

**GEISINGER-WYOMING
VALLEY MEDICAL CENTER
& GEISINGER SOUTH
WILKES-BARRE
COMMUNITY HEALTH
NEEDS ASSESSMENT**

June 2015

GEISINGER



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Introduction

Geisinger Wyoming Valley Medical Center (GWVMC), a 182-bed community medical center located in Wilkes-Barre, PA, in response to its community commitment, contracted with Tripp Umbach to facilitate a comprehensive Community Health Needs Assessment (CHNA). Geisinger Wyoming Valley Medical Center includes Geisinger South Wilkes-Barre (GSWB) an outpatient and urgent care facility. A community health needs assessment was conducted between October 2014 and March 2015 that identifies the needs of the residents served by both facilities (further referred to as Geisinger Wyoming Valley Medical Center. As a partnering hospital of a regional collaborative effort to assess community health needs; Geisinger Wyoming Valley Medical Center collaborated with hospitals and outside organizations in the surrounding region (including Columbia, Luzerne and Montour Counties) during the community health needs assessment process. The following is a list of organizations that participated in the community health needs assessment process in some way:

- Advocacy Alliance
- Allied Services Foundation
- Catholic Social Services
- Dental Health Clinic
- Geisinger Health System Family
- Northeast Pennsylvania Initiative
- PA Office of Rural Health
- Pennsylvania Department of Health, Northeast District
- Rehabilitation Community Providers Association (RCPA)
- Scranton Chamber of Commerce
- Scranton School District
- Senior Centers
- The Wright Center
- United Neighborhood Centers
- United Way of Wyoming Valley
- Volunteers in Medicine Free Clinic
- Wilkes-Barre City Health Department

This report fulfills the requirements of the Internal Revenue Code 501(r)(3); a statute established within the Patient Protection and Affordable Care Act (ACA) requiring that non-profit hospitals conduct community health needs assessments every three years. The community health needs assessment process undertaken by Geisinger Wyoming Valley Medical Center, with project management and consultation by Tripp Umbach, included extensive input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of public health issues, data related to vulnerable populations and representatives of vulnerable populations served by the hospital. Tripp Umbach worked closely with leadership from Geisinger Wyoming Valley Medical Center and a project oversight committee to accomplish the assessment.

Community Definition

The community served by the Geisinger Wyoming Valley Medical Center (GWVMC) includes Luzerne County. The Geisinger Wyoming Valley Medical Center primary service area includes eight populated zip code areas (excluding zip codes for P.O. boxes and offices) where 80% of the hospital's inpatient discharges originated (see Table 1).

Geisinger Wyoming Valley Medical Center & Geisinger South Wilkes-Barre Community Zip Codes

Table 1

Zip	Post Office	County
18201	Hazleton	Luzerne
18202	Hazleton	Luzerne
18222	Drums	Luzerne
18224	Freeland	Luzerne
18612	Dallas	Luzerne
18617	Glen Lyon	Luzerne
18618	Harveys Lake	Luzerne
18621	Hunlock Creek	Luzerne
18634	Nanticoke	Luzerne
18640	Pittston	Luzerne
18641	Pittston	Luzerne
18642	Duryea	Luzerne
18643	Pittston	Luzerne

Zip	Post Office	County
18644	Wyoming	Luzerne
18651	Plymouth	Luzerne
18655	Shickshinny	Luzerne
18660	Wapwallopen	Luzerne
18661	White Haven	Luzerne
18701	Wilkes Barre	Luzerne
18702	Wilkes Barre	Luzerne
18704	Kingston	Luzerne
18705	Wilkes Barre	Luzerne
18706	Wilkes Barre	Luzerne
18707	Mountain Top	Luzerne
18708	Shavertown	Luzerne
18709	Luzerne	Luzerne

Consultant Qualifications

Geisinger Wyoming Valley Medical Center contracted with Tripp Umbach, a private healthcare consulting firm headquartered in Pittsburgh, Pennsylvania to complete the community health needs assessment. Tripp Umbach is a recognized national leader in completing community health needs assessments, having conducted more than 250 community health needs assessments over the past 20 years; more than 50 of which were completed within the last three years. Today, more than one in five Americans lives in a community where Tripp Umbach has completed a community health needs assessment.

Paul Umbach, founder and president of Tripp Umbach, is among the most experienced community health planners in the United States, having directed projects in every state and internationally. Tripp Umbach has written two national guide books¹ on the topic of community health and has presented at more than 50 state and national community health conferences. The additional Tripp Umbach CHNA team brought more than 30 years of combined experience to the project.

¹ A Guide for Assessing and Improving Health Status Apple Book:
http://www.haponline.org/downloads/HAP_A_Guide_for_Assessing_and_Improving_Health_Status_Apple_Book_1_993.pdf and

A Guide for Implementing Community Health Improvement Programs:
http://www.haponline.org/downloads/HAP_A_Guide_for_Implementing_Community_Health_Improvement_Programs_Apple_2_Book_1997.pdf

Project Mission & Objectives

The mission of the Geisinger Wyoming Valley Medical Center CHNA is to understand and plan for the current and future health needs of residents in its community. The goal of the process is to identify the health needs of the communities served by the hospital, while developing a deeper understanding of community needs and identifying community health priorities. Important to the success of the community needs assessment process is meaningful engagement and input from a broad cross-section of community-based organizations, who were partners in the community health needs assessment.

The objective of this assessment is to analyze traditional health-related indicators, as well as social, demographic, economic and environmental factors. Although the consulting team brings experience from similar communities, it is clearly understood that each community is unique. This project was developed and implemented to meet the individual project goals as defined by the project sponsors and included:

- ❑ Assuring that community members, including underrepresented residents and those with a broad-based racial/ethnic/cultural and linguistic background are included in the needs assessment process. In addition, educators, health-related professionals, media representatives, local government, human service organizations, institutes of higher learning, religious institutions and the private sector will be engaged at some level in the process.
- ❑ Obtaining statistically valid information on the health status and socio-economic/environmental factors related to the health of residents in the community and supplement general population survey data that is currently available.
- ❑ Developing accurate comparisons to the state and national baseline of health measures utilizing most current validated data. (i.e., 2013 Pennsylvania State Health Assessment).
- ❑ Utilizing data obtained from the assessment to address the identified health needs of the service area.
- ❑ Providing recommendations for strategic decision-making regionally and locally to address the identified health needs within the region to use as a baseline tool for future assessments.
- ❑ Developing a CHNA document as required by the Patient Protection and Affordable Care Act (ACA).

Methodology

Tripp Umbach facilitated and managed a comprehensive community health needs assessment on behalf of Geisinger Wyoming Valley Medical Center — resulting in the identification of community health needs. The assessment process included input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge and expertise of public health issues.

Key data sources in the community health needs assessment included:

- ❑ **Community Health Assessment Planning:** A series of meetings was facilitated by the consultants and the CHNA oversight committee consisting of leadership from Geisinger Wyoming Valley Medical Center and other participating hospitals and organizations (i.e., Geisinger-Bloomsburg Hospital Center, HealthSouth/Geisinger Health System LLC; Geisinger Community Medical Center; Geisinger-Lewistown Hospital; and Evangelical Community Hospital). This process lasted from October 2014 until March 2015.
- ❑ **Secondary Data:** The health of a community is largely related to the characteristics of its residents. An individual’s age, race, gender, education and ethnicity often directly or indirectly impact health status and access to care. Tripp Umbach completed comprehensive analyses of health status and socio-economic environmental factors related to the health of residents of the Geisinger Wyoming Valley Medical Center community from existing data sources such as state and county public health agencies, the Centers for Disease Control and Prevention, County Health Rankings, Thompson Reuters, CNI, Healthy People 2020, and other additional data sources. This process lasted from October 2014 until March 2015.
- ❑ **Trending from 2012 CHNA:** In 2012, Geisinger Wyoming Valley Medical Center contracted with Tripp Umbach to complete a CHNA for the same counties included in the service area (Luzerne County). The data sources used were not the same data sources from the 2012 CHNA. However, Tripp Umbach used data for the same years which made it possible to review trends and changes across the hospital service area. When possible, findings from the previous CHNA have been included in the executive summary “Key Community Health Priorities”. There were several data sources with changes in the definition of specific indicators, which restricted the use of trending in several cases. The factors that could not be trended are clearly defined in the secondary data section of this report. The previous 2012 CHNA can be found online at:

<http://www.geisinger.org/sites/chna>

- **Interviews with Key Community Stakeholders:** Tripp Umbach worked closely with the CHNA oversight committee to identify leaders from organizations that included 1) Public Health expertise; 2) Professionals with access to community health related data; and 3) Representatives of underserved populations (i.e., children, seniors, low-income residents, homeless individuals, Latino(a) residents and residents that are uninsured). Such persons were interviewed as part of the needs assessment planning process. A series of 15 interviews were completed with key stakeholders in the Geisinger Wyoming Valley Medical Center community. A complete list of organizations represented in the stakeholder interviews can be found in the “Key Stakeholder Interviews” section of this report. This process lasted from November 2014 until December 2015.

- **Survey of vulnerable populations:** Tripp Umbach worked closely with the CHNA oversight committee to assure that community members, including under-represented residents, were included in the needs assessment through a survey process. A total of 93 surveys were collected in the Geisinger Wyoming Valley Medical Center service area which provides a +/- 10.16 confidence interval for a 95% confidence level. Tripp Umbach worked with the oversight committee to design a 33 question health status survey. The survey was administered by community based organizations (i.e., The Volunteers in Medicine Free Clinic, The Dental Health Clinic, the United Way of Wyoming Valley and local senior centers and home health agencies) providing services to vulnerable populations in the hospital service area. Community based organizations were trained to administer the survey using hand-distribution. Surveys were administered onsite and securely mailed to Tripp Umbach for tabulation and analysis. Surveys were analyzed using SPSS software. Vulnerable populations were identified by the CHNA oversight committee and through stakeholder interviews. Vulnerable populations targeted by the surveys were seniors, low-income residents (including families), and residents that are under/uninsured. This process lasted from November 2014 until January 2015.

- **Identification of top community health needs:** Top community health needs were identified and prioritized by community leaders during a regional community health needs identification forum held on March 5, 2015. Consultants presented to community leaders the CHNA findings from analyzing secondary data, key

stakeholder interviews and surveys. Community leaders discussed the data presented, shared their visions and plans for community health improvement in their communities, and identified and prioritized the top community health needs in the Geisinger Wyoming Valley Medical Center community. This event took place in March 2015.

- ❑ **Public comment regarding the 2012 CHNA and implementation plan:** Tripp Umbach solicited public commentary from community leaders and residents. Commenters were asked to review the CHNA and Action Plan adopted by Geisinger Wyoming Valley Medical Center in 2013 and were provided access to each document for review. Commenters were then asked to respond to a questionnaire which provided open and closed response questions. Questionnaires were developed by Tripp Umbach and previously reviewed by the Geisinger Wyoming Valley Medical Center advisory committee. The seven question questionnaire was offered in hard copy at two locations inside the hospital as well as electronically using a web-based platform. The CHNA and Action Plan were provided to commenters for review in the same manner (i.e., hard copy at the hospital and electronically). There were no restrictions or qualifications required of public commenters. Flyers were circulated and electronic requests were made for public comment throughout the collection period which lasted from December 2014 until February 2015. Geisinger Wyoming Valley Medical Center did not receive any feedback related to the previous CHNA or implementation plan during the collection period.

- ❑ **Final Community Health Needs Assessment Report:** A final report was developed that summarizes key findings from the assessment process including the priorities set by community leaders.

Key Community Health Priorities

Community leaders reviewed and discussed existing data, in-depth interviews with community stakeholders representing a cross-section of agencies, and survey findings presented by Tripp Umbach in a forum setting, which resulted in the identification and prioritization of four community health priorities in the Geisinger Wyoming Valley Medical Center community. Community leaders identified the following top community health needs that are supported by secondary and/or primary data: 1) Behavioral health and substance abuse; 2) Affordability of care; 3) Resource awareness and health literacy; and 4) Oral health for adults and children. A summary of the top four needs in the Geisinger Wyoming Valley Medical Center community follows:

ADDRESSING NEEDS RELATED TO BEHAVIORAL HEALTH AND SUBSTANCE ABUSE

Underlying factors identified by secondary data and primary input from community leaders, community stakeholders and resident survey respondents:

1. Care coordination is needed among behavioral health, substance abuse, and primary care/medical providers.
2. There are not enough providers to meet the demand and the spectrum of services available in most areas is not comprehensive enough to treat individual needs.
3. Substance abuse services are necessary due to the prevalence of substance abuse in local communities.
4. Residents with a history of behavioral health and/or substance abuse needs often have poor treatment outcomes.

Addressing needs related to behavioral health and substance abuse is identified as the top health priority by community leaders at the community forum. Individuals with behavioral health needs often have poor health outcomes as well. Behavior health and substance abuse was also, by far, the most discussed health need among stakeholders during one-on-one interviews and survey respondents indicated that they do not have ready access to behavioral health services. Additionally, behavioral health was identified as a common health issue during the 2012 CHNA that was completed in the hospital service area:

“Mental health issues were stated to be a significant problem affecting the region. Bipolar disorder, depression and anxiety are said to be particularly high among young

women. Interviewees indicated that the need for mental health services is on the rise, however, the availability of these services currently cannot support demand.”²

Community leaders, stakeholders and survey respondents agree that behavioral health and substance abuse is a top health priority:

- ✓ Secondary data related to provider ratios and suicide rates clearly support the need to address needs related to behavioral health and substance abuse
- ✓ Every stakeholder interviewed identified a health need related to behavioral health and/or substance abuse services.
- ✓ Survey respondents identified substance abuse and mental health as two of the top five concerns facing their communities; self-reported higher than state and national prevalence rates related to behavioral health; and indicated services were not always available when needed.

Findings supported by study data:

Care coordination is needed among behavioral health, substance abuse, and primary care/medical providers.

- The lack of follow up and failure to comply with treatment regimens are often highest among a population of residents with behavioral health needs due to a resistance to seek treatment because of a fear of stigmatization, inability to afford treatment options, limited capacity and/or transportation issues. These residents reportedly experience difficulty accessing medical and dental health services for similar reasons.
- Behavioral health services can be fragmented, particularly at the intersection of behavioral health and medical health services. Stakeholders noted that primary care physicians are not always referring residents for behavioral health evaluations.
- The limited integration between behavioral health, medical health and substance abuse providers presents challenges in the referral and follow up process for residents and providers alike, which make it difficult to treat co-occurring disorders.

There are not enough providers to meet the demand, and the spectrum of services available in most areas is not comprehensive enough to treat individual needs:

- The 2012 CHNA completed in the hospital service area found that:

² Source: Geisinger Wyoming Valley Community Health Needs Assessment 2012

- ✓ Despite differences in the types of stakeholders interviewed, there was consistency when it came to identifying common illnesses. Many agreed that the prevalence of mental illness surpasses physical illnesses. Specifically, there is more depression, anxiety, and bipolar disorder - which is appearing in children
- Psychiatric acute care beds have declined to the extent that residents must be placed outside the service area in many cases, which makes it more difficult to reintegrate into the community upon discharge from inpatient treatment.
- A lack of behavioral health providers has been discussed in the previous CHNA completed in the hospital service area during 2012.
 - ✓ One participant voiced that there should be more inpatient mental health and drug and alcohol treatment. Participants said that psychiatric inpatient treatment is no longer as readily available as it once was. Participants also said that the region’s mental health population has increased over the years and there are not enough resources to accommodate it. In addition, participants said funding cuts have handicapped and reduced the number of mental health programs, that the length of treatment at state hospitals is not adequate to deal with mental health needs, and there is a need for more outreach to local residents to promote the region’s mental health awareness and drug and alcohol services.
- Approximately 1 in 3 survey respondents identified mental health when asked to select the top five concerns facing their community. Additionally, survey respondents identified having “ever been told they have” Depression and the need for mental health treatment are more often than every other area (i.e., diabetes, heart problems, and cancer). Luzerne County survey respondents report higher rates of depression diagnosis (26.9%) than is average for the state (18.3%) and nation (18.7%).
 - ✓ 1 in 10 survey respondents from Luzerne County indicated that they needed and could not secure counseling services in the past year (10.2%).
- While there are behavioral health services; there is a shortage of services in relationship to the demand for adults and children alike. The wait times for behavioral health services (i.e., treatment for low-income populations, psychiatry in general, inpatient and outpatient treatment), can cause residents to lose motivation to seek treatment.

Table 2: County Health Rankings –Mental Health Providers (Count/Ratio) by County

Measure of Mental Health Providers*	PA	Luzerne County
Mental health providers (count)	--	300
Mental health providers (ratio Population to provider)	623:01:00	1,067:1

**County Health Ranking 2014*

- The ratio of population to mental health providers in Luzerne County shows a significantly larger population to provider ratio (1067 pop. for every 1 mental health provider) than the state (623 pop. per provider).

Substance abuse services are necessary due to the prevalence of substance abuse in local communities:

- More than half of survey respondents identified drug and alcohol use (54.5%) when asked to select the top five concerns facing their community.
- Treatment for substance abuse is not readily available and there are lengthy waiting lists for inpatient treatment. Additionally, if an individual is known as a “repeat consumer” they may have a more difficult time securing inpatient treatment locally.
- Substance abuse treatment options are often unaffordable for residents with substance abuse issues due to limited income and a lack of insurance coverage.
- The most common drugs appear to be Methamphetamines, heroine, alcohol, marijuana, and tobacco.
- The 2012 CHNA completed in the hospital service area found that:
 - ✓ Focus groups felt that much of the region’s substance abuse is “generational”. They agreed that families engaging in substance abuse together transfer those habits to their children, and that treatment should also include parenting skills. The group also agreed that one of the region’s biggest problems is that, while programs to address these issues are offered, they are not attracting those who would benefit from them the most.

Residents with a history of behavioral health and/or substance abuse needs often have poor treatment outcomes:

- Luzerne County shows higher deaths due to suicide (16.1 per 100,000 pop) than state and national rates (12.5 and 12.3 per 100,000 pop. respectively). Healthy People 2020 goal is set at 10.2 per 100,000 pop.
- While stakeholders recognized substance abuse is a personal choice; they noted that there appears to be a generational influence as well as a higher prevalence among lower-income families.
- There are limited services for residents that have been previously incarcerated due to behavioral health and/or substance abuse. Previously incarcerated residents struggle securing employment, housing, and many other necessities. This often leads to homelessness and poor health outcomes. There is often reported frustration among

providers that struggle to connect residents in recovery to employment opportunities because employment is one factor that influences recidivism rates.

- The consequences of health needs related to behavioral health and substance abuse services were discussed as 1) The criminalization of behavioral health and the increased consumption of health care resources as a result; and 2) Poorer health outcomes related to behavioral health and substance abuse which are often heavily correlated to the duration of disorder/illness.
- Often services are underfunded (i.e., behavioral health and substance abuse). Stakeholders indicated that there is a disconnect between funding and service providers that are providing necessary services to the extent that programs are not being fully funded to allow residents to receive evidence-based care to effectively treat common health issues (i.e., smoking, behavioral health, substance abuse, etc.). Residents are not receiving treatments that are long enough or intense enough to fully resolve their issues (i.e., inpatient treatments). Stakeholders questioned whether or not adequate resources exist to meet health needs in their communities.
- The 2012 CHNA completed in the hospital service area found that:
 - ✓ When asked about access to health care in the region, participants said that the area includes many free health clinics. They also said that insurance doesn't necessarily cover an adequate amount of time for individuals to be treated thoroughly, and that some problems, like mental health issues, cannot be appropriately treated in a matter of days.

Behavioral health has remained a top health priority that appears as a theme in each data source included in this assessment. The underlying factors include: affordability, care coordination, workforce supply vs. resident demand, and resident engagement of treatment options. Primary data collected during this assessment from community leaders and residents offered several recommendations to address the need for behavioral health and substance abuse; some of which included:

- **Preventive screening:** Integration of addiction services as a normal component of care reduces stigma of the question and the illnesses of behavioral health. Same as tobacco screenings and referral processes in the ER. Providers have to increase their capacity and partnerships to be able to provide care when screenings turn up issues for patients.
- **Integration of service lines including behavioral health** is untapped potential in patient improvement and population health. Change the culture of health care delivery to a team-based delivery system which maximizes patient engagement and minimizes co-dependence with integration of service lines including behavioral health.
- **There is a need to increase culturally competent outreach education:** it is recommended that professionals that are culturally competent be provided to disseminate health education and outreach in a culturally sensitive way in order for it to be effective.

AFFORDABILITY OF CARE

Underlying factors identified by secondary data and primary input from community leaders, community stakeholders and resident survey respondents:

1. Residents need solutions that reduce the financial burden of health care
2. Poverty increases the barriers to accessing healthcare
3. Provider to population ratios that are not adequate enough to meet the need
4. Limited access to healthcare as a result of the location of providers coupled with transportation issues.

The need to increase access to affordable care options is identified as the second community health priority by community leaders. Socio-economic status creates barriers to accessing health care (e.g., lack of health insurance, inability to afford care, transportation challenges, poor housing stock, etc.), which typically has a negative impact on health outcomes. Often, there is a high correlation between poor health outcomes, consumption of healthcare resources, and the geographical areas where socio-economic indicators (i.e., income, insurance, employment, education, etc.) are the poorest due to limited access to healthcare options that are affordable.

During the 2012 CHNA completed in the hospital service area the study found that:

“When asked whether or not they perceived access to health care as problematic, inadequate transportation outside cities, high costs, and availability of health care professionals were cited among interviewees as significant barriers to receiving quality care.”

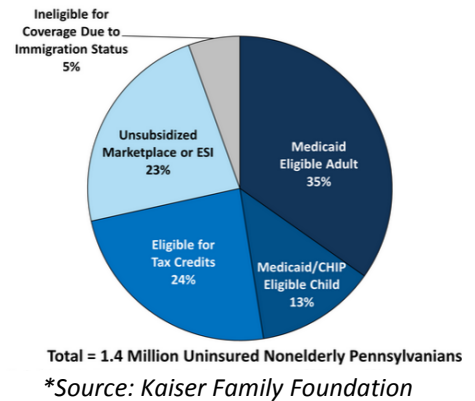
- ✓ Secondary data related to provider ratios, disease prevalence rates, socio-economic barriers to accessing healthcare (i.e., CNI), and poor health outcomes (e.g., amputations, death rates, etc.) support the need to increase access to affordable care options for residents.
- ✓ Community leaders focused discussions about affordability around Medicaid access issues, issues for undocumented residents, health insurance, and care coordination.
- ✓ Two-thirds of the stakeholders interviewed discussed a lack of availability of affordable health services (medical, dental, behavioral) in the hospital service area.
- ✓ Survey respondents reported access issues related to their ability to afford health insurance and/or health services.

Findings supported by study data:

Residents need solutions that reduce the financial burden of health care:

This assessment is ending at an interesting point in PA history as Medicaid expansion is being implemented. The expansion waiver should give significantly more residents in PA (including the hospital service area) access to health insurance. Kaiser Family Foundation estimates that 72% of uninsured nonelderly PA residents (1.4 million people) will become eligible for some type of assistance. It is important to note that residents with an immigration status currently causing ineligibility for health insurances will remain ineligible for any type of assistance.³

Eligibility for Coverage Among Nonelderly Uninsured Pennsylvanians Prior to ACA Coverage Expansions



- Residents that do not have citizenship are often ineligible for any type of insurances (including children) due to a lack of documentation for applications, which is also required by many free clinics and FQHCs to qualify for services. Residents without citizenship status may not be able to secure any type of health services in their area. Homeless residents do not always have access to necessary health services (i.e., diabetic treatment options, healthy foods, behavioral health care, dental care, vision, etc.) due to a lack of insurance
- Children in the mid-income bracket may not have access to insurances that cover primary and preventive care. Residents may not qualify for CHIPS and children are left uninsured. There are some clinics that provide care to this population, but if families are not able to access these clinics, then these children are not receiving preventive care, routine care, or any type of care coordination. There is a shortage of providers that offer care to residents with Medicaid insurance.
- Stakeholders articulated that uninsured and under-insured residents may resist seeking health services (including medication, preventive, and/or routine care, etc.) due to the cost of uninsured care, unaffordable copays, and/or high deductibles. Health services may be becoming unaffordable for families that do not qualify for assistance of any sort due to higher copays and deductibles. According to the Kaiser Family Foundation; all adults with a household income above 138% of the federal poverty level (FPL) (\$32,913 for a family of 4 and \$16,105 for an individual) are not eligible for medical assistance, though eligible for tax assistance up to 400% of FPL (\$95,400 for a family of 4 and

³ Source: Kaiser Family Foundation analysis based on 2014 Medicaid eligibility levels and 2012-2013 Current Population Survey

\$46,680 for an individual). Residents with access to insurances through employers are not eligible for tax credits.⁴

- 22.2% of the survey respondents indicated that they had no health insurance . The most common reason why individuals indicated that they do not have health insurance is because they can't afford it (44%) with ineligibility being the second most common reason (24%). Most survey respondents in reported either never needing health services or needing and having no problem securing those services. However; when respondents reported needing health services and being unable to secure them the most common reasons were "no insurance", "couldn't afford", and "unsure where to go". Similar results were reported during the 2012 CHNA completed in the Geisinger Wyoming Valley Hospital area:
 - ✓ About 15 percent indicated that they did not get treatment when they needed it, while 25 percent said that cost and not knowing where to go were the primary factors that prevented them from getting treatment

Provider to population ratios that are not adequate enough to meet the need

- Luzerne County has fewer Primary care providers (71.1 per 100,000 pop.) than is average for PA (92.7 per 100,000 pop. respectively).
- Reportedly, the shortage of health professionals (i.e., primary care physicians, some specialist, general psychiatrists, qualified nurses, aides, qualified direct care workers, geriatricians, orthodontists, neurologists, child psychiatrists, pediatric dentists, and dentists accepting Medicaid) is compounded by the difficulty in recruiting new professionals to the poorest and most rural areas in the hospital service area. There is a lack of general psychiatry, dental care, preventive care, and psychiatric inpatient/outpatient care, in the area as well.

Poverty increases the barriers to accessing healthcare:

- The Geisinger Wyoming Valley Medical Center study area reports more than a quarter of the households earning less than \$25K per year (27.4%); this rate is higher than state and national rates (24.0% and 24.5% respectively).
- Higher CNI scores indicate greater number of socio-economic barriers to community health. The overall CNI score for the Geisinger Wyoming Valley Medical Center study area is 3.2. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). From 2011 to

⁴ Source: Kaiser Family Foundation analysis based on 2014 Medicaid eligibility levels.

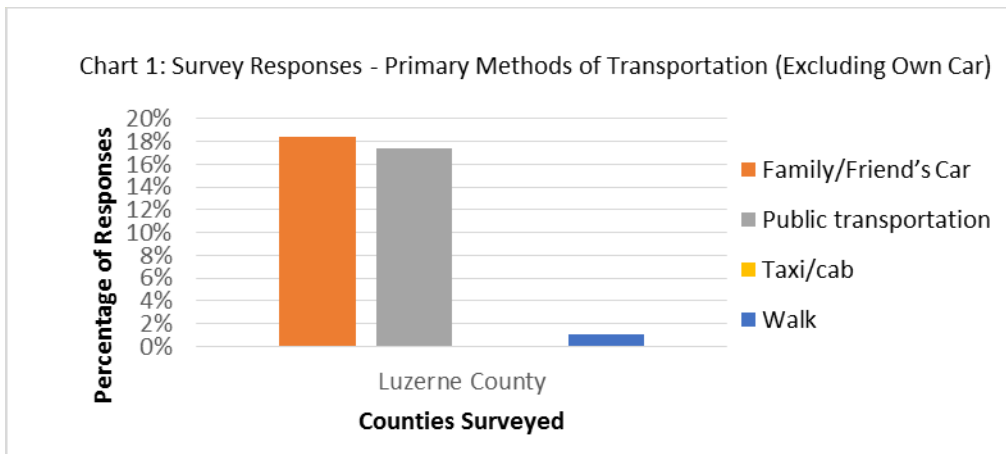
2014, the overall CNI value for the Geisinger Wyoming Valley Medical Center study area went from the average value for the scale at 3.0 to 3.2; an increase that means a rise in the number of barriers to health care access. Therefore, according to the overall CNI score, the Geisinger Wyoming Valley Medical Center study area experiences higher than average barriers to health care access, which has increased in recent years. The zip code areas that showed higher CNI scores have worsened since 2011 while those zip code areas with lower CNI scores improved. There were 12 zip code areas that saw an increase in the barriers to accessing healthcare (+0.2 to +0.8); whereas 13 zip code areas saw a decrease or no change at all (0.0 to -0.6). The zip code areas that showed an increase in barriers showed greater increases, and decreases were not as significant. This means that there are pockets of populations with limited access to health services, which are getting worse. The areas in the hospital service area with the greatest barriers to accessing healthcare are Hazleton (4.6), Glen Lyon (4.4), and Wilkes-Barre (4.4-18701 and 4.2-18702) and Plymouth (4.0). These are the areas where poverty rates are the highest, educational attainment is the lowest, unemployment rates are high and the rates of residents with limited English speaking skills are the highest. The highest uninsured rates in the services area are found in these zip codes and most often prevalence rates for poor health outcomes can be found where the greatest consumption of healthcare resources takes place.

- There is an influx of residents from refugee camps entering the region and struggling with poverty, which can be connected to the inability of residents to secure healthy produce and make healthy decisions related to nutrition due to limitations related to transportation, finances, and education. Additionally, residents in poverty are less likely to secure health services prior to issues becoming emergent due to a lack of resources (i.e., time, money, transportation, etc.) and a focus on meeting basic needs leading to a lower prioritization of health and wellness. Additionally, homeless residents do not have access to a refrigerator or stove, which makes it difficult to eat healthy. It can be difficult for many homeless diabetics to proactively manage their chronic illness since many shelters do not offer diabetic-friendly options. Nutritional options are further restricted for homeless persons with dental issues.
- There are pockets of poverty where health services are available but not accessible. There is reportedly a lack of providers (i.e., specialists, dentists, etc.) taking new patients that are covered by the type of insurances carried by traditionally low-income populations (i.e., Medicaid). Additionally, the issues with transportation in the area further magnify the impact of the distance between providers that the availability of health services has on the health outcomes of the most rural populations served by

Geisinger Wyoming Valley Medical Center. Reportedly, there are some counties in the services area that have free clinics available and other counties that do not have free clinic services. Low-income residents do not have much access to care due to the costs (i.e., transportation, copays, medical bills, medications, etc.) that can be associated with seeking health services (i.e., medical, dental, behavioral).

Limited access to healthcare as a result of the location of providers coupled with transportation issues.

- Many survey respondents indicated that their primary form of transportation is some method other than their own car (37.2%), using a family/friend's car (18.5%), public transportation (17.4), and walking (1.1%) as an alternative.



Residents may not be able to follow through with more intensive treatment regimens (i.e., chemo or dialysis) due to the location of services and lack of transportation.

Increasing access to affordable healthcare is an issue that carries forward from previous assessments, though some progress has been made by increasing access to afterhours care through the growth of urgent care clinics. As access to health services continues to grow from resource development coupled with Medicaid expansion taking place throughout 2015 it will be important to ensure care is effectively coordinated and resources are being used in the most efficient way possible. Primary data collected during this assessment from community leaders and residents offered several recommendations to increase access to healthcare some of which included:

- While community-based organizations, agencies, and health providers collaborate effectively now; **insurance companies could incentivize** more formal collaborations with an aim of improving population health.

- **Implementing evidence-based medicine to treat health issues** and address health needs, which will take continued collaboration among community organizations and a commitment to evidence-based practices.
- **Increase homecare** and additional support to maintain residents in home settings.
- **There is a need for education about effective health care** and focus on patient engagement and building resiliency. Patients crave development and inclusion in the solution and problem-solving.
- **Employee health programs and school-based health programs** are multipliers of the benefits of population health practices, and there is not a significant practice of population health among many major employers or public schools.

RESOURCE AWARENESS AND HEALTH LITERACY

Underlying factors identified by secondary data and primary input from community leaders, community stakeholders and resident survey respondents:

1. Presence of barriers related to language
 - ✓ System navigation
 - ✓ Need to increase culturally sensitive educational outreach to vulnerable populations
2. Need to increase awareness and care coordination

Improving resource awareness and health literacy is identified as the third health priority for Geisinger-Wyoming Valley Medical Center. There is a more diverse population in the hospital service area than is average for the state making cultural competence important to address. Additionally, there are limited English speaking skills making health literacy and system navigation a health concern. There is agreement across data sources in support of improving resource awareness and health literacy of residents in the hospital service area.

- ✓ Secondary data related to prevalence rates and death rates of lifestyle related illnesses clearly support the need to reduce the impact of health concerns related to lifestyle.
- ✓ Community leaders focused their discussions primarily on language barriers, system navigation issues, the education of vulnerable populations, and the cultural sensitivity of current literature in the community.
- ✓ Two-thirds of the stakeholders interviewed discussed the need for increasing awareness and care coordination as well as the impact of language barriers on health literacy.
- ✓ Survey respondents indicated preferences related to how they prefer to receive information (i.e., dissemination methods and language preferences) which supports the need to improve resource awareness and health literacy.

