, hospitals must develop closer relationships with primary care and institute more robust care coordination. In short, ACA has expanded the safety-net as hospitals and private providers increasingly recognize the possibility that they can simultaneously improve the overall health of their communities, provide high-quality, coordinated, patient-centered services, and sustain or even enhance their financial position.

This trend is generally positive because it is encouraging hospitals to be more collaborative and to re-consider their role as a fee-for-service acute care provider to one that is paid to keep people healthy and prevent them from entering the hospital. If this trend continues, it will likely lead to an expanded, more integrated and coordinated safety-net. But some people are skeptical about relying on or supporting hospital-based and private community-based primary care practices' efforts to be part of the safety-net. Because these practices are not driven by mandate or mission to serve low-income Medicaid-insured patients, some people believe that their involvement may be fleeting and depends solely on whether their primary care operations can contribute to their bottom line. Ultimately, this may draw support away from core safety-net providers and lead to the destabilizing of the safety-net.

The 2007-08 assessment did not quantify the impact that these hospital-based and independent private primary care practices made on the safety-net. However, the current assessment, due largely to data provided by SNAPCAP and P^2 of Western New York, did capture data from many of the leading organizations in this category. A review of data collected by P^2 of WNY from SNAPCAP members shows that seven hospital-based or independent private primary care practice organizations are part of SNAPCAP and serve 86,797 patients. This represents 49.6% of the total patients served by SNAPCAP members. The hospital-based practices that are part of SNAPCAP, three of which are in Erie County and one of which is in Niagara County, collectively serve 44.9% (78,548) of the total number of patients served by SNAPCAP members. A significant but unknown portion of these patients are insured commercially and likely do not fall in low-income brackets, but it is fair to assume that a clear majority of these patients are low-income and that these providers have a major role in the region's safety-net.

Assuming trends continue and the components of ACA referenced above continue to sway hospitals to become part of the safety-net, it is very likely that the impact of these hospital-based practices will grow as these providers continue to explore ways to take advantage of new payment reform models and the fact that more residents in their service areas will have health care coverage.

In addition to the hospital-based practices that are part of SNAPCAP, the assessment identified other hospital-based practices in the region that are also part of the safety-net and serve large numbers of low-income, Medicaid-insured patients through their affiliated or owned primary care practice sites. Many of these sites have taken aggressive steps to reach these populations and/or have been working with private, independent, or FQHC providers to bolster their communities' safety-nets. The independent private solo or group practices that are part of SNAPCAP, all of which are in Erie County,

collectively serve 4.7% (8,249) of the total number of patients served by SNAPCAP members. This category of providers comprises the smallest portion of the SNAPCAP membership but nonetheless, is clearly committed to serving low-income patients. They join a handful of other private independent providers that were identified by the assessment and are not part of SNAPCAP. From our interviews and our knowledge of safety-net systems in New York State, it is likely that there are more pediatric provider than adult practices in this category. The pediatric clinics are better able to sustain themselves financially because of the high rates of Medicaid coverage among low-income families and children. All of these practices have diversified payor mixes that include a high portion of commercially insured patients but also serve anywhere between 20-40% Medicaid-insured patients.

- **Over-utilization of Hospital Emergency Departments (EDs).** As discussed in the review of the consumer survey results above, there are large proportions of the population that rely on the emergency department for their primary care, either because they: 1) have no other source of primary care and as a result are forced to use the ED; 2) use the ED as their first choice of care rather than regular, comprehensive primary care, or who overlook the cost saving of using primary or urgent care; or 3) have difficulty accessing primary care during normal business hours and must resort to the ER's 24-hour availability.

  JSI estimates that 43-53% of the region's low-income population is not getting regular, high-quality primary care in a primary or urgent care setting. Furthermore, we assume that a large proportion of this population is using the hospital emergency room for a substantial portion of their primary care. A review of the consumer survey data cited above shows that 46% of adults went to a hospital emergency department at least once in the past 12 months and nearly 25% went to the emergency department two or more times during this period. In comparison, the 2012 Commonwealth Fund Insurance Tracking Survey for Adults national consumer survey found that 28% of adults visited the emergency room.

  Further analysis shows that only approximately 50% of those surveyed were seen in the ED for an actual medical emergency. The remaining visits were because those patients did not have a primary care provider or could not been seen by their regular primary care provider due lack of capacity or after-hours care.

  Data cited above in the primary care demand and community need section on preventable quality indicators (PQIs) also reinforce the idea that there is over-utilization of the emergency department. NS-LIJ's data showed that high proportions of the population in the region, particularly in certain geographic hotspots, were being seen frequently in the inpatient setting for conditions that could have been avoided or prevented with appropriate, timely primary care. A large proportion of these inpatient visits originate in the hospital emergency department.

  It should also be noted that in addition to lack of capacity and no after-hours or weekend care, there are a range of other barriers that hinder access to primary care and encourage the over-utilization of the emergency room, such as limited public transportation, long

wait-times, lack of timely scheduling, practice sites that do not take certain insurance, and administrative barriers to Medicaid enrollment. As a result, a large proportion of the families in the region have learned to rely on the region's hospital EDs as their usual source of care and do not, in any real sense, have a "medical home."[18]

Increasing Impact of Urgent Care. Nationally, urgent care clinics are having a large and increasing impact on primary care systems and primary care safety-nets. Specifically, these are urgent care clinics in highly accessible areas (e.g., malls, town-centers, or highway junctions) that provide walk-in services primarily to those with acute conditions, minor emergencies (e.g., fractures and lacerations), and exacerbations of chronic conditions. Typically, these clinics are created by hospitals and private companies or health care provider practices to either divert people with non-emergent health issues from the ED or to fill a business niche for people who need quick, convenient access to primary care services.

The JSI project team did not observe or hear from interviewees or site visit representatives that this trend was occurring to a large extent in western New York. Certainly, there are examples of urgent care clinics in the region but they do not seem to be having as large an impact on primary care access or primary care planning efforts as they are in central New York, other parts of New York state, or the nation overall. Many of those that we talked to thought it was only a matter of time before they had a more significant impact in the region.

Almost by definition these clinics have limited-to-no wait-times for appointments—which distinguishes them from EDs—and have extended hours of operation (including evening and weekend hours), which distinguishes them from regular primary care practices. Urgent care clinics also typically serve only those who are insured or have the means to pay on an undiscounted, fee-for-service basis. As such, research suggests that urgent care clinics have the ability to expand access, meet unmet primary care need, and reduce some non-emergent ED utilization. Research has also shown that urgent care clinics cost less than care provided in the ED setting. Typically, urgent care is still more expensive than regular primary care settings, but considerably less than the cost of ED-based care.

On the downside, research has shown that that urgent care sites may not provide the same level of quality or, as mentioned above, achieve the same level of cost savings as regular primary care practice settings. Specifically with respect to quality, care is not typically as coordinated, comprehensive in nature (i.e., include routine preventive or chronic disease management services), and information from these visits does not usually flow to the patient's primary care provider. As a result, many policy makers are promoting demonstrations, program pilots, accountable care organizations, and other initiatives that focus on the expansion of the patient-center medical home and more traditional primary care settings rather than on urgent care clinics. Furthermore, while urgent care clinics

[18] This report is using the Commonwealth Fund's definition of medical home defined as: a regular doctor or source of care, easy access to the provider by telephone, easy access to health advice on evenings and weekends or whenever the provider is closed, and visits with the provider that occur conveniently for patients, are on time and efficient.

may serve Medicaid-insured patients, particularly in rural areas where there is limited access to primary care, they do not serve all comers and are not often a source of care for low-income individuals or families.

Increasingly, urgent care clinics are being developed by hospitals or private practices in partnership with hospitals as a way of reducing the burden that non-emergent utilization has on their EDs, while maintaining or even increasing their patient population or market share by providing care that is highly accessible and patient-centered (i.e., no wait-times, on-site labs and x-rays, and other amenities). This has advantages as it does expand access to primary care. However, many feel that it threatens the "core" safety-net whose financial position is often dependent on serving at least a portion of insured, paying patients. If the hospital or privately operated urgent care clinics are serving only the insured, both Medicaid and commercially insured, than the "core" safety-net providers are left with a larger, disproportionate share of the uninsured or underinsured population.

- **Hospital Consolidation, Closings, and Financial Insecurity**. Another common theme regionally is that numerous hospitals are exploring consolidation with another hospital organization or closing altogether. These decisions are being made or explored primarily due to financial reasons and the fact that many of these hospitals are experiencing large financial losses. There are also hospitals that are exploring strategic alignments with other health care organizations or that have already aligned themselves with other organizations. These circumstances have led in some cases to the closing of primary care practices, which has negatively affected access and at times the capacity of the primary care safety-net. These circumstances have also created uncertainly and led to the loss of community control, which has also lowered access and, in some cases, the capacity of the primary care safety-net. As mentioned above, hospital-based practices often struggle to provide primary care to low-income, Medicaid-insured, or uninsured populations due to low provider payment rates and the lack of other financial supports. When hospitals face financial losses and are forced to cut costs, often one of the first things to go are primary care practices that serve large numbers or proportions of Medicaid-insured patients. This concurrent trend of uncertain financial viability of hospitals is a major factor in the skepticism of hospitals' long-term ability to commit to primary care, despite changes from ACA encouraging them to invest in a system of care that promotes health.

- **Lack of Consumer Engagement.** Another important factor in unmet need and insufficient primary care access is the lack of primary care engagement. A certain portion of unmet need is more closely associated with a lack of consumer awareness about the importance of regular primary care, chronic disease management, and preventive services than it is about a lack of actual primary care capacity. This was a common theme in JSI interviews and site visits. Practice sites often said that while there is absolutely unmet need and a lack of primary care capacity in nearly all of their communities, they often struggle to engage their patients and their target populations in appropriate primary care services. Many providers are keenly aware that even if they increase capacity or develop new sites, there will be a lag in service until they promote primary care engagement effectively.

In this regard, there needs to be a greater focus on prevention, health promotion, community health education, and emergency room diversion, and greater efforts to identify and engage those who are not accessing primary care. This is particularly important for people with chronic disease and/or other health related conditions (mental health, substance abuse, hospital discharge, etc.) as well as certain demographic (children, frail elders, single-parent mothers, etc.) and socio-economic (low-income, public housing residents, WIC recipients, etc.) segments of the population. In addition to exploring how to increase primary care capacity, safety-net organizations need to focus on outreach, primary care engagement, and the implementation of population-based efforts that are data driven and promote appropriate utilization. Practice sites need to be savvier in using their own electronic health records, other managed care data, or hospital partner data to identify and reach out to those who are not engaged in care. Once they get a patient in the door, they have to offer patients convenient hours, ensure quality customer service on the phone and in person, and build strong relationships so patients choose them as their preferred provider for both preventive and acute needs.

4. Primary Care Internal Operations: Strengths and Weaknesses

As in 2008, JSI has drawn from the Institute of Medicine's (IOM's) core competencies for 21st-century health care to clarify and guide its assessment with respect to understanding primary care system strengths. These core competencies describe an approach that health care providers should take in providing care. According to this approach by the IOM,

> "All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement practices, and informatics."

JSI applied the basic tenets of this approach in assessing the strength and the overall quality of care provided by the primary care system and the safety-net in western New York. Through its key informant interviews, site visits, and other provider interviews, the project team collected a significant amount of information. It should be noted, however, that the project team's methodology was not designed to conduct a rigorous site-by-site analysis. Such an analysis requires much more extensive data-collection efforts and would have been burdensome to provider organizations. JSI believes that its method provided ample information to assess the extent to which the IOM's standards are applied in western New York, and more specifically how HFWCNY and other community stakeholders can continue to expand and strengthen primary care operations, particularly in response to current health reform ideas.

Safety-net providers need to make more efforts to identify people who are not receiving appropriate primary care services and to promote primary care engagement, preferably in a patient-centered medical home setting.

- **Outreach, Eligibility/Enrollment, and Primary Care Engagement.** One factor that sets "core" safety-net providers apart from "essential" safety-net providers and

"contributing" safety-net providers is that core safety-net providers are committed, and in some cases mandated, to promote engagement in care to low-income target populations. This is typically done with the assistance of a formal outreach coordinator who is responsible for identifying, engaging, and promoting proper utilization of services. This also usually is done with the assistance of other community partners such as public housing facilities, Women, Infant, and Children (WIC) sites, schools, hospital emergency departments, community centers, and other community venues where low-income populations are likely to congregate. Assessing for eligibility and enrolling consumers in Medicaid or other entitlement programs has always been an important facet of this job description. With the passage of ACA, the significance of assessing low- income, underinsured, or uninsured consumers has become more important. Recently, nearly all FQHCs have received additional funds dedicated to outreach, eligibility, and enrollment efforts. However, they are not the only providers reaching out to low-income populations. Other core safety-net providers, as well as those in the essential safety-net category such as hospital-based or private physician practices that see a lot of Medicaid patients, see this as a main part of their strategy and are focusing on insurance eligibility and enrollment.

As discussed above, there is substantial unmet health care need in the community, and a significant portion of this, particularly among low-income populations, is associated with a lack of primary care engagement, rather than a lack of primary care capacity. Safety-net providers must make greater efforts to identify people who are not receiving appropriate primary care services and promote primary care engagement, preferably in a patient centered medical home setting that is committed to providing quality, evidenced-based care. This is particularly true in the context of the role-out of ACA.

- **Design and Implementation of Patient-Centered Care.** Over the past five years since JSI's last assessment, there has been a great deal of resources invested nationally and statewide to develop primary care operations that are patient-centered and follow patient-centered medical home (PCMH) guidelines promoted by various professional organizations, including the National Committee for Quality Assurance. New York has a PCMH pilot program that has involved a number of organizations in the region. According to data provided by the NYS Department of Health in December 2012, there were more than 4,500 PCMH-accredited practices in the state, more than 400 of which were in western New York.[19] FQHCs in particular, with the encouragement and resources from the Bureau of Primary Health Care, have embraced PCMH, and collectively have made great strides.

In 2007, the project team reported that none of the safety-net providers interviewed or visited were applying or promoting patient-centered care in as defined by the IOM or other professional organizations. At that time there were macro-level planning efforts underway that focused on developing the appropriate infrastructure (e.g., implementation of EHRs, coordination or integration of other health and social services, development of quality/performance improvement systems). However, at that time, JSI did not see a lot

[19] http://www.health.ny.gov/health_care/medicaid/redesign/docs/pcmh_quarterly_report.pdf

of these efforts trickling down to the patient-level or affecting the quality of care or the patient experience.

In JSI's current assessment, all providers in the safety-net (core, essential, and contributing) that the JSI project team talked or visited with have embraced the principles associated with PCMH. However, there are clear differences in the ability of various providers to implement the principles. All the FQHCs that JSI spoke with all are working to various degrees to transform their practices. However, among the essential safety-net provider practice group, perhaps with the exception of the hospital-based providers in Buffalo, while all recognized the value, some of the practices had less capacity to implement a patient-centered medical home. The rural and small hospital-affiliated practices may have only one or two providers and have struggled to transform their practices.

All the practice sites that JSI talked or visited with has embraced the principles associated with PCMH and are working to transform their practices. There was clear recognition that range of activities must be undertaken to create a truly patient-centered, coordinated, integrated, service-delivery approach focused on quality, safety, and access. But none of the practice sites had succeeded in implementing all the principles associated with PCMH, even those who had received Level 3 accreditation.

There was clear recognition of the broad range of activities or domains that needed to be addressed in order to create a truly patient-centered, coordinated, integrated, service-delivery approach focused on quality, safety, and access. Yet none of the practice sites had adopted all the principles associated with PCMH, even those who had received Level 3 accreditation. However, each practice, based upon the needs of its patients, available resources, and the strengths and weaknesses of its operations, had prioritized a particular set of PCMH domains to focus on. Most practice sites we talked with agreed that there needed to be more concerted, individual, and collaborative efforts in the region to drive the application and implementation of PCMH principles into practice. There was a general sentiment that practice sites needed to move beyond accreditation and infrastructure development and take steps to implement PCMH in ways that more clearly improve the patient care experience and the quality of care.

