GEISINGER-COMMUNITY MEDICAL CENTER COMMUNITY HEALTH NEEDS ASSESSMENT

June 2015

GEISINGER

TrippUmbach
Research • Strategy • Impact

Table of Contents

Introduction

Geisinger Community Medical Center (GCMC), a 294-bed community medical center located in Scranton, PA, in response to its community commitment, contracted with Tripp Umbach to facilitate a comprehensive Community Health Needs Assessment (CHNA). A community health needs assessment was conducted between October 2014 and March 2015 that identifies the needs of the residents served by Geisinger Community Medical Center. As a partnering hospital of a regional collaborative effort to assess community health needs; Geisinger Community Medical Center collaborated with hospitals and outside organizations in the surrounding region (including Lackawanna, Luzerne, and Wayne 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
- GHS Family
- Allied Services Foundation
- United Way of Wyoming Valley
- Scranton Chamber of Commerce
- Lackawanna County Medical Society
- Panuska College for Professional Studies
- The Wright Center Healthy
- Northeast Pennsylvania Initiative
- Pennsylvania Department of Health, Northeast District
- Volunteers in Medicine Free Clinic
- Scranton School District
- United Neighborhood Centers
- Catholic Social Services
- United Way of Lackawanna & Wayne Counties
- Northeastern Pennsylvania Healthcare Foundation
- Wilkes-Barre City Health Department
- Wayne County CareerLink
- NHS Human Services
- The Edward R. Leahy Jr. Center Clinic for the Uninsured
- Trehab
- The Wright Center

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 Community 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 Community Medical Center and a project oversight committee to accomplish the assessment.

Community Definition

The community served by the Geisinger Community Medical Center (GCMC) includes Lackawanna, Luzerne, and Wayne Counties. The Geisinger Community Medical Center primary service area includes 23 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 Community Medical Center Community Zip Codes

Table 1

Zip	Post Office	County
Zip	**County**	**City**
18403	Lackawanna	Archbald
18407	Lackawanna	Carbondale
18411	Lackawanna	Clarks Summit
18414	Lackawanna	Dalton
18424	Lackawanna	Gouldsboro
18431	Wayne	Honesdale
18433	Lackawanna	Jermyn
18434	Lackawanna	Jessup
18436	Wayne	Lake Ariel
18444	Lackawanna	Moscow
18447	Lackawanna	Olyphant
18452	Lackawanna	Peckville

Zip	Post Office	County
Zip	**County**	**City**
18472	Wayne	Waymart
18504	Lackawanna	Scranton
18505	Lackawanna	Scranton
18507	Lackawanna	Moosic
18508	Lackawanna	Scranton
18509	Lackawanna	Scranton
18510	Lackawanna	Scranton
18512	Lackawanna	Scranton
18517	Lackawanna	Taylor
18518	Lackawanna	Old Forge
18519	Lackawanna	Scranton

Consultant Qualifications

Geisinger Community 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 books[1] 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_1993.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 Community 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 CHNA.

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.
- To develop accurate comparisons to the state and national baseline of health measures utilizing most current validated data (i.e., 2013 Pennsylvania State Health Assessment).
- To utilize 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 Community 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 were facilitated by the consultants and the CHNA oversight committee consisting of leadership from Geisinger Community 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 analysis of health status and socio-economic environmental factors related to the health of residents of the Geisinger Community 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 Community Medical Center contracted with Tripp Umbach to complete a CHNA for the same counties included in the service area (Lackawanna, Luzerne, and Wayne Counties). The data sources used where 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 1) had Public Health expertise; 2) were Professionals with access to community health related data; and 3) were Representatives of underserved populations (i.e., children, seniors, low-income residents, homeless individuals, persons with disabilities, Latino(a) residents and residents that are uninsured). Such persons were interviewed as part of the needs assessment planning process. A series of 17 interviews were completed with key stakeholders in the Geisinger Community 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 ensure that community members, including under-represented residents, were included in the needs assessment through a survey process. A total of 266 surveys were collected in the Geisinger Community Medical Center service area which provides a +/- 6.01 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, Wayne County CareerLink, NHS Human Services, The Edward R. Leahy Jr. Center Clinic for the Uninsured, Trehab, The Wright Center, 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 they identified and prioritized the top community health needs in the Geisinger Community 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 Community 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 Community 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.