Findings supported by study data:

Language barriers related to accessing care and understanding care provided

- The Geisinger Wyoming Valley Medical Center study area and Luzerne County report higher rates of Hispanic minorities as compared with the state average; 9.4% of the Geisinger Wyoming Valley Medical Center study area population identifies as Hispanic, 8.5% of the Luzerne County population, and only 6.5% of the Pennsylvania population identifies as Hispanic. The areas with the greatest concentration of residents with limited English speaking skills are Hazleton 18201-10.3% and 18202 – 7.1% of the population report limited English speaking skills. Wilkes-Barre also shows higher percentages of residents reporting limited English skills than is average for the hospital service area.
- Socio-economic status may pose additional challenges to residents navigating available resources. For example, there are specific physicians that accept Medicaid insurance, however, many health care professionals do not accept new patients with Medicaid coverage.
- The previous CHNA completed in the Geisinger-Wyoming Valley Medical Center area found in a focus group setting that:
 - ✓ All participants agreed that physically or mentally challenged residents need better access to quality health insurance. One woman discussed that she could not find a specialist who was covered by her insurance, and said that many physicians “don’t accept Medicaid and Medicare because the state requires too much paperwork. “ All respondents said that they are forced to spend a great deal of time on the phone calling providers to see if they accept their insurance. Many also felt prescription medications are too expensive, and have arrived at pharmacies only to find out that their prescriptions are not covered by their health insurance
- Language barriers cause challenges to the efforts of providers to improve health literacy and awareness of health services and resources. While most respondents did not prefer to receive health services in a language other than English (84.6%); 12.1% of respondents reported this preference in Luzerne County, which is higher than any other county served by Geisinger Health system.
- The previous CHNA completed in the Geisinger-Wyoming Valley Medical Center area found in a focus group setting that:
 - ✓ The language barrier among this population is also an issue. There are very few or no providers speaking Spanish or any Indian dialects and none able to work

with the region's growing Russian and Bhutanese populations. Most state and local government paperwork is in English only. Further, individuals in social services, mental and behavioral, child protective services, and law enforcement have little or no foreign language skills. A local social service agency has had experiences in problem resolution resulting from a poor translation issue between a hospital and a parent of a patient and in other instances between families and Child Services. One physician indicated that he/she has seen Hispanic and Russian patients and they either bring their children to interpret or have discussions using pictures and pointing.

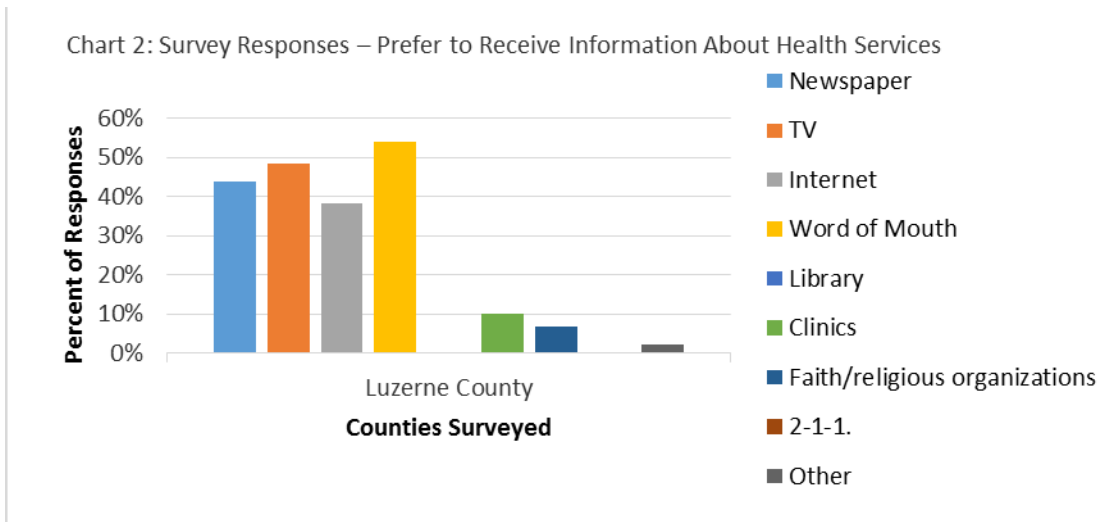
- The previous CHNA completed in the Geisinger-Wyoming Valley Medical Center area found in a focus group that included four members of Scranton's Hispanic/Latino community:
 - ✓ Participants agreed that there is a lack of communication, and that this results in not knowing about services offered
- Participants agreed that there is a lack of communication, and that this results in not knowing about services offered. While there are educational programs provided in the community; they do not offer the sensitivity related to literacy, language, lack of documentation, limited financial resources, and the overall understanding of culture that is necessary to be effective. Different approaches are necessary to target vulnerable populations to effectively share information about health conditions and healthy living.

Need to increase awareness and care coordination

- As rates of insured residents increase, residents will need assistance navigating the health services that exist because there will be some residents that have no experience with the health system. Often times, services are available, but they are fragmented and many residents may not be aware of what is available. Specific populations impacted by the lack of care coordination are reportedly persons with disabilities, seniors, residents with limited English speaking skills, residents with a history of behavioral health needs, homeless individuals, and persons with a new diagnosis.
- Residents are not always aware of how to navigate the health system, which can be compounded by language, literacy, and cultural challenges. Additionally, residents are not always being assessed to determine their level of understanding and health literacy.
- Care coordination and transitional care are not always available due to lack of funding for these activities, though it is a need among vulnerable residents. While the increase in urgent care clinics/walk-in clinics has provided greater access to health services for insured residents; they have reduced care coordination, medication management

(services not practiced by most walk-in clinics), limiting the continuity of care residents are receiving, and leading to poorer health outcomes for some residents. Survey respondents echoed the need for care coordination with approximately 1 in 4 respondents indicating that they did not understand what was happening during a time when they (or a loved one) had to transition from one form of care to another. The most common recommendations related to care transitions were better explanation of the process (34%), and additional instructions (50%).

- More respondents indicated they get information about services in their community by word of mouth than any other preference in Luzerne County (53.9%) with the T.V. (48.3%) and newspaper (43.8%) as the second and third options.



Health literacy can impact the level of engagement with health providers at every level limiting the preventive care, emergent care, and ongoing care for chronic health issues, which leads to health disparities among populations with limited English skills and limited literacy skills. Primary data collected during this assessment from community leaders and residents offered several recommendations to improving resource awareness and health literacy, some of which include:

- **Increase outreach education.** They recommended professionals that are culturally competent to disseminate health education outreach in a culturally sensitive way in order for it to be effective.
- **Begin using AHEC groups** to get people to go into health care professions to represent a cultural competence in order to ensure that minorities are represented in the professionals that are providing services to residents.

ORAL HEALTH

Underlying factors identified by secondary data and primary input from community leaders, community stakeholders and resident survey respondents:

1. Presence of barriers related to language
2. Need to increase awareness and care coordination

While there were multiple health concerns presented in the data, leaders identified improving oral health outcomes as the fourth and final health priority for Geisinger-Wyoming Valley Medical Center. Leaders felt that the need is great for oral health and the lack of services impacts everything from substance abuse to chronic health issues that result from a lack of access to routine dental treatment. There is support for the need to improve oral health outcomes across data sources:

- ✓ Community leaders focused their discussions primarily on the need for additional pediatric and adult dental providers.
- ✓ Stakeholders discussed the impact of transportation issues, limitation of insurance, and the lack of focus on oral hygiene among residents as the greatest factors in poor health outcomes related to dental health. The lack of fluoride in the water impacts the dental health of residents.
- ✓ Survey respondents reported issues accessing care.

Need to increase access to oral health services for low-income residents

- While medical insurance coverage rates are expected to increase during 2015, the same cannot be said for dental insurance rates. The greatest issue related to dental care is the number of providers caring for pediatric patients and residents insured with Medicaid.
- While Luzerne County has similar rates of dental providers when compared to the state (57.1 and 59.1 per 100,000 pop. respectively); There is no measure of dental providers that accept Medicaid. Furthermore, there are a few dental providers accepting Medicaid; reportedly they are not accepting new patients. Also, there is a dental clinic in the service area; however, it is small and can reportedly take up to three months to get an appointment. Several free clinics have been expanded in the service area (i.e., The Wright Center, The Leahy Center, etc.) giving hope that dental care is forthcoming for low-income residents.
- Dental insurance is often not provided by employers leaving many residents uninsured, which was reflected in survey findings with 1 in 10 respondents in Luzerne County indicating they could not secure dental services due to a lack of insurance.
- The CHNA completed in the Geisinger Wyoming Valley Hospital service areas in 2012 found that:
 - ✓ Medicare and Medicaid patients have experienced difficulties in finding health care providers that treat patients covered under these programs – particularly among dentists, orthodontists and oral surgeons. Further, for Medicaid patients,

there are only a few locations in Pittston, Wilkes-Barre and Mountain Top that will provide care.

Oral Health is an identified need due to the limited number of providers accepting Medicaid patients, lack of pediatric providers and the lack of affordable care options (i.e., dental insurance, uninsured care, etc.). Poor oral health has an impact on physical health and economic health outcomes making it an important health priority for community leaders.

Community Health Needs Identification Forum

The following qualitative data were gathered during a regional community planning forum held on March 5th, 2015 in Moosic, PA. The community planning forum was conducted with more than 40 community leaders from a three county region (Lackawanna, Luzerne, and Wayne Counties). Community leaders were identified by the community health needs assessment oversight committee for Geisinger Wyoming Valley Medical Center. Geisinger Wyoming Valley Medical Center is a 182-bed community hospital. The community forum was conducted by Tripp Umbach consultants and lasted approximately four hours.

Tripp Umbach presented the results from secondary data analysis, community leader interviews, and community surveys, and used these findings to engage community leaders in a group discussion. Community leaders were asked to share their vision for the community they represent, discuss an action plan for health improvement in their community and prioritize their concerns. Breakout groups were formed to pinpoint, determine, and identify issues/problems that were most prevalent and widespread in their community. Most importantly, the breakout groups were charged to identify ways to resolve their community's identified problems through innovative solutions in order to bring about a healthier community.

GROUP RECOMMENDATIONS:

The group provided many recommendations to address community health needs and concerns for residents in the Geisinger Wyoming Valley Medical Center service area. Below is a brief summary of the recommendations:

- **Evidence-based, multi-sector programming:** Community leaders indicated that there are community-based strategies available which are evidence-based practices that address some of the health needs discussed (i.e., tobacco use, health literacy, etc.). Community leaders further stressed that it will be important to focus planning efforts on evidence-based strategies to address the health needs in the area.
- **Align providers and non-profits to action oriented approach:** Community leaders felt that the health services in the community can ensure progress by developing action plans and establishing shared metrics to measure outcomes while reducing program duplication and maximizing resources.
- **Additional education and outreach efforts targeting vulnerable populations:** Community leaders recommended an increase in education and outreach efforts to target vulnerable populations related to common health issues, (i.e., diabetes, COPD, etc.) health services, (i.e., preventive care, screenings, free clinics, etc.), and healthy behaviors (i.e., smoking cessation, nutrition, physical activity, etc.). These programs would be culturally sensitive and aimed at improving health literacy.

Additionally, providers need to assess for understanding of information related to health and health literacy.

- ***Risk stratification in behavioral health:*** Community leaders indicated that lower risk behavioral health disorders can be managed in a primary care setting while serious mental illness requires behavioral health professionals to evaluate, manage medications and coordinate care.
- ***Increase the collaboration among providers:*** Community leaders recommended that providers collaborate more in order to maximize resources, and reduce duplication in an effort to increase sustainability of programs.
- ***Increase access to dental health services:*** Community leaders recommended increasing the awareness of the dental health services and need for regular oral health care, as well as increasing the number of providers.
- ***Increase the availability of care coordination:*** Community leaders recommended that care coordination and transitional care services be increased in the area.

PROBLEM IDENTIFICATION:

During the community planning forum process, community leaders discussed regional health needs that centered around four themes. These were:

1. **Behavioral Health and Substance Abuse**
2. **Affordability of Care**
3. **Resource Awareness and Health Literacy**
4. **Oral Health (Adults and Pediatric)**

The following summary represents the most important topic areas the community discussed at the planning retreat in order of priority. Community leaders believe the following concerns are the most pressing problems and are identified as the most manageable to address and tackle.

BEHAVIORAL HEALTH AND SUBSTANCE ABUSE:

Behavioral health and substance abuse services were discussed at the community forum. Community leaders focused their discussions primarily on the impact on child development, the limited number of providers, and the need for care coordination.

Perceived Contributing Factors:

- Behavioral health and substance abuse diagnoses impact the ability of parents to provide adequate care for children and child development.
- There are gaps in the available services for adults and children related to behavioral health and substance abuse diagnoses and treatment.

- Care coordination is needed among behavioral health and substance abuse providers.

AFFORDABILITY OF CARE:

Community leaders identified affordability of care as a health priority. Leaders focused discussions around Medicaid access issues, issues for undocumented residents, health insurance, and care coordination. Public school nurses perceived that healthy behavior in their communities is limited by resident

Perceived Contributing Factors:

- There are not enough primary care providers accepting new patients with Medicaid.
- There are residents who are not able to afford health insurance.
- There is a population of undocumented residents that do not have access to Medicaid (including children). Many free clinics in the area require specific forms of identification that undocumented residents do not have access to thus causing undocumented residents to have little to no access to affordable healthcare.
- Efforts to address the health needs of working poor residents are not always evidence-based and/or sustainable.
- Care coordination and transitional care are not always available due to lack of funding for these activities, though it is a need among the vulnerable population.

RESOURCE AWARENESS AND HEALTH LITERACY:

Community leaders discussed resource awareness and health literacy as a top health priority. Community leaders focused their discussions primarily on language barriers, system navigation issues, the education of vulnerable populations, and the cultural sensitivity of current literature in the community.

Perceived Contributing Factors:

- Language barriers cause challenges to efforts to improve health literacy and awareness of health services and resources.
- Socio-economic status may pose additional challenges to residents navigating available resources. For example, there are specific physicians that accept Medicaid insurance however, many health care professionals do not accept new patients with Medicaid coverage.
- While there are educational programs provided in the community; they do not offer the sensitivity related to literacy, language, lack of documentation, limited financial resources, and the overall understanding of culture that is necessary to be effective. Different approaches are necessary to target vulnerable populations to effectively share information about health conditions and healthy living.
- Residents are not always being assessed to determine their level of understanding and health literacy.

ORAL HEALTH (ADULT AND PEDIATRIC):

Community leaders discussed oral health as a top health priority. Community leaders focused their discussions primarily on the need for additional pediatric and adult dental providers.

Perceived Contributing Factors:

- There is a need for pediatric oral healthcare.
- Residents are not always aware of the dental services available in the community.
- There are insufficient low-cost or reduced dental services to meet the oral health needs of residents.

Secondary Data

Tripp Umbach worked collaboratively with the Geisinger Wyoming Valley Medical Center community health needs assessment oversight committee to develop a secondary data process focused on three phases: collection, analysis and evaluation. Tripp Umbach obtained information on the demographics, health status and socio-economic and environmental factors related to the health and needs of residents from the multi-community service area of Geisinger Wyoming Valley Medical Center. The process developed accurate comparisons to the state baseline of health measures utilizing the most current validated data. In addition to demographic data, specific attention was focused on two key community health index factors: Community Need Index (CNI) and Prevention Quality Indicators Index (PQI). Tripp Umbach provided additional comparisons and trend analysis for County Health Rankings, Prevention Quality Indicators and CNI data from 2012 to present.

Demographic Profile

The Geisinger Wyoming Valley Medical Center study area encompasses Luzerne County, and is defined as a zip code geographic area based on 80% of the hospital's inpatient volumes. The Geisinger Wyoming Valley Medical Center community consists of 26 zip code areas.

Demographic Profile – Key Findings:

- The Geisinger Wyoming Valley Medical Center study area includes 26 zip code areas, all within Luzerne County.
- The Geisinger Wyoming Valley Medical Center study area is projected to experience a 0.3% population growth over the next five years (2014 – 2019); this equates to approximately 1,118 more people in the primary service area.
- The average household income in 2014 for the Geisinger Wyoming Valley Medical Center study area is \$60,271; this is lower than state and national rates (\$69,931 and \$71,320 respectively).
- The Geisinger Wyoming Valley Medical Center study area reports more than a quarter of the households earning less than \$25K per year (27.4%); this rate is higher than state and national rates (24.0% and 24.5% respectively).
- The Geisinger Wyoming Valley Medical Center study area shows higher rates of older individuals than state and national norms. The Geisinger Wyoming Valley Medical Center study area has 18.6% of the population aged 65 and older; while Pennsylvania

reports 16.6% and the U.S. reports 14.2%. And the rate of residents aged 65 and older in the Geisinger Wyoming Valley Medical Center study area is projected to rise, from 18.6% to 21.0%.

- The Geisinger Wyoming Valley Medical Center study area and Luzerne County report 11.7% of the residents with less than a high school degree; this is higher than the state rate at 11.5% but lower than the national rate of 14.2%.
- The Geisinger Wyoming Valley Medical Center study area and Luzerne County report higher rates of Hispanic minorities as compared with the state average; 9.4% of the Geisinger Wyoming Valley Medical Center study area population identifies as Hispanic, 8.5% of the Luzerne County population, and only 6.5% of the Pennsylvania population identifies as Hispanic.

Community Need Index (CNI)

In 2005 Catholic Healthcare West, in partnership with Thomson Reuters, pioneered the nation's first standardized Community Need Index (CNI).⁵ CNI was applied to quantify the severity of health disparity for every zip code in Pennsylvania based on specific barriers to healthcare access. Because the CNI considers multiple factors that are known to limit healthcare access, the tool may be more accurate and useful than other existing assessment methods in identifying and addressing the disproportionate unmet health-related needs of neighborhoods.

The five prominent socio-economic barriers to community health quantified in CNI include: Income, Insurance, Education, Culture/Language and Housing. CNI quantifies the five socio-economic barriers to community health utilizing a five-point index scale where a score of 5 indicates the greatest need and 1, the lowest need.

Overall, the Geisinger Wyoming Valley Medical Center zip code areas have a CNI score of 3.2, indicating above average level of community health need in the hospital community. The CNI analysis lets us dig deeper into the traditional socio-economic barriers to community health and identify area where the need may be greater than the overall service area.

Table 5: CNI Scores for the Geisinger Wyoming Valley Medical Center Service Area by Zip Code

⁵ "Community Need Index." Catholic Healthcare West Home. Web. 16 May 2011. <http://www.chwhealth.org/Who_We_Are/Community_Health/STGSS044508>.

Zip	City	County	% of Pop. Renting	% of Pop. Unemployed	% of Pop. Uninsured	% of Pop. Minority	% of Pop. Limited English	% of Pop. w/ No Diploma	% of 65+ Pop. in Poverty	% of Adults Married w/ Children in Poverty	% of Adults Single w/ Children in Poverty	Income Rank	Insurance Rank	Education Rank	Culture Rank	Housing Rank	2014 CNI Score
18201	Hazleton	Luzerne	43.9%	10.8%	10.7%	47.7%	10.3%	19.8%	14.7%	32.2%	58.3%	5	4	4	5	5	4.6
18617	Glen Lyon	Luzerne	42.1%	11.0%	12.7%	28.9%	0.7%	17.2%	15.8%	58.3%	86.6%	5	4	4	4	5	4.4
18701	Wilkes Barre	Luzerne	90.5%	12.3%	21.5%	16.9%	1.2%	22.5%	34.4%	35.6%	48.8%	4	5	5	3	5	4.4
18702	Wilkes Barre	Luzerne	44.7%	8.6%	11.6%	28.0%	2.1%	13.7%	13.3%	30.7%	55.6%	5	4	3	4	5	4.2
18651	Plymouth	Luzerne	39.0%	10.9%	11.0%	8.9%	0.6%	16.4%	13.5%	26.6%	48.1%	4	4	4	3	5	4.0
18202	Hazleton	Luzerne	31.8%	9.4%	9.7%	27.2%	7.1%	14.3%	9.8%	37.7%	66.4%	5	3	3	4	4	3.8
18706	Wilkes Barre	Luzerne	33.4%	7.0%	10.1%	9.0%	0.6%	12.1%	12.4%	28.5%	59.6%	5	3	3	3	4	3.6
18709	Luzerne	Luzerne	42.6%	16.3%	11.9%	4.3%	0.3%	12.2%	11.2%	40.5%	84.4%	5	4	3	1	5	3.6
18634	Nanticoke	Luzerne	37.4%	9.2%	9.9%	6.1%	0.7%	14.0%	10.1%	27.4%	51.5%	4	3	3	2	5	3.4
18704	Kingston	Luzerne	41.0%	8.2%	10.0%	9.2%	0.8%	10.6%	11.9%	23.3%	45.6%	4	3	2	3	5	3.4
18705	Wilkes Barre	Luzerne	33.0%	10.0%	8.8%	12.3%	1.4%	11.0%	10.6%	19.8%	49.2%	4	3	3	3	4	3.4
18224	Freeland	Luzerne	27.3%	6.2%	10.2%	7.9%	1.3%	10.5%	12.2%	19.2%	60.9%	5	3	2	2	4	3.2
18640	Pittston	Luzerne	32.9%	11.5%	9.1%	5.4%	0.7%	12.3%	12.6%	11.3%	26.0%	2	3	3	2	4	2.8
18643	Pittston	Luzerne	28.7%	7.3%	7.7%	3.7%	0.2%	9.3%	9.4%	20.2%	61.0%	5	2	2	1	4	2.8
18642	Duryea	Luzerne	27.9%	12.3%	7.8%	4.3%	0.2%	8.3%	6.0%	17.5%	34.2%	3	3	2	1	4	2.6
18612	Dallas	Luzerne	21.5%	8.8%	7.3%	3.6%	0.5%	9.1%	9.7%	10.3%	41.3%	3	2	2	1	3	2.2
18641	Pittston	Luzerne	25.0%	8.9%	6.2%	4.6%	0.4%	9.7%	6.7%	12.0%	31.1%	2	2	2	2	3	2.2
18644	Wyoming	Luzerne	25.5%	6.6%	8.0%	3.2%	0.3%	7.3%	8.2%	16.7%	41.5%	3	2	1	1	4	2.2
18655	Shickshinny	Luzerne	18.6%	7.0%	7.1%	3.0%	0.5%	11.3%	11.3%	12.5%	33.6%	3	2	3	1	2	2.2
18708	Shavertown	Luzerne	13.2%	3.9%	4.9%	14.9%	0.4%	8.6%	5.7%	9.3%	57.9%	4	1	2	3	1	2.2
18621	Hunlock Creek	Luzerne	12.3%	5.4%	6.6%	2.8%	0.3%	12.3%	11.3%	15.7%	40.8%	3	2	3	1	1	2.0
18661	White Haven	Luzerne	13.1%	8.2%	5.6%	5.4%	0.7%	9.3%	5.7%	14.7%	41.7%	3	2	2	2	1	2.0
18222	Drums	Luzerne	15.1%	4.8%	4.5%	9.9%	1.4%	6.8%	2.8%	8.5%	21.4%	2	1	1	3	1	1.6
18618	Harveys Lake	Luzerne	18.7%	7.5%	5.2%	2.8%	0.3%	6.4%	3.2%	6.0%	18.0%	1	2	1	1	2	1.4
18660	Wapwallopen	Luzerne	12.3%	7.6%	4.2%	3.0%	0.2%	8.8%	7.9%	7.1%	33.3%	2	1	2	1	1	1.4
18707	Mountain Top	Luzerne	11.0%	7.2%	4.5%	7.0%	0.3%	5.1%	3.0%	2.7%	8.5%	1	1	1	2	1	1.2
Geisinger Wyoming Valley Medical Center Community Summary			32.3%	8.6%	9.0%	14.8%	2.0%	11.9%	10.7%	21.8%	47.0%	3.8	2.8	2.6	2.8	3.8	3.2

- Higher CNI scores indicate greater number of socio-economic barriers to community health. The areas with the greatest barriers to accessing healthcare are Hazleton, Glen Lyon, and Wilkes-Barre. These are the areas where the highest prevalence rates for poor health outcomes can be found and where the greatest consumption of healthcare resources takes place.

- The highest CNI score for the Geisinger Wyoming Valley Medical Center study area is 4.6 in the zip code area of 18201-Hazleton in Luzerne County. The highest CNI score indicates the most barriers to community health care access. This zip code area holds the highest measures for the study area for:
 - ✓ Minority population at 47.7%
 - ✓ Population with limited English proficiency at 10.3%
- Zip code area 18701-Wilkes-Barre shows the highest rates for the study area for: renters (90.5%), uninsured (21.5%), residents with no high school diploma (22.5%), and residents aged 65 and older living in poverty (34.4%).
- Zip code area 18617-Glen Lyon reports the highest rates across the Geisinger Wyoming Valley Medical Center study area of families with married or single parents living in poverty (58.3% of married parents, 86.6% of single parents living in poverty).
- The overall CNI score for the Geisinger Wyoming Valley Medical Center study area is 3.2. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). Therefore, according to the overall CNI score, the Geisinger Wyoming Valley Medical Center study area experiences higher than average barriers to health care access.
- From 2011 to 2014, the overall CNI value for the Geisinger Wyoming Valley Medical Center study area went from the average value for the scale at 3.0 to 3.2; an increase that means a rise in the number of barriers to health care access.
- Overall, the Geisinger Wyoming Valley Medical Center study area rose from a 2011 CNI score of 2.7 to a CNI score of 2.9 in 2014 (an increase of 0.2). This indicates a rise in the number of barriers to health care for the Geisinger Wyoming Valley Medical Center service area population. Tripp Umbach did not complete the CHNA for Geisinger Wyoming Valley Medical Center in the past; however, Tripp Umbach had the relevant CNI data from other projects that we completed.

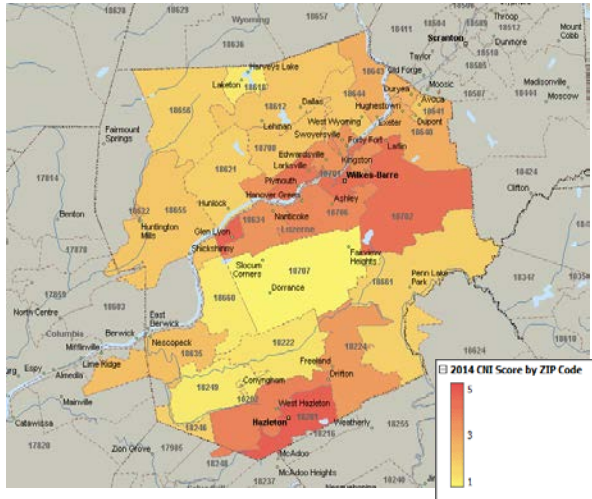
From 2011 to 2014:

- The overall CNI value for the Geisinger Wyoming Valley Medical Center study area went from the average value for the scale at 3.0 to 3.2; a slight increase that means a slight rise in the number of barriers to health care access.
- Of the 26 zip code areas in the Geisinger Wyoming Valley Medical Center study area:
 - ✓ 12 experienced rises (worsening) in CNI score

- ✓ 10 saw declines in CNI score
- ✓ 4 remained consistent
- ✓ The largest increase in CNI score (more barriers) was for Plymouth (18651) going from 3.2 to 4.0.

Table 7: CNI Score Trending (2011-2014) for the Geisinger Wyoming Valley Medical Center Service Area by Zip Code

Zip	City	County	2011 CNI Score	2014 CNI Score	2011 – 2014 Change
18201	Hazleton	Luzerne	4.0	4.6	+ 0.6
18617	Glen Lyon	Luzerne	4.8	4.4	- 0.4
18701	Wilkes Barre	Luzerne	4.2	4.4	+ 0.2
18702	Wilkes Barre	Luzerne	3.8	4.2	+ 0.4
18651	Plymouth	Luzerne	3.2	4.0	+ 0.8
18202	Hazleton	Luzerne	3.6	3.8	+ 0.2
18706	Wilkes Barre	Luzerne	3.4	3.6	+ 0.2
18709	Luzerne	Luzerne	3.4	3.6	+ 0.2
18634	Nanticoke	Luzerne	3.6	3.4	- 0.2
18704	Kingston	Luzerne	3.2	3.4	+ 0.2
18705	Wilkes Barre	Luzerne	2.8	3.4	+ 0.6
18224	Freeland	Luzerne	2.8	3.2	+ 0.4
18640	Pittston	Luzerne	3.0	2.8	- 0.2
18643	Pittston	Luzerne	2.8	2.8	0.0
18642	Duryea	Luzerne	2.4	2.6	+ 0.2
18612	Dallas	Luzerne	1.8	2.2	+ 0.4
18641	Pittston	Luzerne	2.4	2.2	- 0.2
18644	Wyoming	Luzerne	2.6	2.2	- 0.4
18655	Shickshinny	Luzerne	2.2	2.2	0.0
18708	Shavertown	Luzerne	2.2	2.2	0.0
18621	Hunlock Creek	Luzerne	2.0	2.0	0.0
18661	White Haven	Luzerne	2.2	2.0	- 0.2
18222	Drums	Luzerne	1.8	1.6	- 0.2
18618	Harveys Lake	Luzerne	2.0	1.4	- 0.6
18660	Wapwallopen	Luzerne	1.8	1.4	- 0.4
18707	Mountain Top	Luzerne	1.8	1.2	- 0.6
Geisinger Wyoming Valley Medical Center Community Study Area			3.0	3.2	+ 0.2



Luzerne County zip code areas that showed higher CNI scores worsened since 2011 while those zip code areas with lower CNI scores improved. There were 12 zip code areas that saw an increase in the barriers to accessing healthcare (+0.2 to +0.8); whereas 13 zip code areas saw a decrease or no change at all (0.0 to -0.6). The zip code areas that showed an increase in barriers showed greater increases and decreases were not as significant. This means that there are pockets of populations with limited access to health services, which are getting worse.

County Health Rankings

The County Health Rankings show that where we live impacts our health status. The health of a community depends on many different factors – from individual health behaviors, education and jobs, to quality of healthcare and the environment. The rankings help community leaders see that where we live, learn, work and play influences how healthy we are and how long we live.

The County Health Rankings are a key component of the Mobilizing Action Toward Community Health (MATCH) project. MATCH is the collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The rankings identify the multiple health factors that determine a county’s health status. Each county receives a summary rank for its health outcomes and health factors – the four different types of health factors include: health behaviors, clinical care, social and economic factors, and the physical environment. The Rankings are a real “Call-to-Action” for state and local health departments to develop broad-based solutions with others in their community so all residents can be healthy. But efforts will also be made to mobilize community leaders outside the public health sector to take action and invest in programs and policy changes that address barriers to good health and help residents lead healthier lives. Other community leaders may include: educators; elected and appointed officials, including mayors, governors, health commissioners, city/county councils, legislators, and staff; business owners; and the healthcare sector.

Counties in each of the 50 states are ranked according to summaries of the 37 health measures. Those having good rankings, e.g., 1 or 2, are considered to be the “healthiest.” Counties are ranked relative to the health of other counties in the same state on the following summary measures:

- Health Outcomes — Two types of health outcomes are measured to represent the health of each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by existing programs and policies at the local, state and federal levels.
- Health Factors — A number of different health factors shape a community's health outcomes. The County Health Rankings are based on weighted scores of four types of factors: Health behaviors (six measures), Clinical care (five measures), Social and economic (seven measures), Physical environment (four measures).

Pennsylvania has 67 counties; therefore, the rank scale for Pennsylvania is one to 67 (one being the healthiest county and 67 being the most unhealthy). The median rank is 34. Data for the County Health Rankings is only defined as far as the county level, zip code level data is not available. Therefore, the county level data has been presented here (no Geisinger Wyoming Valley Medical Center service area level data is available).

- When looking at the scale of 1 to 67, with 67 being the worst, Luzerne County has a number of county health rankings in the high range including:
 - ✓ Health Outcomes (57)
 - ✓ Health Factors (58)
 - ✓ Mortality (55)
 - ✓ Morbidity (55)
 - ✓ Social and Economic Factors (63)
- Luzerne County reports higher specific measure rates than the state for:
 - ✓ Adult Smoking - Luzerne County = 25%, PA = 20%
 - ✓ Adult Obesity - Luzerne County = 30%, PA = 29%
 - ✓ Excessive Drinking - Luzerne County = 20%, PA = 17%
 - ✓ Unemployment - Luzerne County = 9.1%, PA = 7.9%
 - ✓ Inadequate Social Support - Luzerne County = 22%, PA = 21%

From 2011 to 2014, Luzerne County saw the following shifts in county health rankings or data:

- Going to unhealthier rankings for:
 - ✓ Health Factors; going from 30 to 58.
 - ✓ Social and Economic Factors going from 32 to 63
- Going to healthier rankings for:
 - ✓ Mortality going from 63 to 55

- Luzerne County showed a decline in the adult smoking rate from 2011 to 2014, going from 27% to 25%
- A rise in the sexually transmitted infection/chlamydia rate from 214 per 100,000 pop. to 234 per 100,000 pop.
- A rise in the PCP rate from 70 per 100,000 pop. to 80 per 100,000 pop. (this is a good thing).
- Mammography screening rate for Luzerne County rose from 58.6% in 2011 to 61.6% in 2014.
- The violent crime rate for Luzerne County declined from 317 per 100,000 pop. to 289 per 100,000 pop.