This does not mean that certain organizations have not made great strides in certain areas to develop more coordinated, more integrated, higher-quality, more patient centered operations. Some organizations, such as P^2 of WNY and HFWCNY, have been working to advance various aspects of PCMH, particularly electronic health record (EHR) development and quality improvement.

Considering the national and regional emphasis and the increasing possibility that these activities will be tied to payment, the biggest strides have been made in the area of quality/performance improvement and EHR implementation. All of the core safety-net providers JSI talked to or visited (and nearly all the other practices), had either recently

upgraded or newly implemented EHR systems. All of the providers were to varying degrees, using them to track quality, improve care coordination, and support patient communication and/or clinical decision making. Although it is difficult to measure, these efforts have certainly led to improvements in the quality of patient care, most notably in the areas of screening and chronic disease management.

The efforts in this area have led to a noticeable cultural shift across all practices and are being largely embraced at the clinical provider level. Most of the sites JSI spoke to were using their EHRs to track clinical quality indicators and were taking steps operationally and/or with respect to adoption of evidence-based clinical protocols to improve a variety of measures. Once again, this was particularly true in the areas of chronic disease management and preventive screening. This cultural change is a critical step in the PCMH process and it is clear that the foundation for real change has been developed across the safety-net.

Significant strides have also been made with respect to the integration and coordination of a broad scope of services. Building on what JSI observed in 2007, all practices are either co-locating services (e.g., medical specialty care, behavioral health, and oral health services) on-site or developing formal referral protocols with specific partners.

Improvements are still needed in the areas of team-based care, provider-patient communication, patient flow, and access. Issues related to team-based care are discussed below. With respect to provider-patient communication, the consumer survey showed that many consumers still struggle to communicate with their clinical providers. Also, a common theme from the JSI project team's interviews were struggles related to health literacy, particularly in Buffalo with its large numbers of immigrants and refugees. As for patient flow and access, one of the practice sites' biggest concerns was related to high no-show rates, which were affecting their productivity, provider scheduling, and patient satisfaction. Also, the lack of after-hours care, high utilization of EDs, and lack of primary care engagement were issues that were identified in JSI's data analysis, interviews, and site visits. These issues are related to a lack of primary care capacity as well as patient satisfaction and are evidence of the need to develop operations that are more patient centered.

- **Utilization of Interdisciplinary Teams.** Since 2007, there have been great strides with respect to integrating primary care with medical specialty care, behavioral health, oral health, and chronic disease management services. These interdisciplinary teams are usually created by co-locating specialty care providers, chronic disease specialists/care managers, behavioral health, or dental providers in the primary care setting. The primary care provider staff, often in concert with the nursing or medical assistant staff, will identify those in need of specialty care services and initiate an internal referral, usually by a "warm hand-off" in which the primary care provider introduces the patient to the specialty care provider at the time of the initial primary care visit. In other cases the integration or team-based care occurs through enhanced referral arrangements that include formal arrangements for provider communication and scheduling with a specific pool of community- or hospital-based providers. These arrangements may not be co-

located but often include information-sharing protocols that facilitate coordination and communication.

In 2007-08, these efforts were focused primarily in Buffalo, particularly with the FQHC providers. For example, the FQHCs in Buffalo and Oak Orchard in Orleans County have fully integrated primary care, behavioral health, and oral health operations in a co-located manner, which has increased access to care and improved care coordination. In 2013-14, efforts have spread throughout the rural regions and to non-FQHC providers. Integrated hospital networks have always had an advantage when it comes to this level of service integration and team-based care, as these practices typically have access to a pool of medical specialty and behavioral health providers who can be more easily integrated with primary care. The hospital-based practices and family practice residency practices in Buffalo that are part of SNAPCAP are also good examples of this type of integration. Outside Buffalo, there are also notable examples in both hospital-based and private independent physician-based practices that have integrated or are working to integrate this level of team-based care. As noted in the 2007-08 assessment, safety-net providers that work with complex, developmentally disabled or frail elderly patients are also experienced with this level of team-based care, as they ensure that their patients have access to the comprehensive array of services they need.

What does not seem to be happening in the region, at least in the practice sites that JSI visited, is the development of team-based care approaches to providing primary care medical services.

Yet, in the region, at least in the practice sites visited, the development of team-based care approaches to providing primary care medical services is happening to a lesser extent. These approaches involve the creation of primary care pods that are typically led by a physician who, with nurse practitioners and/or physician assistants, is responsible for caring for a panel of patients. These arrangements are increasingly being espoused by PCMH-accrediting organizations and have been proven to increase productivity while promoting quality, care coordination, and greater continuity of care. Often these primary care pods or teams include a chronic disease care manager and a behavioral health provider, in addition to a cadre of nurses and medical assistants that augment the team and promote even greater care coordination.

As stated in the 2007-08 assessment, just because services are part of vertically and horizontally integrated provider networks does not necessarily mean that the care is integrated or that interdisciplinary teams are working well together. Although JSI's assessment was not able to determine how well these teams were working, there is still a lot that could be done to ensure that these models are well-functioning and that information and expertise is shared appropriately.

- **Utilization of Health Information Technology (HIT) and the Application of Quality Improvement Strategies.** Perhaps the area of clinical operations that has advanced the most since the 2007-08 assessment is HIT implementation and the application of quality and performance improvement strategies. As mentioned above, over the past five years all of the safety-net providers that JSI spoke to or visited have either updated their existing systems or implemented new systems that have improved information transfer between providers, driven quality-improvement efforts and data tracking, facilitated care coordination, and enhanced clinical decision-making support. Many of the organizations also have dedicated quality-improvement coordinators on staff. As in 2007-08, the independent community-based safety-net providers were less likely to have the same robust infrastructures related to clinical quality and performance improvement, but all had functioning EHRs.

  Over the past 5 years, great strides have been made to promote the implementation of robust EHR systems, and many practice sites are using them in productive ways. But for other sites, it is not enough to have an EHR; they need support to actually use it, particularly for identifying and managing illness, coordinating care, and vital information exchange between providers.

  It is important to note that just simply establishing HIT is not the end goal. Rather, HIT is the means through which a provider can improve the quality of care, enhance the patient experience, and create operational efficiencies. Over the past five years, great strides have been made to promote the implementation of robust EHR systems, and many practice sites are using them in productive ways. Practice sites have advanced particularly in the area of quality and performance improvement. However, more efforts and support are needed. It is no longer enough to have an EHR; the focus now must be on actually using it, particularly with respect to identifying and managing illness, coordinating care, and sharing vital information between providers.

  In 2007-08, there was limited participation in the region's electronic health information exchange (HIE) system. However, today more than 3,000 providers are enrolled in HEALTHeLINK™ and have agreed to share important medical and clinical information electronically. HEALTHeLINK™ is a collaborative consortium that currently includes most of the region's largest provider groups including the Catholic Health System, the Erie County Medical Center Corporation, BlueCross BlueShield of Western New York, Independent Health Association, Kaleida Health, Roswell Park Cancer Institute, and Univera Healthcare. HEALTHeLINK™ has the ability to serve health care providers throughout the eight counties of western New York and was created through a $3.5 million grant from New York state's HealNY initiative.

- **Employment of Evidence-Based Practices.** As in 2007-08, the JSI project team's interviews and site visits identified many provider organizations that have prioritized the management of diabetes, asthma, and other chronic medical conditions including

depression, as part of their operational strategies. As a result, these organizations have applied evidence-based practices that allow providers to more effectively identify, screen, assess, and manage or treat patients who have these conditions. These evidenced-based practices have also allowed patients to more effectively manage their own conditions, and participate in self-management support activities. Although many of the core safety-net providers have continued to make strides in this area, others, usually smaller and rural practices without the infrastructure to fully utilize their EHRs and implement PCHM, are not fully engaged in or even started these activities.

According to the primary care stakeholders and practice sites interviewed, the most significant barrier to the growth of the safety-net is primary care provider recruitment and retention. This is especially true in the region's more rural areas.

- **Provider Recruitment and Retention.** As discussed above, while there has been considerable growth in the safety-net since 2007-08, there is still substantial unmet need and limited capacity in many of western New York's communities. As a result, primary care safety-net practices across the region are working to build capacity, promote primary care engagement, and reduce over-utilization of hospital EDs. This issue is likely to become even more extreme in the context of ACA and the increased demand that is projected due to the expansion of health care coverage for low- and middle-income population segments.

  Recruiting new providers to add capacity and the aging and retirement of the current physician community are concerns. When safety-net practices try to fill vacancies or hire new primary care providers, it often takes more than a year to find a candidate and when they do practices must pay more than the market rate or provide benefits, such as limiting the length of the provider work week or not requiring that providers take after-hours calls, that are counter to their mission.

  The primary care residency program in Buffalo helps, as a substantial portion of those who complete their residency there remain and practice in the region. Some of the safety-net providers have put effort into collaborating with physician training programs as a long-term strategy to bring providers to both rural and urban areas. Notably, in Genesee and Wyoming counties, the hospitals have collaborated and built a new residency for doctors of osteopathy in family medicine. These efforts are positive but insufficient. The safety-net would benefit from resources that further address this issue and ease the challenge of recruitment and retention.

5. Primary Care External Partnerships and Collaboration

In 2007-08, the JSI project team observed that most of the safety-net providers, including medical, behavioral health, dental, and social service providers, were operating in silos and were not part of a broader system of care for low-income populations. As a result, they were not sharing information or expertise, coordinating or integrating their care, or facilitating referrals.

With this in mind, one of the recommendations from the last assessment related to promoting collaboration across the safety-net. Specifically, JSI's report recommended that HFWCNY sponsor community workshops or symposia, develop resource inventories, create help/referral-lines, and/or coordinate referral and case management programs to help to break-down the existing silos and encourage collaboration and referral programs among safety-net health care, public health, and social service providers.

Since 2007-08, substantial efforts have been made to dismantle these silos. While there is still considerable room for improvement, it is fair to say that one of the leading advances over the past five years has been with respect to safety-net collaboration. Most notably, HCFWCNY worked with a core group of primary care safety-net providers to create the Safety-net Association of Primary Care Affiliated Providers (SNAPCAP), a coalition of the leading primary care safety-net providers in western New York. HCFWCNY has also sponsored numerous workshops and information sharing initiatives. Perhaps even more importantly, ACA has led to an increased appreciation for the importance of collaboration as provider organizations race to take advantage of the service delivery and payment reforms, many of which rely on the development of more integrated, coordinated service delivery approaches, that are part of the bill.

Collaboration is clearly more important today than ever and JSI's current assessment was geared to assessing the level of collaboration and the extent that safety-net providers were working in partnership with each other and other health and social service providers. The following is a review of the strengths and weaknesses related to collaboration.

- **Safety-net association of primary care affiliated providers (SNAPCAP).** As referenced above, one of the most significant advances since the 2007-08 assessment has been the creation of SNAPCAP. SNAPCAP is a provider-based coalition for primary care safety-net organizations that was created in 2010 with the support of HFWCNY. The coalition includes 16 provider organizations that collectively operate 34 clinic sites throughout western New York. The coalition meets monthly and provides a vital forum to share information and explore and implement collaborative initiatives related to safety-net expansion, quality improvement, care coordination, service integration, HIT improvements, and many other areas.

  During JSI's interviews and site visits, numerous SNAPCAP members discussed the value and importance of the coalition. There was overwhelming support for and an appreciation of the impact that such an organization has in the region.

- **Increased collaboration as a Result of ACA.** The pressures and incentives that are associated with ACA have been a powerful force for innovation. Collaboration is at the heart of this innovation, as health and social service providers explore how to better integrate and coordinate their services with the goal of improving the health of the population (including increase quality of care), enhancing the patient experience, and creating efficiencies that reduce costs. Numerous components of ACA have provided resources, usually through the Centers for Medicare and Medicaid Services (CMS) or the Centers for Disease Control and Prevention (CDC), to incentivize collaboration and help

health care organizations achieve the "Triple Aim". The Community Care Transitions Program (CCTP), the Medicare Shared Savings Programs (MSSP), the Pioneer ACO Model Program, the Emergency Room Diversion Grant Program, and the Community Transformation Grants are examples of these efforts. Health care providers throughout the western New York region have received CMS grants in all of these areas and participated in these initiatives. This has led to real improvements in service delivery and the quality of care as well as created cost savings.

- **Safety-net is bolstered by a strong network of hospital and academic partners.** The western New York region's safety-net is supported by a network of major hospitals (both urban and rural) and SUNY Buffalo. As discussed above, these players are essential components of the safety-net and collectively serve nearly half of the patients served by the SNAPCAP membership. In addition, the hospital emergency rooms play a vital role in providing primary care services, particularly after-hours. In many communities, hospitals are the sole source of medical specialty care services. The University at Buffalo also participates in provider recruitment, planning, and research activities that directly and indirectly support the safety-net in significant ways.

  While there are new incentives within ACA for collaboration between hospitals and safety-net providers, the reality is that these efforts are challenging. Specific collaborative efforts between individual entities on specific topics have occurred but organizations continue to struggle to think collectively about how they can collaborate to improve information sharing across providers, provide comprehensive care management across the continuum of care, and work collaboratively to expand access, reach out to those most at-risk, manage appropriate ED utilization and those who are discharged from the hospital, and reduce high rates of chronic disease.

  As discussed above, there are some who are skeptical about the commitment of these hospital providers to the primary care safety-net. Surely their role is critical (e.g., emergency department services, medical specialty care, primary care to Medicaid-insured), but most providers in this group are not core safety-net providers, as they do not typically provide a primary care medical home to those who are uninsured and at times feel obligated to roll back or limit their commitment to Medicaid-insured patients in the outpatient setting.

- **Strong county health departments involved in primary care engagement and population-based health activities.** As in 2007-08, the provision of comprehensive direct primary care services is outside the scope of most health departments. However, they continue to play a vital role in the safety-net system. The county health departments, including the public health and mental health agencies, provide a range of health and social services including direct patient care, particularly for high-risk children and families. There is a range in the scope of services they provide in each county but in many cases they are the provider of last resort and their case management services are critical to connecting families with comprehensive care. County health departments are also increasingly involved in collaborative efforts to improve health status and promote health, prevention, and wellness.

B. County-Specific Characteristics and Findings

These county-specific summaries combine information from a number of quantitative and qualitative data sources, including data from the US Census Bureau, the New York State Department of Health, the New York's Statewide Planning and Research Cooperative System (SPARCS), the Health Resources and Services Administration, and the project's interviews and site visits. The summaries include information on the characteristics of the underlying population that seeks services (primary care demand) as well as the characteristics of the primary care system and the array of organizations that provide primary care services (primary care supply). The description of primary care demand includes demographic and socio-economic data (e.g., age, race/ethnicity, poverty), as well as insurance status data. The provider supply data includes information on provider capacity, operations where possible, and the extent to which the system of providers seem to collaborate and work collectively. The information on provider supply is broken out by "core" safety-net providers and "non-core" safety-net providers. The "non-core" includes the "essential" and "contributing" providers that were discussed above. Finally each summary describes the particular "hot spots" in the county for primary care demand based on demographics and health status.