- **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 Community 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 Community 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 Medical Center 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 are 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 the rise in demand. 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.
- 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). Lackawanna and Luzerne County survey respondents report higher rates of depression diagnosis (32.4% and 26.9% respectively) than is average for the state (18.3%) and nation (18.7%).
  - ✓ One in 10 survey respondents from Luzerne County and Lackawanna County indicated that they needed and could not secure counseling services in the past year (10.2% and 11.1% respectively).
- 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	Lackawanna County	Luzerne County	Wayne County
Mental health providers (count)	--	265	300	25

Mental health providers (ratio Population to provider)	623:01:00	807:01:00	1,067:1	2,062:1

**County Health Ranking 2014*

- The ratio of population to mental health providers in Lackawanna, Luzerne, and Wayne Counties show a larger population to provider ratio (807, 1,067, and 2,062 pop. for every one 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:

- Lackawanna, Luzerne, and Wayne Counties show higher deaths due to drug poisoning (21.9, 18, and 18 per 100,000 pop. respectively) than the state (17.5 per 100,000 pop.), and the nation (12.9 per 100,000 pop.).
- Approximately one in three (39.7%) in Lackawanna County and more than half (55.7%) of the Luzerne County survey respondents identified mental health 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:

- Lackawanna, Luzerne, and Wayne Counties show higher deaths due to suicide (14.5, 16.1, and 22.6 per 100,000 pop) than state and national rates (12.5 and 12.3 per

100,000 pop. respectively). Wayne County's suicide rate is much higher. Healthy People 2020's goal is set at 10.2 per 100,000 pop.

- Lackawanna, Luzerne, and Wayne Counties show higher deaths due to drug poisoning (21.9, 18, and 18 per 100,000 pop. respectively) than the state (17.5 per 100,000 pop.), the nation (12.9 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 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 are culturally competent to disseminate health education 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 have 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."

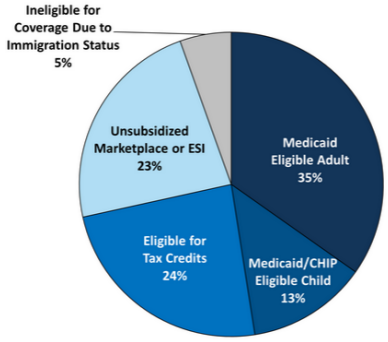
- ✓ Secondary data related to provider ratios, disease prevalence rates, socio-economic barriers to accessing healthcare (i.e., CNI), and poor health outcomes (e.g., amputations, death rates, etc.) support the need to increase access to affordable care options for residents.
- ✓ Community leaders focused 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



Total = 1.4 Million Uninsured Nonelderly Pennsylvanians

**Source: Kaiser Family Foundation*

- 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

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

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 $46,680 for an individual). Residents with access to insurances through employers are not eligible for tax credits.[4]
- Of the survey respondents from Lackawanna and Luzerne Counties that indicated they had no health insurance (26.1% and 22.2% respectively); the most common reason why individuals indicated that they do not have health insurance is because they can't afford it in Lackawanna and Luzerne Counties (47.2% and 44% respectively) with ineligibility being the second most common reason (30.6% and 24% respectively).
- Most respondents in both counties 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 Community Medical Center 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

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

- Lackawanna, Luzerne, and Wayne Counties all have fewer Primary care providers than is average for PA (92.7 per 100,000 pop.).
    - ✓ Lackawanna County shows 85.9 per 100,000 pop. primary care providers
    - ✓ Luzerne County shows 71.1 per 100,000 pop. primary care providers
    - ✓ Wayne County shows 41.5 per 100,000 pop. primary care providers
- Reportedly, 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, preventive care, and psychiatric inpatient/outpatient care in the area as well.