Prevention Quality Indicators Index (PQI)

The Prevention Quality Indicators index (PQI) was developed by the Agency for Healthcare Research and Quality (AHRQ). The AHRQ model was applied to quantify the PQI within the Geisinger Wyoming Valley Medical Center market service area and Pennsylvania. The PQI index identifies potentially avoidable hospitalizations for the benefit of targeting priorities and overall community health.

The quality indicator rates are derived from inpatient discharges by zip code using ICD diagnosis and procedure codes. There are 14 quality indicators. Lower index scores represent fewer admissions for each of the PQIs.

From 2011 to 2014, there were a handful of data methodology changes. For each, Tripp Umbach went to past data and adjusted as necessary to make comparable. They are as follows:

- ❖ In the past, PQI data was presented as a value per 1,000 population. The AHRQ has revised this and the current data is presented as a value per 100,000 population. Tripp Umbach adjusted to match these as needed.
- ❖ PQI 2 changed from Perforated Appendix in Males 18+ for the past study to Perforated Appendix in Total 18+ population as a rate per 1,000 ICD-9 code admissions for appendicitis. This shift has changed the values for this measure drastically and therefore, Tripp Umbach did not adjust.
- ❖ PQI 5 changed from COPD in 18+ population to COPD or Asthma in “Older adults” 40+ population. Tripp Umbach did not adjust.
- ❖ Although not clearly explained by the AHRQ, it would seem that a definition of Newborn population has shifted for PQI 9 because the values are drastically lower in 2014 than in

previous years (2011). This has shifted PQI 9 values drastically. Tripp Umbach did not adjust.

- ❖ PQI 15 changed from Adult Asthma in 18+ population in past study to Asthma in Younger Adults 18-39 population. Tripp Umbach did not adjust.

OVERALL:

There are higher rates throughout the study area for Perforated Appendix, COPD/Adult Asthma, Congestive Heart Failure and Uncontrolled Diabetes, Dehydration, Bacterial Pneumonia, Urinary Tract Infection, Uncontrolled Diabetes, and Asthma in Younger Adults.

Table 3: Prevention Quality Indicators – County-by-County Comparison to Pennsylvania

Prevention Quality Indicators (PQI)	Luzerne County	PA
Diabetes Short-Term Complications (PQI1)	62.50	115.16
Perforated Appendix (PQI2)	548.57	343.91
Diabetes Long-Term Complications (PQI3)	111.32	119.79
Chronic Obstructive Pulmonary Disease or Adult Asthma(PQI5)	656.93	578.80
Hypertension (PQI7)	38.28	53.99
Congestive Heart Failure (PQI8)	440.59	418.29
Low Birth Weight (PQI9)	29.94	37.50
Dehydration (PQI10)	85.15	61.90
Bacterial Pneumonia (PQI11)	401.53	326.16
Urinary Tract Infection (PQI12)	219.52	197.51
Angina Without Procedure (PQI13)	9.37	11.80
Uncontrolled Diabetes (PQI14)	16.01	14.20
Asthma in Younger Adults (PQI15)	67.73	63.34
Lower Extremity Amputation Among Diabetics (PQI16)	25.78	26.40

- **Luzerne County** Luzerne shows PQI rates higher than the state for eight measures, though Perforated Appendix (PQI2), Uncontrolled Diabetes (PQI14), and Asthma in Younger Adults (PQI15) show higher hospitalization rates than the state and all other counties (13 total) served by Geisinger Wyoming Valley Medical Center. The other areas that show higher rates than the state are:
 - ✓ Chronic Obstructive Pulmonary Disease or Adult Asthma(PQI5)
 - ✓ Congestive Heart Failure (PQI8)
 - ✓ Dehydration (PQI10)
 - ✓ Bacterial Pneumonia (PQI11)

✓ Urinary Tract Infection (PQI12)

Table 4: Prevention Quality Indicators – Geisinger Wyoming Valley Medical Center Service Area Compared to Pennsylvania with Trending

Prevention Quality Indicators (PQI)	2014 - Geisinger Wyoming Valley Medical Center Study Area			2011 PQI Geisinger Wyoming Valley Medical Center	2014 PQI Geisinger Wyoming Valley Medical Center	Difference
	Study Area	PA	Difference			
Diabetes Short-Term Complications (PQI1)	65.33	115.16	- 49.83	69.07	65.33	- 3.74
Perforated Appendix (PQI2)	552.94	343.91	+ 209.03	0.28	552.94	+ 552.66
Diabetes Long-Term Complications (PQI3)	111.47	119.79	- 8.32	115.96	111.47	- 4.49
Chronic Obstructive Pulmonary Disease or Adult Asthma (PQI5)	663.48	578.80	+ 84.68	327.37	663.48	+ 336.11
Hypertension (PQI7)	40.02	53.99	- 13.97	30.56	40.02	+ 9.46
Congestive Heart Failure (PQI8)	440.17	418.29	+ 21.88	469.28	440.17	- 29.11
Low Birth Weight (PQI9)	29.78	37.50	- 7.72	2.67	29.78	+ 27.11
Dehydration (PQI10)	86.16	61.90	+ 24.26	109.26	86.16	- 23.10
Bacterial Pneumonia (PQI11)	407.51	326.16	+ 81.35	435.79	407.51	- 28.28
Urinary Tract Infection (PQI12)	223.35	197.51	+ 25.84	226.06	223.35	- 2.71
Angina Without Procedure (PQI13)	9.39	11.80	- 2.41	20.93	9.39	- 11.54
Uncontrolled Diabetes (PQI14)	16.33	14.20	+ 2.13	25.12	16.33	- 8.79
Asthma in Younger Adults (PQI15)	69.21	63.34	+ 5.87	145.26	69.21	- 76.05
Lower Extremity Amputation Among Diabetics (PQI16)	25.72	26.40	- 0.68	43.04	25.72	- 17.32

Source: Calculations by Tripp Umbach

- The Geisinger Wyoming Valley Medical Center study area shows eight of the 14 PQI measure that are higher than the state PQI value – indicating higher preventable hospital admission rates for the following:
 - ✓ PQI 2 – Perforated Appendix (Study Area = 552.94; PA = 343.91)
 - ✓ PQI 5 – COPD or Adult Asthma (Study Area = 663.48; PA = 578.80)

- ✓ PQI 8 – Congestive Heart Failure (Study Area = 440.17; PA = 418.29)
 - ✓ PQI 10 – Dehydration (Study Area = 86.16; PA = 61.90)
 - ✓ PQI 11 – Bacterial Pneumonia (Study Area = 407.51; PA = 326.16)
 - ✓ PQI 12 – Urinary Tract Infection (Study Area = 223.35; PA = 197.51)
 - ✓ PQI 14 – Uncontrolled Diabetes (Study Area = 16.33; PA = 14.20)
 - ✓ PQI 15 – Asthma in Younger Adults (Study Area = 69.21; PA = 63.34)
- The largest PQI differences between the Geisinger Wyoming Valley Medical Center study area and PA are:
 - ✓ Worse than PA: Perforated Appendix in which PA shows a rate of preventable hospitalizations due to perforated appendix at 343.91 per 100,000 population, whereas the Geisinger Wyoming Valley Medical Center study area shows a rate of 552.94 preventable hospitalizations per 100,000 population (more than 200 more preventable hospitalization per 100,000 pop.; or 60% more).
 - ✓ Better than PA: Diabetes Short-term complications for the Geisinger Wyoming Valley Medical Center study area reports 65.33 preventable hospitalizations per 100,000 while the state reports a rate of 115.16 per 100,000 pop.
 - While there are higher than average preventable hospitalizations in the Geisinger Wyoming Valley Medical Center service area; there are drastic improvements between 2011 and the current assessment.
 - ✓ Of the 10 PQI measures that can be compared from 2011 and present, nine of the 10 measures saw reductions in PQI rates from 2011 to 2014 (fewer preventable hospitalizations). The largest reduction was for Congestive Heart Failure (going from 469.28 preventable hospitalizations per 100,000 to 440.17 per 100,000).
 - One PQI value for Geisinger Wyoming Valley Medical Center saw a rise in preventable hospitalizations, this was for Hypertension; going from 30.56 per 100,000 pop. to 40.02 per 100,000 pop.

CDC National Center for Health Statistics:

Centers for Disease Control and Prevention National Center for Health Statistics includes indicators from: County Health Rankings (CHR); Community Health Status Indicators (CHSI); Healthy People 2020; Centers for Medicare & Medicaid Services (CMS) indicators (a set of community-level, Medicare utilization, socio-demographic, patient safety and quality indicators); Health, United States; and additional indicators as determined by the HHS Interagency Governance Group.

Table 5: Health Indicators Warehouse – County-Level Indicators Compared to State and National Benchmarks

CDC National Center for Health Statistics (2010-2012)**	HP 2020	U.S.	PA	Luzerne County
2011 Primary care providers (per 100,000)	--	--	92.7	71.1
2011 Dentist rate (per 100,000)	--	--	59.1	57.1
2012 Acute Hospital Readmissions (%)*	--	18.6%	18.4%	18.5%
Births: women under 18 years (%)	--	2.3%	2.3%	2.8%
Cancer Death Rate (per 100,000 pop.) *	160.6	169.3	178.3	177.2
Breast cancer deaths (per 100,000)*	20.6	21.7	23	20.2
Colorectal cancer deaths (per 100,000)*	14.5	15.3	16.4	19.1
Alzheimer's disease deaths (per 100,000) *	--	24.5	19.3	19.3
Chronic lower respiratory disease deaths (per 100,000)*	--	42.1	38.8	39
Coronary heart disease deaths (per 100,000) *	100.8	105.4	112.4	146.6
Diabetes deaths (per 100,000) *	--	21.2	21.1	31.5
Drug poisoning deaths (per 100,000) *	--	12.9	17.5	18
Fall deaths (per 100,000) *	--	8.1	8.6	4.7
Heart disease deaths (per 100,000) *	--	174.4	183.5	213
Influenza and pneumonia deaths (per 100,000) *	--	15.1	14.4	11.1
Injury deaths (per 100,000) *	53.3	58.1	63	65.1
Kidney diseases deaths (per 100,000) *	--	13.9	16.8	14.8
Lung, trachea, and bronchus cancer deaths (per 100,000) *	--	46.1	47.9	46.8
Motor vehicle traffic deaths (per 100,000) *	--	10.8	10.4	11.8
Septicemia deaths (per 100,000) *	--	10.5	13.3	12.7
Stroke deaths (per 100,000) *	33.8	38	38.8	33.9
Suicide deaths (per 100,000) *	10.2	12.3	12.5	16.1

** Source: Centers for Disease Control and Prevention. National Center for Health Statistics. Health Indicators Warehouse. www.healthindicators.gov.

*Rates are age adjusted to 2000 std. pop.

-- meaning: data not available

The trend in the CDC National Center for Health Statistics data suggests that Luzerne County consistently shows the poor health outcomes related to lifestyle diseases (i.e., diabetes, heart disease, etc.) when compared to the state and national benchmarks.

- ✓ Luzerne County has fewer providers (Primary care) than is average for PA (92.7 per 100,000 pop. respectively).
 - **Primary Care Providers** –Luzerne County shows 71.1 per 100,000 pop. primary care providers
 - **Dental Providers** –Luzerne County has rates similar to the state (57.1 and 59.1 per 100,000 pop. respectively).

- ✓ Luzerne County shows a percentage of **acute hospital readmissions** (18.5%) (Inpatient readmissions within 30 days of an acute hospital stay) that is average for the nation and the state (18.6% and 18.4% respectively).
- ✓ The percentage of **live births to women that are below 18 years of age** is similar to the state and national average (2.3% each) for Luzerne County.
- ✓ The **deaths due to cancer** are higher in PA than the national average for every type of cancer observed in this study (i.e., overall, breast, and colorectal). Luzerne County shows similar death rates to the state with the exception of **deaths due to colorectal cancer** where Luzerne County shows higher rates (19.1 per 100,000 pop.) than the state or the nation (16.4 and 15.3 per 100,000 pop. respectively). The Healthy People 2020 goal is set at 14.5 per 100,000 pop.
- ✓ Luzerne County shows the same as or fewer **deaths related to Alzheimer's disease** (19.3 per 100,000 pop) than the state (19.3 per 100,000 pop.) and national rate (24.5 per 100,000 pop.).
- ✓ Luzerne County shows below average or fewer **deaths due to chronic lower respiratory disease** (39 per 100,000 pop.) than the state and nation (38.8 and 42.1 per 100,000 pop. respectively).
- ✓ Luzerne County shows higher **deaths due to coronary heart disease** (146.6 per 100,000 pop.) than the state, and the nation (112.4 and 105.4 per 100,000 pop. respectively). The Healthy People 2020 goal is set at 100.8 per 100,000 pop.
- ✓ Luzerne County shows higher **deaths due to diabetes** (31.5 per 100,000 pop) than the state (21.1 per 100,000 pop.), the nation (21.2 per 100,000 pop.).
- ✓ Luzerne County has significantly higher **deaths due to heart disease** (213 per 100,000 pop.) than the state (183.5 per 100,000 pop.) or nation (174.4 per 100,000 pop.).
- ✓ **Injury death rates** are similar for Luzerne County (65.1 per 100,000 pop.) when compared to the state and the national rates (63 and 58.1 per 100,000 pop respectively). The Healthy People 2020 goal is set at 53.3 per 100,000 pop.
- ✓ Luzerne County shows slightly higher **deaths due to motor vehicle traffic** (11.8 per 100,000 pop.) than state and national rates (10.4 and 10.8 per 100,000 pop. respectively).
- ✓ Luzerne County shows higher **deaths due to suicide** (16.1 per 100,000 pop) than state and national rates (12.5 and 12.3 per 100,000 pop. respectively). Healthy People 2020 goal is set at 10.2 per 100,000 pop.

Key Stakeholder Interviews

Tripp Umbach conducted interviews with community leaders in the Geisinger Wyoming Valley Medical Center service area. Leaders who were targeted for interviews encompassed a wide variety of professional backgrounds including: 1) public health expertise; 2) professionals with access to community health related data; and 3) representatives of underserved populations (See Appendix 1 for a list of participating organizations). The interviews offered community leaders an opportunity to provide feedback on the needs of the community, secondary data resources, and other information relevant to the study.

This report represents a section of the overall community health needs assessment project completed by Tripp Umbach.

DATA COLLECTION:

The following qualitative data were gathered during individual interviews with 15 stakeholders of the Geisinger Wyoming Valley Medical Center service area, as identified by an advisory committee of Geisinger Wyoming Valley Medical Center. Geisinger Wyoming Valley Medical Center is a 182-bed community hospital. Each interview was conducted by a Tripp Umbach consultant and lasted approximately 60 minutes. All respondents were asked the same set of questions developed by Tripp Umbach and previously reviewed by the Geisinger Wyoming Valley Medical Center advisory committee. The purpose of these interviews was for stakeholders to identify health issues and concerns affecting residents in the Geisinger Wyoming Valley Medical Center service area, as well as ways to address those concerns.

There was a diverse representation of community-based organizations and agencies among the 15 stakeholders interviewed. Those organizations represented included:

- Advocacy Alliance
- GHS Family
- Allied Services Foundation
- United Way of Wyoming Valley
- Scranton Chamber of Commerce
- The Wright Center Healthy
- Northeast Pennsylvania Initiative
- PA Office of Rural Health
- Pennsylvania Department of Health, Northeast District
- Volunteers in Medicine Free Clinic
- Rehabilitation Community Providers Association (RCPA)
- Scranton School District
- United Neighborhood Centers
- Catholic Social Services
- Wilkes-Barre City Health Department

STAKEHOLDER RECOMMENDATIONS:

The stakeholders provided many recommendations to address health issues and concerns for residents living in the Geisinger Wyoming Valley Medical Center service area. Below is a brief summary of the recommendations:

- Preventive screening is happening at a population health level. Integration of addiction services as a normal component of care reduces stigma of the question and the illnesses of behavioral health. Same as tobacco screenings and referral processes in the ER. Providers have to increase their competency and partnerships to be able to provide care when screenings turn up issues for patients.
- Integration of service lines including behavioral health is untapped potential in patient improvement and population health.
- Access to care needs to be improved through provider collaboration and strategic planning in order to take a holistic approach to service provision.
- While community-based organizations, agencies, and health providers collaborate effectively now; insurance companies could incentivize more formal collaborations with an aim of improving population health.
- Implementing evidence-based medicine to treat health issues and address health needs, which will take continued collaboration among community organizations and a commitment to evidence-based practices.
- Stakeholders felt that there is a need to increase outreach education. They recommended professionals that are culturally competent to disseminate health education outreach in a culturally sensitive way in order for it to be effective.
- Increase homecare and additional support to maintain residents in home settings.
- Begin using AHEC groups to get people to go into health care professions to represent a cultural competence in order to ensure that minorities are represented in the professionals that are providing services to residents.
- Change the culture of health care delivery to a team-based delivery system which maximizes patient engagement and minimizes co-dependence with integration of service lines including behavioral health.
- There is a need for education about effective health care and focus on patient engagement and building resiliency. Patients crave development and inclusion in the solution and problem-solving.
- Employee health programs and school-based health programs are multipliers of the benefits of population health practices, and there is not a significant practice of population health among many major employers or public schools.
- States around PA have a tracking system to track prescription drug abusers, which would be useful to implement in PA.

PROBLEM IDENTIFICATION:

During the interview process, the stakeholders stated six overall health needs and concerns in their community. In order of most discussed to least discussed topics, these were:

1. Behavioral health, including substance abuse
2. Availability of health services
3. Delay/resistance in seeking health services
4. Lifestyle of residents
5. Common health issues
6. Environmental influence

NEED FOR BEHAVIORAL HEALTH INCLUDING SUBSTANCE ABUSE SERVICES:

Behavioral health services and issues were discussed separate from medical or dental health services, with every stakeholder identifying at least one health need related to behavioral health and/or substance abuse services.

1. Care coordination –Behavioral health services can be fragmented, particularly at the intersection of behavioral health and medical health services. Additionally, there is a stigma associated with mental illness that may cause residents to resist evaluations and treatments. Stakeholders noted that primary care physicians are not always referring residents for behavioral health evaluations. Stakeholders noted that residents with behavioral health diagnoses experience difficulty accessing medical and dental health services due to transportation, cost, and a perception that they are treated differently due to their behavioral health status. Also, there is reportedly limited integration between behavioral health and substance abuse services, making it difficult to effectively treat co-occurring disorders.
2. Shortage of behavioral health services – Stakeholders recognized that while there are behavioral health services; there is a shortage of services (i.e., treatment for low-income populations, psychiatry in general, inpatient and outpatient treatment) in relationship to the demand, causing lengthy wait lists throughout the services area. Psychiatric acute care beds have declined to the extent that residents must be placed outside the service area in many cases. As a result, families may not be able to participate in visitation and/or treatment opportunities, which may make it difficult for residents to successfully integrate into the community upon discharge. Stakeholders indicated that mental illness is a cause of costly disabilities and premature death (i.e., higher rates of suicide). Additionally, stakeholders noted that behavioral health issues are prevalent among homeless populations and there are not many services for this population. Behavioral health services for dual-diagnosis are lacking in the area and will require co-location/integration of substance abuse providers and behavioral health services. Stakeholders note that suicide rates are high in the area.
3. Poor treatment outcomes – Stakeholders drew a connection between substance abuse and poor health outcomes (i.e., higher suicide rates, motor vehicle accidents, etc.) due to a resistance to seek treatment, inability to afford treatment options, transportation issues, and/or limited

follow through with treatment recommendations. Often, residents are in denial that there is a substance abuse issue and do not seek treatment at all.

4. Substance abuse – Nine out of 10 stakeholders identified substance abuse as a health need in their communities. Discussions focused on the high rate of addiction, availability of drugs, and lack of local treatment options. While stakeholders recognized substance abuse is a personal choice; they noted that there appears to be a generational influence as well as a higher prevalence among lower-income families. There is easy access to drugs in the area due to trafficking and trade from larger cities taking place along the major highways. Additionally, Methamphetamine laboratories are being identified in rural communities. Stakeholders made a connection between income status and substance abuse, noting that lower-income residents may be self-medicating to help them cope. The most common drugs appear to be Methamphetamines, heroine, alcohol, marijuana, and tobacco. The cost of treatment may make it unaffordable to residents with a history of substance abuse due to limited finances and a lack of insurance coverage. Also, stakeholders noted that facilities have lengthy waiting list and it may be difficult to get in if a resident is viewed as a repeat offender. Many residents with a substance abuse history also have criminal records, which creates additional barriers to employment and housing. With higher unemployment in the area, residents with a history of substance abuse and a record of incarceration are competing with residents without any record for low-wage employment. There is frustration among providers that struggle to connect residents in recovery to employment opportunities because employment is one factor that influences recidivism rates.

Stakeholders discussed the following consequences of health needs related to behavioral health and substance abuse services:

- Poorer health outcomes related to behavioral health and substance abuse.
- Residents being hospitalized for inpatient behavioral health treatment a great distance from home may make it more difficult to integrate back into the community, which may cause poor treatment outcomes.

AVAILABILITY OF HEALTH SERVICES:

Two-thirds of stakeholders articulated a lack of availability of health services (medical, dental, behavioral) in the hospital service area. The availability of services was related most often to the number of practicing professionals, acceptance of insurances, and location of providers.

1. Number of practicing professionals – Physicians are migrating out of the area, reducing the number of available primary care physicians. The shortage of health professionals (i.e., primary care physicians, some specialists, general psychiatrists, qualified nurses, aides, qualified direct care workers, geriatricians, orthodontists, neurologists, child psychiatrists, pediatric dentists, and dentists accepting Medicaid) is compounded by the difficulty in recruiting new professionals to the poorest and most rural areas in the hospital service area. There is a lack of general psychiatry, dental care, and preventive care, and psychiatric inpatient/outpatient care, in the area as well. While there are a few dental providers accepting Medicaid; they are not accepting new patients. There is a dental clinic in the service area; however, it is small and can take up to

three months to get an appointment. Several free clinics have been expanded in the service area (i.e., The Wright Center, The Leahy Center, etc.)

2. Acceptance of insurances – There are limited health providers offering care (i.e., dental, long-term care, routine/preventive, behavioral) to residents that are uninsured or insured with certain types of insurance (Medicaid, etc.); leaving existing services to be inaccessible to under/uninsured residents. Long-term care resources are being strained by local demand (can be managed by an increase in home care).
3. Children in the mid-income bracket may not have access to insurances that cover primary and preventive care. Residents may not qualify for CHIPS and children are left uninsured. There are some clinics that provide care to this population, but if families are not able to access these clinics, then these children are not receiving preventive care, routine care, or any type of care coordination. There is a shortage of providers that offer care to residents with Medicaid insurance.
4. Residents that do not have citizenship are often ineligible for any type of insurances (including children) due to a lack of documentation for applications, which is also required by many free clinics and FQHCs to qualify for services. Residents without citizenship status may not be able to secure any type of health services in their area. Homeless residents do not always have access to necessary health services (i.e., diabetic treatment options, healthy foods, behavioral health care, dental care, vision, etc.) due to a lack of insurance.
5. Funding – Stakeholders felt that services are underfunded (i.e., behavioral health and substance abuse). Stakeholders indicated that there is a disconnect between funding and service providers that are providing necessary services to the extent that programs are not being fully funded to allow residents to receive evidence-based care to effectively treat common health issues (i.e., smoking, behavioral health, substance abuse, etc.). Residents are not receiving treatments that are long enough or intense enough to fully resolve their issues (i.e., inpatient treatments). Stakeholders questioned whether or not adequate resources exist to meet health needs in their communities. There are fundraisers for cancer in the area lead by national organizations which take the majority of dollars raised out of the area.
6. Location of providers – Stakeholders noted that there are pockets of poverty where health services are available but not accessible. Also, stakeholders articulated that there are a lack of providers (i.e., specialists, dentists, etc.) taking new patients that are covered by the type of insurances carried by traditionally low-income populations (i.e., Medicaid). Stakeholders also noted that the issues with transportation in the area further magnify the impact of the distance between providers that the availability of health services has on the health outcomes of the most rural populations served by Geisinger Wyoming Valley Medical Center. According to stakeholders, there are some counties in the service area that have free clinics available and other counties that do not have free clinic services. Low-income residents do not have much access to care due to the costs (i.e., transportation, copays, medical bills, medications, etc.) that can be associated with seeking health services (i.e., medical, dental, behavioral). According to stakeholders, health services can be difficult to secure for persons with disabilities due to a lack of viable transportation options, physical accessibility issues, the need for intensive accompaniment, communication barriers, a lack of health insurance, and limited finances for copays, prescriptions, transportation, etc.
7. Care coordination – Patient-centered care is not always being provided to residents. As rates of insured residents increase, residents will need assistance navigating the health services that exist because there will be some residents that have no experience with the health system.

Stakeholders felt that services are available, but they are fragmented and many residents may not be aware of what is available. Persons with disabilities have a need for services to restore their independence (i.e., health care, non-medical personal care, prescription assistance/medication management, or medical transportation). There is very little follow-up care available for homeless residents. The shifting landscape of providers pose challenges to care coordination. Additionally, seniors are a growing population that will require additional support (i.e., medication management, nutrition, and health care/insurance decisions) in care coordination as the outmigration of young professionals continue and seniors are left without family supports at home. Stakeholders also felt that residents may have a difficult time navigating health services that are available. Stakeholders felt that collaborations to ensure that the health needs of seniors are being met are important.

8. Language Services – Stakeholders report an influx of residents that speak different languages into the area with reportedly 32 different languages represented by residents in the region. Several stakeholder organizations offer translation services to residents. There are many health providers that may not offer translation services and/or culturally competent health care.
9. Urgent Care Clinics – While the increase in urgent care clinics/walk-in clinics has provided greater access to health services for insured residents; they have reduced care coordination and medication management (services not practiced by most walk-in clinics), limiting the continuity of care residents are receiving, and leading to poorer health outcomes for some residents. Additionally, urgent care clinics allow residents to shop around for prescription drugs to abuse and/or sell for substance abuse purposes.

When services are not available, stakeholders noted that some of the consequences are:

- Limited appointment availability related to the number of health professionals that are able to see patients and the need to triage patients in scheduling procedures, which causes patients to wait for long periods of time to secure appointments for primary care, specialty care, psychiatry, dental care, etc. Professional shortages impact access to care, care quality, patient safety, and rates of readmission.
- Health disparities related to income and insurance status due to providers refusing to accept insurances typically held by lower-income residents (i.e., medical access, catastrophic insurance, etc.).

DELAYED/RESISTANCE SEEKING NEEDED HEALTH SERVICES:

Two-thirds of the stakeholders interviewed articulated that residents either delayed or resisted seeking health services (including medical, behavioral, and dental) such as preventive care, specialty care, intensive treatment, and follow-up care for a variety of reasons. Specifically, stakeholders indicated that the following were factors in the decisions of residents to delay/resist seeking medical care:

1. Cost of care – Stakeholders articulated that uninsured and under-insured residents may resist seeking health services (including medication, preventive, and/or routine care, etc.) due to the cost of uninsured care, unaffordable copays, and/or high deductibles. Health services may be becoming unaffordable for families that do not qualify for assistance of any sort due to higher copays and deductibles. Additionally, the rising cost of health services undermines the health

and well-being of seniors and persons with disabilities. More than one-half of all stakeholders discussed the poor quality and/or total lack of preventive care in their communities.

2. Residents do not view health care (i.e., dental, preventive,)as necessary due to a focus on basic survival (bills, nutrition, housing, clothing, etc.), which leads residents to delay seeking medical care until a health issue becomes emergent. This is true of homeless individuals as well. Often low-income residents are working and may be caring for families, and there is no time left to seek treatment for health issues. Pregnant women reportedly are not seeking prenatal care at first discovery of pregnancy.
3. While more residents are becoming insured; health insurance rates have increased for residents and employers. With fewer benefits and increased premiums, copays, and deductibles, residents are avoiding the expense of seeking health services. Additionally, there are residents that are uninsured. These residents are not seeking preventive, routine, and/or emergency health care due to the potential cost.
4. Families may resist seeking health services due to their citizenship status and fear of deportation.
5. Awareness – According to stakeholders, the population has changed dramatically in the Scranton, PA area during the last five years, with approximately 32 different languages being spoken in the region. Residents are not aware of how to navigate the health system, which can be compounded by language, literacy, and cultural challenges. Residents that may be dealing with poverty for the first time due to unemployment, etc. may not be familiar with what programs and services are available. And, unsure if they will qualify because they are not familiar with the system. Health information is not always provided in a way that residents can comprehend due to language issues, literacy issues, etc. (limits access to health services because residents cannot use programs and services they are not aware of). Residents that are newly diagnosed with chronic illness may not be aware of what services are available to them and/or how to manage their disease. Stakeholders discussed the awareness of residents related to the existence and necessity of health services including routine, preventive, and behavioral health care; which can cause residents not to access services they need. Additionally, residents may not understand their health status enough to know from what services they could benefit.
6. Transportation – Stakeholders interviewed said that transportation and the location of health services impacts the access that residents have to health services including behavioral health treatment, follow-up, and specialty medical appointments. Residents may not be able to follow through with more intensive treatment regimes (i.e., chemotherapy or dialysis) due to the location of services and lack of transportation.

Stakeholders discussed the following consequences of the local delay/resistance to seeking health services:

- Late detection/diagnosis of illness and disease, which often leads to poorer health outcomes due to a reduction in treatment options and success rates. For example, stakeholders noted that homeless residents are much sicker when they present for care due to a lack of routine medical care.
- Lack of consistency and continuity of care due to limited follow-up.

LIFESTYLES OF RESIDENTS:

Over one-half of the stakeholders interviewed discussed the impact and primary drivers of lifestyle choices that impact the health status and subsequent health outcomes for residents. Stakeholders noted that there are factors related to environment and personal choice that influence the role that lifestyle plays in the health outcomes for residents.

1. Generational/cultural influence – The local culture supports high-risk behaviors (i.e., substance abuse and smoking). There is a lack of focus on preventive and routine care with little incentive for residents to participate. Residents that have never visited a physician will not comprehend why it is important to begin now, particularly when there is a cost associated with seeking health services. While there are residents who do not wish to get help, there are residents that would like help and are not aware of how to break unhealthy, cyclical behaviors because they are not receiving information and education. These families need education and outreach that they can comprehend. Stakeholders discussed the role that familial influence plays in nutritional preferences, substance abuse, and smoking more than any other health issues.
2. Diet – Stakeholders discussed the limited access that some residents have to healthy nutrition. Specifically, lower-income residents may not have access to and/or be able to afford healthier options. This is often the case for several reasons. Residents do not always have access to a grocery store that offers healthy options (e.g., some residents do not have cars). Foods that are more processed are often cheaper and easier to prepare than produce, meats, etc. Also, foods that are more processed tend to be more filling than those that are not because they are higher in carbohydrates. And finally, foods that are more processed tend to have a longer shelf-life than less processed, fresher foods. Unfortunately, foods that are more processed with higher sugars and carbohydrates are also unhealthy to consume in large quantities and can lead to chronic illnesses and obesity. Stakeholders indicated that children in homes where substance abuse is an issue may not be fed regularly or nutritiously. There is a lack of education among residents related to healthy eating and residents may not know how to prepare healthy, fresh foods due to a lack of experience.
Homeless residents do not have access to a refrigerator or stove, which makes it difficult to eat healthy. It can be difficult for many homeless diabetics to proactively manage their chronic illness since many shelters do not offer diabetic-friendly options. Nutritional options are further restricted for homeless persons with dental issues.
3. Smoking – Stakeholders identified smoking as a prevalent health issue due to “excessive smoking” in the area.
4. Exercise – Stakeholders indicated that residents may not always exercise to a level that is healthy
5. Personal choice – While stakeholders recognize the impact that circumstance can have on the decisions of residents to engage in healthy behaviors; they also indicated that personal choice is a significant driver in the health outcomes of residents. Stakeholders recognized the impact of personal choice on the health outcomes of residents. Stakeholders cited the need for residents to engage in behavioral changes that positively impact their health status. Residents must want to change their health status before they will be motivated to do so.

Stakeholders discussed the following consequence of the lifestyle of residents on health outcomes of populations served by Geisinger Wyoming Valley Medical Center:

- It can be difficult to improve population health indicators due to the lifestyles and personal preferences/choices of residents.