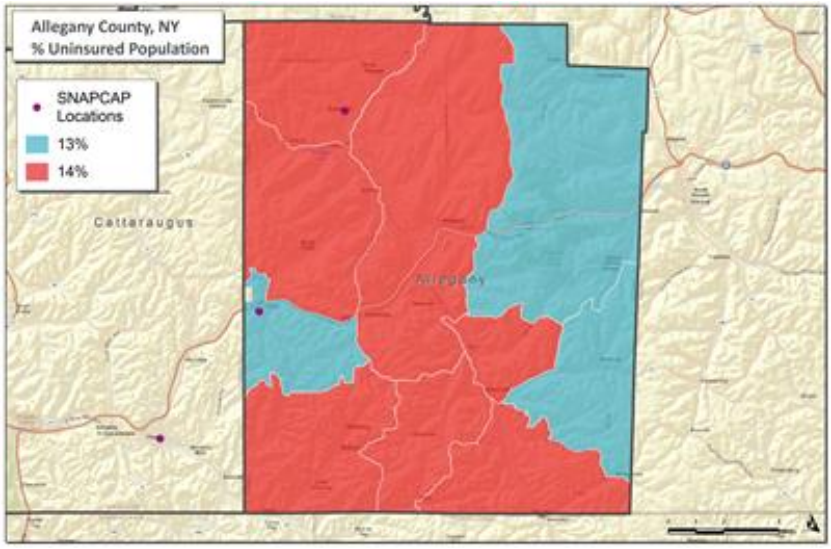
1. Primary Care Demand: Community need and barriers to care

Population Characteristics

Table 3. Demographic and Socio-Economic Information	
• **Total population**	48,991
• **Percent male; Percent female**	50.7%; 49.3%
• **Population <5 years of age; 5 to 17; 18 to 64; 65+ years of age**	5.3%; 16.6%; 63.1% 15.0%
• **Race (White, Black, Asian)**	96.3%; 1.2%; 1.1%
• **Hispanic**	1.4%
• **Foreign-born population**	1.9%
• **Percent of 5+ year olds that speak non-English language at home**	4.3%
• **Percent HS diploma or greater**	87.9%
• **Median household income (in 2011)**	41,900
• **Percent of single parent households**	31.0%
• **Unemployment rate (October 2013)**	6.8%
• **Percent in poverty (<100% FPL)**	16.6%
• **Percent low income (<200%)**	39.8%

Table 4. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	15%
• **Current Number of uninsured adults**	Pending
Newly Insured and Remaining Uninsured After Implementation of ACA	
• **Uninsured population 150-400% FPL**	2,300
• **Population <150% FPL**	2,263
• **Remaining uninsured After ACA**	3,441
• **Newly insured under 65 After ACA**	1,773

Figure 13: Percent of the Population who are Uninsured in Allegany County



2. Supply: Primary Care Capacity Gaps

Table 5. Capacity of Core Safety-net	
Provider to Population Ratio:	
HPSA/MUA Designations:	• No areas designated MUP • 2 areas designated MUA • Entire county designated as HPSA Primary Care and Mental • No HPSA Dental
Core Providers:	• UPC, Inc. (FQHC – satellite clinics) • Jones Memorial Hospital, outpatient primary care sites • Independent, private practice sites

Core Provider Capacity

Allegany County's safety-net is relatively fragmented and made up primarily of hospital-affiliated and independent, private practice sites. There are two FQHC satellite clinics that operate in the County that are part of UPC in Cattaraugus County. These clinics are growing and will have a larger impact in the future but for now have a more limited impact. The hospital-affiliated clinics are operated by Jones Memorial Hospital in Wellsville as well as Mercy Hospital, which is actually based in Steuben County to the west of Allegany County.

3. Core provider internal operational strengths/weaknesses

The FQHC sites operated by UPC are relatively new, satellite sites and due to the size of their operations do not have full service operations. They have electronic medical record systems but likely do not have the ability to integrate and coordinate services for its patients in the same manner that UPC can serve its patients at its main Cattaraugus County location. Limited information is known about the operational strength of the other hospital-affiliated and independent practice sites.

4. External collaboration

Allegany County is a very rural area and its primary care service system, like many rural counties its primary care safety-net system is relatively fragmented. Little is known about the extent to which the providers in the County collaborate.

Capacity of Non-Core (NPI)

Table 6. Total Primary Care Providers in the County (57)	
Provider Type	**Provider Specialty**
CNM: NA	Core PCP: 39
MD/DO: 30	Internists: 7
NP: 23	OB/GYN: 5
PA: 4	Unspecified: 6

In Allegany County, as mentioned above, there are a number of private physician practices are known to contribute to the primary care safety-net, particularly those serving children and families.

5. Internal operational strengths/weaknesses

Limited information is known on the operational strength of the private providers.

6. Identification of hot spots and key target populations

Within Allegany County there are four areas that have been identified as being of particularly high need based on socioeconomic and healthcare utilization data. These are Wellsville, Friendship, Portville, and Alfred. Granger has high levels of poverty and a large percent of its population under the age of 18, but does not stand out as having other indicators of high healthcare usage or need.

- Wellsville is noted as having one of the highest morbidity and mortality rates in the county, and has the highest rate per hundred thousand of mental health visits and admissions.

- Friendship has the fifth highest rate of preventable hospital admissions, and a notably high number of substance abuse and mental health related visits to the ED, at 232 and 666 per hundred thousand respectively. It also has 28% of its population living below 100% FPL, and 47% below 200% FPL.

- Portville is the only town in the county with >500 Medicaid enrollees, and has the second highest number of preventable hospital admissions, with 411/100000. It also has one of the highest rates of morbidity and mortality in the county.

- Alfred has a large ethnic and racial minority population (17% and 19% respectively), and 24% of its population lives below the 100% FPL. It also has the highest rate of substance abuse related admissions in the county, with 266 per 100,000.

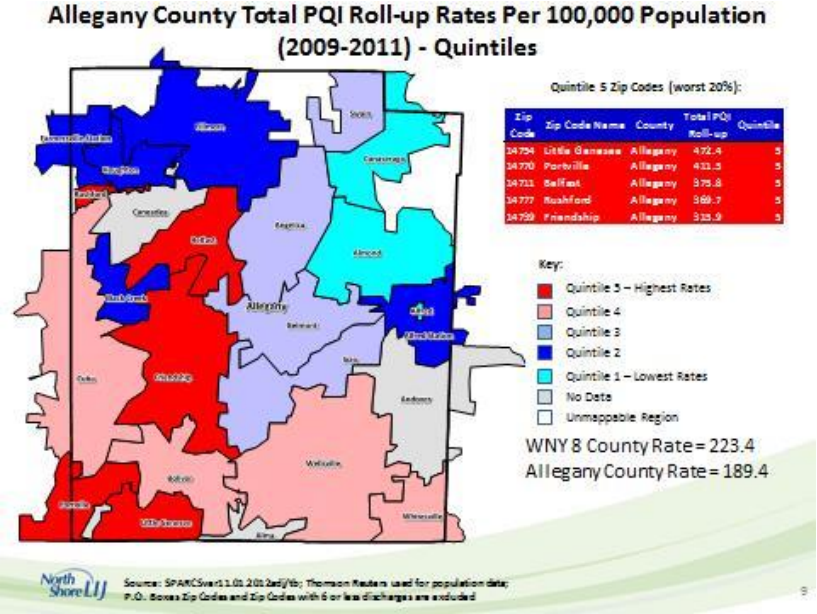


Figure 14: Total Prevention Quality Indicators (rates per 100,000 population) in Allegany County

1. **Primary Care Demand: Community need and barriers to care**

Population Characteristics

Table 7. Demographic and Socio-Economic Information	
• **Total population**	80,478
• **Percent male; Percent female**	50%; 50%
• **Population <5 years of age; 6 to 18; 65 to 75; 75+ years of age**	6%; 18%; 61%; 15%
• **Race (White, Black, Asian)**	93%; 1%; <1%
• **Hispanic**	2%
• **Foreign-born population**	2%
• **Percent of 5+ year olds that speak non-English language at home:**	6%
• **Percent HS diploma or greater**	87%
• **Median household income (in 2010)**	$42,754
• **Percent of single parent households**	35%
• **Unemployment rate (October 2012)**	7%
• **Percent in poverty (<100% FPL)**	17%
• **Percent low income (<200%)**	39%

Table 8. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	17%
• **Current Number of uninsured adults**	7,999
Newly Insured and Remaining Uninsured After Implementation of ACA	
• **Uninsured population 150-400% FPL**	4,620
• **Population <150% FPL**	4,636
• **Remaining uninsured After ACA**	6,940
• **Newly insured under 65 After ACA**	3,576

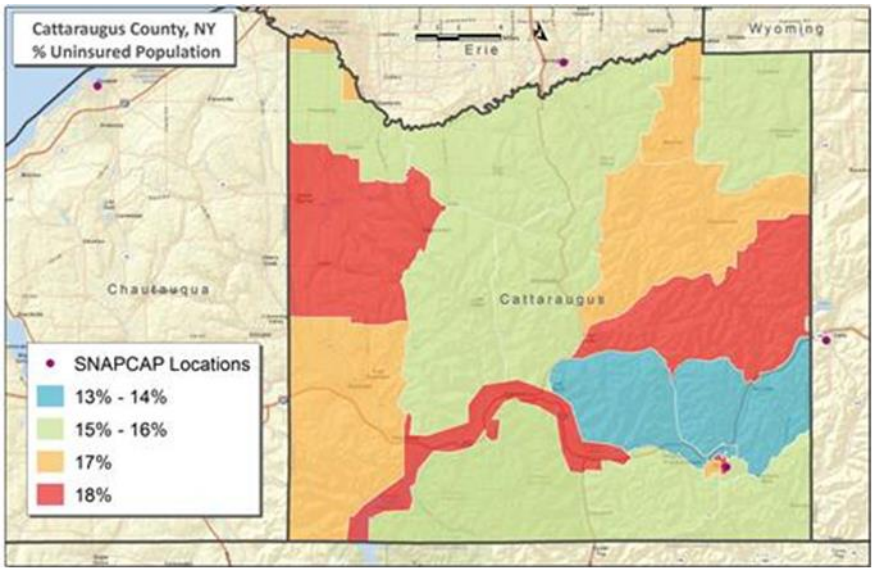


Figure 15: Percent of the Population who are Uninsured in Cattaraugus County

2. Supply: Primary Care Capacity Gaps

Table 9. Primary Care Characteristics and Capacity	
• **Provider to Population Ratio**	60 providers/100,000 population
• **Listing of HPSA/MUA Designations:**	• No MUP areas designated • Two MUA areas designated • Entire country HPSA Primary Care and Mental Health designated • Two areas HPSA Dental care designated
• **FQHC Capacity Located in County**	Universal Primary Care
• **Residents in County served by FQHCs**	3,605 (12% of Total Low Income Population)
• **Listing of Other Essential Safety-Net Providers:**	Foothills Medical Group affiliated with Olean General Hospital (3 locations)

Core Provider Capacity

Universal Primary Care (UPC) is the only FQHC in the county, and provides services in neighboring Allegany County as well. Universal Primary Care is a well-established primary care clinic in Olean, with a long history of providing services in the community. Prior to becoming an FQHC, it was a practice affiliated with the hospital- Olean General Hospital. UPC has grown in recent years, as it was an FQHC Look-A-Like until it received FQHC status in 2011. With receipt of FQHC status, UPC has been able to grow the number of patients it serves and add services such as behavioral health.

3. Core provider internal operational strengths/weaknesses

Co-located behavioral health and primary care are now available in Cattaraugus County as Universal Primary Care has grown and achieved status as an FQHC. They now offer mental health counseling at all three of their practice locations, and have plans of further expansion in the next few years so that a licensed clinical social worker is available more days a week at each site. In addition to behavioral health, UPC has grown their enabling services including care management, health education, and outreach and enrollment. They have achieved NCQA patient centered medical home certification, and have been working with the CMS/FQHC Advanced Primary Care Demonstration Project for the last two years.

Olean General Hospital is now part of the Upper Allegheny Health System which spans both Southwestern New York, and North western Pennsylvania. The primary care providers affiliated with Olean General Hospital are now organized under the Foothills Medical group which is a multi-specialty group of providers. The Foothills Medical group includes three primary care practices in Cattaraugus County: Delevan Health Center (Delevan, NY), Holiday Park (Olean, NY), and Salamanca (Salamanca, NY). These practices are staff primarily by nurse practitioners with the exception of Holiday Park. They offer primary care, but are all small locations with limited supportive services such as case management. As hospital affiliates they do provide financial assistance to uninsured patients.

4. External collaboration

UPC has had a long history of being a rural practice residency site for the University of Buffalo Family Medicine program. As rural practice site residents spend their first year at a tertiary care center in Buffalo and spend the next two years of residency at UPC. This partnership has ensured that new family medicine residents are well trained in rural medicine, as supporting UPC's long term provider capacity and recruitment. This has proven to be an effective strategy, and in 2013 UPC hired one of the new graduates who completed their residency with them.
Olean General Hospital and Universal Primary Care collaborate in several areas to coordinate services and promote community based health initiatives. Universal Primary Care providers have admitting privileges to the hospital and UPC physicians share the responsibility of after-hours admissions with hospitalists staff at the hospital. They also collaborate on discharge planning case management. In terms of information sharing, they built a laboratory interface which allows

UPC providers to order lab tests through our EHR directly to the Hospital and receive results back into the EHR
Outside the local hospital UPC collaborates with many local providers and social service agencies to coordinate enabling services.

Capacity of Non-Core Providers

Table 10. Total Primary Care Providers in the County (93)	
Provider Type	**Provider Specialty**
CNM: 1	Core PCP: 58
MD/DO: 43	Internists: 10
NP: 34	OB/GYN: 9
PA: 3	Unspecified: 4
Data Source: National Provider Identifier Dataset	

5. Internal operational strengths/weaknesses

Limited information is known on the operational strength of the private providers.

6. Identification of hot spots and key target populations

Within Cattaraugus County there are three areas that have been identified as being of particularly high need based on socioeconomic and healthcare utilization data. These are Olean City, Salamanca City, and Kill Buck. Cattaraugus Reservation and Allegany Reservation have higher than average percentages of poor, young, and minority populations, but do not otherwise stand out as having increased health needs.

- Olean City is the largest city in the county, with a population of 14,496. It is one of ten localities with >500 Medicaid enrollees, and has the second highest rate of preventable hospital admissions (452 per 100,000). It also has the fourth highest number of ED admissions (2,378), and second highest number of mental health admissions (452) per 100,000.

- Salamanca City has the highest percent minority population behind the Cattaraugus and Allegany Reservations, and 51% of its population is living below 200% FPL. It has the third lowest median household income (32,620), again right behind the two reservations, and is another city with >500 Medicaid enrollees. Salamanca also has the highest number of preventable hospital admissions (480) and substance abuse related admissions (87) per 100,000, and the third highest number of ED admissions (2,722) and mental health related admissions (411).

- Kill Buck, though it does not have notably high levels of poverty or large traditionally at risk communities, still has the third highest number of preventable hospital admissions

(426), second highest number of ED admissions (4,242), and highest number of mental health related admissions (905).