Poverty increases the barriers to accessing healthcare:

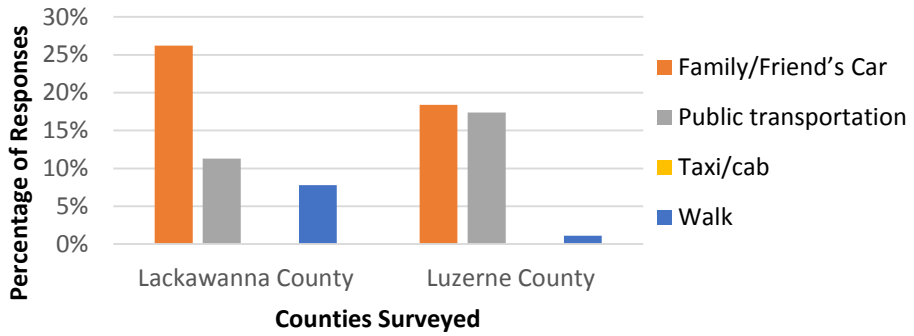
- The Geisinger Community Medical Center shows an average annual household income of $63,966. The GCMC community and Wayne and Lackawanna counties have average household incomes below state and U.S. levels. Generally, rural areas show lower income levels as compared with more urban areas.
- Higher CNI scores indicate greater number of socio-economic barriers to community health. The overall CNI score for the Geisinger Community Medical Center study area is 2.9. The average CNI score for the scale is 3.0 (range 1.0 to 5.0).
- 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 9 zip code areas that saw an increase in the barriers to accessing healthcare (+0.2 to +0.6); whereas 14 zip code areas that saw a decrease or no change at all (0.0 to -0.4). 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. There are several areas within the study area that show much greater barriers to accessing healthcare; namely: Scranton (18503, 18508, 18505, and 18510); Hazleton (18201 and 18202); Glen Lyon (18617); and Wilkes-Barre (18701 and 18702).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 and 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. Reportedly, there is 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 Community Medical Center. Reportedly, 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).

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

- Many respondents indicated that their primary form of transportation is some method other than their own car in Lackawanna (45.3%) and Luzerne (37.2%) Counties, using a family/friend's car (26.2% and 18.5% respectively), public transportation (11.3% and 17.4 respectively), and walking (7.8% and 1.1% respectively) as an alternative.

Chart 1: Survey Responses - Primary Methods of Transportation (Excluding Own Car)



Residents may not be able to follow through with more intensive treatment regimens (i.e., chemotherapy 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 Community Medical Center study area and Luzerne County report higher rates of Hispanic minorities as compared with the state average; 9.4% of the Geisinger Community 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 and 18202 – 10.3% and 7.1%, respectively, 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 (89.6% and 84.6% respectively); 8.9% of respondents reported this preference in Lackawanna County and slightly more (12.1%) in Luzerne County.
- 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 including four members of Scranton's Hispanic/Latino community:
  - ✓ Participants agreed that there is a lack of communication, and results in not knowing about services offered.
  - ✓ Participants agreed that there is a lack of communication, and results in not knowing about services offered. While there are educational programs provided in the community; they lack sensitivity related to literacy, language, lack of documentation, limited financial resources, and the overall understanding of culture. Different approaches are necessary to target vulnerable populations to effectively share information about health conditions and healthy living.