COMMON HEALTH ISSUES:

1. Oral Hygiene – Stakeholders discussed the impact of transportation issues, limitation of insurance, and the lack of focus on oral hygiene among residents as the greatest factors in poor health outcomes related to dental health. The lack of fluoride in the water impacts the dental health of residents.
2. Obesity – Over one-half of all stakeholders discussed the prevalence and cause of obesity among residents served by Geisinger Wyoming Valley Medical Center. Stakeholders identified that there are several factors that perpetuate obesity in their communities. Namely, poor diets, lack of exercise, and limited access to resources and education. Stakeholders drew a connection between poverty and the higher rates of obesity. Stakeholders cited limited access to healthy produce in poorer rural areas, a lack of education, and a lack of motivation among residents as the factors that drive obesity rates in the area. Stakeholders recognized that perpetual obesity will have an impact on health outcomes for residents, particularly seniors that experience a greater risk for neuropathy and slip and falls.
3. Diabetes – Six stakeholders discussed diabetes as a common health issue among residents. Discussion often included reference to obesity as well. Stakeholders identified weight as an underlying cause of the incidences of diabetes that are not the result of a genetic predisposition. There are health disparities related to diabetes with an over-representation of low-income residents being diagnosed. Homeless people struggle with managing diabetes as a result of limited access to resources (i.e., medications, healthy foods, etc.).
4. Heart disease – Three stakeholders discussed the prevalence of heart disease and its connection with diet, sedentary lifestyles, and age.
5. Cancer – Two stakeholders felt that the rates of cancer were rising due to higher rates of residents smoking, and environmental factors (i.e., older homes with lead-based paint).
6. Autism – There is a large population of youth diagnosed with Autism entering adulthood, and communities may not be prepared to fully meet their needs (i.e., employment, independent living options, etc.). The programs that do exist have lengthy waiting lists.
7. Senior Health – Stakeholders felt that seniors were at greater risk for certain health issues (i.e., Alzheimer’s, heart disease, diabetes, and pulmonary issues) due to aging. Additional support services are needed to maximize the quality of life in residential settings.

The impact of common health issues can be poor health outcomes of a population and greater consumption of health care resources.

- Untreated dental health issues can cause/contribute to multiple medical conditions and can lead to poor health outcomes.

ENVIRONMENTAL INFLUENCES:

Stakeholders articulated several environmental factors which impact the health of residents, including: infrastructure, the rural nature of the area, and poverty.

1. Infrastructure/rural area – More than one-half of stakeholders discussed the role that infrastructure (i.e., transportation, economy, and housing) and the rural nature of the service area has in limiting the access that residents have to health services and perpetuating poor health outcomes. More specifically, the lack of affordable public transportation, concentration of low-income employment opportunities, unemployment, decline of major metro areas (i.e., Scranton and Wilkes-Barre), and limited white collar employment opportunities often requires that the priorities of residents are focused on survival and basic necessities in many areas throughout the hospital service area. According to stakeholders, some of the highest unemployment rates in the state can be found in the hospital service area. As a result, seniors have to work past retirement in an area with little employment opportunities. Youth are graduating without the skills to be employable, with the brightest youth leaving the area due to a lack of opportunity. Also, there is a shortage of employment or training opportunities for persons with a disability and persons previously incarcerated. As a result, stakeholders discussed the challenges of unemployment and inability to afford to engage in healthy behaviors for themselves or their families. The rising cost of insurance for local employers is leading many employed residents to be uninsured or under-insured because employers cannot afford to offer insurances and/or employees are hired at part-time to avoid the required cost of insuring full-time employees.

Similarly, educational outcomes in the area are poor in lower socio-economic areas according to stakeholders, which lead to low-income wages for residents in these areas.

While there is public transportation in the community; it is not practical to rely on. Transportation is one of the greatest barriers to health in rural areas due to the limited access residents have to healthy options (i.e., health services, healthy nutrition, etc.). Stakeholders indicated that a lack of transportation causes residents to be unable to secure services at local clinics. Residents are not always able to access care from their location due to transportation, availability, location of services, etc. The lack of transportation impacts residents' ability to secure and maintain employment by making it difficult to travel to and from their place of employment. Stakeholder recognized that the availability and location of health services was compounded by the lack of transportation in the area. According to stakeholders, one-quarter of residents in the Wilkes-Barre area do not own a car. Lower-income residents cannot always afford transportation (i.e., vehicle, public transportation, private transportation). The three large family developments in the Scranton, PA area are fairly isolated due to a lack of public transportation, making it difficult for residents to access groceries, health services, employment, etc.

2. Poverty – Over one-half of stakeholders drew a connection between poverty and poorer health outcomes related to stress, poor nutrition, and delayed health care. Additionally, stakeholders indicated that there is an influx of residents from refugee camps entering the region and struggling with poverty. Stakeholders connect poverty and the inability of residents to secure healthy produce and make healthy decisions related to nutrition due to limitations related to

transportation, finances, and education. Additionally, residents in poverty are less likely to secure health services prior to issues becoming emergent due to a lack of resources (i.e., time, money, transportation, etc.) and a focus on meeting basic needs leading to a lower prioritization of health and wellness.

Environmental factors can impact the health status of individuals and the community at large due to the negative health outcomes that result. Additionally, six stakeholders were concerned about the increased crime rates.

Survey of Vulnerable Populations

Tripp Umbach worked closely with the CHNA oversight committee to ensure that community members, including under-represented residents, were included in the needs assessment through a survey process.

DATA COLLECTION:

Vulnerable populations were identified by the CHNA oversight committee and through stakeholder interviews. Vulnerable populations targeted by the surveys were seniors, low-income residents (including families), residents with behavioral health needs and residents that are uninsured.

A total of 93 surveys were collected in the Geisinger Wyoming Valley Medical Center service area which provides a +/-10.16 confidence interval for a 95% confidence level. Tripp Umbach worked with the oversight committee to design a 33 question health status survey. The survey was administered by community based organizations (i.e., United Way of Wyoming Valley, The Wright Center, The Edward R. Leahy Jr. Center Clinic for the Uninsured, and Volunteers in Medicine Free Clinic) providing services to vulnerable populations in the hospital service area. Community based organizations were trained to administer the survey using hand-distribution.

- Surveys were administered onsite and securely mailed to Tripp Umbach for tabulation and analysis.
- Surveys were analyzed using SPSS software.

Limitations of Survey Collection:

There are several inherent limitations to using a hand-distribution methodology when collecting surveys. The demographics of the population are not intended to match the general population of the counties surveyed. Often, the demographic characteristics of populations that are considered vulnerable populations are not the same as the demographic characteristics of a general population. For example vulnerable populations by nature may have significantly less income than a general population. For this reason the findings of this survey are not relevant to the general populations of the counties they were collected in. Additionally, hand-distribution is limited by the locations where surveys are administered. In this case Tripp Umbach asked CBOs to self-select into the study and as a result there are several populations that have greater representation in raw data (i.e., seniors, low-income, etc.).

Demographics:

Survey respondents were asked to provide basic anonymous demographic data.

- The majority of the survey respondents for Luzerne Counties reported their race as White (78.8%), the next largest racial group was Black and African American (8.2%) and third largest was Hispanic (8.2%).
- The household income level with the most responses was less than \$10,000 for Luzerne County (23.1%).

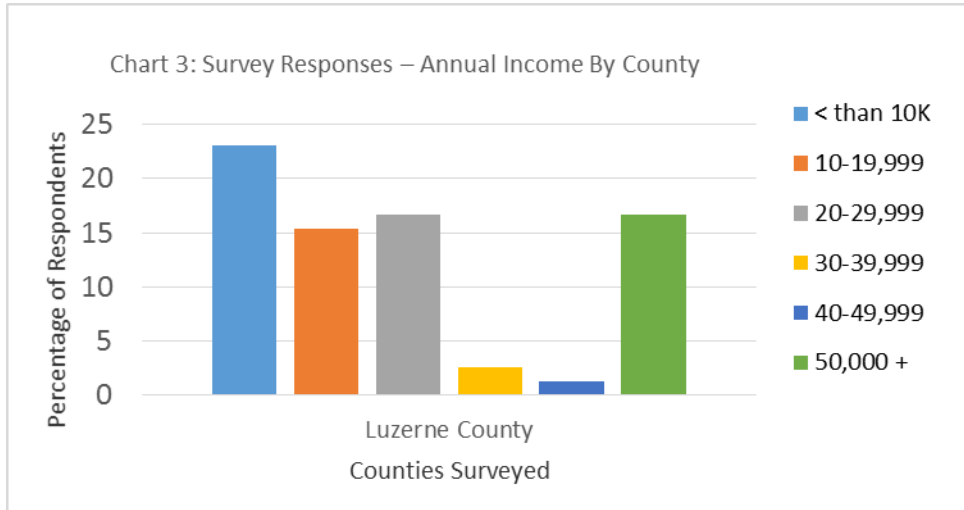


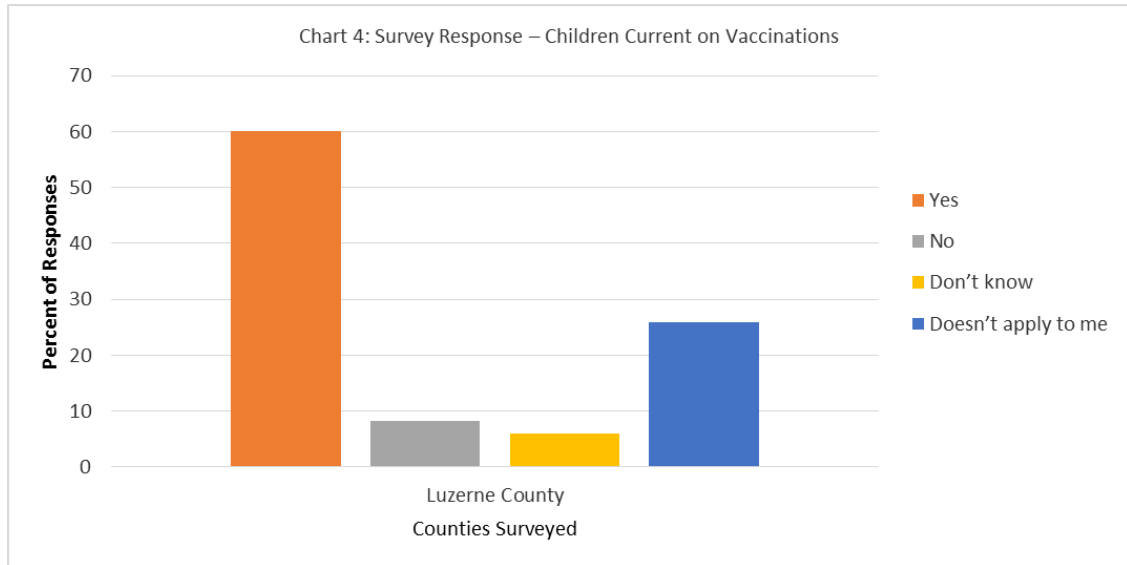
Table 3: Survey Responses – Self-Reported Age of Respondent by County

Age	Luzerne County
18-25	7.6%
26-35	12%
36-45	16.3%
46-55	20.7%
56-65	20.7%
66-75	6.5%
76-85	9.8%
86+	6.5%

Healthcare:

- The most popular place for residents to seek care is a doctor’s office (70.1%), with the free or reduced cost clinics (24.1%) being popular as well.
- The most common form of health insurance carried by respondents was Medicare (30%) with “Private/commercial” being second most common (28.9%).
- Of the survey respondents that indicated they had no health insurance (22.2%), the most common reason why individuals indicated that they do not have health insurance is because they can’t afford it (44%) with ineligibility being the second most common reason (24%) .

- Most respondents had been examined by a physician within the last 12 months at least once (91.3%); however, 8.7% of respondents had not.
- 30.4% of Luzerne respondents indicated that their health was “fair” or “poor”.
- Adult respondents indicated related children were up-to-date on vaccinations (60%).



- Many respondents indicated that their primary form of transportation is some method other than their own car in (37.2%), using a family/friend’s car (18.5%), public transportation (17.4), and walking (1.1%) as an alternative.

Table 4: Survey Responses Related to HIV/AIDS Testing

Ever Been Tested for HIV	Luzerne County	PA	U.S.
Yes	32.2%	32.2%	35.2%
No	67.8%	67.8%	64.8%

- Luzerne County respondents report screening rates (32.2%) similar to state and national norms.

Health Services:

Table 5: Survey Responses – Health Services Received During the Previous 12 Month Period

Test Received	Luzerne County
Blood test	73.1%
Check up	62.4%
Flu shot	57%
Cholesterol test	53.8%

- More respondents indicated they get information about services in their community by word of mouth in Luzerne County (53.9%).
- While most respondents did not prefer to receive health services in a language other than English (84.6%); 12.1% of respondents reported this preference in Luzerne County.
- Most respondents reported either never needing health services or needing and having no problem securing those services. However, when respondents reported needing health services and being unable to secure them the most common reasons were “no insurance”, “couldn’t afford”, and “unsure where to go”.
- 10.4% of respondents in Luzerne County indicated they did not secure dental services due to a lack of insurance.
- Approximately 1 in 4 respondents indicated that they did not understand what was happening during a time when they (or a loved one) had to transition from one form of care to another. The most common recommendations related to care transitions was Better explanation of the process (34%), and Additional instructions (50%).

Common Health Issues:

Table 6: Survey Responses – Health Issues Respondents Reported Ever Diagnosed with

Ever Diagnosed with	Luzerne County	PA*	U.S.*
Depression	26.9%	18.3%	18.7%
Needing Mental Health Treatment	21.7%	--	--
Diabetes	19.4%	10.1%	9.7%
Heart Problem	23.7%	--	--
Cancer – Types: breast, prostate and skin	9.7%	--	--

* Source: CDC

- Respondents in Luzerne County reported poorer health outcomes related to depression and diabetes than is average for the state or the nation.
- Depression and the need for mental health treatment are the greatest rates of respondent reported diagnosis when compared to every other area (i.e., diabetes, heart problems, and cancer). Higher rates of depression diagnosis was reported than is average for the state (18.3%) and nation (18.7%).
- Respondents in Luzerne County report higher diagnosis rates for diabetes (19.4%) than is average for the state and the nation (10.1% and 9.7% respectively).

Table 7: Survey Responses – Top Health Concerns Reported

Health Concern	Luzerne County
Cancer	55.7%
Drug and Alcohol use	54.5%
Diabetes	44.3%
Mental Health	29.50%
Heart Disease	36.4%
High Blood Pressure	37.5%

- ✓ When asked to identify five of their top health concerns in their communities; respondents chose Cancer, Drug and Alcohol use, Diabetes, Mental Health, Heart Disease, and High Blood Pressure most often. The additional choices that were not as popular were: adolescent health, asthma, family planning / birth control, flood related health concerns (like mold), hepatitis infections, HIV, obesity, maternal and child health, pollution (e.g., air quality, garbage), sexually transmitted diseases, stroke, teen pregnancy, tobacco use, violence or injury, other, and don't know.

Lifestyle:

Table 8: Survey Responses – Average Weight and Body Mass Index of Survey Respondents

Weight & BMI	Luzerne County	Avg.	
		Female (5'4")*	Avg. Male (5'9")*
Weight	174.89 lbs.	108-144 lbs.	121-163 lbs.
BMI**	28.36	26.5	26.6

* Source: CDC

** Survey Respondents were asked to report their weight and height, from which the BMI calculation was possible.

- ✓ Respondents show much higher weight and BMI than national and state averages.

- ✓ While most respondents reported having access to fresh fruits and vegetables (96.7%); only 3.3% in Luzerne County indicated they have no access.
- ✓ 1 in 20 respondents in Luzerne County indicated that they do not eat fresh fruits and vegetables.

Table 9: Survey Responses – Smoking Rates Reported by Respondents

Smoking	Luzerne County	PA*	U.S.*
Everyday	16.3%	15.7%	13.4%
Some days	4.3%	5.3%	5.4%
Not at all	78.3%	--	--

- ✓ Luzerne County respondents reported higher rates of smoking everyday (16.3%) than those reported for the state and nation (15.7% and 13.4% respectively).

Table 10: Survey Responses – Physical Activity Rates Reported by Survey Respondents

Physical Activities	Luzerne County	PA*	U.S.*
Yes	55.4%	73.7%	74.7%
No	44.6%	26.3%	25.3%

- ✓ Respondents in Luzerne County report lower rates of physical activity (55.4%) than those reported for the state and nation (73.7% and 74.7% respectively).

Conclusions and Recommended Next Steps

The community needs identified through the Geisinger Wyoming Valley Medical Center and South Wilkes-Barre Campus community health needs assessment process are not all related to the provision of traditional medical services provided by medical centers. However, the top needs identified in this assessment do “translate” into a wide variety of health-related issues that may ultimately require hospital services. Each health need identified has an impact on population health outcomes and ultimately the cost of healthcare in the region. For example: unmet oral health needs can often lead to increased substance abuse due to over use of pain medication and increased use of emergency health services.

Geisinger Wyoming Valley Medical Center and South Wilkes-Barre Campus, working closely with community partners, understand that the community health needs assessment document is only a first step in an ongoing process. It is vital that ongoing communication and a strategic process follow the assessment process – with a clear focus on addressing health priorities for the most vulnerable residents in the hospital service area.

There is a wealth of medical resources in the region with multiple clinics that serve under/uninsured residents. Luzerne County has pockets of underserved residents (i.e., Hazleton, Glen Lyon, and Wilkes-Barre) where poverty is high, education is low, limited English skills are a barrier and residents do not have ready access to health services. These areas will be the areas where the greatest improvements to population health can be realized. That having been said, residents of the Geisinger Wyoming Valley Medical Center and South Wilkes-Barre Campus service area may not have as much access to the healthcare resources in the region due to the need for an increase in providers accepting Medicaid patients, limited health literacy, and lack of transportation to healthcare facilities. Collaboration and partnership are strong in the community. It is important to expand existing partnerships and build additional partnerships with multiple community organizations when developing strategies to address the top identified needs. Implementation strategies will need to consider the higher need areas in Luzerne County and address the multiple barriers to healthcare.

The lifestyles of residents in Luzerne County will be important to consider. While not selected as a top health priority, there are multiple diseases typically associated with poor lifestyle that have higher rates in the service area (i.e., diabetes, obesity, heart disease, etc.). Higher prevalence rates coupled with primary input from surveys and stakeholders regarding poor diets, limited access to healthy nutrition, etc. should be observed and considered during planning discussions.

It will be necessary to review evidence-based practices prior to planning to address the needs identified in this assessment due to the complex interaction of the underlying factors at work driving each need in local communities.

Tripp Umbach recommends the following actions be taken by the hospital sponsors in close partnership with community organizations over the next six to nine months.

Recommended Action Steps:

- ❑ Widely communicate the results of the community health needs assessment document to Geisinger Wyoming Valley Medical Center and South Wilkes-Barre Campus staff, providers, leadership and boards.
- ❑ Conduct an open community forum where the community health needs assessment results are presented widely to community residents, as well as through multiple outlets such as: local media, neighborhood associations, community-based organizations, faith-based organizations, schools, libraries and employers.
- ❑ Take an inventory of available resources in the community that are available to address the top community health needs identified by the community health needs assessment.
- ❑ Review relevant evidence-based practices that the community has the capacity to implement.
- ❑ Implement a comprehensive “grass roots” community engagement strategy to build upon the resources that already exist in the community and the energy of and commitment of community leaders that have been engaged in the community health needs assessment process.
- ❑ Develop “Working Groups” to focus on specific strategies to address the top needs identified in the community health needs assessment. The working groups should meet for a period of four to six months to review evidence-based practices and develop action plans for each health priority which should include the following:
 - ✓ Objectives
 - ✓ Anticipated impact
 - ✓ Planned action steps
 - ✓ Planned resource commitment
 - ✓ Collaborating organizations
 - ✓ Evaluation methods
 - ✓ Annual progress

APPENDIX A



Secondary Data Profile

GEISINGER WYOMING VALLEY MEDICAL CENTER & SOUTH
WILKES-BARRE CAMPUS

February 2, 2015

GEISINGER WYOMING VALLEY MEDICAL CENTER (GWV) / GEISINGER SOUTH WILKES BARRE (GSWB)

COMMUNITY HEALTH NEEDS ASSESSMENT SECONDARY DATA PROFILE

February 2015



Overview



- ❑ **Primary Service Area - Populated Zip Code Areas**
- ❑ **Key Points**
- ❑ **Demographic Trends**
- ❑ **Community Need Index (CNI)**
- ❑ **County Health Rankings**
- ❑ **Prevention Quality Indicators Index (PQI)**

Primary Service Area - Populated Zip Code Areas

The community served by GWV/GSWB includes 26 populated zip code areas in Luzerne County.

Zip	City	County
18201	Hazleton	Luzerne
18202	Hazleton	Luzerne
18222	Drums	Luzerne
18224	Freeland	Luzerne
18612	Dallas	Luzerne
18617	Glen Lyon	Luzerne
18618	Harveys Lake	Luzerne
18621	Hunlock Creek	Luzerne
18634	Nanticoke	Luzerne
18640	Pittston	Luzerne
18641	Pittston	Luzerne
18642	Duryea	Luzerne
18643	Pittston	Luzerne

Zip	City	County
18644	Wyoming	Luzerne
18651	Plymouth	Luzerne
18655	Shickshinny	Luzerne
18660	Wapwallopen	Luzerne
18661	White Haven	Luzerne
18701	Wilkes Barre	Luzerne
18702	Wilkes Barre	Luzerne
18704	Kingston	Luzerne
18705	Wilkes Barre	Luzerne
18706	Wilkes Barre	Luzerne
18707	Mountain Top	Luzerne
18708	Shavertown	Luzerne
18709	Luzerne	Luzerne

Key Points – Community Needs for GWV/GSWB

- **The GWV/GSWB study area includes 26 zip code areas, all within Luzerne County.**
 - **The GWV/GSWB study area is projected to experience a 0.3% population growth over the next five years (2014 – 2019); this equates to approximately 1,118 more people in the primary service area.**
- **The average household income in 2014 for the GWV/GSWB study area is \$60 271; this is lower than state and national rates (\$69,931 and \$71,320 respectively).**
 - **The GWV/GSWB study area reports more than a quarter of the households earning less than \$25K per year (27.4%); this rate is higher than state and national rates (24.0% and 24.5% respectively).**
- **The GWV/GSWB study area shows higher rates of older individuals than state and national norms. The GWV/GSWB study area has 18.6% of the population aged 65 and older; while Pennsylvania reports 16.6% and the U.S. reports 14.2%. And the rate of residents aged 65 and older in the GWV/GSWB study area is projected to rise, from 18.6% to 21.0%.**
- **The GWV/GSWB study area and Luzerne county report 11.7% of the residents with less than a high school degree; this is higher than the state rate at 11.5% but lower than the national rate of 14.2%.**
- **The GWV/GSWB study area and Luzerne County report higher rates of Hispanic minorities as compared with the state average; 9.4% of the GWV/GSWB study area population identifies as Hispanic, 8.5% of the Luzerne County population, and only 6.5% of the Pennsylvania population identifies as Hispanic.**

Key Points – Community Needs for GWV/GSWB

- The Community Need Index (CNI) is a measure of the number and strength of barriers to health care access that a specific region (in this case zip code areas) has in the community. Measures include minority population, unemployment, single parents living in poverty with their children or 65 and older residents living in poverty. The scale ranges from 1.0 to 5.0; 1.0 indicating very few barriers to health care access, 5.0 indicating many barriers to health care access.
- The highest CNI score for the GWV/GSWB study area is 4.6 in the zip code area of 18201-Hazleton in Luzerne County. The highest CNI score indicates the most barriers to community health care access.
 - This zip code area holds the highest measures for the study area for:
 - Minority population at 47.7%
 - Population with limited English proficiency at 10.3%
- The overall CNI score for the GWV/GSWB study area is 3.2. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). Therefore, according to the overall CNI score, the GWV/GSWB study area experiences higher than average barriers to health care access.
- From 2011 to 2014:
 - The overall CNI value for the GWV/GSWB study area went from the average value for the scale at 3.0 to 3.2; a slight increase that means a slight rise in the number of barriers to health care access.
 - Of the 26 zip code areas in the GWV/GSWB study area:
 - 12 experienced rises in CNI score
 - 10 saw declines in CNI score
 - 4 remained consistent
 - The largest increase in CNI score (more barriers) was⁶⁸ for Plymouth (18651) going from 3.2 to 4.0.

Key Points – Community Needs for GWV/GSWB

- **Counties in each of the 50 states are ranked according to summaries of more than 30 health measures. Those having good rankings, such as 1 or 2, are considered to be the “healthiest.” Counties are ranked relative to the health of other counties in the same state.**

- Due to the fact that the GWV/GSWB study area includes only Luzerne County, it was difficult to make comparisons, however seeing high rankings or higher data values than is seen for the state are potential areas of focus.

- Luzerne County has a number of county health rankings in the high range including: Health Outcomes (57), Health Factors (58), Mortality (55), Morbidity (55), Social and Economic Factors (63).

- The three most notable data measures in which Luzerne County reports a higher specific measure rates than the state were for; Adult Smoking - Luzerne County = 25%, PA = 20%, Excessive Drinking - Luzerne County = 20%, PA = 17%, and Unemployment - Luzerne County = 9.1%, PA = 7.9%.

- From 2011 to 2014, Luzerne County saw the following shifts in county health rankings or data:
 - **Going to unhealthier rankings for: Health Factors; going from 30 to 58, Social and Economic Factors going from 32 to 63**
 - **Going to healthier rankings for: Mortality going from 63 to 55**

- From 2011 to 2014:
 - **Luzerne County showed a decline in the adult smoking rate from 2011 to 2014, going from 27% to 25%**
 - **A rise in the sexually transmitted infection / chlamydia rate from 214 per 100,000 pop. to 234 per 100,000 pop.**
 - **A rise in the PCP rate from 70 per 100,000 pop. to 80 per 100,000 pop. (this is a good thing).**
 - **Mammography screening rate for Luzerne County rose from 58.6% in 2011 to 61.6% in 2014.**
 - **The violent crime rate for Luzerne County declined from 317 per 100,000 pop. to 289 per 100,000 pop.**

Key Points – Community Needs for GWV/GSWB

- **The PQI index identifies potentially avoidable hospitalizations for the benefit of targeting priorities and overall community health. Lower index scores represent less admissions for each of the PQIs. There are 14 quality indicators.**
 - The GWV/GSWB study area shows eight of the 14 PQI measure that are higher than the state PQI value – indicating higher preventable hospital admission rates. They include: **Perforated Appendix, COPD or Adult Asthma, Congestive Heart Failure, Dehydration, Bacterial Pneumonia, Urinary Tract Infection, Uncontrolled Diabetes, and Asthma in Younger Adults.**

- From 2011 to 2014, four of the PQI measures' definitions changed drastically and, therefore, cannot be accurately compared.
 - **Of the 10 remaining PQI measures, nine of the 10 measures saw reductions in PQI rates from 2011 to 2014 (fewer preventable hospitalizations – a good thing). The largest reduction was for Congestive Heart Failure (going from 469.28 preventable hospitalizations per 100,000 to 440.17 per 100,000).**
 - **One PQI value for GWV/GSWB saw a rise in preventable hospitalizations, this was for Hypertension; going from 30.56 per 100,000 pop. to 40.02 per 100,000 pop.**

Community Demographic Profile



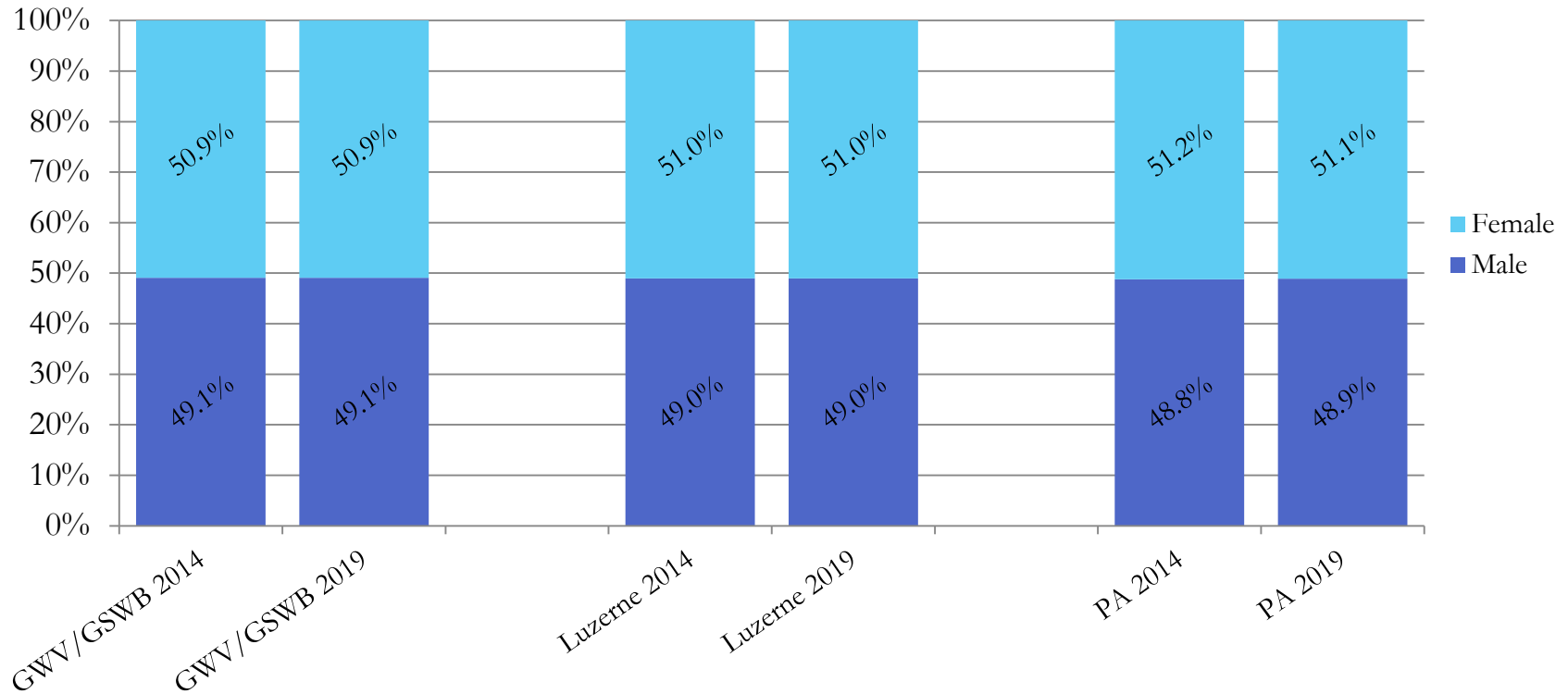
- ❑ The GWV/GSWB study area is projected to experience a 0.3% population growth over the next five years (2014 – 2019); this equates to approximately 1,118 more people in the primary service area.
- ❑ The GWV/GSWB study area shows higher rates of older individuals than state and national norms. The GWV/GSWB study area has 18.6% of the population aged 65 and older; while Pennsylvania reports 16.6% and the U.S. reports 14.2%.
- ❑ The average household income in 2014 for the GWV/GSWB study area is \$60,271; this is lower than state and national rates (\$69,931 and \$71,320 respectively).
- ❑ The GWV/GSWB study area reports more than a quarter of the households earning less than \$25K per year (27.4%); this rate is higher than state and national rates (24.0% and 24.5% respectively).
 - ❑ Luzerne County reports an even higher rate of resident household earning less than \$25K per year at 27.8%.
- ❑ The GWV/GSWB study area and Luzerne county report 11.7% of the residents with less than a high school degree; this is higher than the state rate at 11.5% but lower than the national rate of 14.2%.
- ❑ The GWV/GSWB study area shows less diversity as compared with Pennsylvania and the United States. Only 17.0% of the population in the GWV/GSWB study area identify as a race/ethnicity other than White, Non-Hispanic whereas 21.9% in Pennsylvania and 37.9% in the U.S. identify as a race other than White, Non-Hispanic.