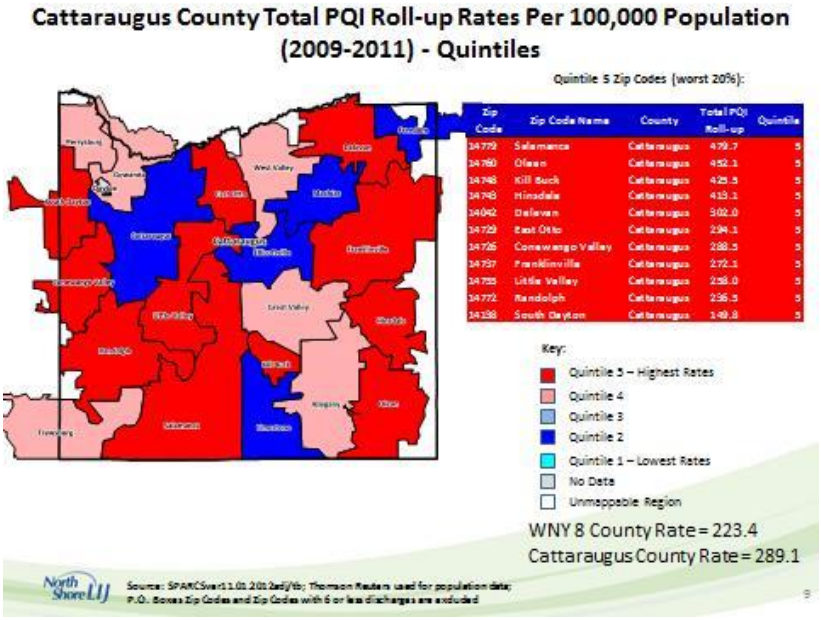


Figure 16: Total Prevention Quality Indicators (rates per 100,000 population) in Cattaraugus County

Chautauqua County

1. Primary Care Demand: Community need and barriers to care

Population Characteristics

Table 11. Demographic and Socio-Economic Information	
• **Total population**	135,108
• **Percent male; Percent female**	49.2%; 50.8%
• **Population <5 years of age; 5 to 17; 18 to 64; 65+ years of age**	5.5%; 16.5%; 61.5%; 16.4%
• **Race (White, Black, Asian)**	93.4%; 2.2%; 0.6%
• **Hispanic**	5.9%
• **Foreign-born population**	1.9%
• **Percent of 5+ year olds that speak non-English language at home**	7.2%
• **Percent HS diploma or greater**	86.9%
• **Median household income (in 2011)**	41,432
• **Percent of single parent households**	35%
• **Unemployment rate (October 2013)**	7.4%
• **Percent in poverty (<100% FPL)**	17.7%
• **Percent low income (<200%)**	38.6%

Table 12. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	15%
• **Current Number of uninsured adults**	Pending
Newly Insured and Remaining Uninsured After Implementation of ACA	
• **Uninsured population 150-400% FPL**	5,767
• **Population <150% FPL**	4,885
• **Remaining uninsured After ACA**	8,210
• **Newly insured under 65 After ACA**	4,229

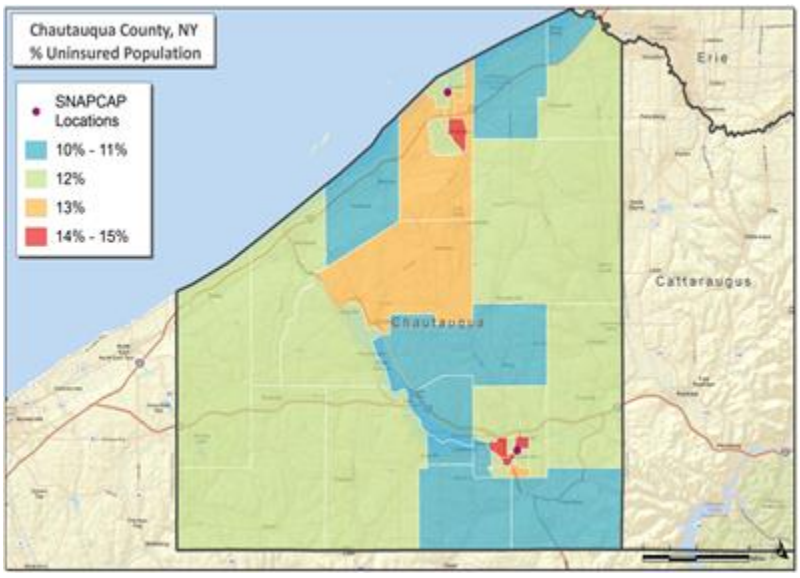


Figure 17: Percent of the Population who are Uninsured in Chautauqua County

1. **Supply: Primary Care Capacity Gaps**

Table 13. Capacity of Core Safety-net	
Provider to Population Ratio:	
HPSA/MUA Designations:	• 1 area designated MUP • No areas designated MUA • 4 areas designated HPSA Primary Care • Entire county HPSA Mental Health • 2 areas designated HPSA Dental
Core Providers:	• The Chautauqua Center • The Resource Center • Family Health Medical Services – Dr. Robert Berke

Core Provider Capacity

Chautauqua County's safety-net is segmented into two parts, the northern segment with Dunkirk as its hub and the southern segment with Jamestown at its hub. Mayville in the western part of the County is actually the County seat but relative to Jamestown and Dunkirk is a smaller community. The safety-net in Dunkirk is dominated by a new FQHC site, which began

operations in early 2013, called The Chautauqua Center (TCC). TCC's impact for now is relatively limited as it is a new, relatively small practice. However, it is adding new patients rapidly and given the unmet need in the County is expected to grow quickly. There are no other primary care practices in the northern portion of the County that serve significant numbers of low income Medicaid-insured or uninsured residents. In the Southern portion of the County, the safety-net is a bit more robust and is anchored by a New York State Article 28 clinic called the Resource Center as well as a network of stand-alone private practice sites owned and operated by a private physician that serve a large proportion of Medicaid-insured patients. The hospitals in Dunkirk and Jamestown have historically had primary care practice sites that were part of the safety-net but due to financial pressures were forced to either sell of these sites or close them all together. There are a number of other independent, private clinics that collectively serve a substantial number of Medicaid patients, particularly those that serve children and families.

2. Core provider internal operational strengths/weaknesses

TCC is a new practice site. As an FQHC it is mandated to provide a broad range of well-coordinated services, including enabling and support services that serve to promote care coordination, disease management, and service integration. TCC has a new electronic medical record, which will assist them to manage patient care and coordinate services. TCC also is working to integrate mental health and substance abuse services. As they are a new site, there is a lot of room for growth and improvement but they are committed to developing PCMH-driven operations. The private practice network referenced above is operated by Dr. Robert Berke who has developed operations which are earned NCQA recognition for diabetes care and as a medical home. Dr. Berke is also working to integrate mental health services into its practice by hiring a licensed clinical social worker (LCSW), who will work in partnership with the primary car medical staff to manage mental health and substance abuse issues.

3. External collaboration

Historically, the safety-net providers in the County have collaborated in only very limited ways. Recently, this has been changing, driven to some extent by the development of the new FQHC practice in Dunkirk. For example, TCC is now working closely with the County Health Department to coordinate their services and reach out to those in need. TCC also partners with the Resource Center in Jamestown on a number of initiatives, including with respect to dental services as the Resource Center operates two dental clinics in the County. The private hospital-affiliated practice sites have been sporadically collaborative, driven largely by their efforts to sustain their outpatient safety-net primary care clinics, while they were still in operation. The Chautauqua Rural Health Network has also been an extremely positive force for health care planning and collaboration. They were responsible for the creation of TCC and have also spearheaded a number of other quality, outreach, and care coordination activities involving the hospitals and other providers in the region.

Capacity of Non-Core (NPI)

Table 14. Total Primary Care Providers in the County (153)	
Provider Type	**Provider Specialty**
CNM: 1	Core PCP: 153
MD/DO: 50	Internists: 36
NP: 31	OB/GYN: 23
PA: 11	Unspecified: 15

In Chautauqua County, like in most rural counties, there are a number of private physicians that are covering the geographic area and have a significant role in contributing to primary care capacity. These providers, in a limited number of cases, are aggressively reaching out to Medicaid-insured residents, particularly children.

4. Internal operational strengths/weaknesses

Limited information is known on the operational strength of the private providers.

5. Identification of hot spots and key target populations

Within Chautauqua County there are four areas that have been identified as being of particularly high need based on socioeconomic and healthcare utilization data. These are Jamestown, Dunkirk, and Falconer. Chautauqua is also home to a tiny sliver of the Cattaraugus Reservation, which, though small in population, should not be forgotten as it has the lowest median household income in the county (27500) and 72% of its population is over the age of 65.

- Jamestown is the largest and also one of the poorest cities in the county, with 17% of its citizens living below 100% FPL and nearly 50% living below 200% FPL. Average household income is the second lowest in the county at $31,657. Jamestown also has the highest number of preventable hospital admissions (296), substance abuse related ED visits (268), and mental health related ED visits (819), and second highest number of mental disorder related healthcare visits (125) in the county per 100,000. The area is one of the region's four morbidity and mortality hotspots.

- Dunkirk has one of the largest racial and ethnic minority populations in the county, and 22.9% of its citizens live below the 100% FPL. Thirty-two percent of its population is over the age of 65, and it is home to between 500 and 100000 Medicaid recipients. Additionally, it has 276 per 100000 preventable hospital visits, the second highest level of mental health admissions and mental disorder visits in the county, and has been flagged as a morbidity/mortality hotspot.

- Falconer does not have a large minority population or notably high levels of poverty, but it is ranked as having one of the highest morbidity/mortality rates in the county, as well as having high numbers of preventable hospital admissions, mental health (498) and substance abuse (195) related ED admissions.

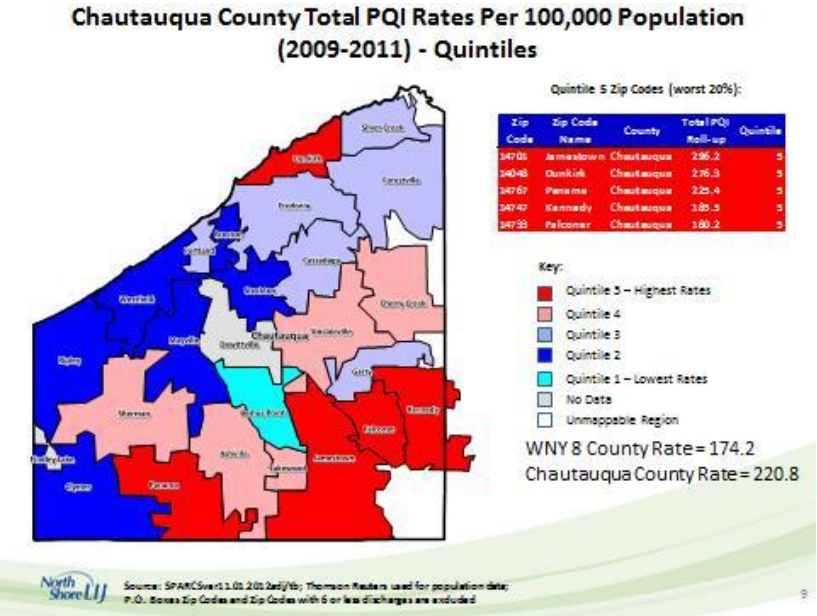


Figure 18: Total Prevention Quality Indicators (rates per 100,000 population) in Chautauqua County

1. Primary Care Demand: Community need and barriers to care

Population Characteristics

Table 15. Demographic and Socio-Economic Information	
• **Total population**	919,714
• **Percent male; Percent female**	48.2%; 51.8%
• **Population <5 years of age; 5 to 17; 18 to 64; 65+ years of age**	5.3%; 16.6%; 62.4%; 15.7%
• **Race (White, Black, Asian)**	80.3%; 13.3%; 2.6%
• **Hispanic**	4.4%
• **Foreign-born population**	6.2%
• **Percent of 5+ year olds that speak non-English language at home**	9.8%
• **Percent HS diploma or greater**	88.9%
• **Median household income (in 2011)**	48,805
• **Percent of single parent households**	36.0%
• **Unemployment rate (October 2012)**	7.0%
• **Percent in poverty (<100% FPL)**	14.2%
• **Percent low income (<200%)**	30.6%

Table 16. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	12%
• **Current Number of uninsured adults**	Pending
Newly Insured and Remaining Uninsured After Implementation of ACA	
• **Uninsured population 150-400% FPL**	28,543
• **Population <150% FPL**	25,453
• **Remaining uninsured After ACA**	43,438
• **Newly insured under 65 After ACA**	22,372

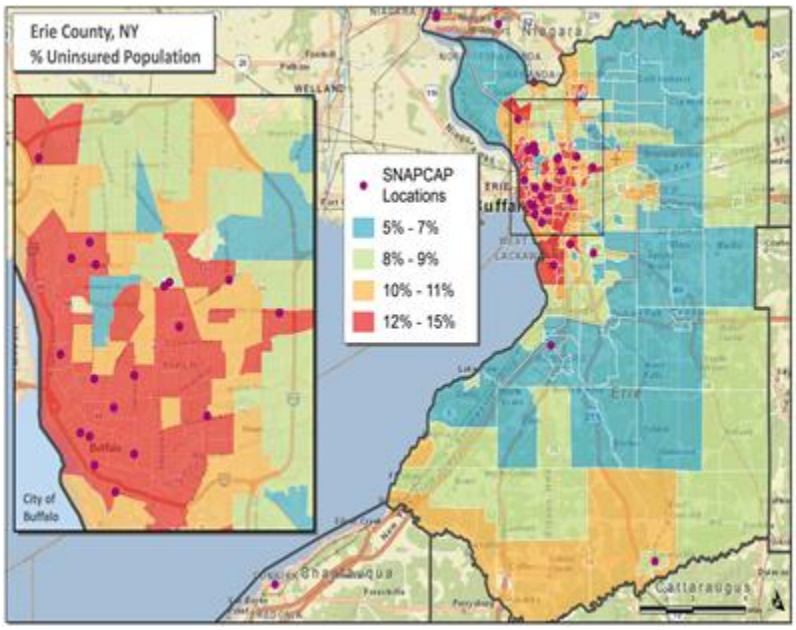


Figure 19: Percent of the Population who are Uninsured in Erie County

2. Supply: Primary Care Capacity Gaps

Table 17. Capacity of Core Safety-net	
Provider to Population Ratio:	Pending
HPSA/MUA Designations:	• No areas designated MUP • 3 areas designated MUA • 4 counties designated HPSA Primary Care • 3 areas designated HPSA Mental Health • 2 areas designated HPSA Dental
Core Providers:	• Aspire of WNY • Catholic Health System • Community Health Center of Buffalo, Inc. • Erie County Medical Center • Evergreen Health Services • Jericho Road Family Practice • Kaleida Health • Neighborhood Health Center • People Inc. Elmwood Health Center • Planned Parenthood of WNY • UB|MD Family Medicine at Jefferson

Core Provider Capacity

Buffalo is the population center for Erie County as well as the hub for the western New York region. The safety-net in Erie County is operated by a very diverse array of clinics that collectively serve approximately 140,000 low income patients. At the heart of Erie County's and Buffalo's safety-net are three FQHCs, which provide comprehensive, medical, dental, and behavioral health services to more than 45,000 patients, regardless of their ability to pay. These health centers combined operate seven, full-service primary care clinics distributed throughout Erie County, five of which are in the City of Buffalo. In addition to these FQHCs, the core of the safety-net in Buffalo and the County includes 27 small, primary care practice sites operated by the three major hospital systems (Catholic Health Systems, Kaleida Health, and Erie County Medical Center) as well as a six independent, private practice sites. The hospital-affiliated practices, combined serve more than 70,000 patients the majority of who are low income, Medicaid-insured patients but this figure also includes a portion of moderate income, commercially insured patients served by these practice sites. These practice sites may serve self-pay patients but do not typically serve large numbers of low income, uninsured patients. The independent, private practice sites are also located in Buffalo and serve approximately 18,000 patients. This group also serves primarily Medicaid-insured patients but is more likely to have formal or informal policies that provide care to the uninsured on a discounted basis. Finally, the University of Buffalo operates a residency clinic that serves low income populations and serves approximately 5,000 patients.

3. Core provider internal operational strengths/weaknesses

The FQHCs and the hospital-affiliated practices are part of mature health organizations that have been providing services for many years, in some cases decades. They have relatively robust electronic medical record systems and are for the most part are working diligently to apply PCMH principles throughout their practice locations. While there is a great deal of room for improvement, all of these sites are taking steps to track quality, provide chronic disease management, and integrate medical specialty care services and in some cases behavioral health services. The FQHCs also provide, per their federal funding mandate, a broad range of enabling and supportive services, which the hospital-affiliated clinics are less likely to provide. The FQHCs are also actively reaching out to low income, Medicaid-insured and uninsured populations, including the large, high need refugee populations. The hospital-affiliated practice may reach out in targeted ways to Medicaid-insured populations but are typically not geared to serve the uninsured, at least through their primary care practice sites. Efforts need to be made to provide more team-based care to improve efficiency, continuity of care, and promote better care coordination.