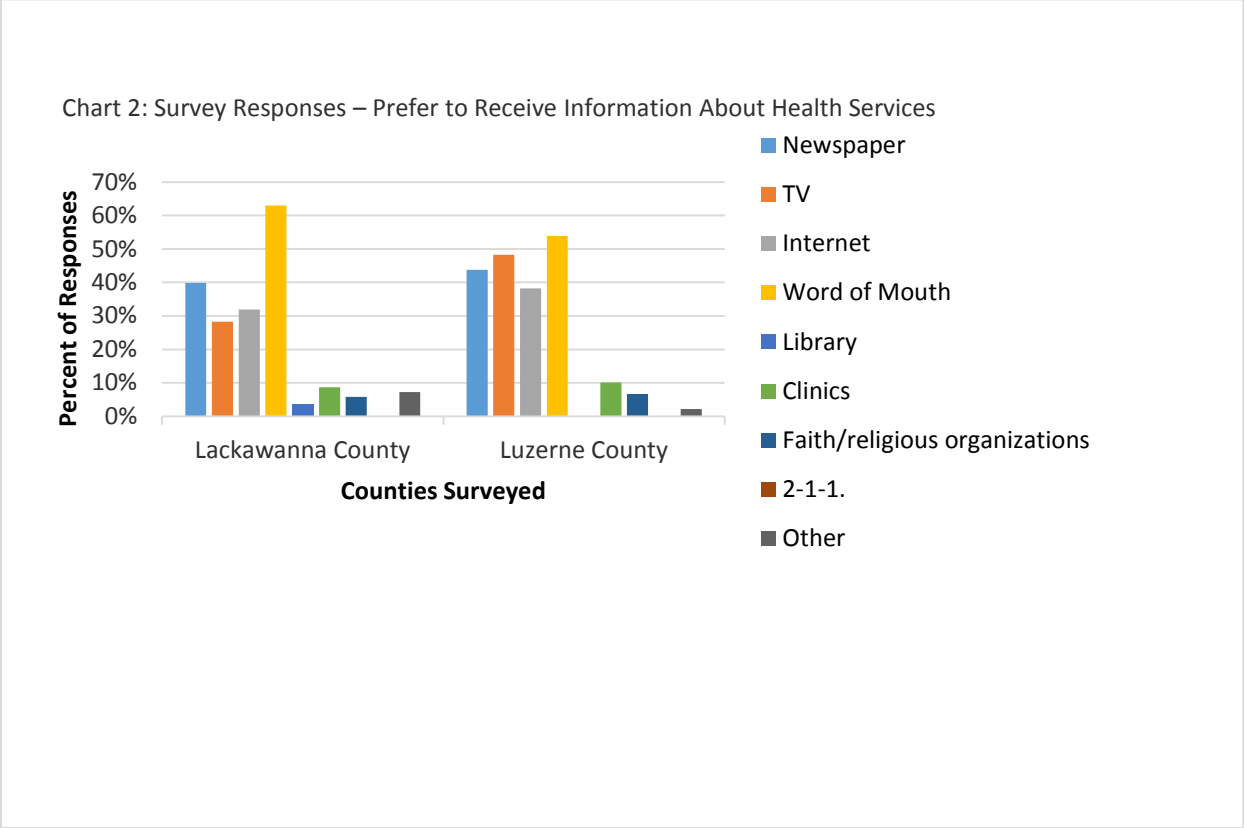
Need to increase awareness and care coordination

- 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 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 one in four 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%).

- More respondents indicated they get information about services in their community by word of mouth in both Lackawanna (63%) and Luzerne (53.9%) Counties.



Health literacy can impact the level of engagement with health providers at every level limiting the preventive care, emergent care, 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 Community 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 Lackawanna County and Luzerne County both have similar rates of dental providers when compared to the state (67.2 and 57.1 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 15.5% of respondents in Lackawanna County and 10.4% in Luzerne County indicated they did not secure dental services due to a lack

of insurance and 12% of respondents in Lackawanna County indicating dental services are not available to them.

- The CHNA completed in the Geisinger Community Medical Center 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 was 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 Community Medical Center. Geisinger Community 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 Community 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, 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 that 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 six 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 within 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 diagnosis impacts 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 diagnosis 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.

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 in 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 lack sensitivity related to literacy, language, lack of documentation, limited financial

resources, and the overall understanding of culture. 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 Community 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 Community 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 Community Medical Center study area encompasses Lackawanna, Luzerne and Wayne Counties, and is defined as a zip code geographic area based on 80% of the hospital's inpatient volumes. The Geisinger Community Medical Center community consists of 23 zip code areas.

Demographic Profile – Key Findings:

- The GCMC study area shows a decline in population over the next 5 years at a rate of 0.4%. The population trend seen for the GCMC study area is consistent with the counties in the study area as well; Lackawanna and Wayne counties also see projected population declines. The population decline in the GCMC community is not consistent with state, meaning people are coming into PA but not to the GCMC community.
- The GCMC community shows projected declines in the percentages of younger individuals (18 and younger) while at the same time showing projected increases in the percentages of older individuals (55 and older) in the next 5 years. This is important to note when assessing morbidity and mortality data as the different age groups encounter different health care needs.
- The GCMC community shows an average annual household income of $63,966. The GCMC community and Wayne and Lackawanna counties have average household incomes below state and U.S. levels. Generally, rural areas show lower income levels as compared with more urban areas.

- The GCMC community shows 11.3% of the population have not received a high school diploma. Wayne County shows the highest rate with 13.2% of the population without a high school diploma. On the other hand, 49.9% of the GCMC community have some college education or received a college degree.
- The GCMC community is not very diverse in comparison to state and national demographics. 11.5% of the population in the GCMC community identify as a race/ethnicity other than White, Non-Hispanic whereas 19.6% in PA and 35.8% in the U.S. identify as a race other than White, Non-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 Community 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 areas where the need may be greater than the overall service area.