Population Trends

	GWV/GSWB Study Area	Luzerne County	Pennsylvania
2014 Total Population	363,944	318,291	12,791,290
2019 Projected Population	365,062	318,741	12,899,019
# Change	1,118	+ 450	+ 107,729
% Change	0.3%	+ 0.1%	+ 0.8%

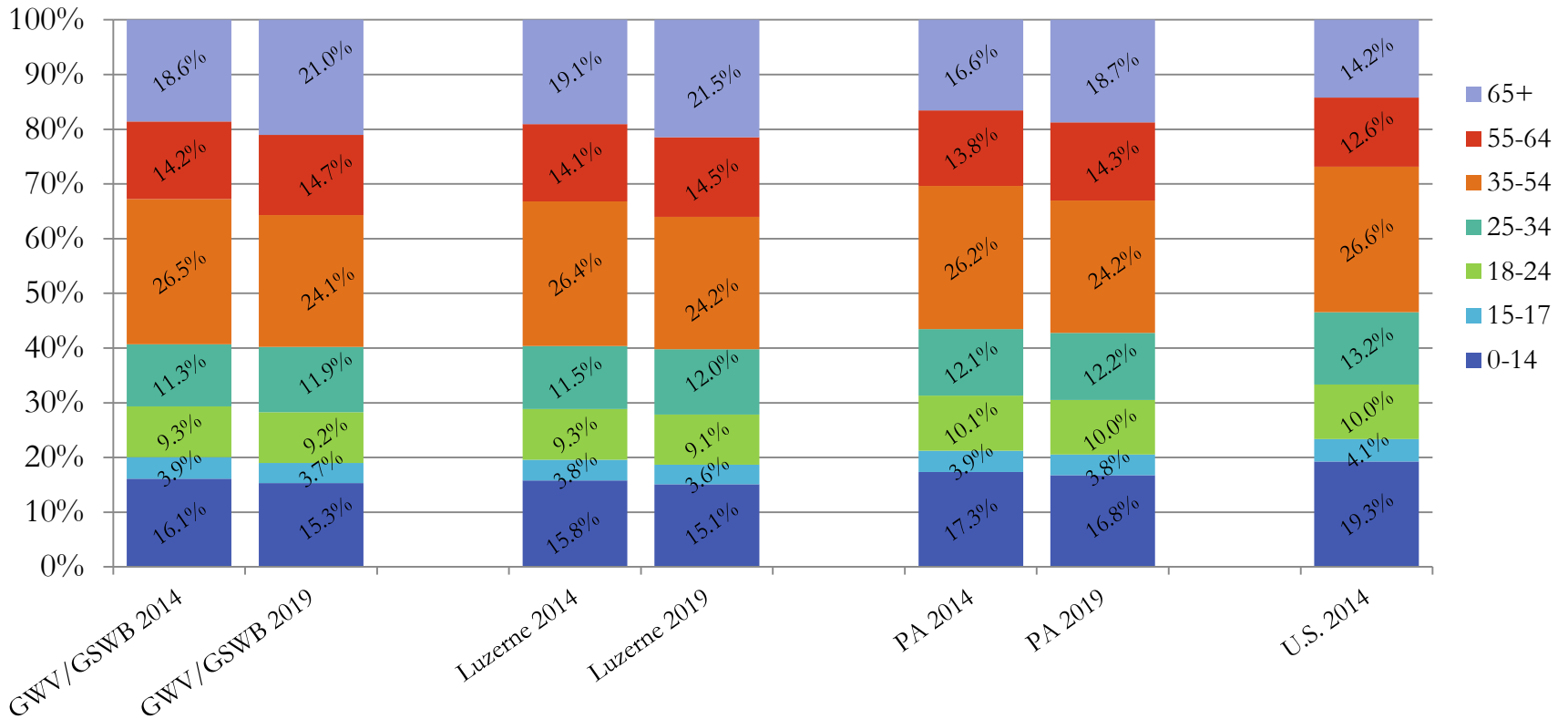
- The GWV/GSWB study area is projected to experience a 0.3% population growth over the next five years (2014 – 2019); this equates to approximately 1,118 more people in the primary service area.
- Overall, the State of Pennsylvania is projected to experience population growth at a similar rate (0.8%).
- Luzerne County, the only county in the GWV/GSWB study area, reports a smaller projected population growth over the same timeframe at only 0.1%.

Gender



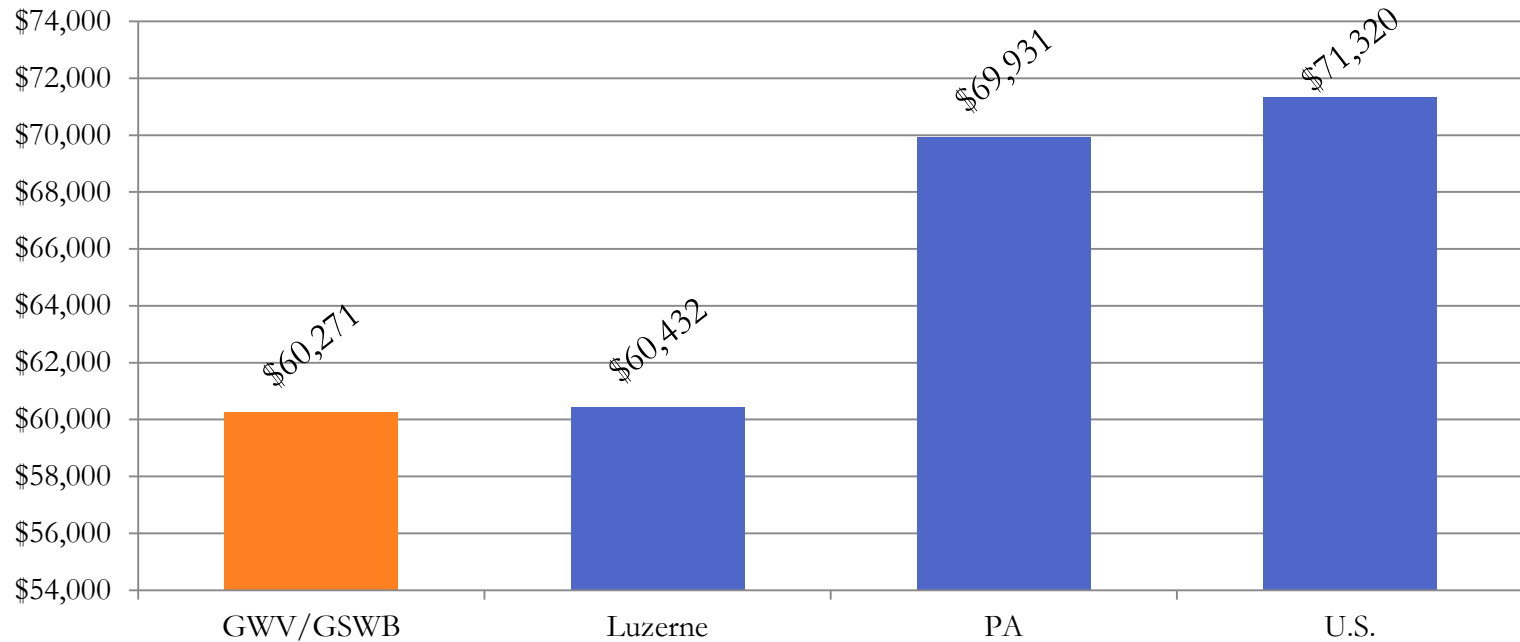
- The GWV/GSWB study area shows slightly higher percentages of women as opposed to men; this is consistent with state and national data.

Age



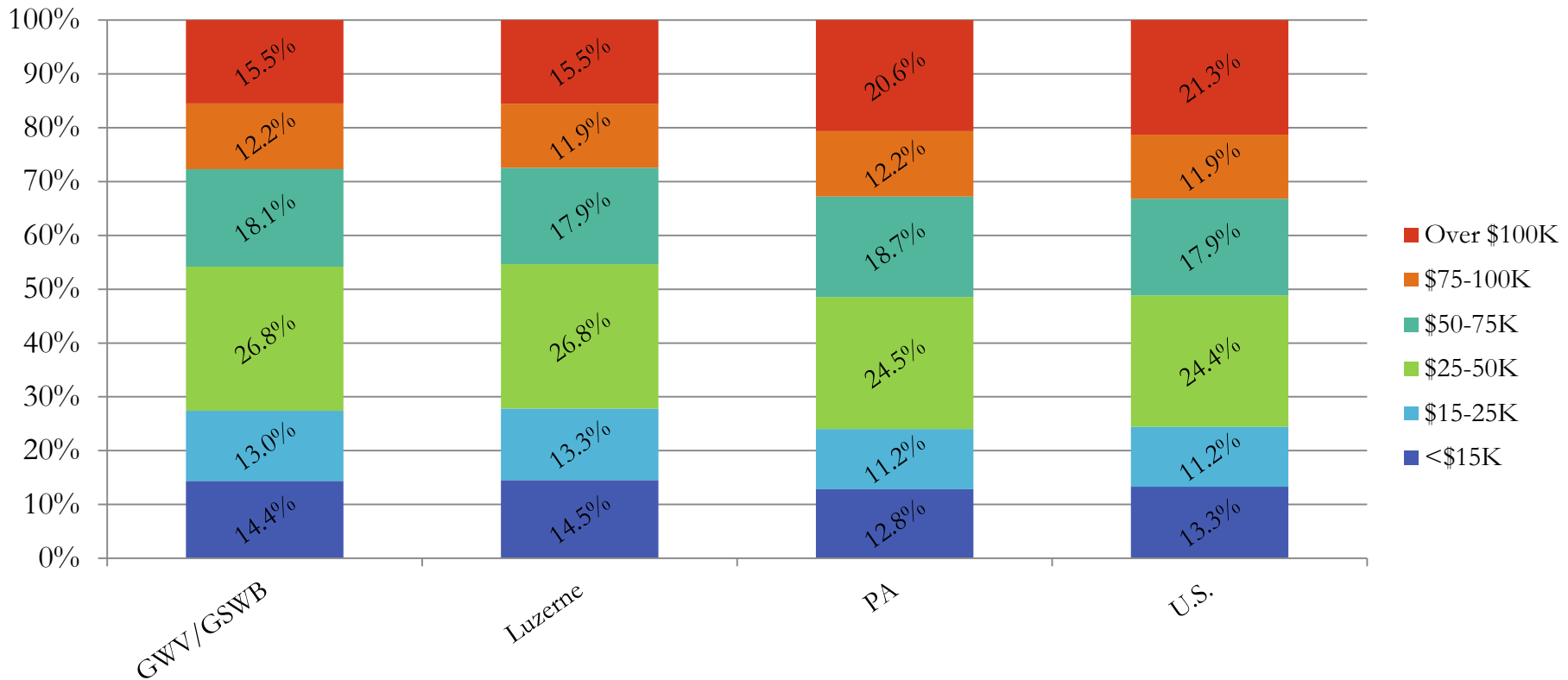
- The GWV/GSWB study area shows higher rates of older individuals than state and national norms. The GWV/GSWB study area has 18.6% of the population aged 65 and older; while Pennsylvania reports 16.6% and the U.S. reports 14.2%. And the rate of residents aged 65 and older in the GWV/GSWB study area is projected to rise, from 18.6% to 21.0%.

Average Household Income (2014)



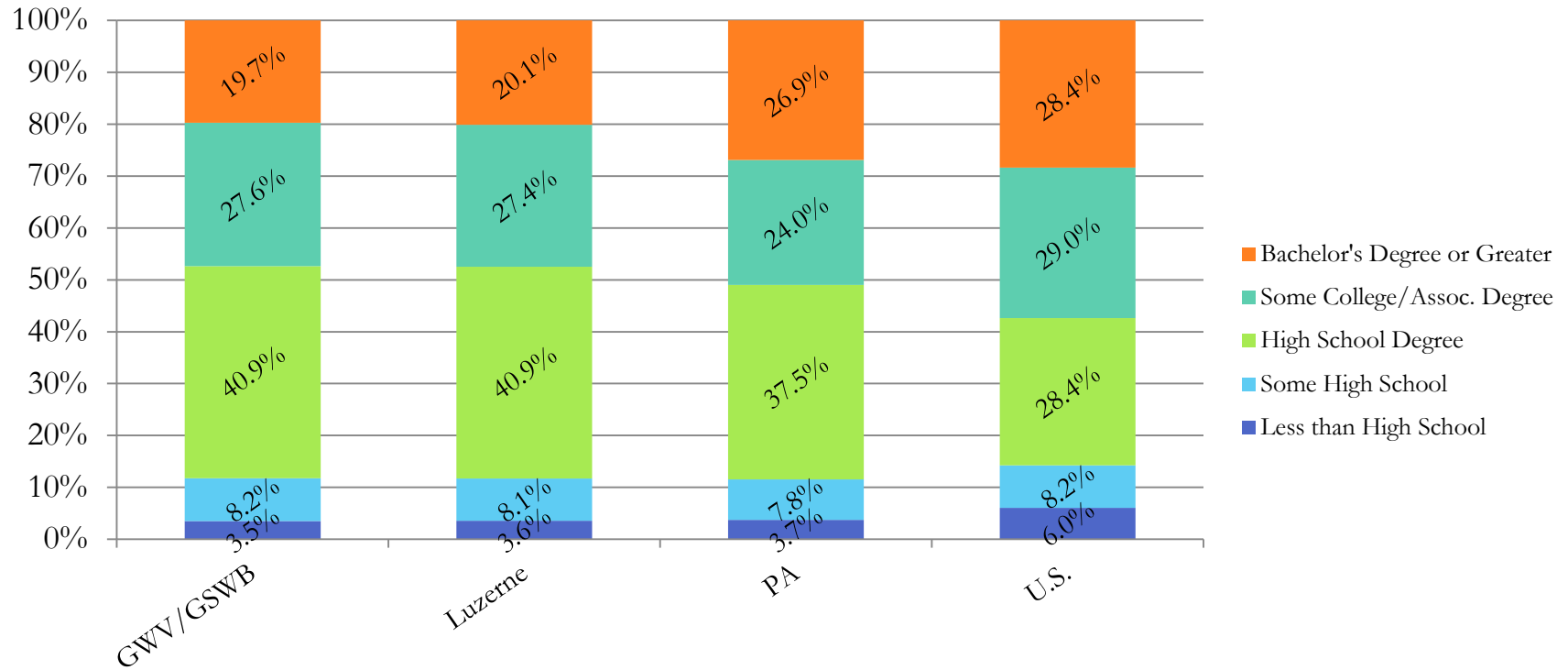
- The average household income in 2014 for the GWV/GSWB study area is \$60,271; this is lower than state and national rates (\$69,931 and \$71,320 respectively).
- The average annual household income for Luzerne County, the only county included in the GWV/GSWB study area, is \$60,432; relatively equivalent to the GWV/GSWB study area value.

Household Income Detail (2014)



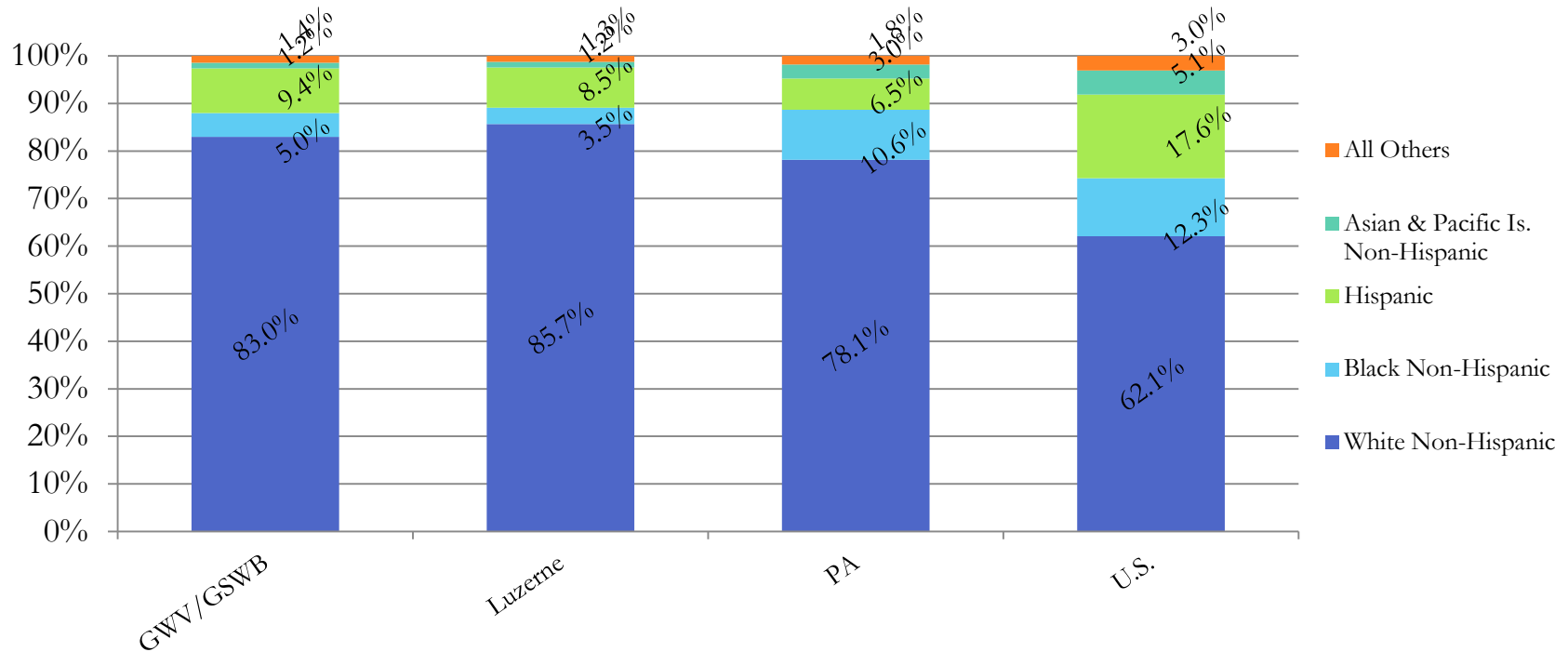
- The GWV/GSWB study area reports more than a quarter of the households earning less than \$25K per year (27.4%); this rate is higher than state and national rates (24.0% and 24.5% respectively).
- Luzerne County reports an even higher rate of resident household earning less than \$25K per year at 27.8%.

Education Level (2014)



- The GWV/GSWB study area and Luzerne county report 11.7% of the residents with less than a high school degree; this is higher than the state rate at 11.5% but lower than the national rate of 14.2%.

Race/Ethnicity (2014)



- The GWV/GSWB study area shows less diversity as compared with Pennsylvania and the United States. Only 17.0% of the population in the GWV/GSWB study area identify as a race/ethnicity other than White, Non-Hispanic whereas 21.9% in Pennsylvania and 37.9% in the U.S. identify as a race other than White, Non-Hispanic.
- The GWV/GSWB study area and Luzerne County report higher rates of Hispanic minorities as compared with the state average; 9.4% of the GWV/GSWB study area population identifies as Hispanic, 8.5% of the Luzerne County population, and only 6.5% of the Pennsylvania population identifies as Hispanic.

Community Need Index

Five prominent socio-economic barriers to community health are quantified in the CNI

- **Income Barriers** –
Percentage of elderly, children, and single parents living in poverty

- **Cultural/Language Barriers** –
Percentage Caucasian/non-Caucasian and percentage of adults over the age of 25 with limited English proficiency

- **Educational Barriers** –
Percentage without high school diploma

- **Insurance Barriers** –
Percentage uninsured and percentage unemployed

- **Housing Barriers** –
Percentage renting houses

Assigning CNI Scores

- ❑ To determine the severity of barriers to health care access in a given community, the CNI gathers data about the community's socio-economy. For example, what percentage of the population is elderly and living in poverty; what percentage of the population is uninsured; what percentage of the population is unemployed, etc.
- ❑ Using this data we assign a score to each barrier condition. A score of 1.0 indicates a zip code area with the lowest socio-economic barriers (low need), while a score of 5.0 represents a zip code area with the most socio-economic barriers (high need). The scores are then aggregated and averaged for a final CNI score (each barrier receives equal weight in the average).
- ❑ A CNI score above 3.0 will typically indicate a specific socio-economic factor impacting the community's access to care. At the same time, a CNI score of 1.0 does not indicate the community requires no attention at all, which is why a larger community such as the study area community presents a unique challenge to hospital leadership.

Community Need Index



- ❑ The highest CNI score for the GWV/GSWB study area is 4.6 in the zip code area of 18201-Hazleton in Luzerne County. The highest CNI score indicates the most barriers to community health care access.
 - ❑ This zip code area holds the highest measures for the study area for:
 - ❑ Minority population at 47.7%
 - ❑ Population with limited English proficiency at 10.3%
- ❑ Zip code area 18701-Wilkes Barre shows the highest rates for the study area for: renters (90.5%), uninsured (21.5%), residents with no high school diploma (22.5%), and residents aged 65 and older living in poverty (34.4%).
- ❑ Zip code area 18617-Glen Lyon reports the highest rates across the GWV/GSWB study area of families with married or single parents living in poverty (58.3% of married parents, 86.6% of single parents living in poverty).
- ❑ The overall CNI score for the GWV/GSWB study area is 3.2. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). Therefore, according to the overall CNI score, the GWV/GSWB study area experiences higher than average barriers to health care access.
- From 2011 to 2014, the overall CNI value for the GWV/GSWB study area went from the average value for the scale at 3.0 to 3.2; a slight increase that means a slight rise in the number of barriers to health care access.

CNI Scores (Data)

Zip	City	County	2014 Tot. Pop.	Rental %	Unemp %	Uninsu %	Minor %	Lim Eng	No HS Dip	65+ Pov	M w/ Chil Pov	Sin w/ Chil Pov	Inc Rank	Insur Rank	Educ Rank	Cult Rank	Hous Rank	2014 CNI Score
18201	Hazleton	Luzerne	27,534	43.9%	10.8%	10.7%	47.7%	10.3%	19.8%	14.7%	32.2%	58.3%	5	4	4	5	5	4.6
18617	Glen Lyon	Luzerne	2,998	42.1%	11.0%	12.7%	28.9%	0.7%	17.2%	15.8%	58.3%	86.6%	5	4	4	4	5	4.4
18701	Wilkes Barre	Luzerne	3,110	90.5%	12.3%	21.5%	16.9%	1.2%	22.5%	34.4%	35.6%	48.8%	4	5	5	3	5	4.4
18702	Wilkes Barre	Luzerne	40,096	44.7%	8.6%	11.6%	28.0%	2.1%	13.7%	13.3%	30.7%	55.6%	5	4	3	4	5	4.2
18651	Plymouth	Luzerne	9,104	39.0%	10.9%	11.0%	8.9%	0.6%	16.4%	13.5%	26.6%	48.1%	4	4	4	3	5	4.0
18202	Hazleton	Luzerne	13,718	31.8%	9.4%	9.7%	27.2%	7.1%	14.3%	9.8%	37.7%	66.4%	5	3	3	4	4	3.8
18706	Wilkes Barre	Luzerne	16,454	33.4%	7.0%	10.1%	9.0%	0.6%	12.1%	12.4%	28.5%	59.6%	5	3	3	3	4	3.6
18709	Luzerne	Luzerne	2,925	42.6%	16.3%	11.9%	4.3%	0.3%	12.2%	11.2%	40.5%	84.4%	5	4	3	1	5	3.6
18634	Nanticoke	Luzerne	13,344	37.4%	9.2%	9.9%	6.1%	0.7%	14.0%	10.1%	27.4%	51.5%	4	3	3	2	5	3.4
18704	Kingston	Luzerne	31,157	41.0%	8.2%	10.0%	9.2%	0.8%	10.6%	11.9%	23.3%	45.6%	4	3	2	3	5	3.4
18705	Wilkes Barre	Luzerne	14,707	33.0%	10.0%	8.8%	12.3%	1.4%	11.0%	10.6%	19.8%	49.2%	4	3	3	3	4	3.4
18224	Freeland	Luzerne	5,973	27.3%	6.2%	10.2%	7.9%	1.3%	10.5%	12.2%	19.2%	60.9%	5	3	2	2	4	3.2
18640	Pittston	Luzerne	16,427	32.9%	11.5%	9.1%	5.4%	0.7%	12.3%	12.6%	11.3%	26.0%	2	3	3	2	4	2.8
GWV/GSWB Community Summary			304,592	32.3%	8.6%	9.0%	14.8%	2.0%	11.9%	10.7%	21.8%	47.0%	3.8	2.8	2.6	2.8	3.8	3.2

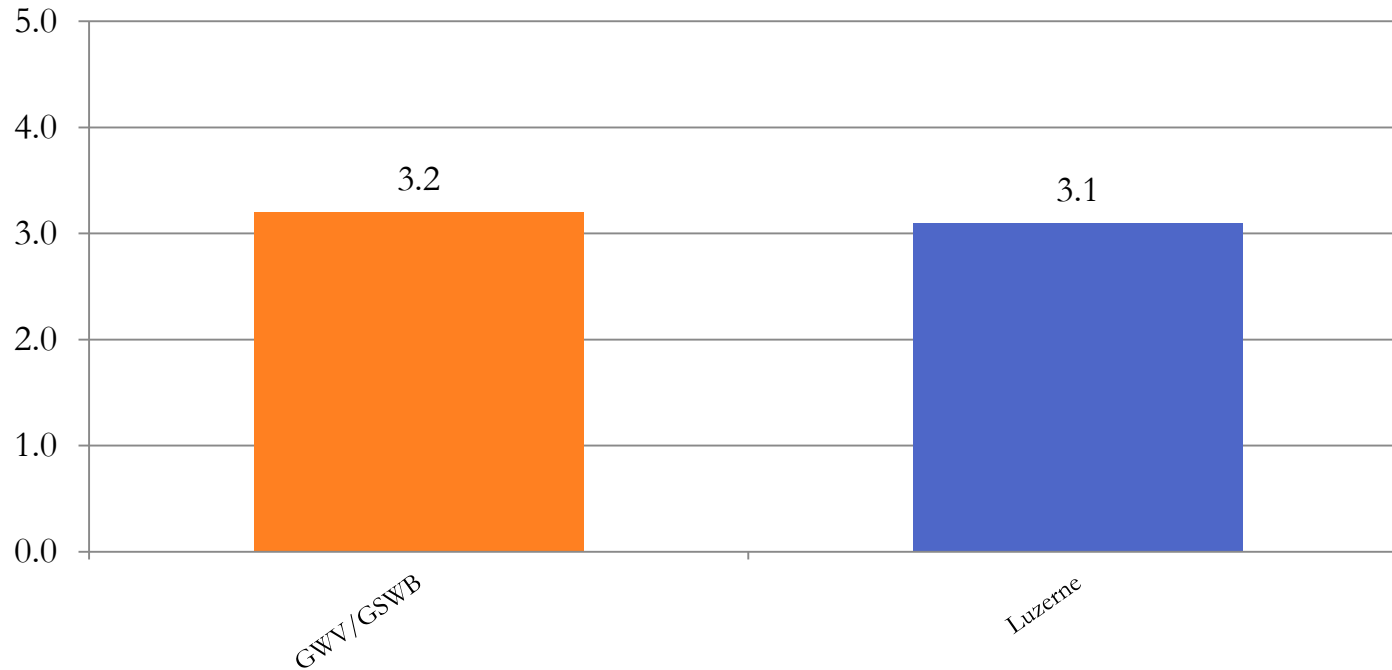
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 - Minority population at 47.7%
 - Population with limited English proficiency at 10.3%
- Zip code area 18701-Wilkes Barre shows the highest rates for the study area for: renters (90.5%), uninsured (21.5%), residents with no high school diploma (22.5%), and residents aged 65 and older living in poverty (34.4%).
- Zip code area 18617-Glen Lyon reports the highest rates across the GWV/GSWB study area of families with married or single parents living in poverty (58.3% of married parents, 86.6% of single parents living in poverty).

CNI Scores (Data)

Zip	City	County	2014 Tot. Pop.	Rental %	Unemp %	Uninsu %	Minor %	Lim Eng	No HS Dip	65+ Pov	M w/ Chil Pov	Sin w/ Chil Pov	Inc Rank	Insur Rank	Educ Rank	Cult Rank	Hous Rank	2014 CNI Score
18643	Pittston	Luzerne	12795	28.7%	7.3%	7.7%	3.7%	0.2%	9.3%	9.4%	20.2%	61.0%	5	2	2	1	4	2.8
18642	Duryea	Luzerne	4400	27.9%	12.3%	7.8%	4.3%	0.2%	8.3%	6.0%	17.5%	34.2%	3	3	2	1	4	2.6
18612	Dallas	Luzerne	15997	21.5%	8.8%	7.3%	3.6%	0.5%	9.1%	9.7%	10.3%	41.3%	3	2	2	1	3	2.2
18641	Pittston	Luzerne	6540	25.0%	8.9%	6.2%	4.6%	0.4%	9.7%	6.7%	12.0%	31.1%	2	2	2	2	3	2.2
18644	Wyoming	Luzerne	7525	25.5%	6.6%	8.0%	3.2%	0.3%	7.3%	8.2%	16.7%	41.5%	3	2	1	1	4	2.2
18655	Shickshinny	Luzerne	6306	18.6%	7.0%	7.1%	3.0%	0.5%	11.3%	11.3%	12.5%	33.6%	3	2	3	1	2	2.2
18708	Shavertown	Luzerne	11182	13.2%	3.9%	4.9%	14.9%	0.4%	8.6%	5.7%	9.3%	57.9%	4	1	2	3	1	2.2
18621	Hunlock Creek	Luzerne	4868	12.3%	5.4%	6.6%	2.8%	0.3%	12.3%	11.3%	15.7%	40.8%	3	2	3	1	1	2.0
18661	White Haven	Luzerne	5488	13.1%	8.2%	5.6%	5.4%	0.7%	9.3%	5.7%	14.7%	41.7%	3	2	2	2	1	2.0
18222	Drums	Luzerne	9386	15.1%	4.8%	4.5%	9.9%	1.4%	6.8%	2.8%	8.5%	21.4%	2	1	1	3	1	1.6
18618	Harveys Lake	Luzerne	2786	18.7%	7.5%	5.2%	2.8%	0.3%	6.4%	3.2%	6.0%	18.0%	1	2	1	1	2	1.4
18660	Wapwallopen	Luzerne	2803	12.3%	7.6%	4.2%	3.0%	0.2%	8.8%	7.9%	7.1%	33.3%	2	1	2	1	1	1.4
18707	Mountain Top	Luzerne	16969	11.0%	7.2%	4.5%	7.0%	0.3%	5.1%	3.0%	2.7%	8.5%	1	1	1	2	1	1.2
GWV/GSWB Community Summary			304,592	32.3%	8.6%	9.0%	14.8%	2.0%	11.9%	10.7%	21.8%	47.0%	3.8	2.8	2.6	2.8	3.8	3.2

- The overall CNI score for the GWV/GSWB study area is 3.2. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). Therefore, according to the overall CNI score, the GWV/GSWB study area experiences higher than average barriers to health care access.
- Of the 26 zip code areas in the GWV/GSWB study area, 12 report a CNI score that is higher than the scale average (3.0) and 14 report a CNI score lower than the scale average.

Community Need Index



- The average CNI score for the GWV/GSWB study area is 3.2; slightly higher than the average for the scale (3.0) and higher than Luzerne County's score of 3.1.

CNI Scores (Data)

Zip	City	County	2011 CNI Score	2014 CNI Score	2011 – 2014 Change
18201	Hazleton	Luzerne	4.0	4.6	+ 0.6
18617	Glen Lyon	Luzerne	4.8	4.4	- 0.4
18701	Wilkes Barre	Luzerne	4.2	4.4	+ 0.2
18702	Wilkes Barre	Luzerne	3.8	4.2	+ 0.4
18651	Plymouth	Luzerne	3.2	4.0	+ 0.8
18202	Hazleton	Luzerne	3.6	3.8	+ 0.2
18706	Wilkes Barre	Luzerne	3.4	3.6	+ 0.2
18709	Luzerne	Luzerne	3.4	3.6	+ 0.2
18634	Nanticoke	Luzerne	3.6	3.4	- 0.2
18704	Kingston	Luzerne	3.2	3.4	+ 0.2
18705	Wilkes Barre	Luzerne	2.8	3.4	+ 0.6
18224	Freeland	Luzerne	2.8	3.2	+ 0.4
18640	Pittston	Luzerne	3.0	2.8	- 0.2
18643	Pittston	Luzerne	2.8	2.8	0.0
18642	Duryea	Luzerne	2.4	2.6	+ 0.2
18612	Dallas	Luzerne	1.8	2.2	+ 0.4
18641	Pittston	Luzerne	2.4	2.2	- 0.2
18644	Wyoming	Luzerne	2.6	2.2	- 0.4
18655	Shickshinny	Luzerne	2.2	2.2	0.0
18708	Shavertown	Luzerne	2.2	2.2	0.0
18621	Hunlock Creek	Luzerne	2.0	2.0	0.0
18661	White Haven	Luzerne	2.2	2.0	- 0.2
18222	Drums	Luzerne	1.8	1.6	- 0.2
18618	Harveys Lake	Luzerne	2.0	1.4	- 0.6
18660	Wapwallopen	Luzerne	1.8	1.4	- 0.4
18707	Mountain Top	Luzerne	1.8	1.2	⁸⁵ - 0.6
GWV/GSWB Community Study Area			3.0	3.2	+ 0.2

- Tripp Umbach did not complete the CHNA for GWV or GSWB in the past; however, Tripp Umbach had the relevant CNI data from other projects that we completed.
- From 2011 to 2014:
 - The overall CNI value for the GWV/GSWB study area went from the average value for the scale at 3.0 to 3.2; a slight increase that means a slight rise in the number of barriers to health care access.
 - Of the 26 zip code areas in the GWV/GSWB study area:
 - 12 experienced rises (worsening) in CNI score
 - 10 saw declines in CNI score
 - 4 remained consistent
 - The largest increase in CNI score (more barriers) was for Plymouth (18651) going from 3.2 to 4.0.