There is considerable variation across the independent, private practice sites that operate in the county but it fair to say that these clinic sites are less sophisticated and do not have as robust medical record or quality improvement systems in place. Their focus is on providing quality, primary care and specialty care services to those in need and typically operate on such tight margins that there are limited resources to develop or sustain uncompensated services such as

care management or outreach. They may have chronic disease management services and integrate some level of services but this is not typically the norm in these clinics.

4. External collaboration

In 20010, the leading safety-net providers in the western New York region cam to together to form the Safety-net Association of Primary Care Affiliated Providers (SNAPCAP). Since 2010, SNAPCAP has grown to include 18 member organizations, most of who operate in Buffalo and work collectively to expand and strengthen the region's primary care safety-net. They have worked on numerous initiatives related to improving the quality of care and to improve access. The association has also served a vital role as a way for these organizations to share information and promote collaboration. Despite these efforts SNAPCAP, most of the people we talked to in the region, thought there was still a need to improve collaboration across the safety-net, particularly between the safety-net primary care practices and the hospital systems. There have been some recent improvements in this area. The hospitals, through SNAPCAP and other channels are developing referral mechanisms and other partnerships with the other components of the safety-net but again there is room for improvement. Some of the interviewee also talked about the need for collaborative effort related to promoting patient-centered medical home practices. With respect to collaboration the hospitals are all working on various efforts to promote more appropriate emergency department utilization and to engage those who seek primary care services through the ED in a primary care medical home. The hospitals are also working collaboratively to some extent with community providers on care transitions and follow-up after patients are discharged.

Capacity of Non-Core (NPI)

Table 18. Total Primary Care Providers in the County (1897)	
Provider Type	**Provider Specialty**
CNM: 22	Core PCP: 1079
MD/DO: 1041	Internists: 352
NP: 71	OB/GYN: 222
PA: 123	Unspecified: 244

There is a large number of primary care providers that operate outside the safety-net described above and it is fair to assume that many of these providers serve a portion of Medicaid-insured patients. Collectively, these independent providers may contribute to the safety-net but likely in a relatively limited way.

5. Internal operational strengths/weaknesses

Limited information is known on the operational strength of the private providers.

6. Identification of hot spots and key target populations

Within Erie County there are three areas that have been identified as being of particularly high need based on socioeconomic and healthcare utilization data. These are Buffalo and Lackawana City. It is also worth noting that slivers of the Tonawanda and Cattaraugus Reservations reach into the county, and though the total population of each of these areas is small they are still areas of high healthcare need and should not be forgotten.

- Buffalo is the largest city in the county and by far the area of highest need. It has a 53% racial and 48% ethnic minority population, and more than 50% of its residents live below the 200% FPL (with an additional 29% below the 100% FPL). Its median household income is the lowest in the county at just $30,230 per year, and nearly every zip code in the city has between 500-100000 Medicaid enrollees and safety-net recipients. As is obvious from the map below, Buffalo also has the highest number per hundred thousand preventable hospital admissions each year, as well as the highest number of substance abuse and mental health disorder related ED visits and admissions. Additionally, all of the zip codes flagged as morbidity and mortality hotspots fall within Buffalo's borders.

- Lackawana City also has a large minority population (10% Hispanic alone; 10% foreign born), and high poverty rates (20% <100% FPL; 45% <200% FPL). It has the second lowest median household income behind Buffalo, and has a large elderly population, with 19% of its residents over the age of 65.

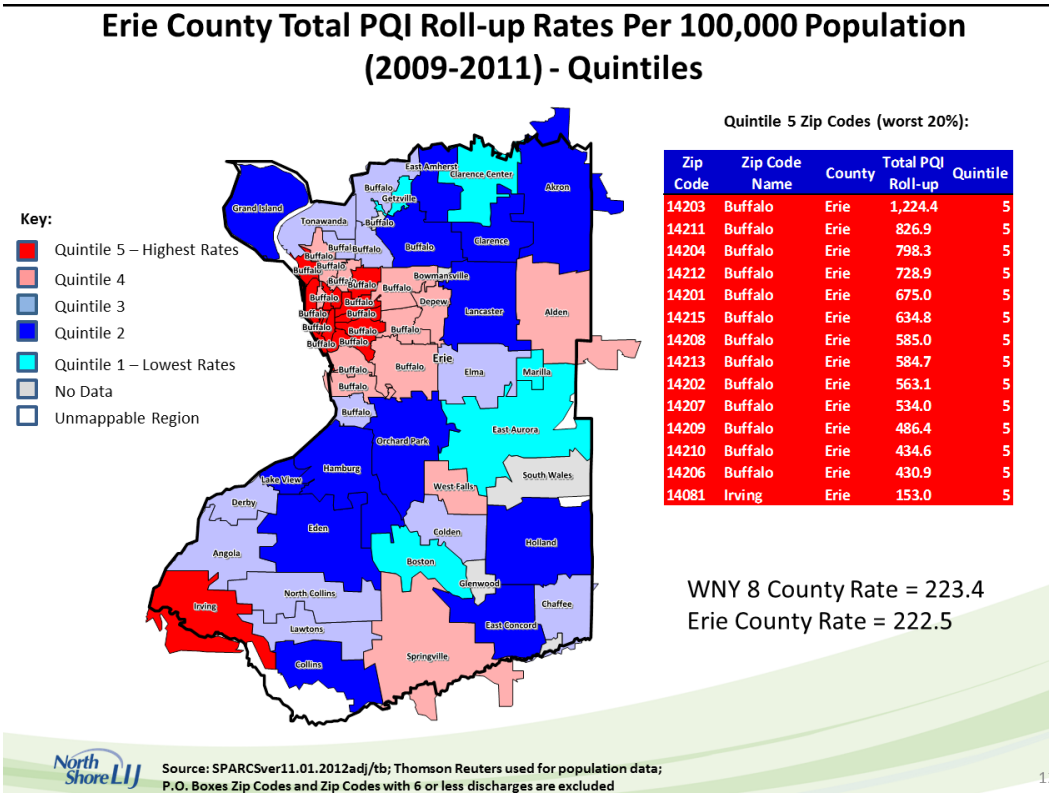


Figure 20: Total Prevention Quality Indicators (rates per 100,000 population) in Erie County

Genesee County

1. Primary Care Demand: Community need and barriers to care

This county level summary combines information from a number of sources, including qualitative interviews with key informants, to provide a picture of primary care access at the county level. The summary below includes information on primary care demand based on population demographics and insurance information and primary care supply based on provider data from several sources. A description of the primary care provider capacity follows the data describing the core and non-core providers, their operational capacity, and collaboration. Finally each summary describes particular "hot spots" in the county for primary care demand based on demographics and health status.

Population Characteristics

Table 19. Demographic and Socio-Economic Information	
• **Total population**	59,966
• **Percent male; Percent female**	50% 50%
• **<5** • **5-17** • **18-64** • **65+**	6% 17% 62% 16%
• **Race White, Black, Asian)**	93% 3% <1%
• **Hispanic**	3%
• **Foreign-born population**	3%
• **Percent of 5+ year olds that speak non-English language at home**	5%
• **Percent HS diploma or greater**	91%
• **Median household income (in 2010)**	$50,861
• **Percent of single parent households**	30%
• **Unemployment rate (October 2013)**	6%
• **Percent in poverty (<100% FPL)**	12%
• **Percent low income (<200%)**	29%

Table 20. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	14%
• **Current Number of uninsured adults**	5,088
Newly Insured and Remaining Uninsured After Implementation of ACA	
• **Uninsured population 150-400% FPL**	3,081
• **Population <150% FPL**	1,986
• **Remaining uninsured After ACA**	4,101
• **Newly insured under 65 After ACA**	2,113

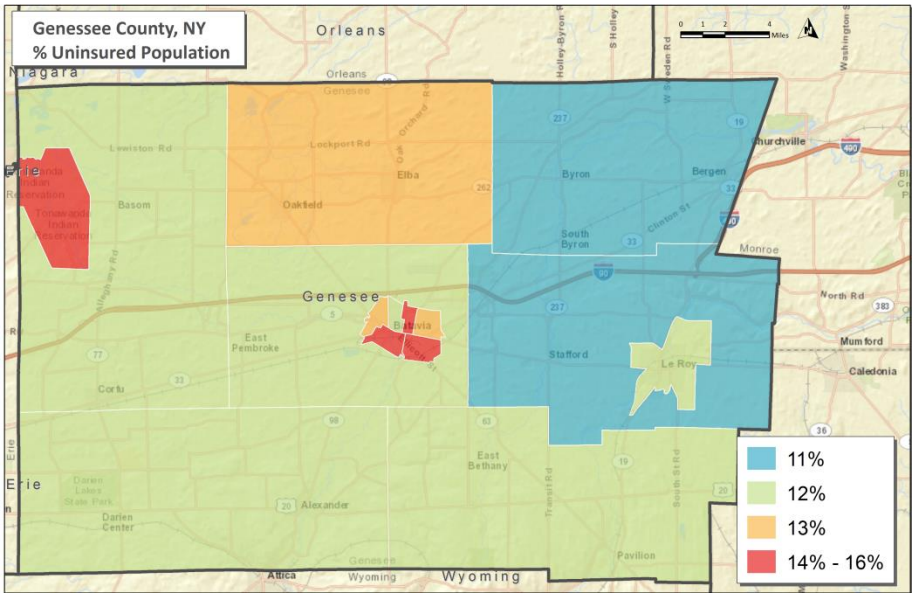


Figure 21: Percent of the Population who are Uninsured in Genesee County

2. Supply: Primary Care Capacity Gaps

Table 21. Primary Care Characteristics and Capacity	
• **Provider to Population Ratio**	45 providers/100,000 population
• **Listing of HPSA/MUA Designations:**	• No MUP/MUA areas designated • Entire county HPSA Primary Care designated • No areas HPSA Mental Health/Dental designated
• **FQHC Capacity Located in County**	None
• **Residents in County served by FQHCs**	1,874 (11% of Total Low Income Population)
• **Listing of Other Essential Safety-Net Providers:**	Thompson Family Care Batavia Family Care

Core Provider Capacity

United Memorial Medical Center and its affiliated primary care practices represent the core safety-net of Genesee County. The two primary care practices affiliated with the hospital are Thompson Family Care located in Leroy and Batavia Family Care located in Batavia. Both of these practices are small with one full time physician each and several supportive mid-level provider staff. This county does not have any federally qualified health center sites and the nearest federally qualified health center is Oak Orchard with sites in Olean and Wyoming counties.

- **Core provider internal operational strengths/weaknesses**

The hospital affiliated practices are the only core providers that provide services to the uninsured and Medicaid populations as part of their mission or mandate. These practices are small, and due to their scale have been challenged to fully embrace the medical home model of care. The practice affiliation with the hospital does provide enhanced continuity of services and access to social work services. However, they have not been able to co-locate social work or behavioral health in the practices and as a result are not in a position to as quickly respond to patients' non-medical needs.

- **External collaboration**

The county has taken a strategic and collaborative approach to growing primary care capacity. In July 2012, the hospital applied and received a residency program of DO family medicine residents and they will have 6 residents in the next year. There is the intention and hope that some of these physicians will choose to stay and practice in Genesee county and the surrounding counties. United Memorial Medical Center has been collaborating with Warsaw hospital in Wyoming to rotate the residents across the two hospitals and is hopeful that this partnership will support primary care capacity across the two counties. They have strategically taken this

approach knowing that this long term investment will be more effective than trying to recruit doctors from elsewhere.

The hospital based practices are also eager to collaborate with other organizations in the county to conduct outreach and enrollment for the population newly eligible for insurance. The hospital has trained their staff to be insurance navigators, but they would like to have a community wide effort in this area and work with the Legal Advocacy Organization who received grant dollars to provide outreach.

Capacity of Non-Core Providers

Table 22. Total Primary Care Providers in the County (81)	
Provider Type	**Provider Specialty**
CNM: 1	Core PCP: 58
MD/DO: 43	Internists: 10
NP: 34	OB/GYN: 9
PA: 3	Unspecified: 4
Data Source: National Provider Identifier Dataset	

In Genesee County there are a number of private physicians that have a significant role in contributing to primary care capacity. Access to primary care for the low-income population of the county has increased in the last two to three years as a few additional private providers have begun accepting Medicaid. These providers are looking to grow their practice and are hopeful that health reform will provide improved reimbursement.

Geographically, the only area in the county perceived as having a lack of providers is the southeast corner of the county. However, this part of the county is partly served by Wyoming county providers. The major concern is that of one or two physicians that may be retiring in the county in coming years and the challenge is how to ensure continuity going forward with the aging provider population. It is unknown whether these practices will close, or if they will sell their practices to another private doctor or to the hospital.

- **Internal operational strengths/weaknesses**

Limited information is known on the operational strength of the private providers. As noted above, several of the private providers have recently opened their practices to Medicaid patients.

- **Identification of hot spots and key target populations**

Within Genesee County there are three target geographies of need based on socioeconomic and health care utilization data. These are Batavia City, Basom, and the Tonawanda Reservation.

- Tonawanda reservation is small by population size (526), but is the area of highest rate of minority population, poverty, and lowest median income.

- Batavia City is the largest population center of the county (15,523) and has the highest minority race population outside the reservation (10%). Batavia city has a proportionally large over 65 population (18%), and 40% of the population lives below 200% FPL. The emergency room utilization in Batavia is high relative to the county at 1,412 per 100,000, and the number of hospital admissions that could be avoided by quality primary care access is 272 per 100,000.

- Basom, while not a high poverty area, has the highest number of preventable hospital admissions (323 per 100000), and highest emergency room utilization (2,118 per 100000) in the county.

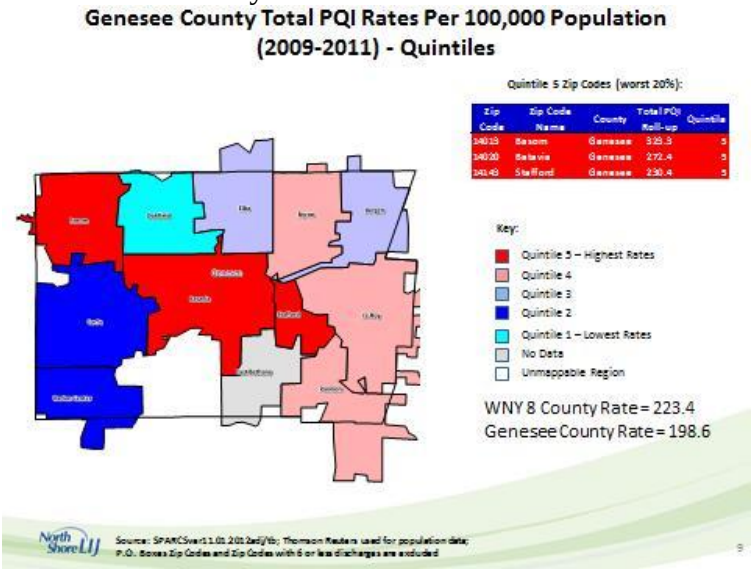


Figure 22: Total Prevention Quality Indicators (rates per 100,000 population) in Genesee County

1. Primary Care Demand: Community need and barriers to care

Population Characteristics

Table 23. Demographic and Socio-Economic Information	
• **Total population**	216,036
• **Percent male; Percent female**	48.5%; 51.5%
• **Population <5 years of age; 5 to 17; 18 to 64; 65+ years of age**	5.3%; 16.4%; 62.5%; 15.8%
• **Race (White, Black, Asian)**	89.0%; 7.1%; 0.9%
• **Hispanic**	2.1%
• **Foreign-born population**	3.7%
• **Percent of 5+ year olds that speak non-English language at home**	5.5%
• **Percent HS diploma or greater**	88.9%
• **Median household income (in 2011)**	46,559
• **Percent of single parent households**	34.0%
• **Unemployment rate (October 2013)**	7.1%
• **Percent in poverty (<100% FPL)**	12.8%
• **Percent low income (<200%)**	30.3%

Table 24. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	14%
• **Current Number of uninsured adults**	Pending
Newly Insured and Remaining Uninsured After Implementation of ACA	
• **Uninsured population 150-400% FPL**	7,875
• **Population <150% FPL**	5,349
• **Remaining uninsured After ACA**	11,255
• **Newly insured under 65 After ACA**	5,796

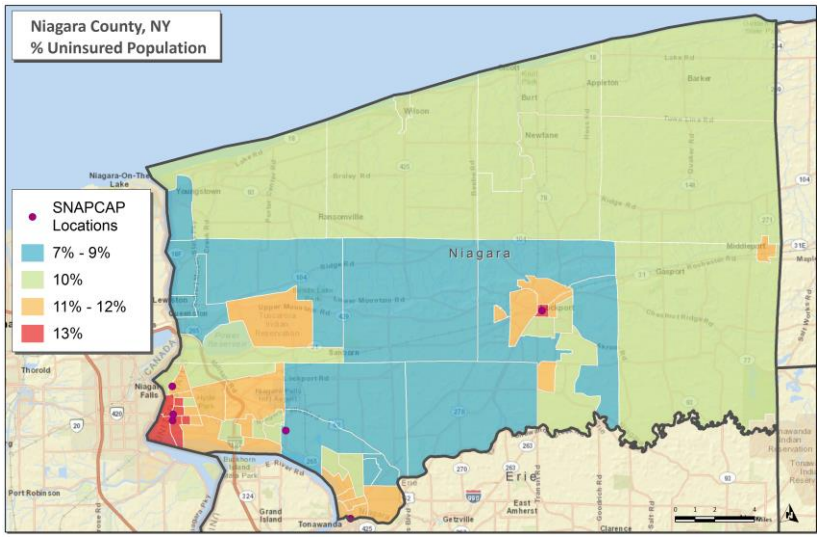


Figure 23: Percent of the Population who are Uninsured in Niagara County

2. Supply: Primary Care Capacity Gaps

Table 25. Capacity of Core Safety-net	
Provider to Population Ratio:	
HPSA/MUA Designations:	• 1 area designated MUP • No areas designated MUA • 2 areas designated HPSA Primary Care • No Mental Health HPSAs • No Dental HPSAs
Core Providers:	• Niagara Memorial Hospital -primary care practice sites • Mt. St. Mary's Hospital primary practice sites

Core Provider Capacity

The County has two FQHC satellite clinics that are operated by two Buffalo-based FQHCs. The Community Health Center of Buffalo (CHCB) operates a satellite site in the City of Niagara Falls that opened in 2010 and serves approximately 4,000 patients. Neighborhood Health Center (NHC) also operates a satellite site in the County in Lockport. These practice sites serve a critical role as they are the only sites that are required to serve patients regardless of their ability to pay. The other major safety-net providers in the County are operated by the County's three hospitals: Niagara Falls Memorial Medical Center (NFMMC) (Niagara Falls), Mt. St, Mary's Hospital (MSMH) (Lewiston), and Lockport Memorial Hospital (LMH) (Lockport). NFMMC and MSMH are the dominant safety-net provider with six clinics between them but LMH also plays very

important roles, particularly in Lockport. The hospital-affiliated practice sites are New York State, Article 28 safety-net clinics, and approximately thirty to forty percent (30-40%) of the practices' patients are Medicaid-insured. Kaleida Health, based in Buffalo operates a satellite site in Tonawanda that provides outpatient and emergency services. Other than these hospital affiliated networks, the County safety-net is made up of a large number of independent, private practices but very few serve Medicaid-insured patients. The only practice sites that the project team was made aware of are pediatric practice sites in Niagara Falls, Lewiston, and Lockport.

3. Core provider internal operational strengths/weaknesses

The project team talked primarily with senior administrative staff at only a select number of service sites in the County. Accordingly, very limited information is available on the operational strengths/weaknesses of the core providers in the county. The FQHCs and the hospital-affiliated practice sites all have electronic medical records and have quality assurance and performance improvement mechanisms in place. The FQHCs as a requirement of their funding are taking steps to participate in meaningful use and, as such, are tracking clinical measures. The FQHCs are also providing case management and care management services, as well as a range of other enabling services to ensure that care is patient-centered and well-coordinated. The hospital practice sites are trying to adapt to various components of the ACA and develop patient-centered operations. The NFMMC practice sites are in the process of integrating behavioral health and prenatal care service into their primary care operations. Certainly, all of the hospital-based practices are taking steps to provide evidenced-based chronic disease management. Despite these efforts, meeting the needs of the low income population in the County, given the large number of low income populations is very challenging. Operations are definitely constrained and practice sites struggle to meet the needs of the population and provide the highest quality, most coordinated, patient-centered care.

4. External collaboration

There is very limited evidence of any collaboration occurring in the County with respect to primary care operations. Given that the safety-net is dominated by three hospital systems and two FQHCs that are based out of the County, it is not particularly surprising. Hospitals tend not to be particularly collaborative and the FQHCs are likely more focused on their larger, Buffalo clinic operations. There is collaboration happening across hospital service lines but limited collaboration across hospital or other health care organizations. NFMMC, for example, is in the process of integrating behavioral health services from its mental health department and prenatal care service from its OB department into its primary care practice sites.

Capacity of Non-Core (NPI)

Table 26. Total Primary Care Providers in the Count (208)	
Provider Type	**Provider Specialty**
CNM: 1	Core PCP: 123
MD/DO: 123	Internists: 32
NP: 73	OB/GYN: 27
PA: 11	Unspecified: 26

There is a large number of primary care providers that operate outside the safety-net described above and it is fair to assume that many of these providers serve a portion of Medicaid-insured patients but this impact seems less significant in Niagara than it does in other communities. Collectively, these independent providers may contribute to the safety-net but likely in a very limited way.

5. Internal operational strengths/weaknesses

Limited information is known on the operational strength of the private providers.

6. Identification of hot spots and key target populations

Within Niagara County there are two areas that have been identified as being of particularly high need based on socioeconomic and healthcare utilization data. These are Niagara Falls City and Baker. Lockport City has large racial and ethnic minority populations and high rates of poverty, but does not otherwise stand out as having higher than average healthcare needs. Likewise, Gasport and Youngtown are home to large numbers of Medicaid enrollees and Medicaid safety-net recipients, but otherwise do not show other indicators of greater need.

- Niagara Falls City is the largest city in the county and by far the area of highest need. It has a 27% racial and 29% ethnic minority population, and 44% of its residents live below the 200% FPL (with an additional 22% below the 100% FPL). Its median household income is the lowest in the county at just $32,617 per year, just over 50% of the countywide average of $61,070. As can be seen on the map below, Niagara also has the highest number per hundred thousand preventable hospital admissions each year, as well as the highest number of substance abuse and mental health disorder related ED visits and admissions. Additionally, the majority of the zip codes flagged as morbidity and mortality hotspots fall within Niagara's borders.

- Baker does not have high number of classically "at-risk" populations, but does show up as having very high numbers of preventable hospital admissions and high rates of morbidity and mortality.

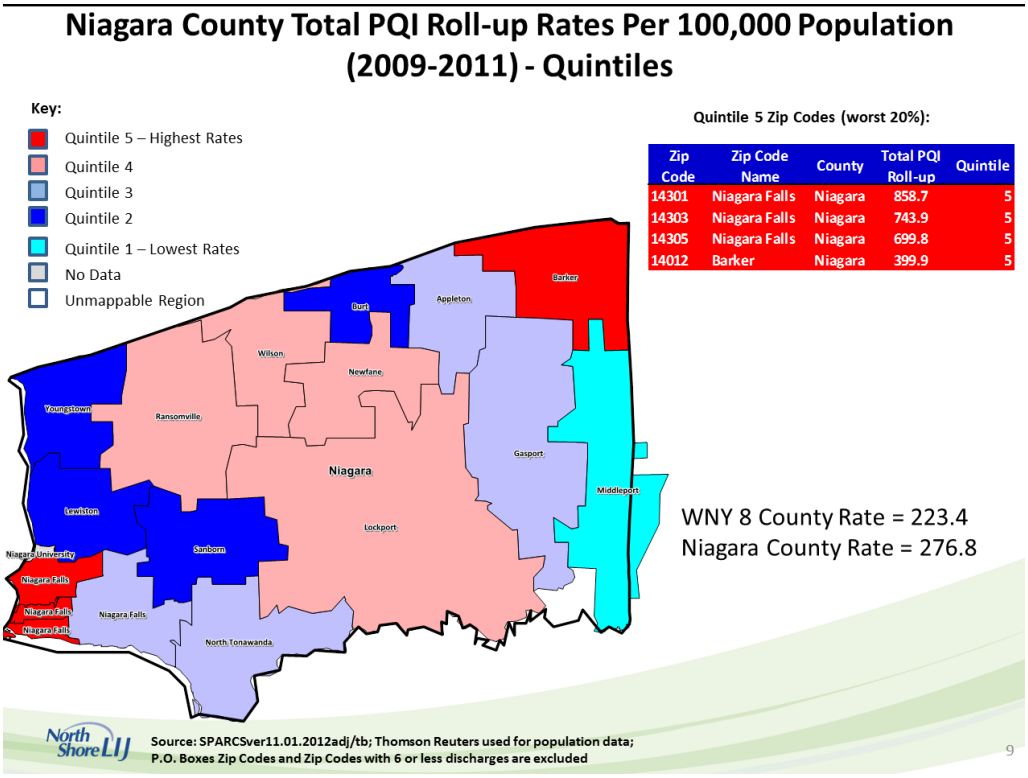


Figure 24: Total Prevention Quality Indicators (rates per 100,000 population) in Niagara County

Orleans County

1. Primary Care Demand: Community need and barriers to care

Population Characteristics

Table 27. Demographic and Socio-Economic Information	
• **Total population**	43,011
• **Percent male; Percent female**	50% 50%
• **Population <5 years of age; 5-17; 18-64; 65+ years of age**	5% 17% 63% 14%
• **Race (White, Black, Asian)**	90% 6% <1%
• **Hispanic**	4%
• **Foreign-born population**	4%
• **Percent of 5+ year olds that speak non-English language at home**	6%
• **Percent HS diploma or greater**	85%
• **Median household income (in 2010)**	$47,788
• **Percent of single parent households**	37%
• **Unemployment rate (October 2013)**	8%
• **Percent in poverty (<100% FPL)**	12%
• **Percent low income (<200%)**	33%

Table 28. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	16%
• **Current Number of uninsured adults**	39,998
Newly Insured and Remaining Uninsured After Implementation of ACA	
• **Uninsured population 150-400% FPL**	2,248
• **Population <150% FPL**	1,516
• **Remaining uninsured After ACA**	2,934
• **Newly insured under 65 After ACA**	1,510

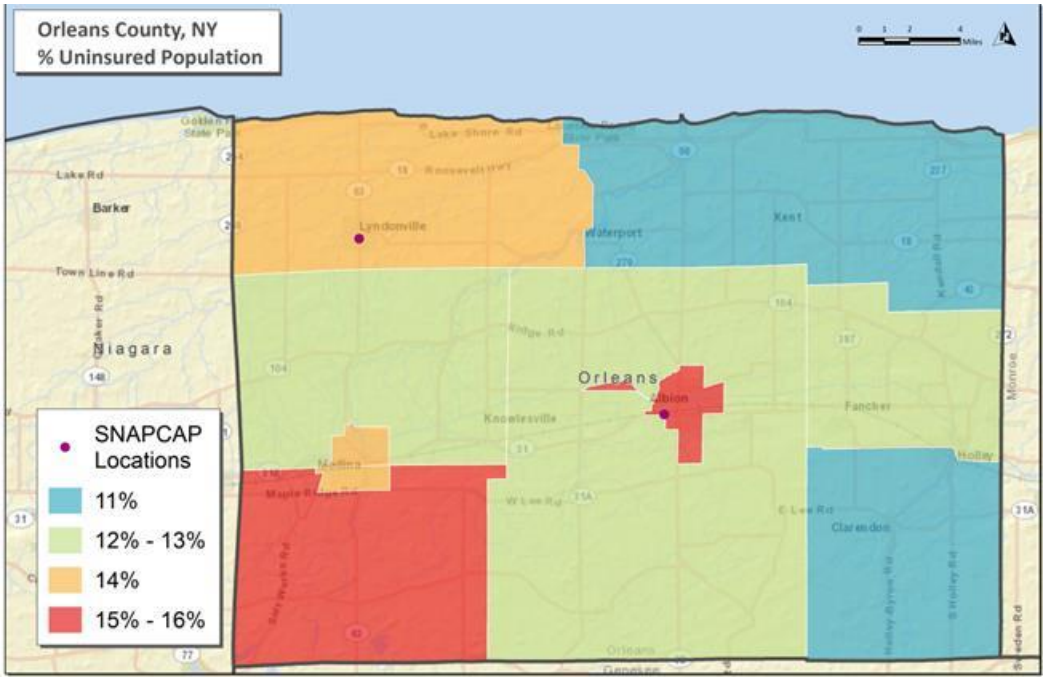


Figure 25: Percent of the Population who are Uninsured in Orleans County

2. Supply: Primary Care Capacity Gaps

Table 29. Capacity of Core Safety-net	
• **Provider to Population Ratio:**	29 providers/100,000 population
• **List of HPSA/MUA designations:**	No MUP areas designated 3 MUA areas designated Entire county HPSA Primary Care and Mental Health designated No HPSA Dental designated
• **FQHC capacity located in county**	Oak Orchard Community Health Center
• **Residents in county served by FQHCs**	8,244 (63% of total low income population)
• **List of other essential safety-net providers**	Orleans Community Health

Core Provider Capacity

Oak Orchard Community Health Center (Oak Orchard) is the only Federally Qualified Health Center in the county and is the major safety-net provider. Oak Orchard has locations in Albion and Lyondonville within the county, and locations in Monroe and Wyoming outside the county.

3. Core provider internal operational strengths/weaknesses

Oak Orchard is a comprehensive health center which provides dental and optometry services, as well as on site mental health counseling. The health center has a long history of providing outreach in Orleans and surrounding counties. They serve the migrant population and have multi-lingual and culturally competent staff. Their mobile outreach services include migrant health which travels to locations of agricultural migrant workers, and a mobile dental unit that travels to 7 schools and community locations in Orleans and the surrounding counties.

4. External collaboration

Limited information is known on the collaboration between Oak Orchard and the local hospitals.

Capacity of Non-Core Providers

Table 30. Total Primary Care Providers in the County (24)	
Provider Type	**Provider Specialty**
CNM: N/A	Core PCP: 15
MD/DO: 17	Internists: 5
NP: 7	OB/GYN: 3
PA: N/A	Unspecified: 1
Data Source: National Provider Identifier Dataset	

Medina Memorial Hospital is the only hospital in the county and has one affiliated primary care clinic in Albion, Orleans Community Health of Albion. Orleans Community Health of Albion, has three physicians and that provide family medicine, women's health, and pediatrics. Other capacity in the county is private and independent primary care providers.

5. Internal operational strengths/weaknesses

Limited information is known on the operational strength of the private providers

6. Identification of hot spots and key target populations

Within Orleans County there are two areas that have been identified as being of particularly high need based on socioeconomic and healthcare utilization data. These are Shelby and Albion. Medina is also worth noting for its particularly high levels of substance abuse (55) and mental health (314) admissions, which are highest in the county despite a population of only 6,065.