County Health Rankings Data

- The County Health Rankings show that where we live impacts our health status. The health of a community depends on many different factors – from individual health behaviors, education and jobs, to quality of healthcare and the environment. The rankings help community leaders see that where we live, learn, work, and play influences how healthy we are and how long we live.
- The County Health Rankings are a key component of the Mobilizing Action Toward Community Health (MATCH) project. MATCH is the collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The rankings identify the multiple health factors that determine a county's health status. Each county receives a summary rank for its health outcomes and health factors - the four different types of health factors include: health behaviors, clinical care, social and economic factors, and the physical environment. The Rankings are a real “Call to Action” for state and local health departments to develop broad-based solutions with others in their community so all residents can be healthy. But efforts will also be made to mobilize community leaders outside the public health sector to take action and invest in programs and policy changes that address barriers to good health and help residents lead healthier lives. Other community leaders may include: educators; elected and appointed officials, including mayors, governors, health commissioners, city/county councils, legislators, and staff; business owners; and the healthcare sector.

County Health Rankings Data

- Data across 34 various health measures are used to calculate the Health Ranking.
 - The measures include:
 - Mortality – Length of Life
 - Morbidity – Quality of Life
 - Tobacco Use
 - Diet and Exercise
 - Alcohol Use
 - Sexual Behavior
 - Access to care
 - Quality of care
 - Education
 - Employment
 - Income
 - Family and Social support
 - Community Safety
 - Air and Water quality
 - Housing and Transit
 - Premature death
 - Poor or fair health
 - Poor physical health days
 - Poor mental health days
 - Low birth weight
 - Adult smoking
 - Adult obesity
 - Food environment index
 - Physical inactivity
 - Access to exercise opportunities
 - Excessive drinking
 - Alcohol-impaired driving deaths
 - Sexually transmitted diseases
 - Teen births
 - Uninsured
 - Primary care physicians
 - Dentists
 - Mental health providers
 - Preventable hospital stays
 - Diabetic screening
 - Mammography screening
 - High school graduation
 - Some college
 - Unemployment
 - Children in poverty
 - Inadequate social support
 - Children in single-parent households
 - Violent crime
 - Injury deaths
 - Air pollution – particulate matter
 - Drinking water violations
 - Severe housing problems
 - Driving alone to work
 - Long commute – driving alone

County Health Rankings Data

- Counties in each of the 50 states are ranked according to summaries of more than 30 health measures. Those having good rankings, such as 1 or 2, are considered to be the “healthiest.” Counties are ranked relative to the health of other counties in the same state (Pennsylvania having 67 counties) on the following summary measures:
 - Health Outcomes—There are two types of health outcomes to represent the health of each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by existing programs and policies at the local, state, and federal levels.
 - Health Factors--A number of different health factors shape a community’s health outcomes. The County Health Rankings are based on weighted scores of four types of factors:
 - Health behaviors (9 measures)
 - Clinical care (7 measures)
 - Social and economic (8 measures)
 - Physical environment (5 measures)

County Health Rankings Data



- Pennsylvania has 67 counties; therefore, the rank scale for Pennsylvania is 1 to 67 (1 being the healthiest county and 67 being the most unhealthy).
- Data for the County Health Rankings is only defined as far as the county level, zip code level data is not available. Therefore, the county level data has been presented here (no Evangelical Community Hospital service area level data is available).
- When looking at the scale of 1 to 67, with 67 being the worst, Luzerne County has a number of county health rankings in the high range including:
 - Health Outcomes (57)
 - Health Factors (58)
 - Mortality (55)
 - Morbidity (55)
 - Social and Economic Factors (63)
- Luzerne County reports higher specific measure rates than the state for:
 - Adult Smoking - Luzerne County = 25%, PA = 20%
 - Adult Obesity - Luzerne County = 30%, PA = 29%
 - Excessive Drinking - Luzerne County = 20%, PA = 17%
 - Unemployment - Luzerne County = 9.1%, PA = 7.9%
 - Inadequate Social Support - Luzerne County = 22%, PA = 21%

County Health Rankings Data



- From 2011 to 2014, Luzerne County saw the following shifts in county health rankings or data:
 - **Going to unhealthier rankings for:**
 - Health Factors; going from 30 to 58.
 - Social and Economic Factors going from 32 to 63
 - **Going to healthier rankings for:**
 - Mortality going from 63 to 55

- Luzerne County showed a decline in the adult smoking rate from 2011 to 2014, going from 27% to 25%
- A rise in the sexually transmitted infection / chlamydia rate from 214 per 100,000 pop. to 234 per 100,000 pop.
- A rise in the PCP rate from 70 per 100,000 pop. to 80 per 100,000 pop. (this is a good thing).
- Mammography screening rate for Luzerne County rose from 58.6% in 2011 to 61.6% in 2014.
- The violent crime rate for Luzerne County declined from 317 per 100,000 pop. to 289 per 100,000 pop.

County Health Rankings Data

(2014 value on top; 2011 value in parentheses)

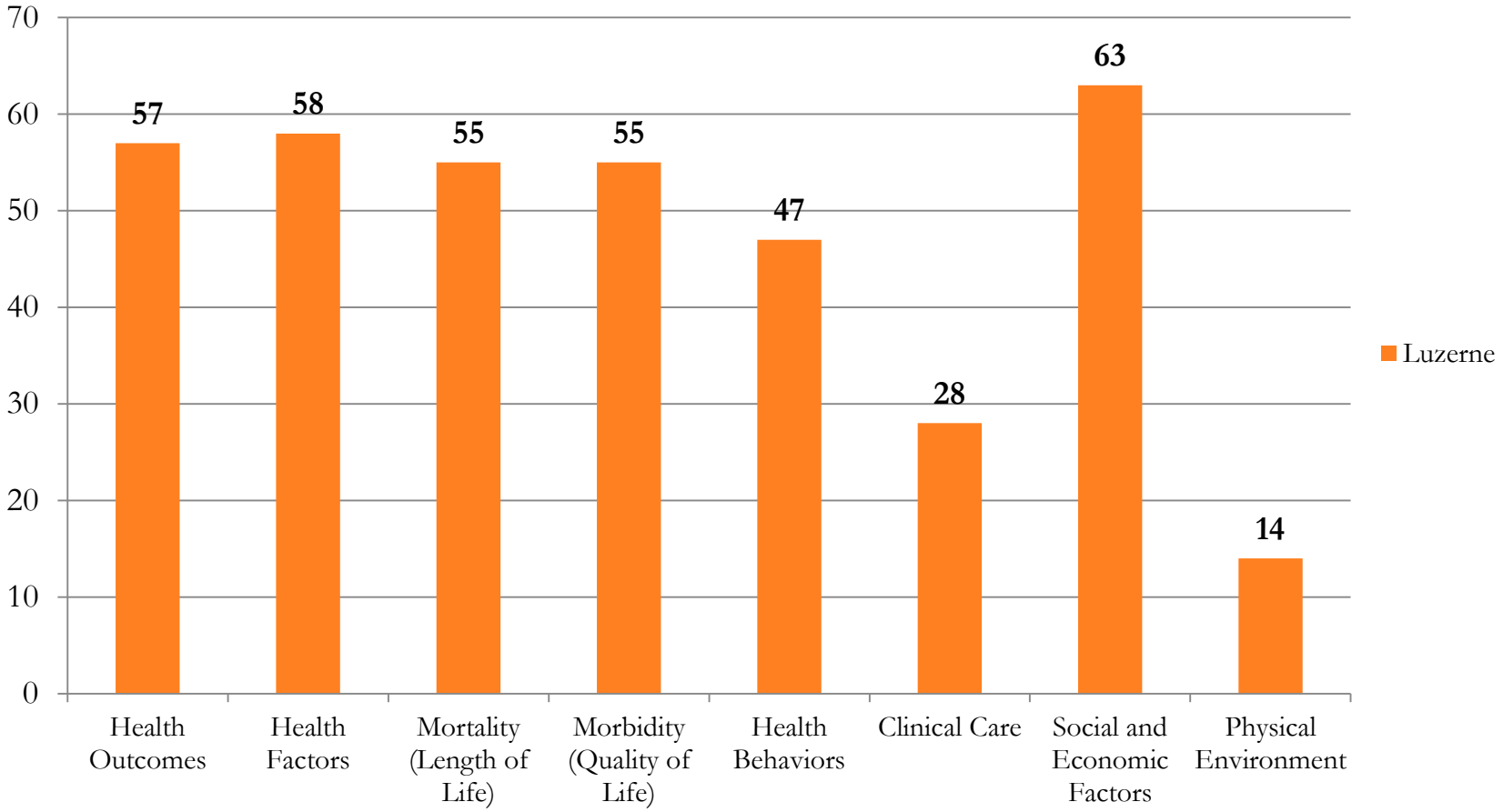
County	Health Outcomes	Health Factors	Mortality (Length of Life)	Morbidity (Quality of Life)	Health Behaviors	Clinical Care	Social and Economic Factors	Physical Environment
Luzerne	57 (59)	58 (30)	55 (63)	55 (50)	47 (44)	28 (28)	63 (32)	14 (10)

County	Adult Smoking (%)	Adult Obesity (%)	Excessive Drinking (%)	Sexually Transmitted Infections (Chlamydia Rate)	Uninsured (%)	PCP Rate
Luzerne	25 (27)	30 (28)	20 (20)	234 (214)	12 (11)	80 (70)

County	Diabetic Screening (% HbA1c)	Diabetes (% Diabetic)	Mammography Screening	Unemployment (% unemployed)	Inadequate Social Support (% no social-emotional support)	Violent Crime Rate
Luzerne	81 (79)	11 (10)	61.6 (58.6)	9.7 (9.1)	22 (22)	289 (317)

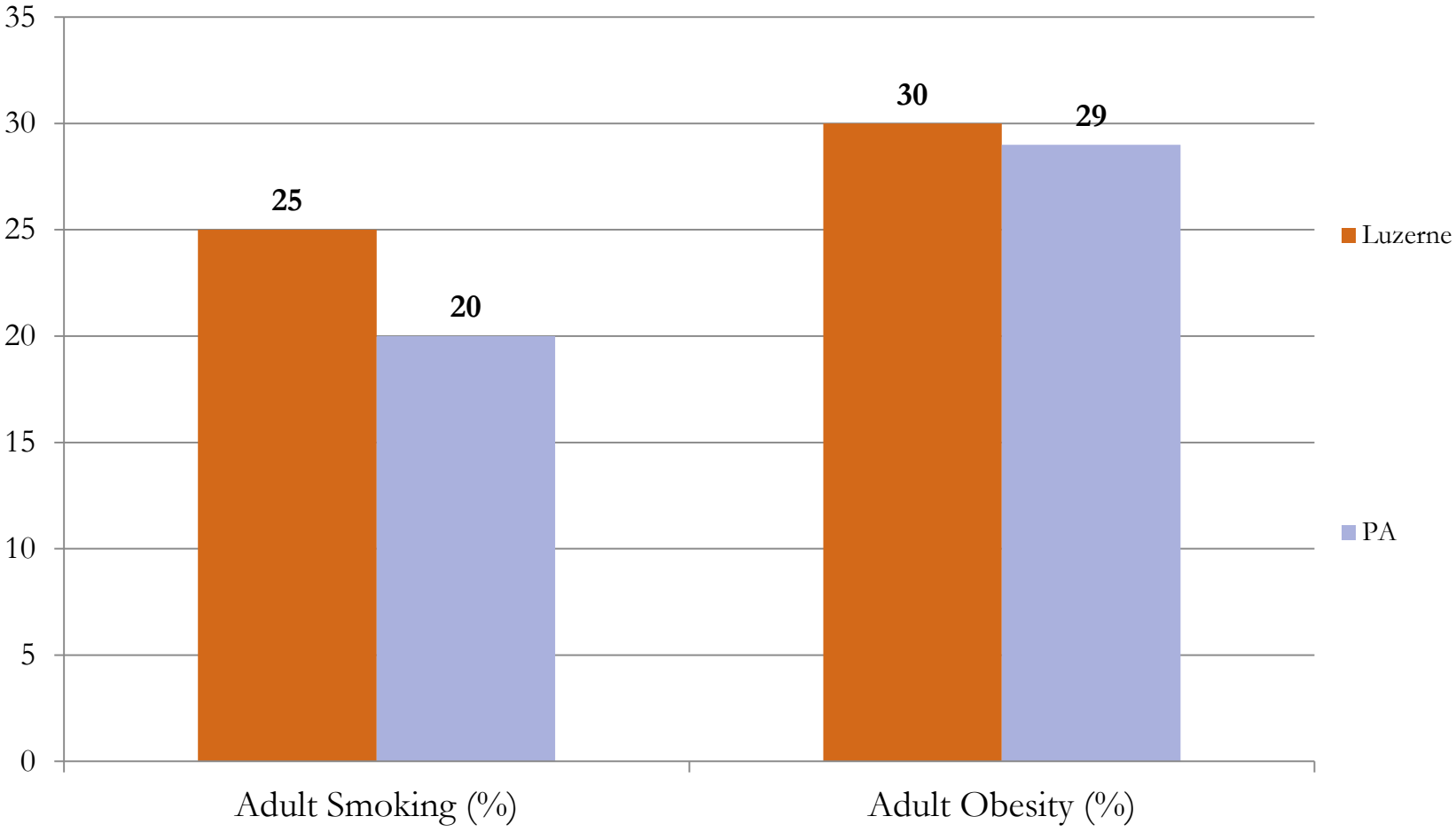
Source: 2014 and 2011 County Health Rankings; Green = top 5 (good ranking). Red = bottom 5 (poor ranking).

County Health Rankings Data (2014)



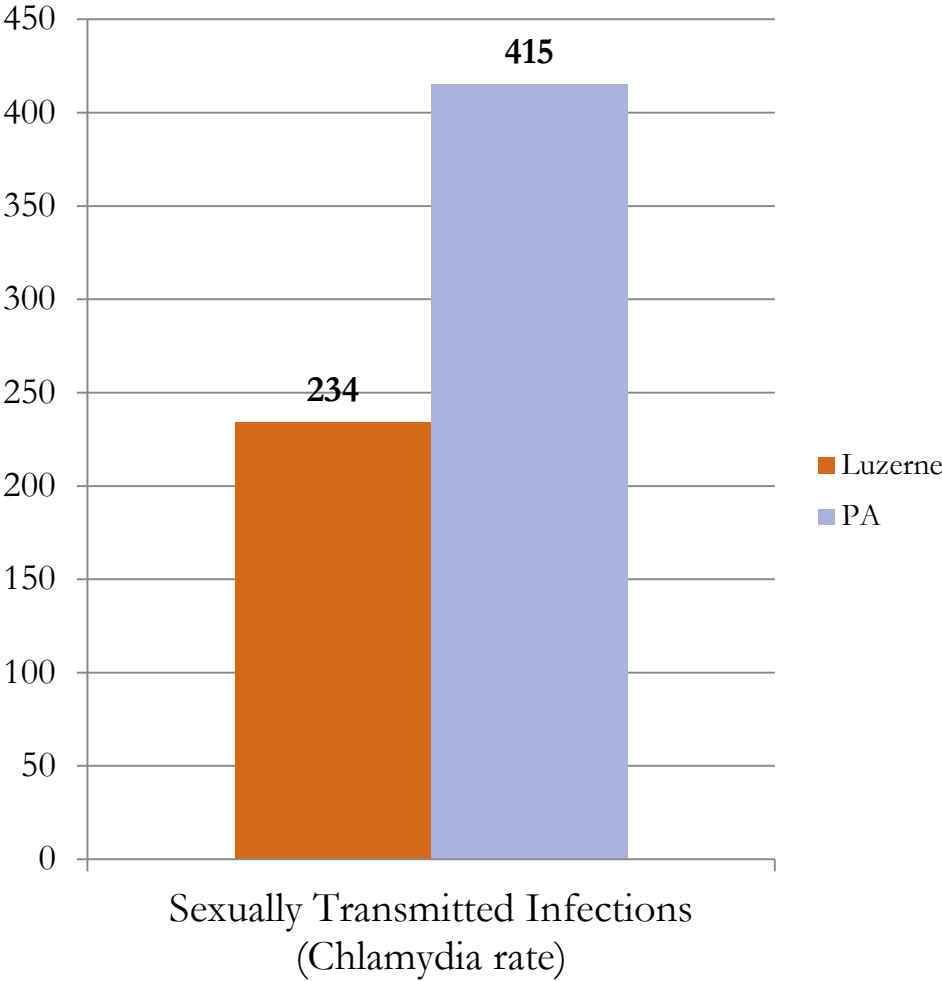
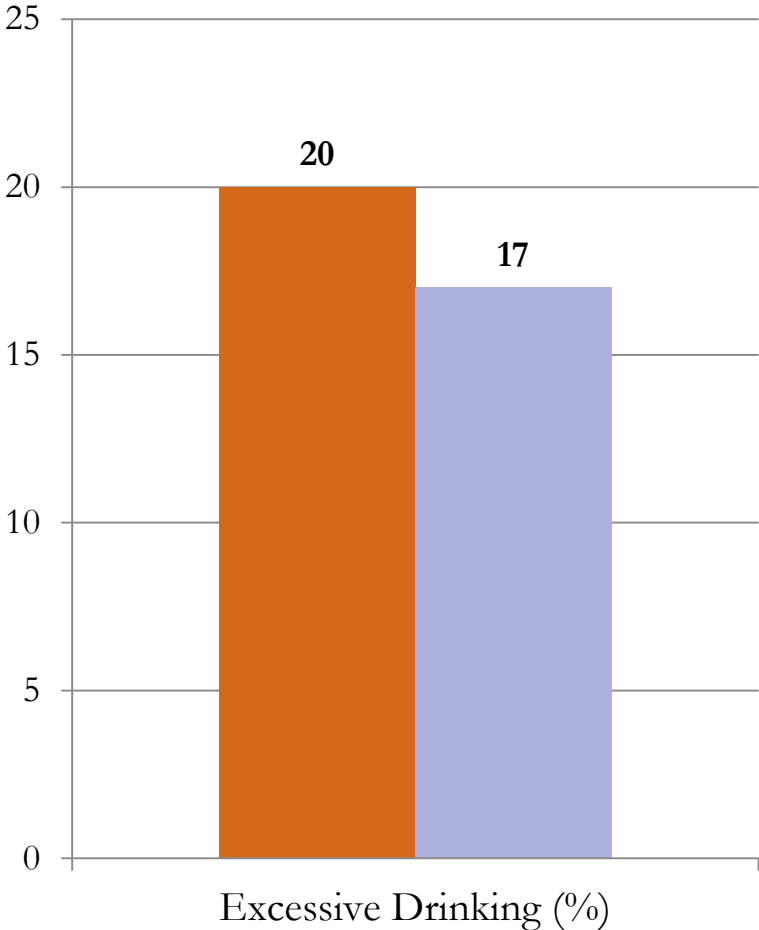
Source: 2014 County Health Rankings

County Health Rankings Data



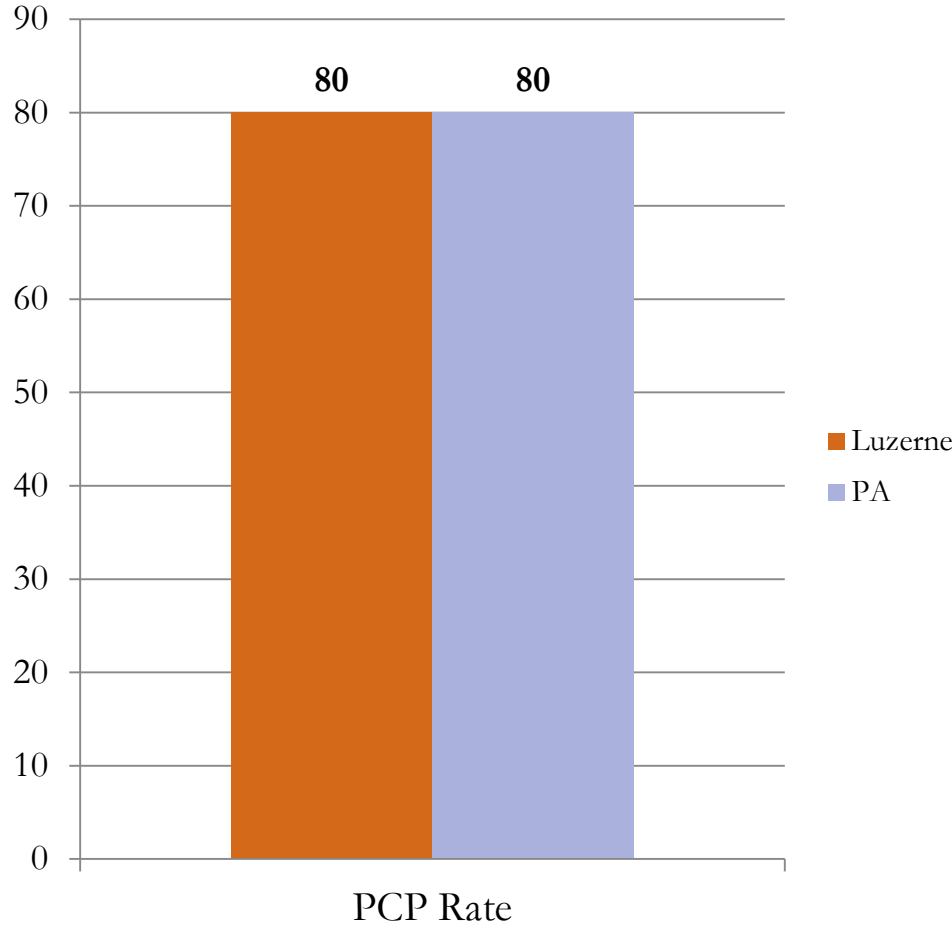
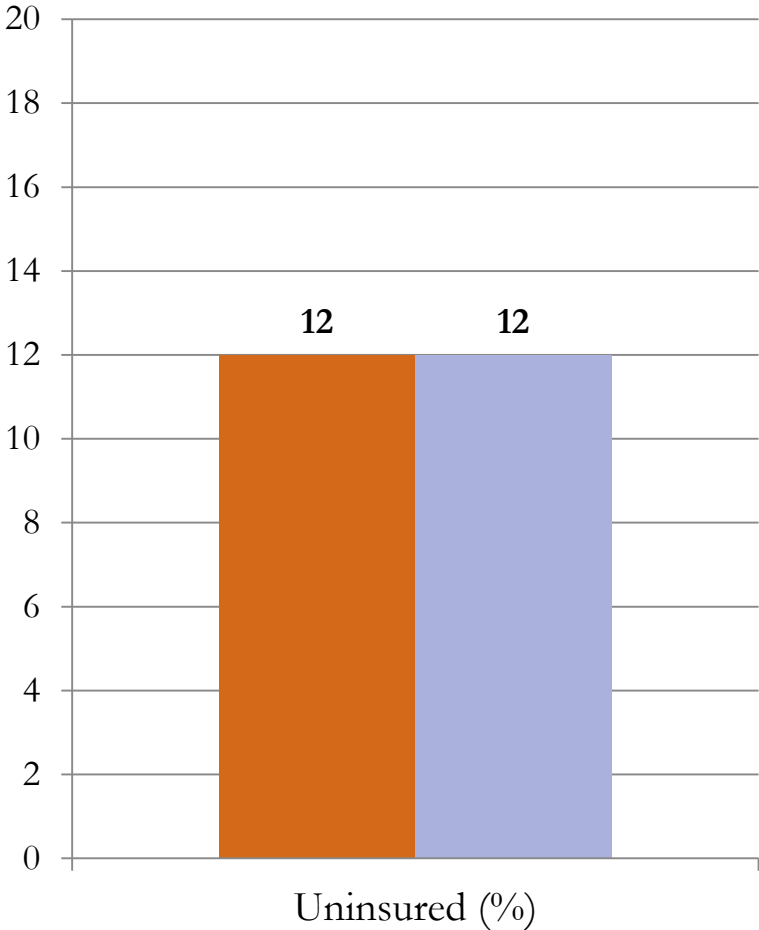
Source: 2014 County Health Rankings

County Health Rankings Data



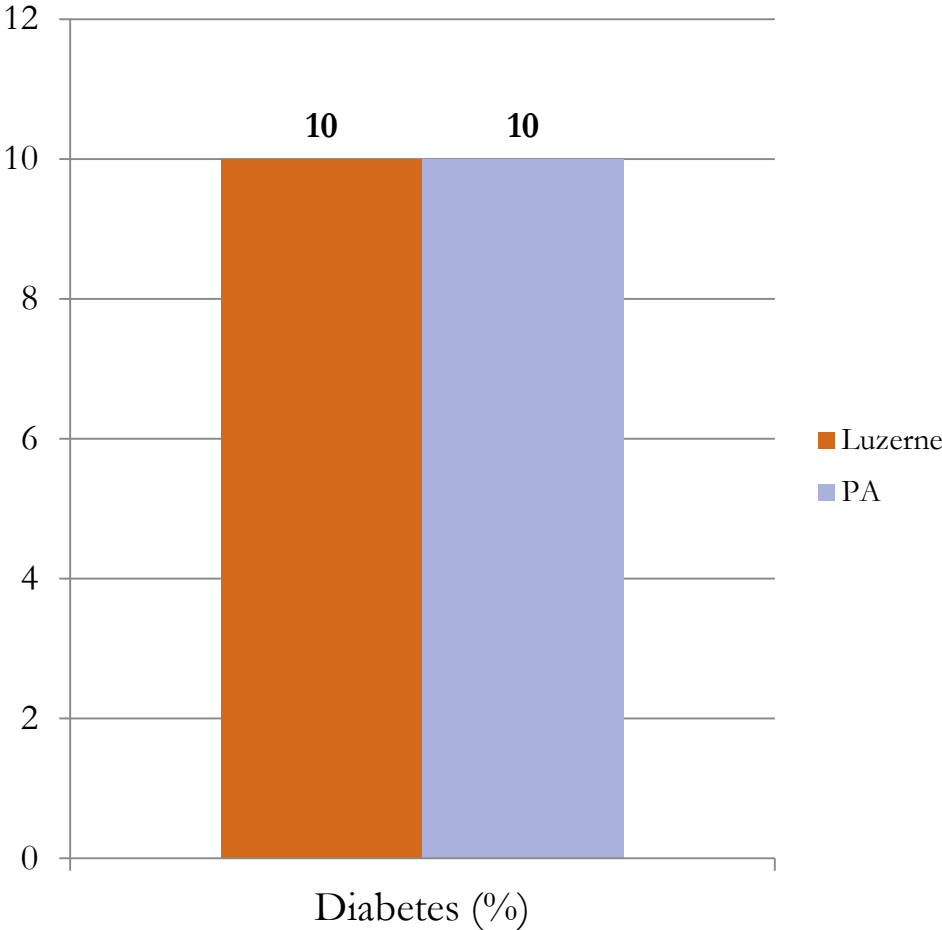
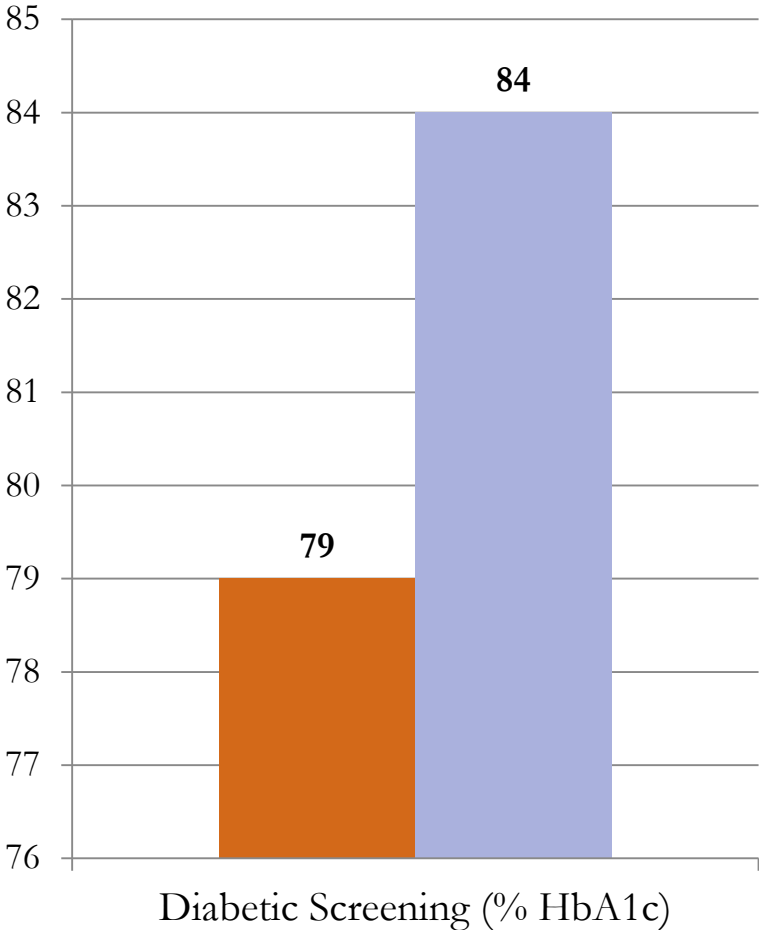
Source: 2014 County Health Rankings

County Health Rankings Data



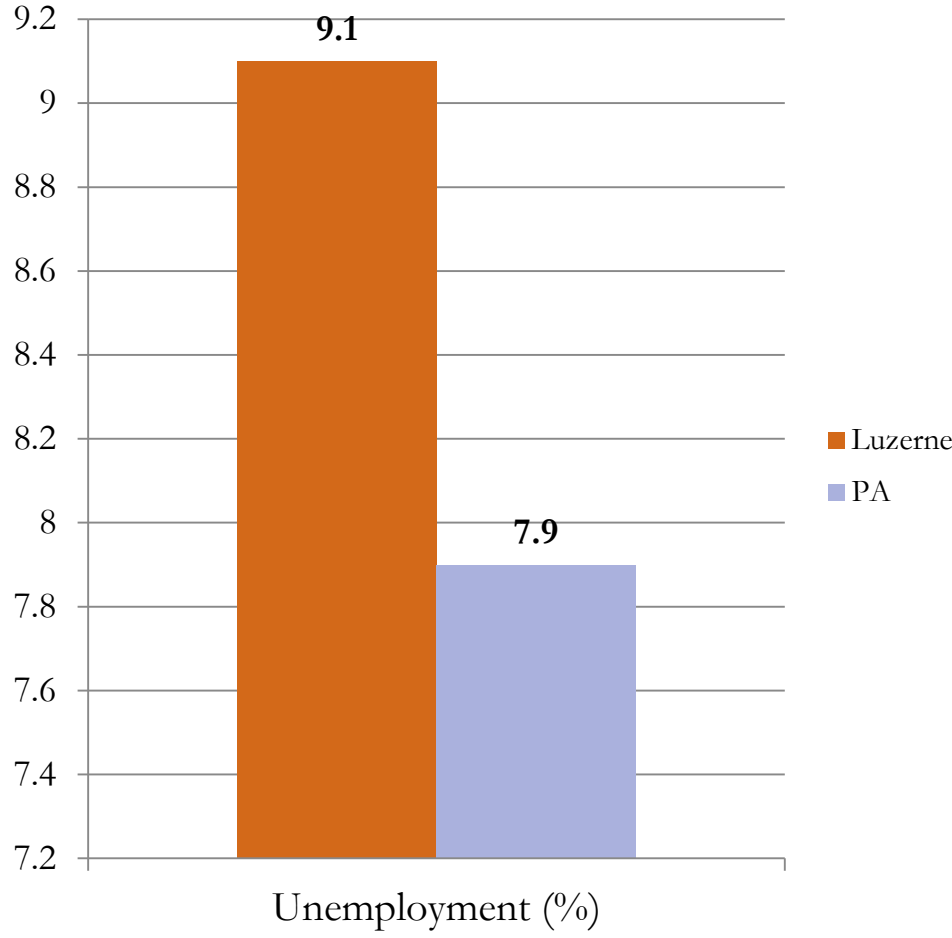
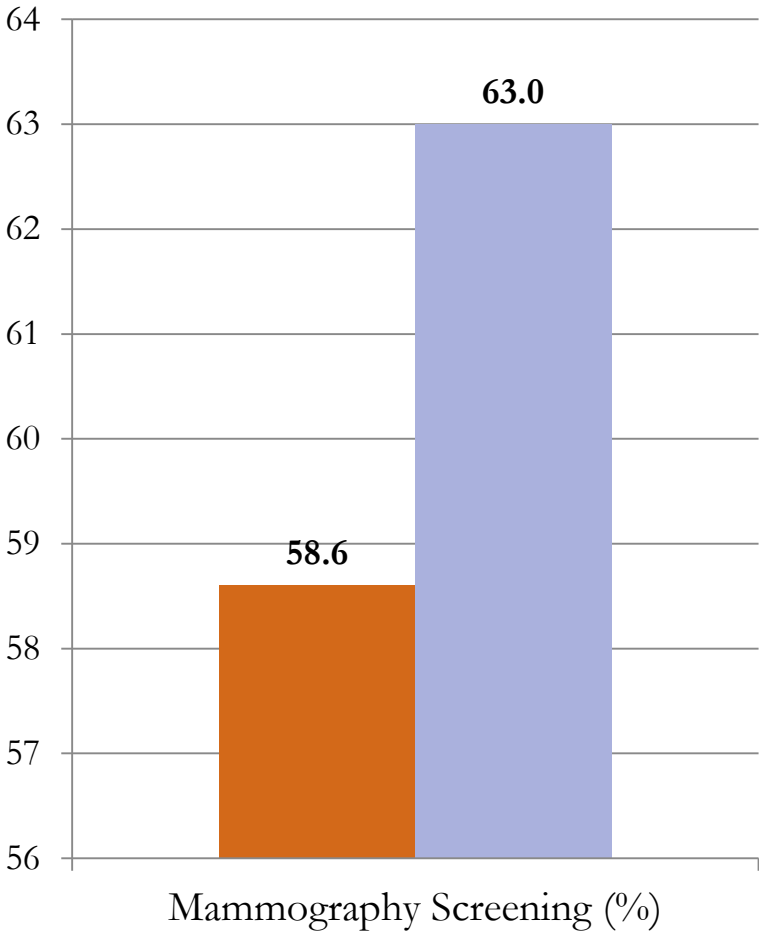
Source: 2014 County Health Rankings