- Shelby town has the third highest racial and ethnic minority populations in the county (11% for each), and the highest percent of its population living below both 100% and 200% of the federal poverty level (22% and 47% respectively). It has the second lowest median household income ($35,038), though in part these numbers are because 23% of its population is under the age of 18.

- Albion town is the largest in the county, with a population of 8,555. It also has the highest racial and ethnic minority populations (26% and 29% respectively), and 8% of its population is foreign born. It falls right behind Shelby in terms of poverty levels, with 18% <100% of FPL, and 45% <200% FPL, and has the lowest median household income at $34,148. This is despite having relatively low numbers of people under the age of 18 or over the age of 65. Albion Town also has significant healthcare needs, with the highest levels of both preventable hospital admissions (230/100,000) and ED admissions (1486/100,000) in the county.

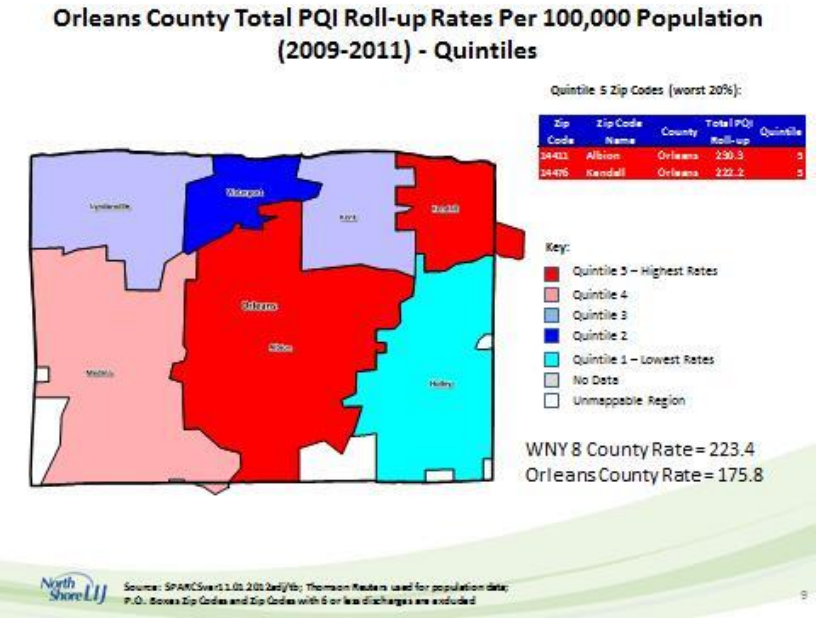


Figure 26: Total Prevention Quality Indicators (rates per 100,000 population) in Orleans County

1. Primary Care Demand: Community Need and Barriers to Care

Population Characteristics

Table 31. Demographic and Socio-Economic Information	
• **Total population**	42,223
• **Percent male; percent female**	54% 46%
• **Population <5 years of age; 5-17; 18-64; 65+ years of age**	5% 16% 65% 14%
• **Race (white, black, Asian)**	92% 3% <1%
• **Hispanic**	3%
• **Foreign-born population**	2%
• **Percent of 5+ year olds that speak non-English language at home**	6%
• **Percent HS diploma or greater**	86%
• **Median household income (in 2010)**	$51,312
• **Percent of single parent households**	30%
• **Unemployment rate (October 2013)**	7%
• **Percent in poverty (<100% FPL)**	10%
• **Percent low income (<200%)**	31%

Table 32. Insurance Information (Now and After Implementation of ACA)	
Current Insurance Information	
• **Percent uninsured adults (2010)**	15%
• **Current number of uninsured adults**	3,470
Newly insured and remaining uninsured after implementation of ACA	
• **Uninsured population 150-400% FPL**	2,048
• **Population <150% FPL**	1,346
• **Remaining uninsured After ACA**	2,691
• **Newly insured under 65 After ACA**	1,368

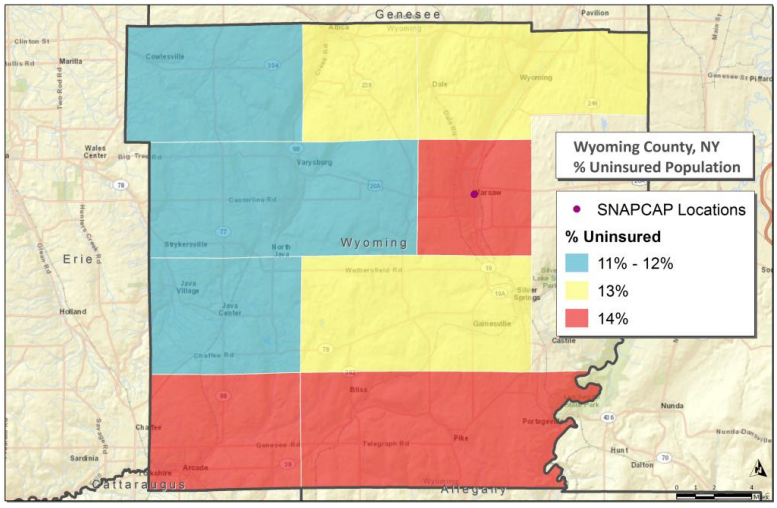


Figure 27: Percent of the Population who are Uninsured in Wyoming County

2. Supply: Primary Care Capacity Gaps

Table 33. Primary Care Characteristics and Capacity	
• **Provider to population ratio:**	58 providers/100,000 population
• **Listing of HPSA/MUA designations:**	• No areas MUP designated • Two areas MUA designated • Entire county Primary Care/Mental Health HPSA designated • No areas Dental HPSA designated
• **FQHC capacity located in county**	Oak Orchard Community Health Center
• **Residents in county served by FQHC**	928 (8% of total low income population)
• **Listing of other essential safety-net providers**	Wyoming Hospital Pediatric Clinic

Core Provider Capacity

Wyoming County Community Health System is the only hospital in the county and is the major provider of health services. Oak Orchard Community Health Center is opening a new clinical site in Warsaw expanding on their established locations in Monroe and Orleans counties. This will be the first and only Federally Qualified Health Center location in the county.

3. Core provider internal operational strengths/weaknesses

The hospital affiliated practice is small and serves pediatrics only. The new Oak Orchard Community Health Center site in Warsaw will add significant safety-net capacity and primary care access to the county. As a new site in 2013, it will take some time to develop, however it

has the larger support of Oak Orchard as an established FQHC to lend expertise in management, health information technology and provider recruitment. As of September 2013, the practice was working to recruit providers, and this likely will be their largest hurdle in the start-up phase. As part of Oak Orchard they have strong support in management and health IT systems. The new Oak Orchard site will include both dental and behavioral health services. They will be contracting with a private mental health agency, Spectrum, to provide onsite behavioral health.

4. External collaboration

Wyoming County Community Health System has worked collaboratively with health systems in neighboring counties to build capacity. In 2014, United Memorial Medical Center in Genesee County will begin a DO family medicine residency program. The residents of this program will rotate both at United Memorial Medical Center and at Wyoming County Community Health System. There is the intention and hope that some of these physicians will choose to stay and practice in Wyoming county and the surrounding counties. The two hospitals have strategically taken this approach knowing that this long term investment will be more effective than trying to recruit doctors from elsewhere.

Capacity of Non-Core Providers

Table 34. Total Primary Care Providers in the County (39)	
Provider Type	**Provider Specialty**
CNM: 0	Core PCP: 23
MD/DO: 24	Internists: 5
NP: 12	OB/GYN: 5
PA: 3	Unspecified: 6
Data Source: National Provider Identifier Dataset	

Private family physicians are the majority of all primary care capacity in the county. One large private practice in the county is Letchworth Family Medicine, located in Perry. This practice includes three physicians, and three nurse practitioners. While they do not offer a sliding fee scale they do serve Medicaid patients. There are two other private practices North Java Medical Center and Arcade Health Center which provide primary care.

5. Internal operational strengths/weaknesses

Limited information is known on the operational strength of the private providers.

6. Identification of hot spots and key target populations

Within Wyoming County there are two areas that have been identified as being of particularly high need based on socioeconomic and healthcare utilization data. These are Attica Town and Warsaw Town. Perry Town and Eagle Town both have relatively high rates of poverty and low median household incomes (Eagle Town's, at $37,833 is the lowest in the county). Both also

have more than a quarter of their populations under the age of 18. However neither stands out as having higher than average healthcare utilization or needs. Portageville, while not notable for other indicators of healthcare need, has notably high rates of preventable hospital admissions and ED admissions.

- Attica Town has by far the highest percentage of racial and ethnic minorities (36% and 43% respectively, with the next highest town having only 4% of either). Six percent of its population is foreign born, also the highest in the county. While poverty and income levels are above average, it has the second-highest number of ED admissions, with 1,329 per 100,000 in the past year.

- Warsaw Town has 12% of its population living below 100% of the federal poverty level, and 35% below 200%. It has the fourth-lowest median household income and the highest overall percent of persons over the age of 65 (19%). It also had a high number of ED admissions (1247/100,000) in the past year. Notably 120 of these were for substance abuse, and 469 for mental health reasons.

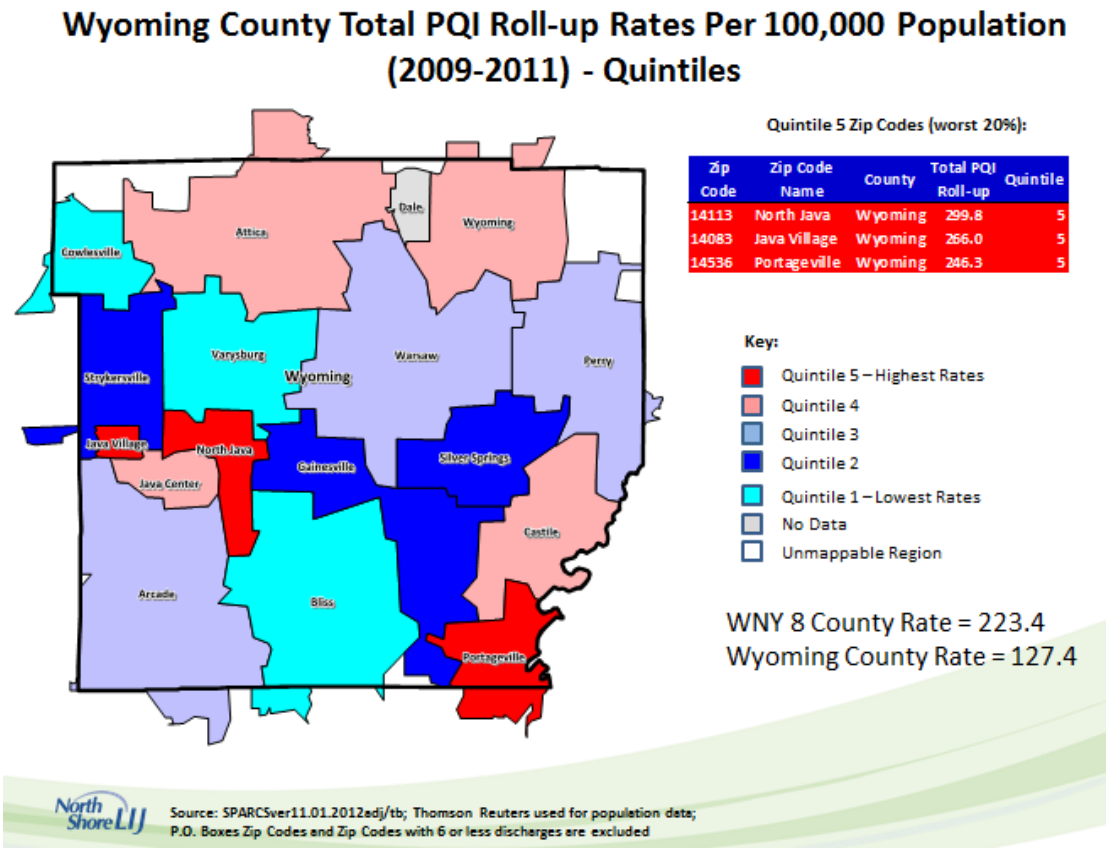


Figure 28: Total Prevention Quality Indicators (rates per 100,000 population) in Wyoming County

V. RECOMMENDATIONS

The findings above highlight the fact that a great deal has been accomplished in the western New York region since JSI's assessment in 2007-08. These efforts have: 1) expanded and strengthened the capacity of the region's primary care safety-net; 2) promoted greater collaboration between safety-net providers; and 3) promoted broader application and use of health information technology. The findings also highlight that despite these advancements there is still substantial unmet need throughout the region and limited primary care capacity in some communities. The assessment also described the major opportunities and challenges that most primary care safety-net practices in the region still face and what must be addressed if primary care safety-net practice sites are to fully embrace the triple aim of improving the health of the population, enhancing the patient experience, and creating efficient, cost-effective operations. Finally, the assessment provides insight into the strength and capacity of the western New York primary care safety-net in the context of PPACA and explores how prepared the safety-net is to respond to and take advantage of health reform moving forward.

The following recommendations from the JSI project team are intended to guide how primary care safety-net providers and other stakeholders in the region should work to strengthen and build the capacity of the safety-net and respond to PPACA and new health care trends.

1. Strengthen and Expand the Capacity of the Primary Care Safety-net

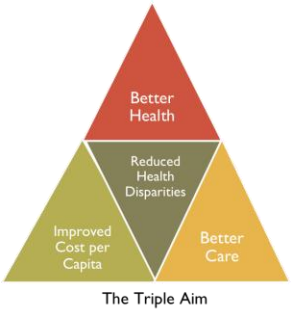


Figure 29: The Triple Aim

Primary care operations and must be strengthened and capacity expanded if the primary care safety-net is to address unmet need, fill capacity gaps, and improve the overall quality and efficiency of the care provided.

a. Strengthen primary care safety-net operations

Primary care safety-net strengthening efforts should focus initially on enhancing internal clinical and administrative operations and systems. Specifically, these efforts should be geared to achieving the "triple aim" of: 1) improving quality of care and the overall health of the population; 2) enhancing the patient experience; and 3) creating efficient, cost-effective operations. The range of possible operational advancements in this regard is broad in nature and includes activities to enhance internal primary care operations and external provider partnerships. The goal of these efforts is to create patient-centered, coordinated, integrated, service delivery approaches that focus on quality, safety, and access. As noted, those practices that are not receiving FQHC funding struggle even more to provide a patient-centered medical home.

Information about the most important issues captured in JSI's interviews and site visits fall into three areas.

i. Issues related to internal clinical and administrative procedures such as: 1) reduction of no-show rates; 2) staff/patient scheduling and patient empanelment; and 3) enhancement of patient flow and clinical roles/responsibilities. Primary care practices need workshops,

lectures, or tutorials about how to conduct these assessments on their own or will need individualized, on-site technical assistance.

ii. Issues related to quality and performance improvement and the use of EHRs/HIT. Specific activities could support such efforts as: 1) identifying and empowering QI/HIT champions; 2) supporting further development of QI infrastructure (e.g., QI committees, continuous quality improvement structures, identification of measures and benchmarks); 3) supporting HIT training to maximize the use of existing systems; and 4) supporting the development of patient satisfaction or consumer advisory efforts. Regional efforts should build upon or support the efforts taking place in the region.

iii. Issues that require the development and implementation of specific clinical practices or interventions to: 1) identify, screen, educate, and engage people with newly identified or emerging chronic health conditions (primary care engagement); 2) provide proven chronic disease care management and self-management support interventions; 3) integrate behavioral health or medical specialty care into primary care settings; and 4) collaborate with hospitals, health plans, or other health care organizations to reduce inappropriate hospital ED or inpatient readmissions.

b. Expand primary care capacity among core, essential, and contributing safety-net providers

Despite the tremendous growth in the past five years, targeted efforts still need to be made to build primary care safety-net capacity to fill geographic gaps, meet the needs of specific population segments, and/or addresses specific health status issues. Historically, the method of expanding the safety-net has focused on FQHC expansion. However, in the context of developing integrated delivery systems and the unknown future resources for FQHC expansion, it is important to include essential and contributing providers in safety-net strengthening. This should be accomplished through a multi-pronged strategy that focuses on maximizing existing primary care capacity then adding additional providers or practice sites across the spectrum of core, essential, and contributing safety-net categories, as appropriate.