County Health Rankings Data



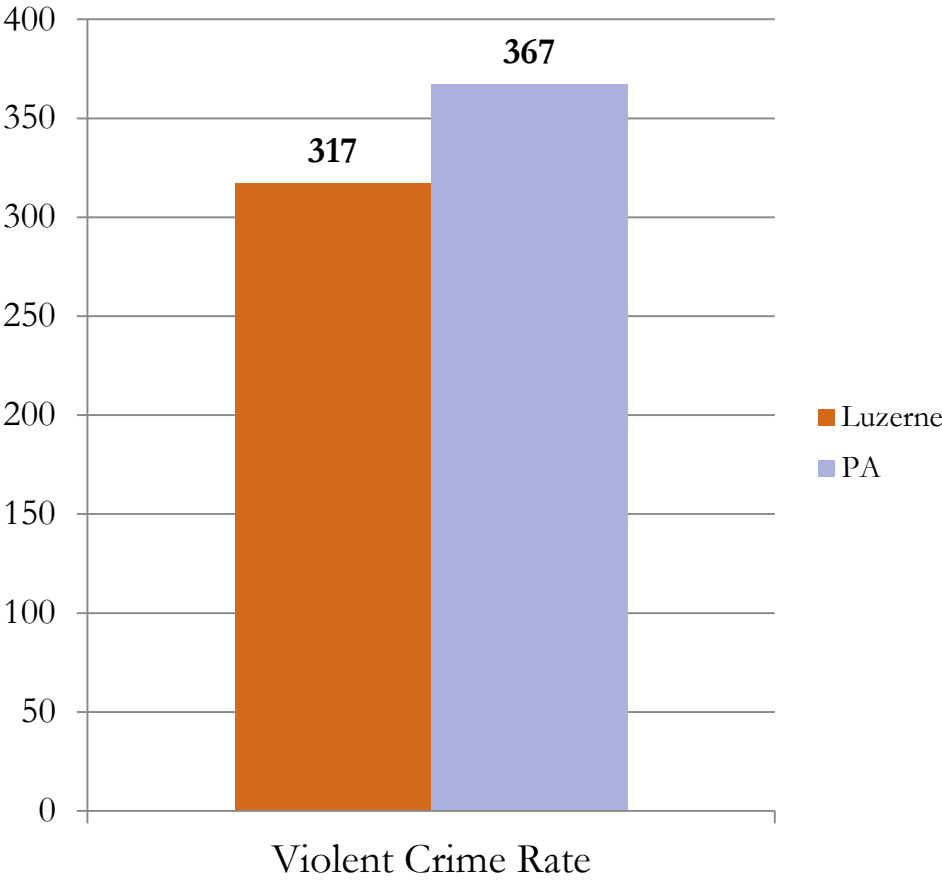
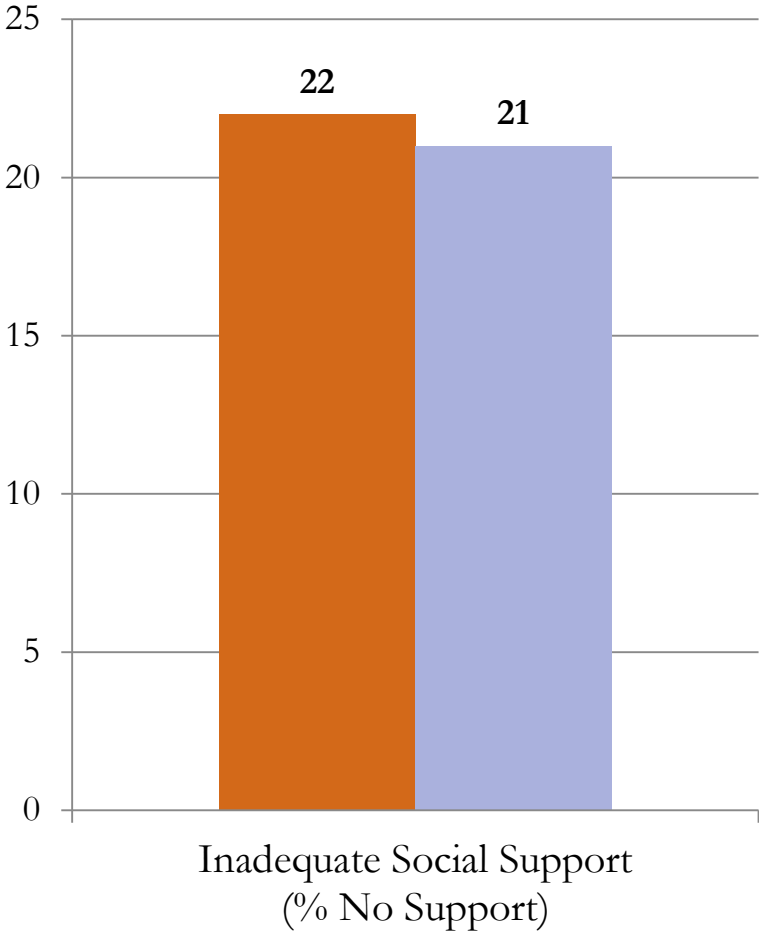
Source: 2014 County Health Rankings

County Health Rankings Data



Source: 2014 County Health Rankings

County Health Rankings Data



Source: 2014 County Health Rankings

Prevention Quality Indicators Index (PQI)

- ❖ The **Prevention Quality Indicators index (PQI)** was developed by the **Agency for Healthcare Research and Quality (AHRQ)**. PQI is similarly referred to as Ambulatory Care Sensitive Hospitalizations. The quality indicator rates are derived from inpatient discharges by zip code using ICD diagnosis and procedure codes. There are 14 quality indicators.
- ❖ The PQI index identifies potentially avoidable hospitalizations for the benefit of targeting priorities and overall community health. **Lower index scores represent less admissions for each of the PQIs.**

Prevention Quality Indicators Index (PQI)

- ❖ From 2011 to 2014, there were a handful of data methodology changes. For each, Tripp Umbach went to past data and adjusted as necessary to make comparable. They are as follows:
 - ❖ In the past, PQI data was presented as a value per 1,000 population. The AHRQ has revised this and the current data is presented as a value per 100,000 population. Tripp Umbach adjusted to match these as needed.
 - ❖ PQI 2 changed from Perforated Appendix in Males 18+ for the past study to Perforated Appendix in Total 18+ population as a rate per 1,000 ICD-9 code admissions for appendicitis. This shift has changed the values for this measure drastically and therefore, Tripp Umbach did not adjust.
 - ❖ PQI 5 changed from COPD in 18+ population to COPD or Asthma in “Older adults” 40+ population. Tripp Umbach did not adjust.
 - ❖ Although not clearly explained by the AHRQ, it would seem that a definition of Newborn population has shifted for PQI 9 because the values are drastically lower in 2014 than in previous years (2011). This has shifted PQI 9 values drastically. Tripp Umbach did not adjust.
 - ❖ PQI 15 changed from Adult Asthma in 18+ population for past study to Asthma in Younger Adults 18-39 population. Tripp Umbach did not adjust.

Prevention Quality Indicators Index (PQI)

PQI Subgroups

- Chronic Lung Conditions
 - PQI 5 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults (40+) Admission Rate*
* PQI 5 for past study was COPD in 18+ population; PQI 5 for current study is now restricted to COPD and Asthma in 40+ population
 - PQI 15 Asthma in Younger Adults Admission Rate*
* PQI 15 for past study was Adult Asthma in 18+ population; PQI 15 for current study is now restricted to Asthma in 18-39 population (“Younger”).
- Diabetes
 - PQI 1 Diabetes Short-Term Complications Admission Rate
 - PQI 3 Diabetes Long-Term Complications Admission Rate
 - PQI 14 Uncontrolled Diabetes Admission Rate
 - PQI 16 Lower Extremity Amputation Rate Among Diabetic Patients
- Heart Conditions
 - PQI 7 Hypertension Admission Rate
 - PQI 8 Congestive Heart Failure Admission Rate
 - PQI 13 Angina Without Procedure Admission Rate
- Other Conditions
 - PQI 2 Perforated Appendix Admission Rate
 - PQI 9 Low Birth Weight Rate
 - PQI 10 Dehydration Admission Rate
 - PQI 11 Bacterial Pneumonia Admission Rate
 - PQI 12 Urinary Tract Infection Admission Rate

Prevention Quality Indicators Index (PQI)



- The GWV/GSWB study area shows eight of the 14 PQI measure that are higher than the state PQI value – indicating higher preventable hospital admission rates for the following:
 - PQI 2 – Perforated Appendix (Study Area = 552.94; PA = 343.91)
 - PQI 5 – COPD or Adult Asthma (Study Area = 663.48; PA = 578.80)
 - PQI 8 – Congestive Heart Failure (Study Area = 440.17; PA = 418.29)
 - PQI 10 – Dehydration (Study Area = 86.16; PA = 61.90)
 - PQI 11 – Bacterial Pneumonia (Study Area = 407.51; PA = 326.16)
 - PQI 12 – Urinary Tract Infection (Study Area = 223.35; PA = 197.51)
 - PQI 14 – Uncontrolled Diabetes (Study Area = 16.33; PA = 14.20)
 - PQI 15 – Asthma in Younger Adults (Study Area = 69.21; PA = 63.34)

- The largest PQI differences between the GWV/GSWB study area and PA are:
 - For the worse: Perforated Appendix in which PA shows a rate of preventable hospitalizations due to perforated appendix at 343.91 per 100,000 population, whereas the GWV/GSWB study area shows a rate of 552.94 preventable hospitalizations per 100,000 population (more than 200 more preventable hospitalization per 100,000 pop.; or 60% more).
 - For the better: Diabetes Short-term complications for the GWV/GSWB study area reports 65.33 preventable hospitalizations per 100,000 while the state reports a rate of 115.16 per 100,000 pop.

Prevention Quality Indicators Index (PQI)



- ❑ From 2011 to 2014, four of the PQI measures' definitions changed drastically and, therefore, cannot be accurately compared.
- ❑ Of the 10 remaining PQI measures, nine of the 10 measures saw reductions in PQI rates from 2011 to 2014 (fewer preventable hospitalizations – a good thing). The largest reduction was for Congestive Heart Failure (going from 469.28 preventable hospitalizations per 100,000 to 440.17 per 100,000).
- ❑ One PQI value for GWV/GSWB saw a rise in preventable hospitalizations, this was for Hypertension; going from 30.56 per 100,000 pop. to 40.02 per 100,000 pop.

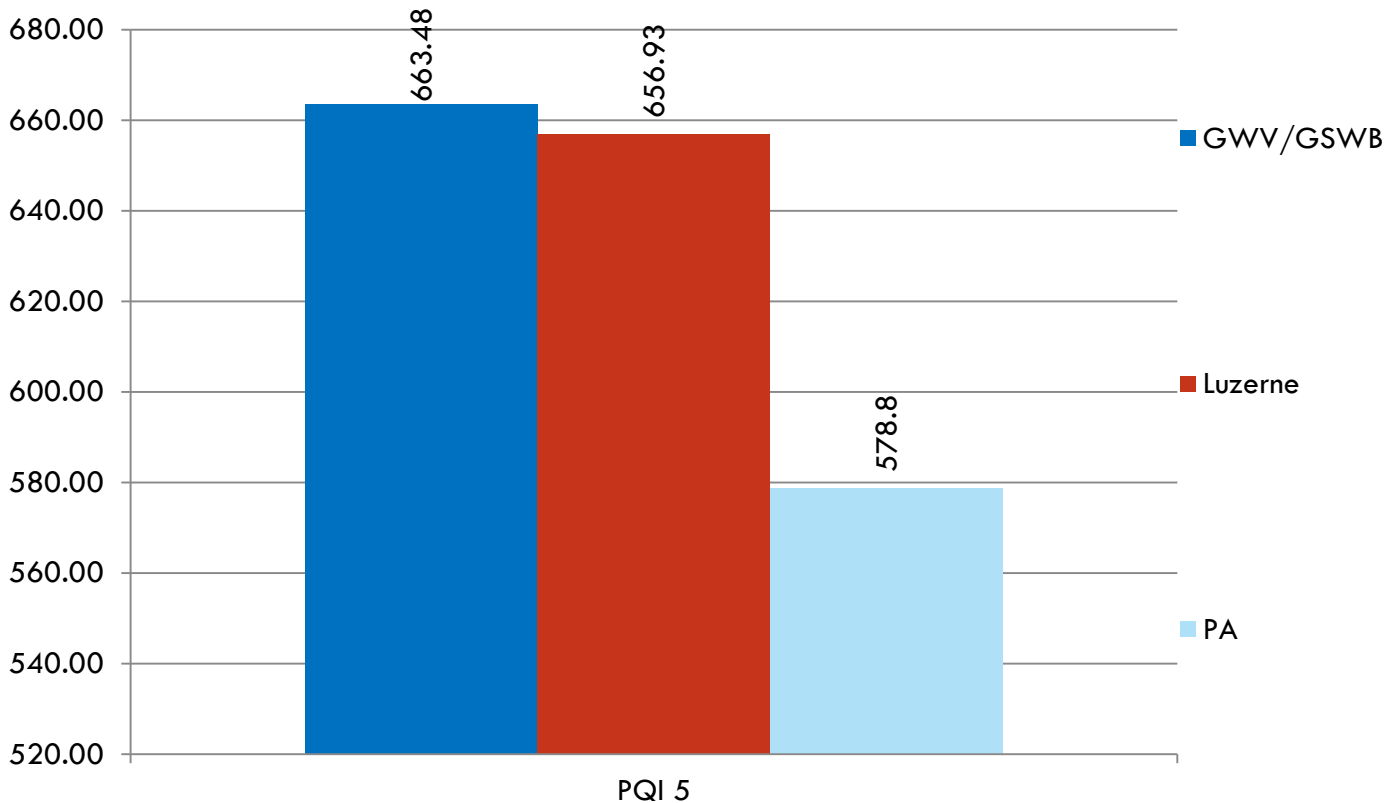
Prevention Quality Indicators Index (PQI)

Prevention Quality Indicators (PQI)	GWV/GSWB Service Area	PA	Difference	2011 PQI GWV/GSWB	2014 PQI GWV/GSWB	Difference
Diabetes Short-Term Complications (PQI1)	65.33	115.16	- 49.83	69.07	65.33	- 3.74
Perforated Appendix (PQI2)	552.94	343.91	+ 209.03	0.28	552.94	+ 552.66
Diabetes Long-Term Complications (PQI3)	111.47	119.79	- 8.32	115.96	111.47	- 4.49
Chronic Obstructive Pulmonary Disease or Adult Asthma(PQI5)	663.48	578.80	+ 84.68	327.37	663.48	+ 336.11
Hypertension (PQI7)	40.02	53.99	- 13.97	30.56	40.02	+ 9.46
Congestive Heart Failure (PQI8)	440.17	418.29	+ 21.88	469.28	440.17	- 29.11
Low Birth Weight (PQI9)	29.78	37.50	- 7.72	2.67	29.78	+ 27.11
Dehydration (PQI10)	86.16	61.90	+ 24.26	109.26	86.16	- 23.10
Bacterial Pneumonia (PQI11)	407.51	326.16	+ 81.35	435.79	407.51	- 28.28
Urinary Tract Infection (PQI12)	223.35	197.51	+ 25.84	226.06	223.35	- 2.71
Angina Without Procedure (PQI13)	9.39	11.80	- 2.41	20.93	9.39	- 11.54
Uncontrolled Diabetes (PQI14)	16.33	14.20	+ 2.13	25.12	16.33	- 8.79
Asthma in Younger Adults (PQI15)	69.21	63.34	+ 5.87	145.26	69.21	- 76.05
Lower Extremity Amputation Among Diabetics (PQI16)	25.72	26.40	- 0.68	43.04	25.72	- 17.32

¹⁰⁴
 *Red values indicate a PQI value for the specific study area that is higher than the PQI for the state of Pennsylvania.
 *Green values indicate a PQI value for the specific study area that is lower than the PQI for the state of Pennsylvania.

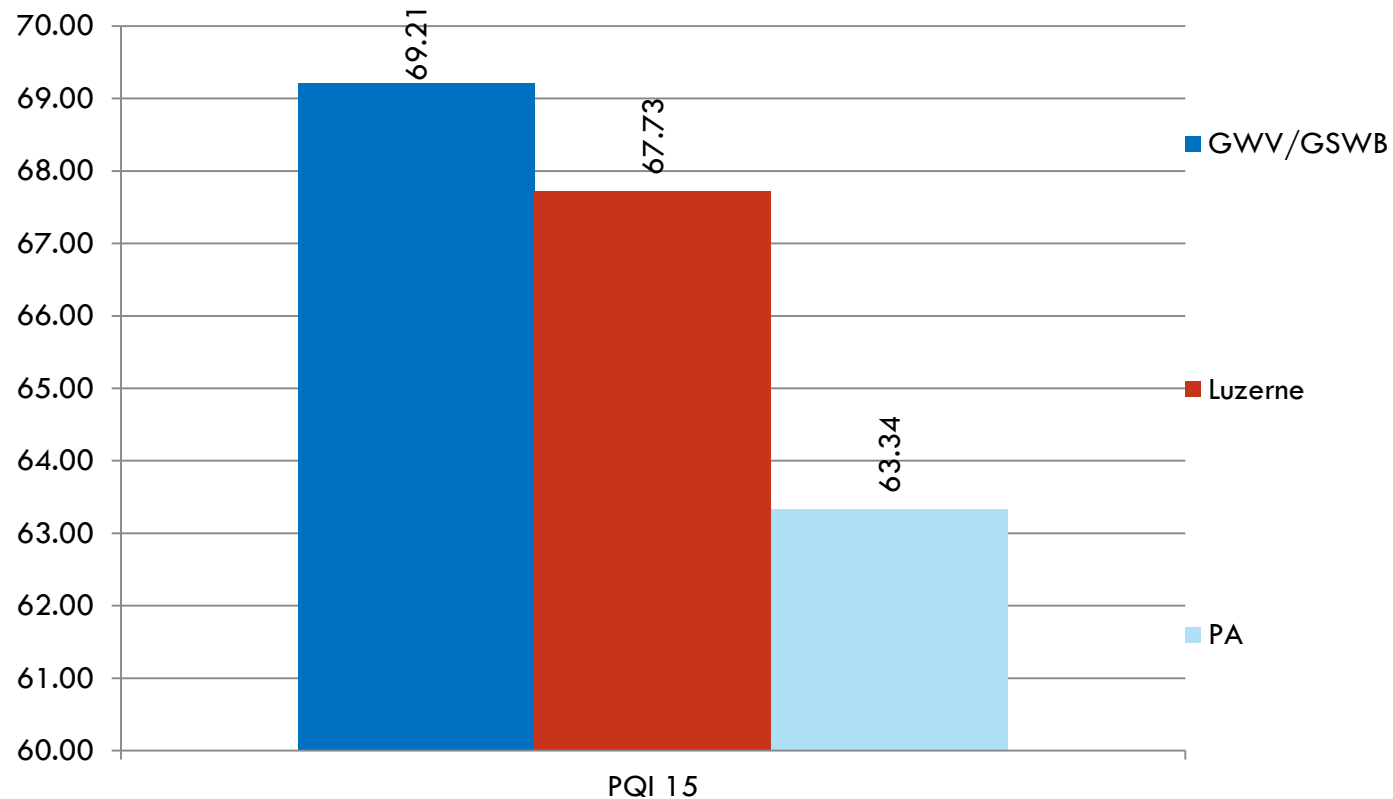
Source: AHRQ

Chronic Lung Conditions



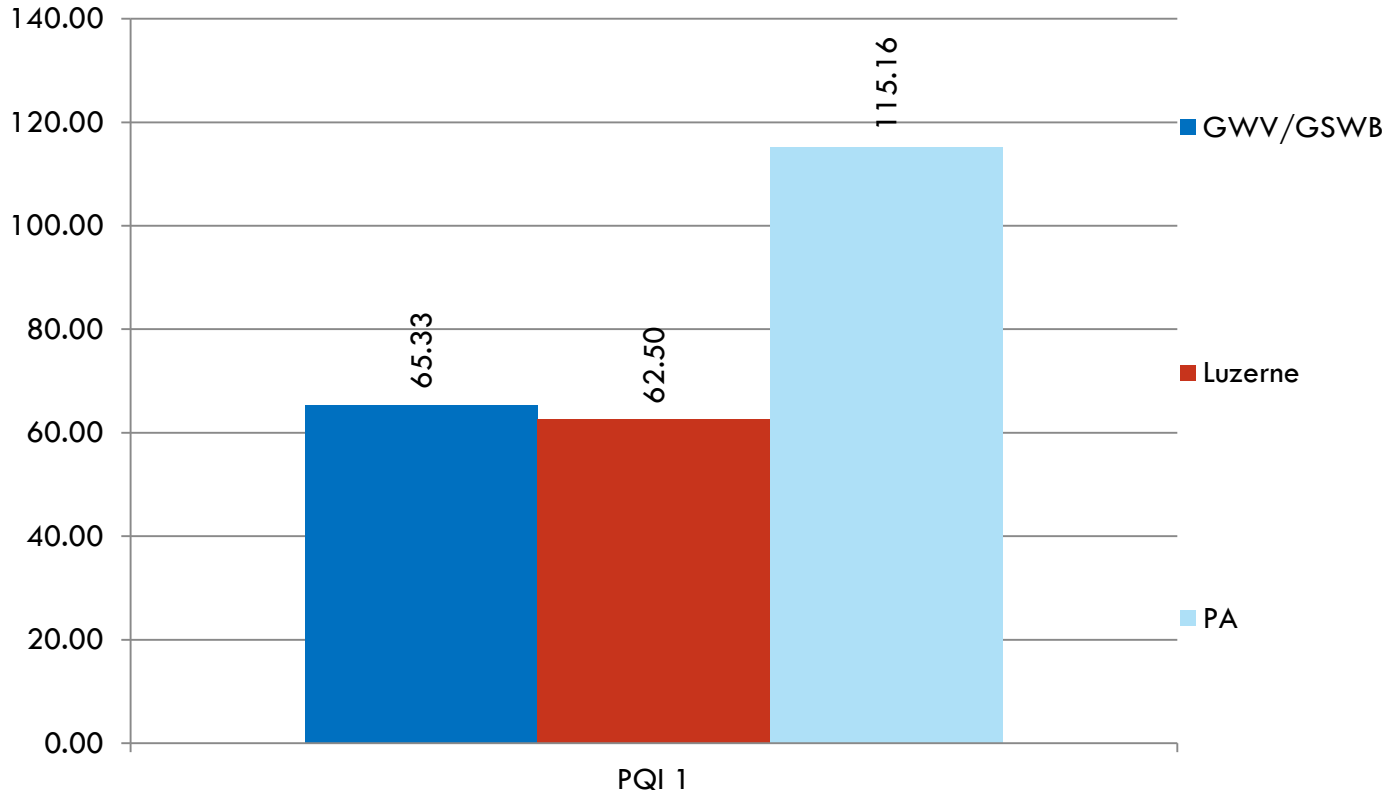
PQI 5 Chronic Obstructive Pulmonary Disease or Asthma in Older Adults Admission Rate

Chronic Lung Conditions (cont'd)



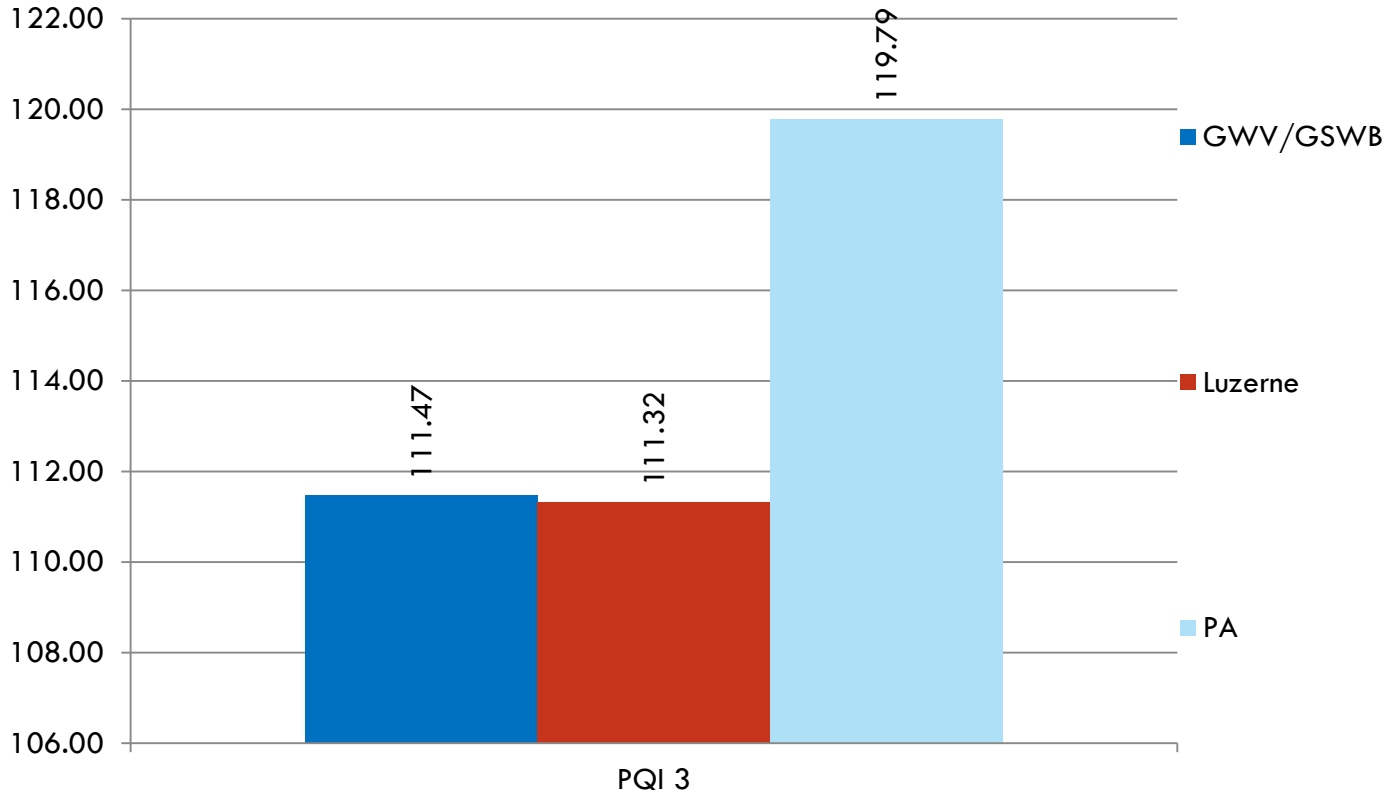
PQI 15 Asthma in Younger Adults Admission Rate

Diabetes



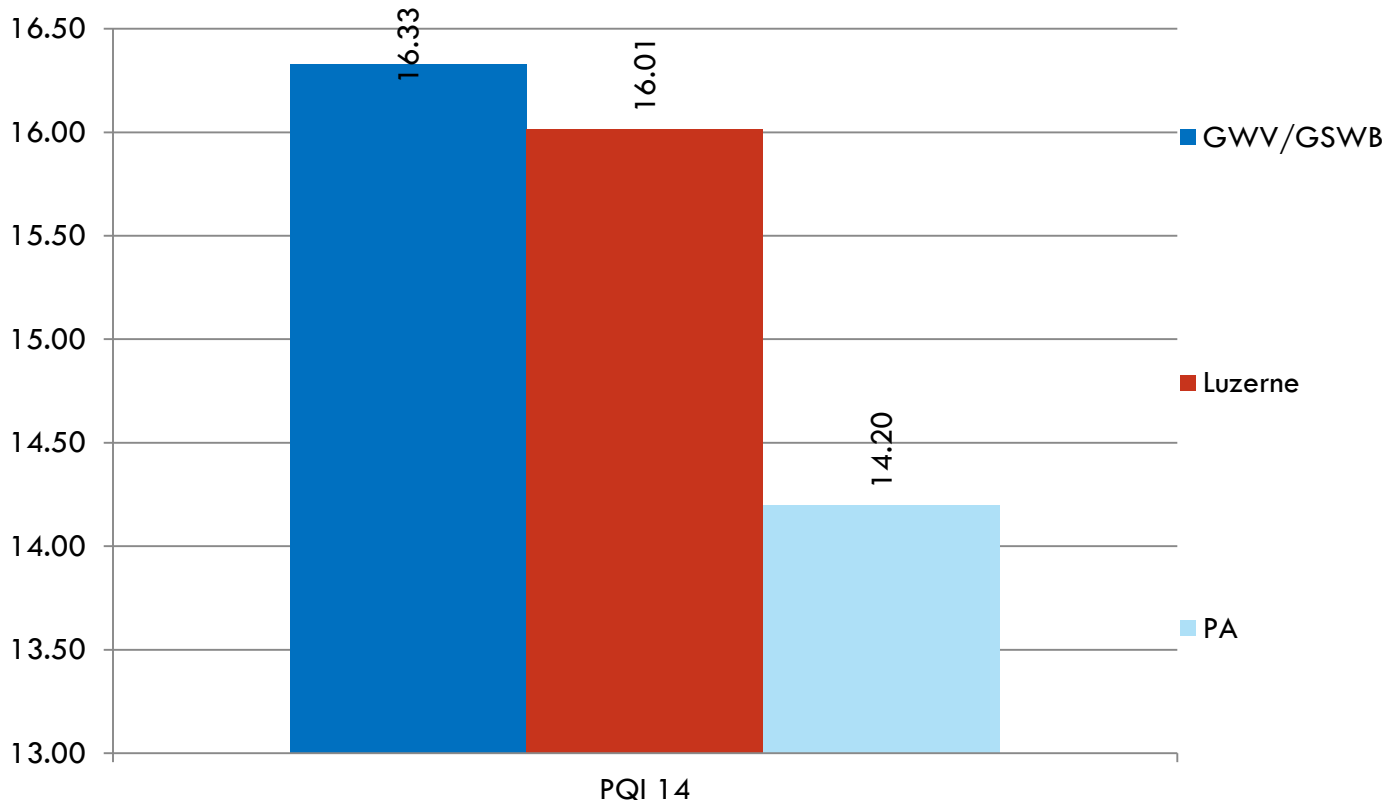
PQI 1 Diabetes Short-Term Complications Admission Rate

Diabetes (cont'd)



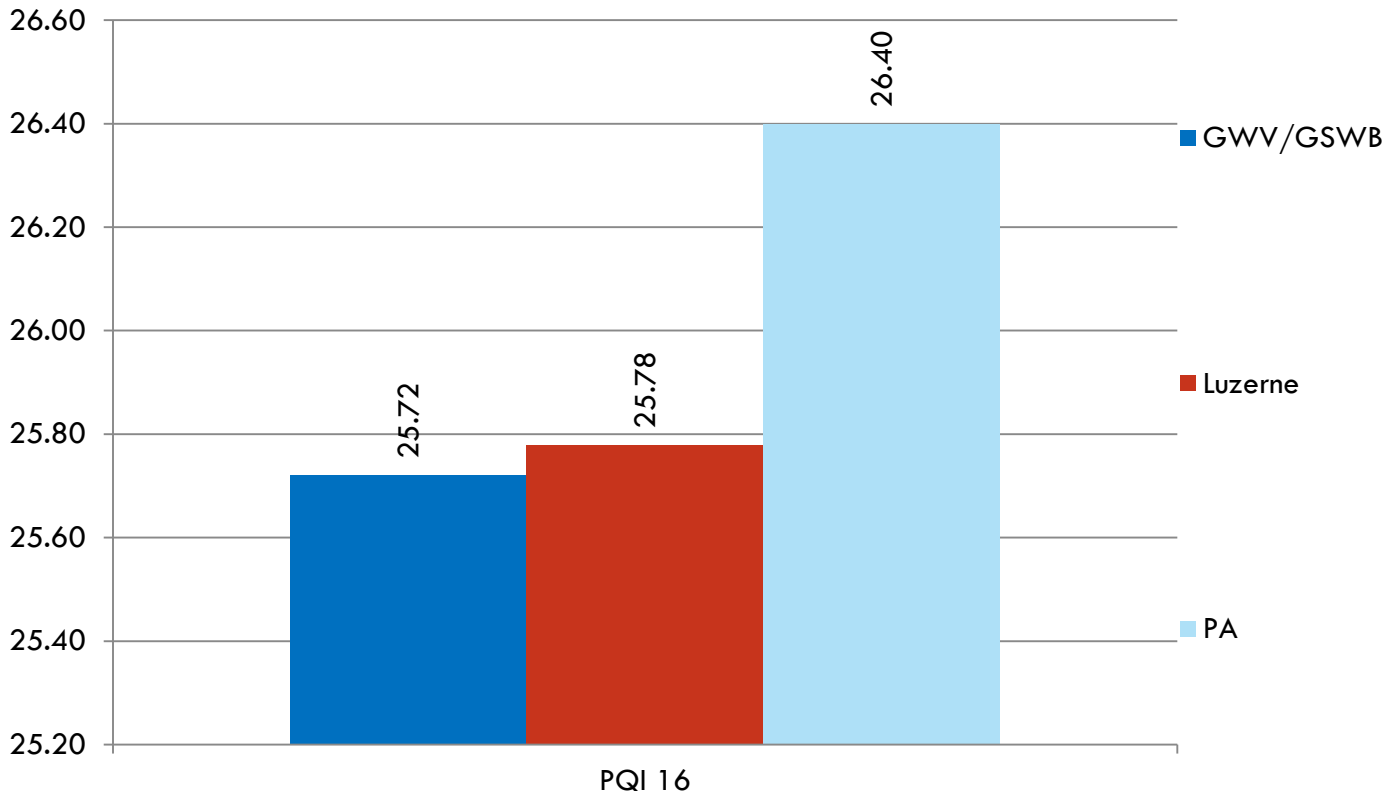
PQI 3 Diabetes Long-Term Complications Admission Rate

Diabetes (cont'd)



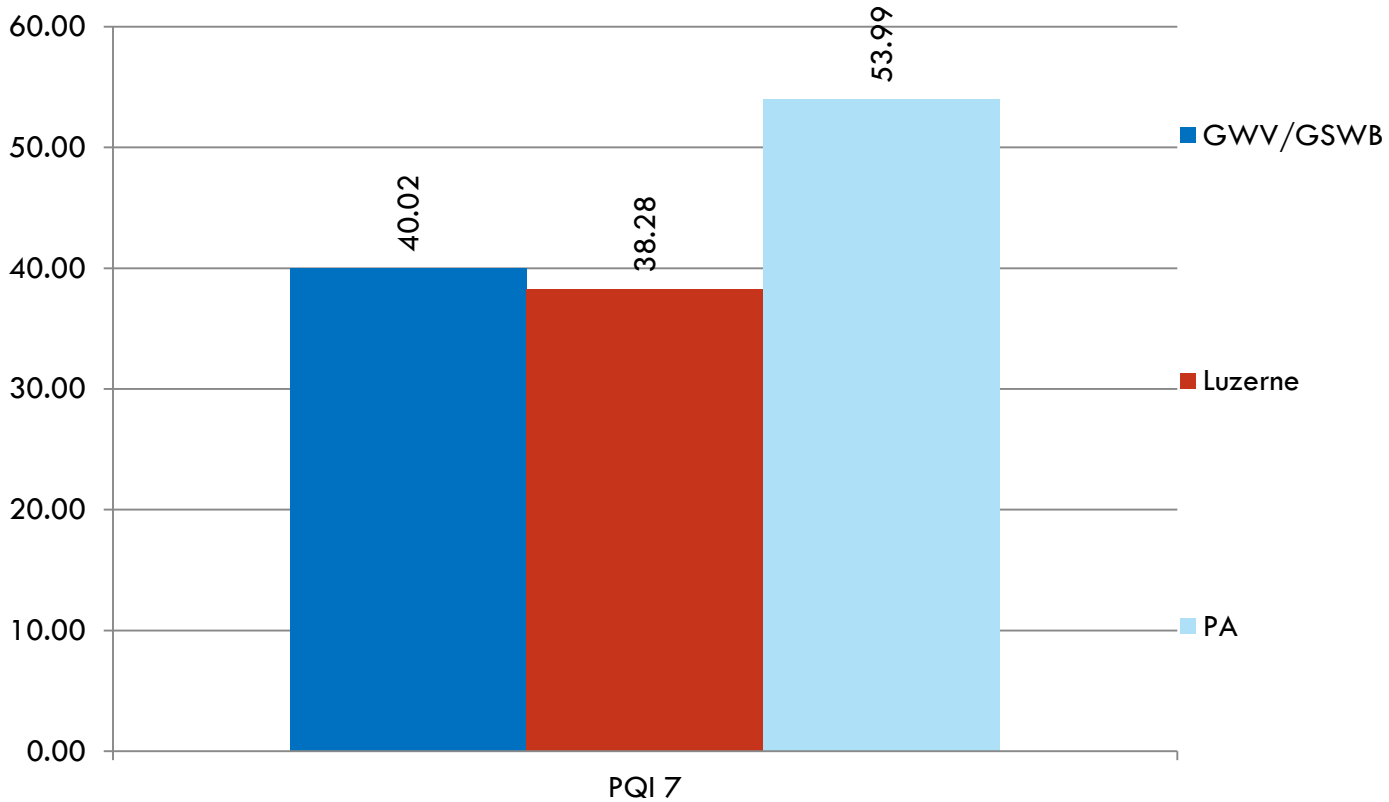
PQI 14 Uncontrolled Diabetes Admission Rate

Diabetes (cont'd)



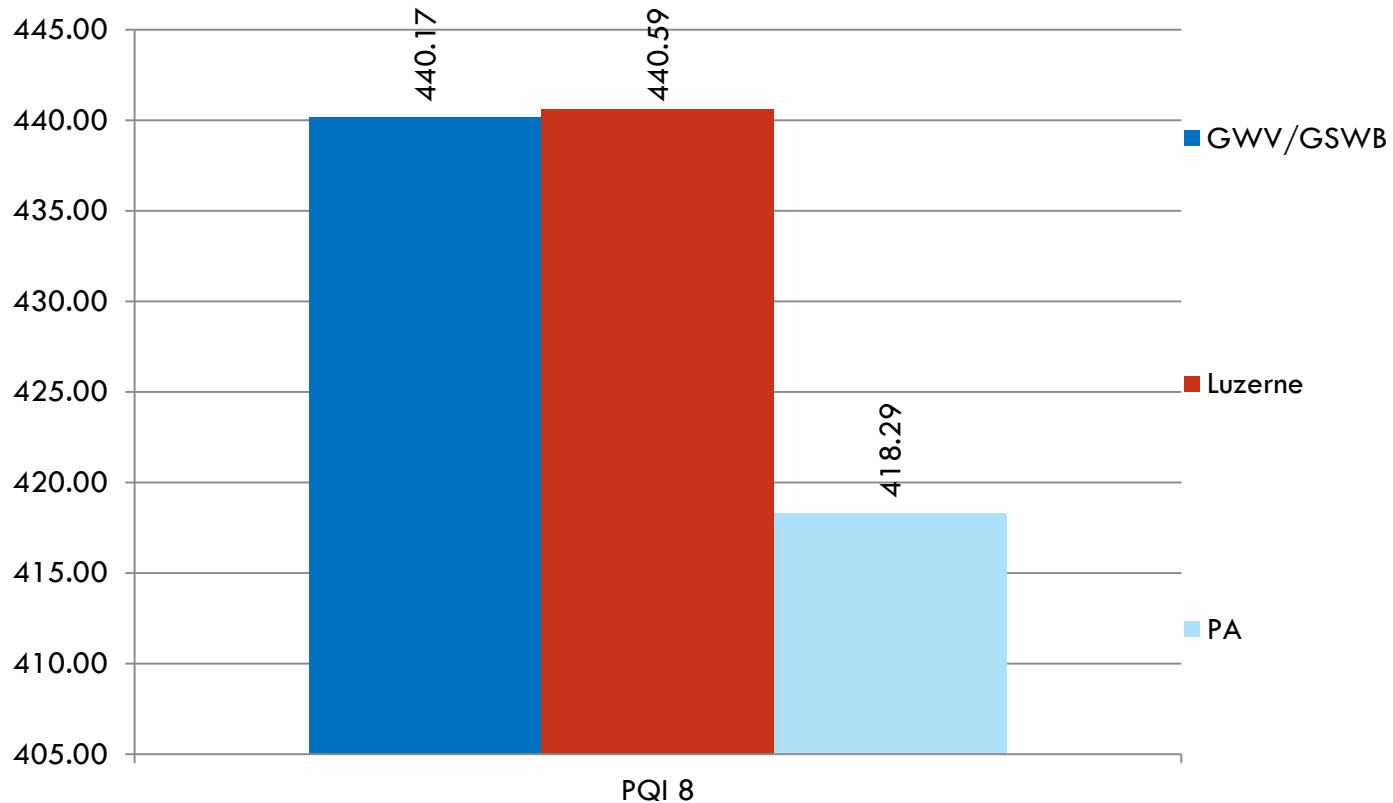
PQI 16 Lower Extremity Amputation Rate Among Diabetic Patients

Heart Conditions



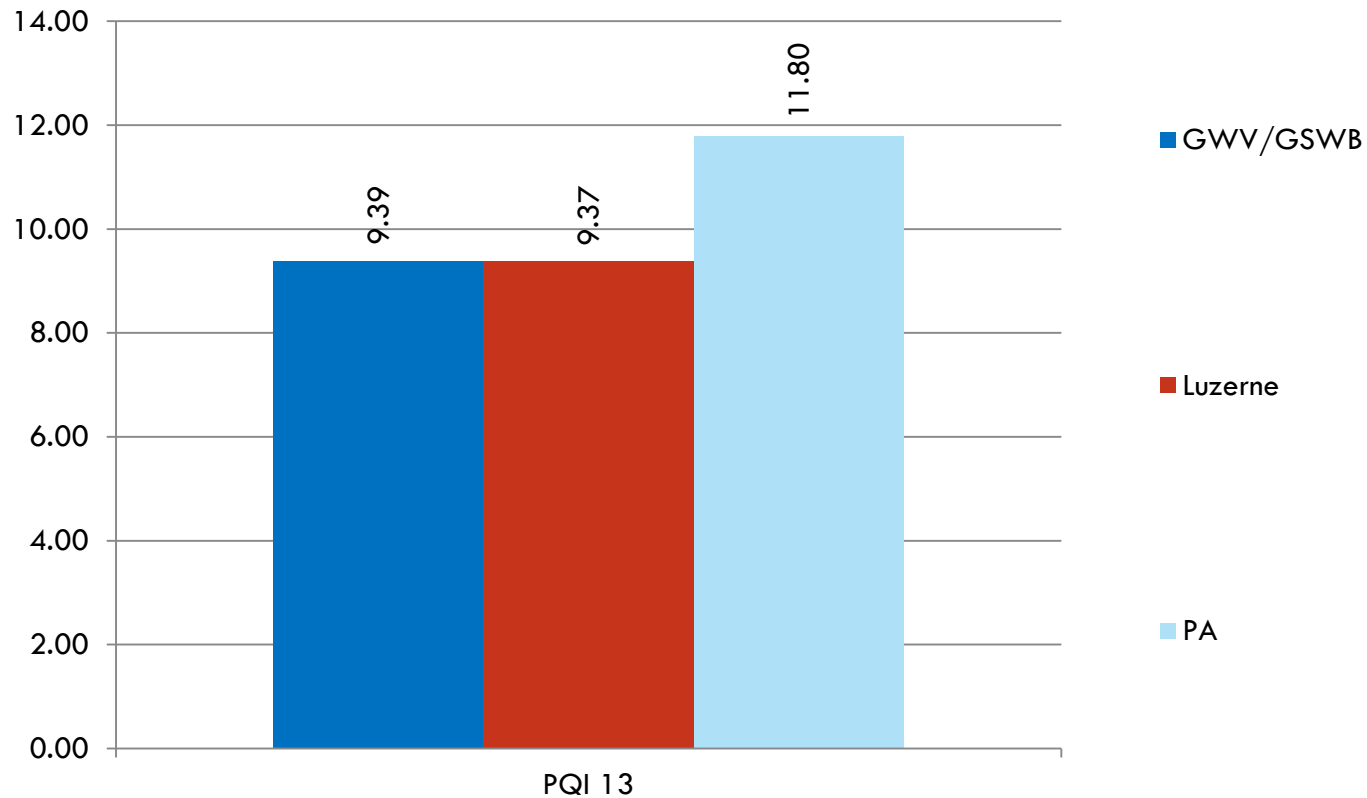
PQT 7 Hypertension Admission Rate

Heart Conditions (cont'd)



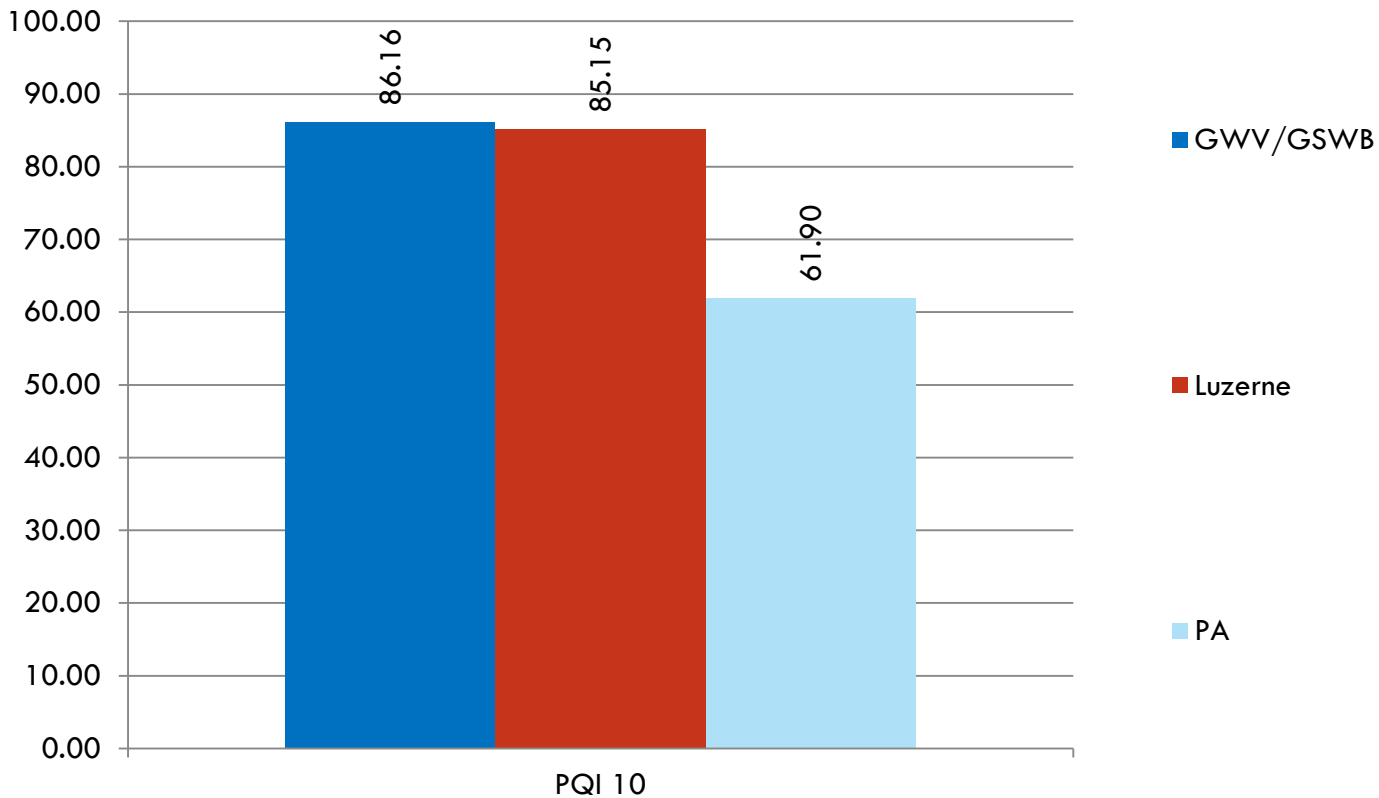
PQI 8 Congestive Heart Failure Admission Rate

Heart Conditions (cont'd)



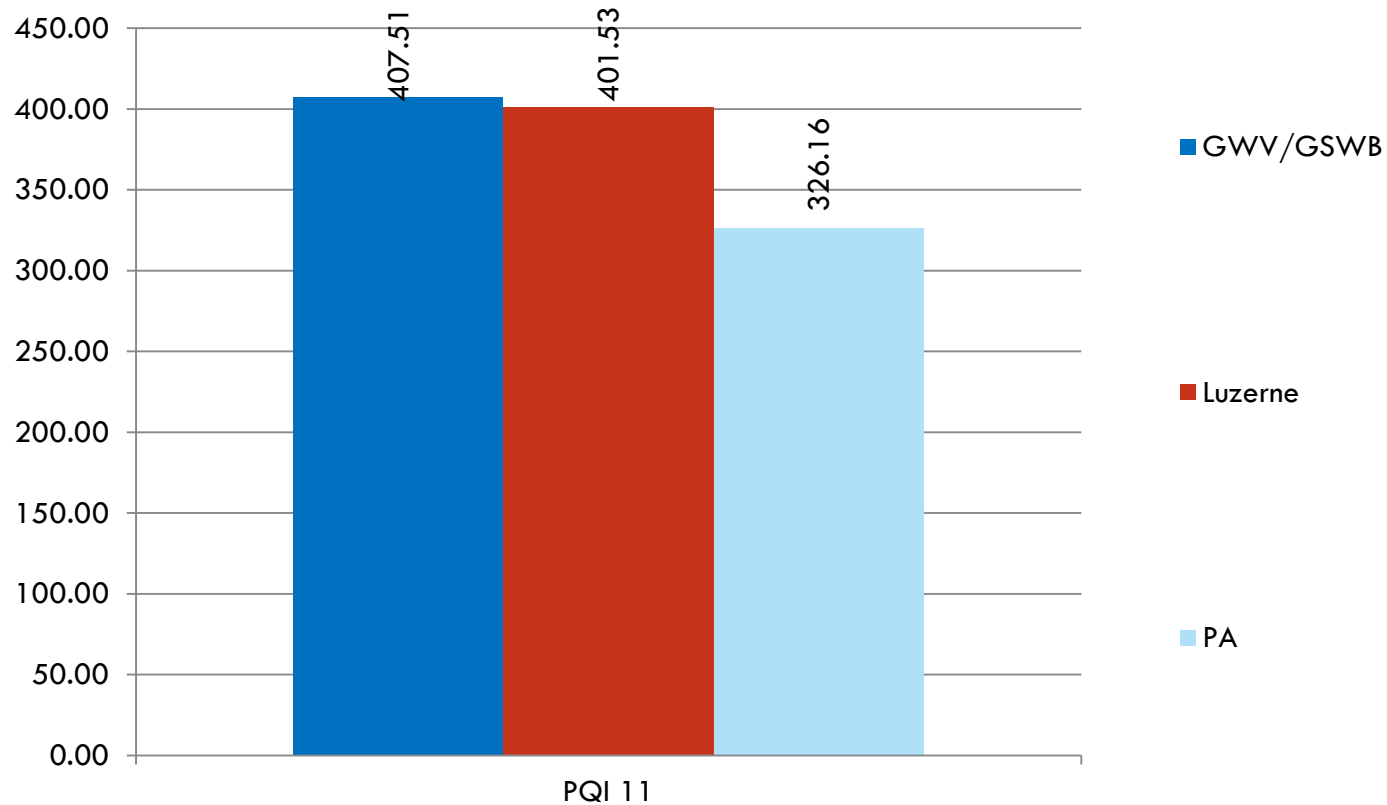
PQI 13 Angina Without Procedure Admission Rate

Other Conditions



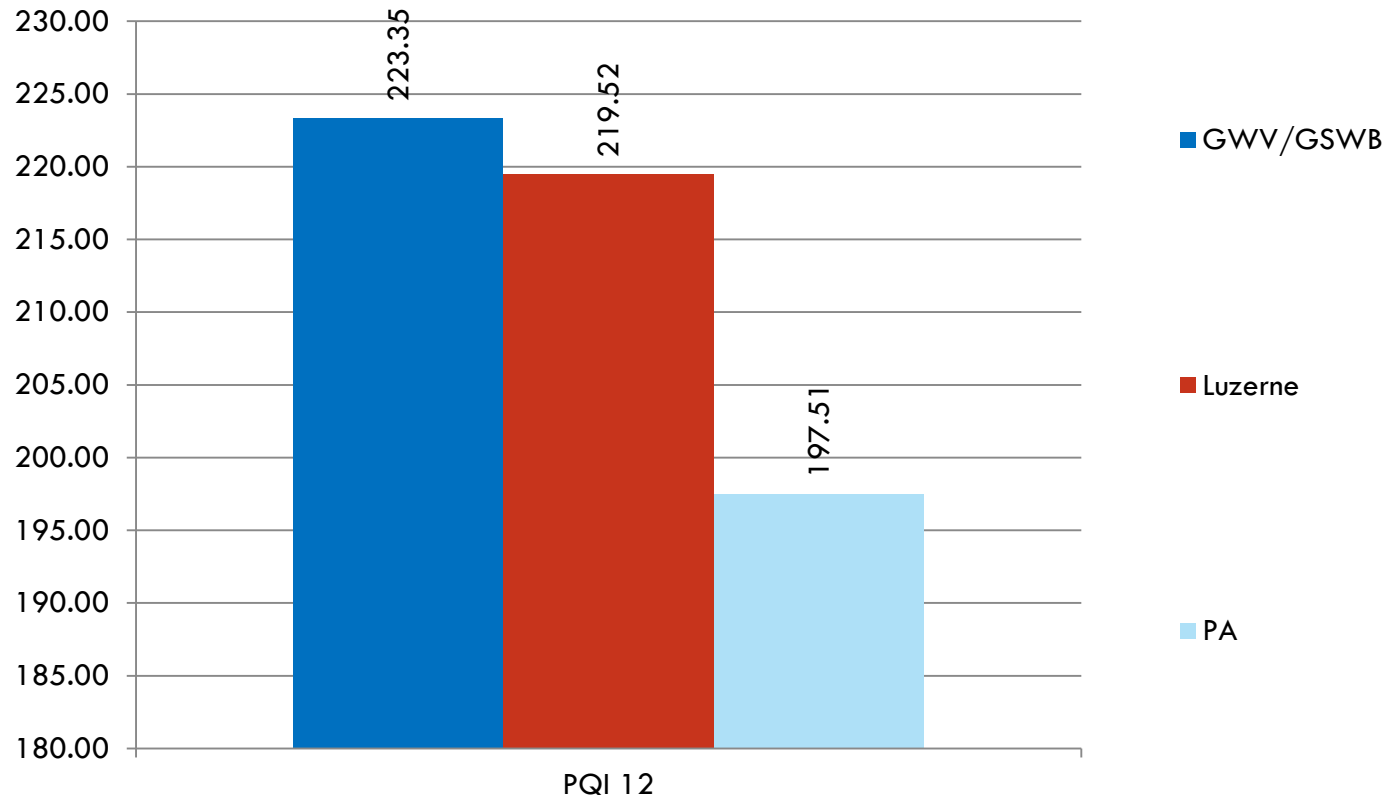
PQI 10 Dehydration Admission Rate

Other Conditions (cont'd)



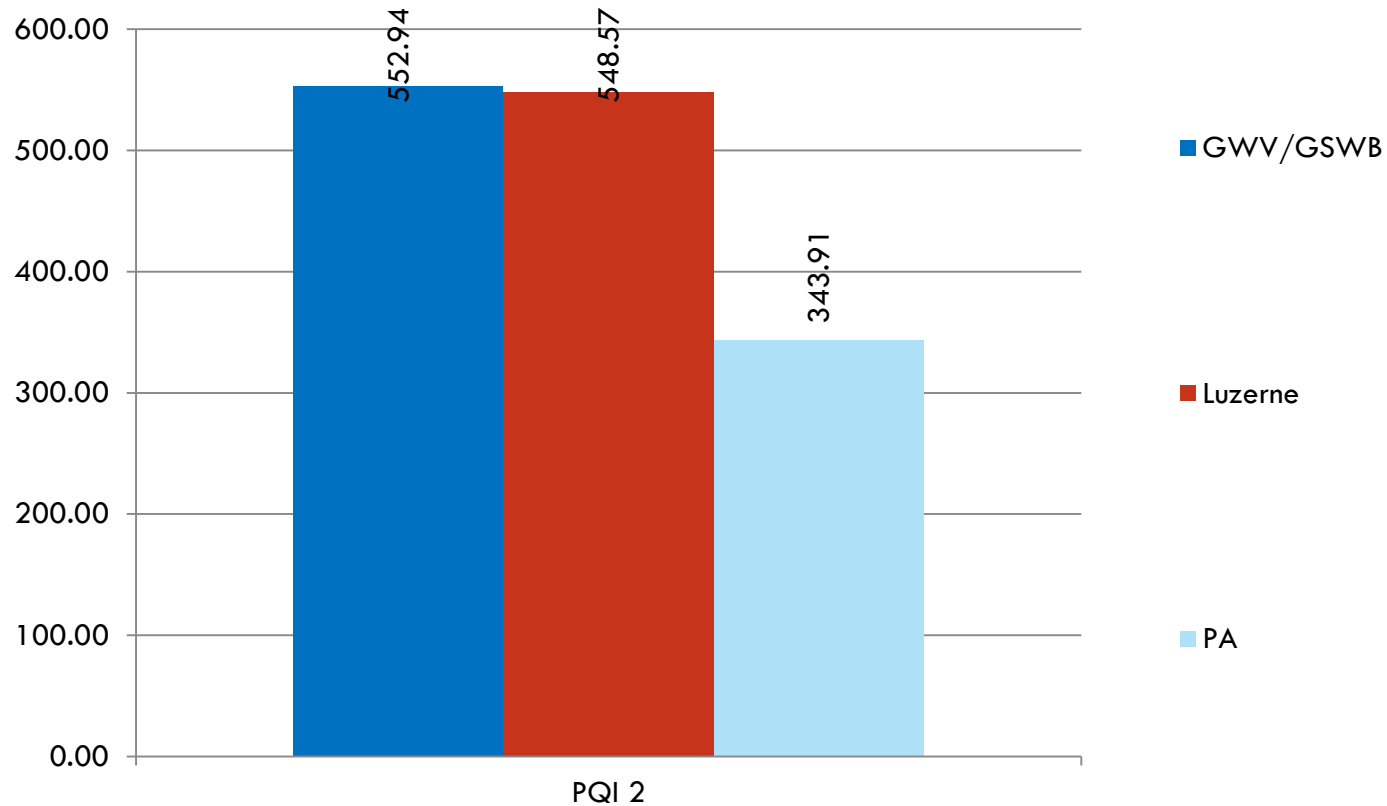
PQI 11 Bacterial Pneumonia Admission Rate

Other Conditions (cont'd)



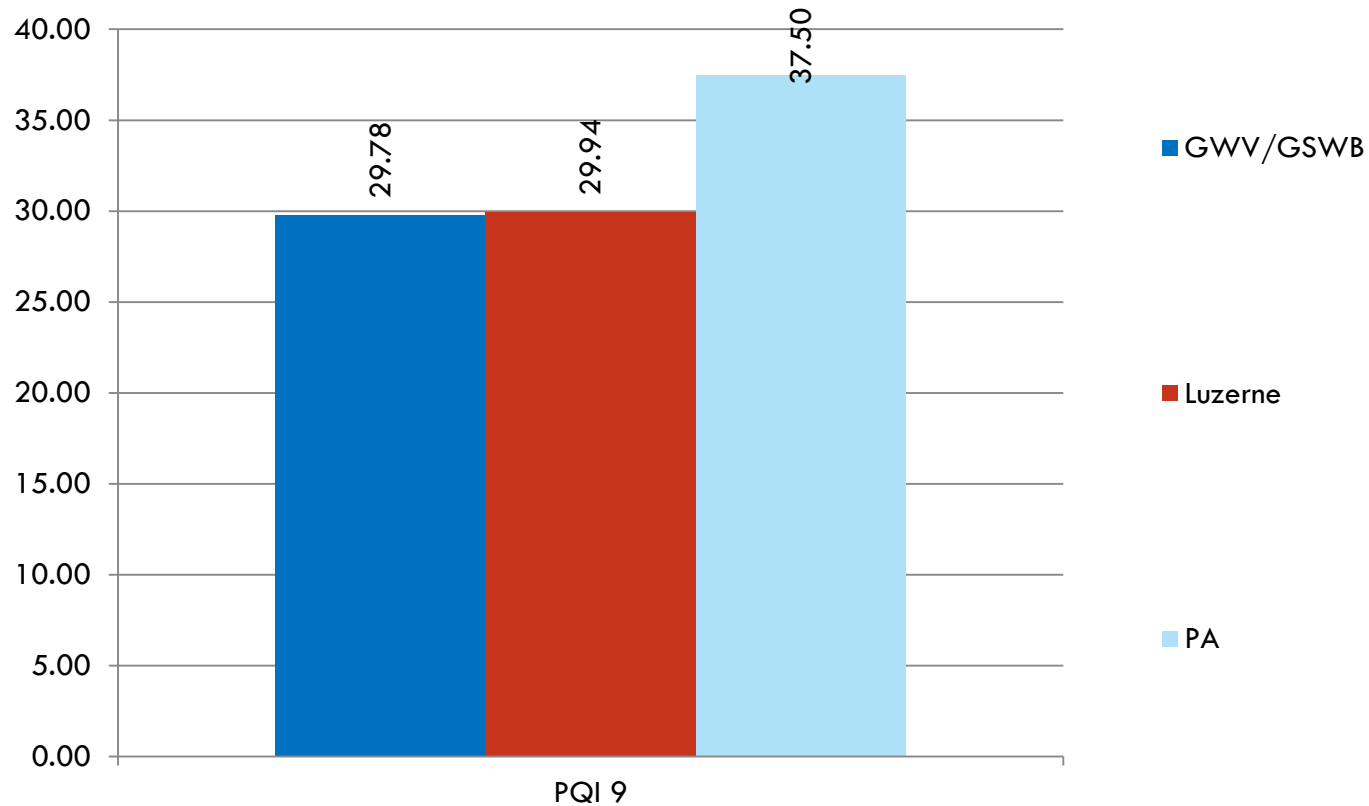
PQI 12 Urinary Tract Infection Admission Rate

Other Conditions (cont'd)



PQI 2 Perforated Appendix Admission Rate

Other Conditions (cont'd)



PQI 9 Low Birth Weight Rate

GWV/GSWB– Initial Reactions to Secondary Data

- ❑ The consultant team has identified the following data trends and their potential impacts:
 - ❑ The GWV/GSWB population is projected to rise.
 - ❑ The population of elderly individuals is expected to rise.
 - ❑ The GWV/GSWB study area population has a large Hispanic population.
 - ❑ According to CNI data, residents in the zip code area of 18201 in Hazleton have the most barriers to health care access including minority status and limited English proficiency. Such barriers can contribute to residents not seeking care or not understanding the care that they are given.
 - ❑ Income and unemployment are concerns for the GWV/GSWB study area. With an average household income of slightly more than \$60,000 per year (state rate close to \$70,000) and the unemployment rate at 9.1% (state rate being 7.9%); the GWV/GSWB study area residents have these issues to be concerned with in their daily lives as well.
 - ❑ Looking over time, from 2011 to 2014, Luzerne County and the GWV/GSWB study area has seen more regions “getting worse” in terms of health care access or number of barriers to health care access.
 - ❑ 12 of the 26 zip code areas in the GWV/GSWB study area saw rises in CNI scores; while only 10 saw decline in CNI (4 remained the same).
 - ❑ For county health rankings, Luzerne County saw 5 of the 8 rankings measures rise indicating worsening health ranking as compared with the other counties in the state.
 - ❑ The GWV/GSWB study area showed a majority (nine of the 10) of the PQI measures experiencing declines in rates from 2011 to 2014 (less preventable hospitalizations being a good thing).
 - ❑ This may be correlated to the fact that during this same time period, the PCP rate rose from 70 per 100,000 pop. to 80 per 100,000 pop.; more coverage being made available.