Specifically, practice sites should first explore whether an unmet need can be addressed by decreasing patient no-shows, improving provider and patient scheduling, refining patient flow, developing primary care pods, creating interdisciplinary teams, or other ways that increase productivity and maximize existing capacity.[20]

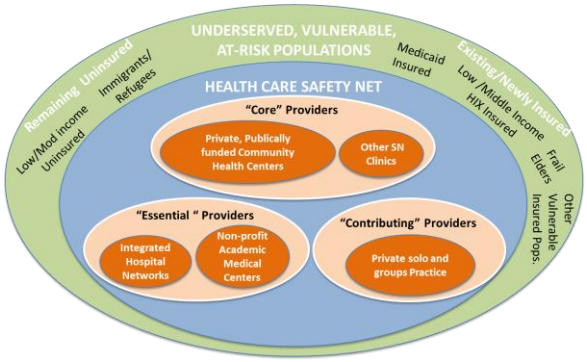


Figure 30: The Health Care Safety-net

Additional primary care capacity should be attained, as needed, by filling provider vacancies, adding providers at existing clinic practices, or when feasible developing new primary care

[20] The Community Health Care Association of New York State (CHCANYS), with support from the New York State Health Foundation, has developed a statewide plan for community health centers to increase their ability to serve more patients. Based on extensive quantitative and qualitative analyses, the plan identifies geographic areas that have the greatest need and potential for sustainable growth, estimates potential increases in capacity within the existing system, and highlights strategies for creating more capacity.

practices. Inevitably, expansion efforts will occur through the actions of individual practice sites. However, these actions should be considered in collaboration with the full safety-net. Ideally, efforts will be based on a community or market-level plan in the context of developing a strong, collaborative, integrated delivery system that coordinates the full spectrum of required public health, health care, and social services for all who need them.

Communities must ensure that there is a thriving safety-net practice or group of practices that are geographically focused on serving all-comers and that are committed to and capable of serving all residents regardless of their ability to pay. These core providers are an important asset and must be supported by the community at-large. However, in order to develop a system of care that is able to provide access to all those in need, most communities in western New York will need to apply a multi-pronged approach that not only focuses on the expansion of "core" safety-net providers but supports the development of a broad range of providers - including "core", "essential", and "contributing" safety-net providers – that are working collectively to meet the primary care needs of those who rely on the safety-net as well as those in the community at-large.

c. Support initiatives that promote primary care provider recruitment and retention

The recruitment and retention of clinical staff is an essential prerequisite to stabilizing and enhancing the safety-net. Almost all safety-net providers in the region struggle to recruit physicians and fill gaps in their clinical staffing. This was an issue in the 2007-2008 assessment and continues to be a major issue today. This issue is not unique to western New York and its safety-net providers; it is an issue that safety-net providers throughout the nation, particularly in rural areas, are facing.

As discussed in the 2007-08 assessment, this issue would benefit from a regional approach drawing on the expertise of state and national agencies and organizations that are closely involved in provider training and development (e.g. CHCANYS, Area Health Education Centers (AHEC), NYS Primary Care Office, and National Health Service Corps). Additionally, providers could share resources and/or develop a tool kit to guide the recruitment and retention process and help practices be more prepared and involved in this process. Finally, regional stakeholders could develop a resource center that would work collectively on behalf of the region's practices to support the recruitment process, as occurred in Minnesota through a RWJF grant.

Evidence-Based Programs for:
Promoting Primary Care Provider Recruitment and Retention

The following are a range of interventions that have been proven to be effective. It should be noted that it is possible that some of these approaches are already being applied or have been tested in the region.

Primary Care Recruitment and Retention Tool Kits

- **National Association of Community Health Centers**
  http://www.nachc.com/Clinical%20Recruitment%20and%20Retention%20Toolkit.cfm
- **Michigan Primary Care Association**
  http://mpca.net/displaycommon.cfm?an=1&subarticlenbr=77#.UueAy_Mo5jo

State Resource Centers

- **Minnesota -** http://www.rwjf.org/en/research-publications/find-rwjf-research/2000/03/minnesota-adds-physicians-while-focusing-on-community-health-cen.html
- **Oregon -** http://www.oregon.gov/oha/OHPR/HCW/Resources/5-Year%20Strategic%20Plan%20for%20Pimary%20Care%20Provider%20Recruitment%20-%20HB%202366.pdf

Regional or Statewide Workforce Collaborations

- **NYS AHEC** - http://www.ahec.buffalo.edu/
- **CHCANYS** - http://www.chcanys.org/index.php?src=gendocs&ref=WorkforceDevelopmentInitiatives&category=Workforce%20Development

2. Promote Population-based Approaches to Community Health and Consumer/ Primary Care Engagement in a Patient-Centered Medical Home

The findings also highlighted the importance of developing broad collaborative activities involving health care providers (including primary care), state/local public health officials, social service organizations, educators, business leaders, and philanthropic organizations that are focused on improving population-based health outcomes and engaging individuals and families in appropriate primary care. There is growing appreciation in the health care field of the need for communities to address health care disparities and improve its overall health and well-being. To do so, communities need to develop a shared agenda and implement targeted, integrated efforts that build on existing programs or assets. There also needs to be evaluative metrics and a community infrastructure that guides and monitors these activities.[21]

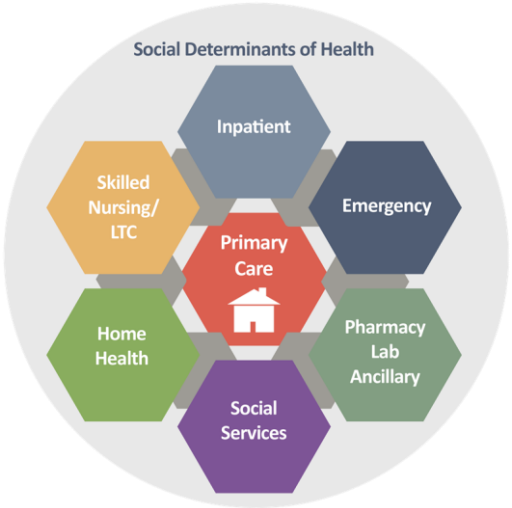


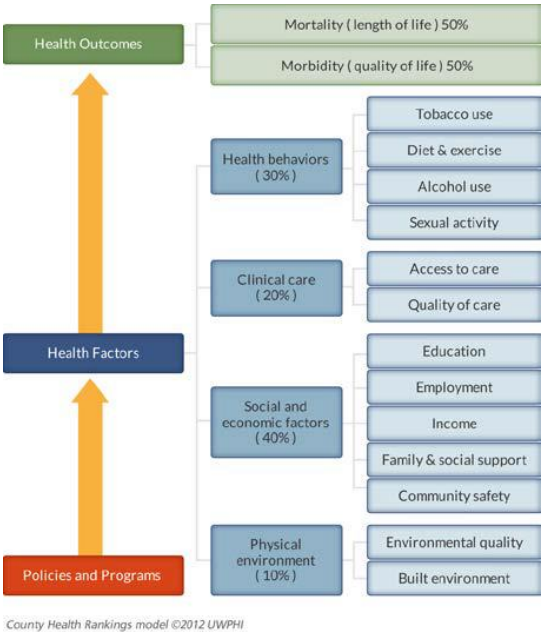
Figure 31: Social Determinants of Health and Primary Care

[21] Hanleybrown, F., Kania, J., Kramer, M. Channeling Change: Making Collective Impact Work. Stanford Social Innovation Review. 2012

a. Promote population-based approaches to community health

Figure 32, developed by the University of Wisconsin's Population Health Institute, illustrates the importance of taking action at the community-level to improve health status and reduce mortality. Increasingly, the literature shows that clinical care has a limited impact on improving health outcomes and keeping people healthy. As a result, new payment models are being designed to entice providers to keep patients well and improve health outcomes rather than provide specific clinical care or treatment services. A well-integrated system of care is essential to keeping communities healthy. However, the greatest impact comes from addressing the physical environment and the social/economic factors as well as changing risky health-related behaviors.

Figure 32: Approaches to Community



Communities that have showed the most promising results are taking a two-fold approach. First, communities are working to ensure that residents have access to a well-integrated system of care that:

- Gives residents access to appropriate primary care services that include medical, behavioral, and oral health components.
- Integrates a broad range of specialty care, inpatient, long-term care, and home-based services that individuals and families need throughout the life-cycle.
- Promotes care coordination, care management, and patient/family self-management, particularly for children, frail elders, and people with complex or chronic conditions.
- Delivers services across the full spectrum in a patient-centered manner.

Second, communities are working to develop policy, improve physical environments, and address social determinants of health that:

- Reduce risk-factors and exposure to health hazards
- Promote physical activity and make parks and recreational facilities more accessible
- Promote access to healthy foods, and
- Promote employment opportunities and address income and education inequalities

Evidence-Based Programs for
Promoting Population-Based Approaches to Community Health Improvement

The following interventions have been proven to be effective. Some of these approaches are already being applied or have been tested in the region.

Regional or statewide collaboration

- Hennepin County Human Services and Public Health Department - care coordination demonstration project - http://www.chcs.org/usr_doc/DeCubellisJ.pdf
- Key Considerations for Supporting Medicaid Accountable Care Organization Providers - http://www.chcs.org/publications3960/publications_show.htm?doc_id=1261529#.UuPu7vMo5jo

  http://www.chcs.org/usr_doc/ACO_Provider_Supports_060313_Final.pdf

b. Promote consumer/primary care engagement in a patient-centered medical home

The findings also highlight the need to promote consumer and primary care engagement. As mentioned, a portion of the unmet need in communities throughout the region is due to limited primary care capacity and/or lack of after-hours care. However, according to the JSI project team's interviews and site visits, a significant portion of the unmet need is associated with a lack of consumer engagement in care and a lack of appreciation for regular primary care services. Promoting appropriate engagement in primary care is particular important for people with health risk factors and/or chronic health conditions.

Communities and primary care practice sites need to collaborate and develop primary care operations and community partnerships that:

- Educate residents and raise awareness about key health issues and risk-factors.
- Identify people at risk, particular those who have chronic disease or the leading chronic disease risk factors.
- Link all community residents, especially those most at risk, to regular, appropriate primary care services in a patient-centered medical home.
- Provide evidence-based support for behavior change and disease management.
- Promote care coordination and follow-up, particularly for children, frail elders, and people with complex or chronic conditions.
- Delivers services across the full spectrum in a patient-centered manner.

There are numerous evidence-based outreach and engagement programs that target the community at-large as well as those with chronic illness or certain risk factors. See evidence provided in recommendation Section 1a.

c. Support the development of registries and other HIT tools to identify and promote primary care engagement and chronic disease management

Based on a recent issue brief published by the Center for Health Care Strategies (CHCS),[22] approximately 60 percent of physicians work in practices with four or fewer providers, and roughly 65 percent of all physician office visits occur in practices of this size. These national statistics reflect the characteristics of western New York's primary care safety-net. Smaller practices of this type usually don't have the staff to research and support the implementation of registries and use of all of the functionalities of their EHRs. Information gathered by JSI corroborates these findings.

Safety-net practices in the region would benefit from support that would allow them to share information between practice sites and explore how to use their EHRs to ensure that patients are fully engaged in their care, receive tailored follow-up, and the most appropriate case/care management services. Practice sites would also benefit from the formal implementation of primary care engagement and care management protocols/interventions that leverage their EHRs to identify and manage their chronic disease patients. Another issue brief developed by CHCS highlights the lessons and best practice programs from a national pilot.[23]

Evidence-Based Programs for
Promoting Population-Based Approaches to Community Health Improvement

The following interventions have been proven to be effective. Some of these approaches are already being applied or have been tested in the region.

- Supporting Meaningful Use - http://www.chcs.org/usr_doc/Supporting_Meaningful_Use_Brief.pdf
- Key Factors for Improving Care Delivery in Small Primary Care Practices with High Medicaid Volume http://www.chcs.org/usr_doc/Key_Factors_for_Improving_Care_in_Small_Primary_Care_Practices.pdf

3. Promote Collaboration and Communication Across the Safety-net and a Broad, Collective Understanding of Health Reform/Health System Trends

One of the most significant developments since the 2007-08 assessment is the development of SNAPCAP. SNAPCAP has brought most of the core and essential safety-net providers in the region to a forum that allows practice sites to share information and fosters the development and implementation of safety-net strengthening and expansion initiatives. PPACA and the opportunities that are part of the bill have also facilitated collaboration as entities explore how to respond to various grant opportunities or integrate their services to better position themselves for potential changes in payment practices.

Despite these positive steps, there is a need for greater collaboration and provider awareness about the various facets of health reform, important trends in health care service delivery and payment, and issues related to primary care clinical and administrative operations. These efforts will promote communication and partnership generally and will encourage services integration, care coordination, and joint planning.

[22] http://www.chcs.org/usr_doc/Supporting_Meaningful_Use_Brief.pdf
[23] Key Factors for Improving Care Delivery in Small Primary Care Practices with High Medicaid Volume, http://www.chcs.org/usr_doc/Key_Factors_for_Improving_Care_in_Small_Primary_Care_Practices.pdf

The following are specific recommendations related to collaboration.

a. Continue to grow and support the develop of SNAPCAP[24] and other market-level coalitions

Regional stakeholders should continue to support SNAPCAP and/or the development of market-level coalitions that would focus on information sharing and respond to opportunities. The assessment highlighted that providers are still operating in silos rather than as part of a broader system of care. SNAPCAP has been an important step but effort is needed to take full advantage of SNAPCAP. Community symposia, resource inventories, help/referral-lines, and coordinated case management programs could help dissolve silos and encourage collaboration and referral among providers. SNAPCAP could be augmented if providers could unite at market-level to create a formal community coalition or task force involving, for example, a community hospital, area primary care practices, behavioral health organizations, long-term care facilitates, home health organizations, and public health officials. A specific area for collaboration and discussion is the use of patient navigators, and outreach staff to identify and enroll consumers who are not accessing primary care. New resources have been made available through the ACA to support health care providers and social service agencies in the enrollment of health coverage. There is much to be learned about how effective these resources have been, and how to identify best practices at the local, regional, and national level.

b. Raise awareness and understand of current mechanisms and tools associated with health service delivery and payment reform

Regional stakeholders should ensure that all interested parties are aware of and understand the current mechanisms and tools associated with health reform and the development of integrated delivery system so practice sites can take advantage of opportunities. Efforts should be made to educate and raise awareness about issues such as ACO/integrated delivery systems, health homes, shared savings models with CMS, value-based contracting, community care transitions programs, service integration/PCMH partnerships, and mental health integration.

c. Continue to support HIT infrastructure development and health information exchange

As in 2007-08, many experts are concerned with a potential "digital divide" between safety-net providers and the broader healthcare marketplace regarding HIT adoption and electronic health information exchange. JSI observed evidence that this was beginning to occur in western New York, but there are numerous national examples of safety-net providers participating in this movement. JSI recommends investing in efforts to support the development of the western New York RHIO and involving core safety-net providers to reduce the digital divide that is becoming apparent in the region.

[24] http://www.people-inc.org/news/2013/snapcap_elects_2013_offi-2013-03-25-837/index.html