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

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

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
18508	Scranton	Lackawanna	44.9%	8.7%	11.9%	20.2%	3.7%	18.3%	20.1%	20.1%	50.7%	4	4	4	4	5	4.2
18505	Scranton	Lackawanna	45.8%	7.1%	11.5%	29.6%	3.1%	12.8%	12.9%	32.6%	63.4%	5	3	3	4	5	4.0
18510	Scranton	Lackawanna	60.1%	10.5%	12.1%	26.0%	3.8%	12.2%	14.9%	28.3%	53.1%	4	4	3	4	5	4.0
18504	Scranton	Lackawanna	43.4%	7.7%	10.2%	15.9%	1.7%	15.0%	11.7%	18.8%	42.9%	3	3	4	3	5	3.6
18407	Carbondale	Lackawanna	35.2%	11.4%	10.2%	5.9%	0.6%	12.4%	10.0%	17.3%	33.8%	3	4	3	2	5	3.4
18472	Waymart	Wayne	22.5%	10.1%	7.2%	28.9%	1.4%	18.5%	15.3%	11.7%	34.4%	3	3	4	4	3	3.4
18509	Scranton	Lackawanna	49.3%	5.7%	9.5%	16.2%	1.5%	14.6%	10.7%	15.1%	36.0%	3	3	3	3	5	3.4
18431	Honesdale	Wayne	27.8%	6.5%	7.1%	5.2%	0.3%	13.2%	10.5%	19.8%	46.8%	4	2	3	2	4	3.0
18452	Peckville	Lackawanna	28.0%	10.1%	8.0%	5.4%	1.3%	11.3%	7.2%	13.7%	38.0%	3	3	3	2	4	3.0
18507	Moosic	Lackawanna	22.5%	4.0%	7.6%	8.5%	1.0%	8.8%	10.3%	18.5%	64.7%	5	2	2	3	3	3.0
18519	Scranton	Lackawanna	36.2%	4.3%	9.5%	8.5%	0.3%	9.7%	20.7%	11.2%	36.8%	3	2	2	3	5	3.0
18403	Archbald	Lackawanna	20.2%	9.2%	8.1%	4.6%	0.2%	11.2%	16.6%	14.1%	36.3%	3	3	3	2	3	2.8
18512	Scranton	Lackawanna	35.6%	6.2%	7.0%	5.8%	0.5%	10.0%	6.5%	13.8%	38.2%	3	2	2	2	5	2.8
18518	Old Forge	Lackawanna	31.5%	11.3%	9.3%	6.0%	0.2%	12.0%	8.7%	9.2%	27.0%	2	3	3	2	4	2.8
18434	Jessup	Lackawanna	28.7%	5.6%	8.4%	4.6%	0.9%	9.8%	7.6%	20.4%	40.4%	3	2	2	2	4	2.6
18447	Olyphant	Lackawanna	30.2%	5.3%	8.6%	5.8%	0.4%	10.4%	16.2%	11.9%	33.9%	3	2	2	2	4	2.6
18517	Taylor	Lackawanna	30.0%	8.0%	7.1%	7.9%	0.6%	10.7%	7.9%	13.2%	39.6%	3	2	2	2	4	2.6
18433	Jermyn	Lackawanna	22.5%	6.2%	9.1%	3.8%	0.6%	8.8%	12.2%	13.8%	32.3%	2	3	2	1	3	2.2
18424	Gouldsboro	Lackawanna	12.9%	7.4%	5.3%	7.9%	0.6%	10.7%	3.4%	16.4%	43.7%	3	2	2	2	1	2.0
18436	Lake Ariel	Wayne	12.9%	5.0%	5.1%	5.8%	0.7%	10.7%	6.7%	8.9%	29.8%	2	1	3	2	1	1.8
18411	Clarks Summit	Lackawanna	20.2%	4.3%	4.4%	6.0%	0.5%	5.1%	3.5%	5.0%	20.4%	1	1	1	2	3	1.6
18444	Moscow	Lackawanna	15.1%	6.3%	5.7%	3.6%	0.5%	8.7%	6.8%	6.6%	40.8%	3	1	2	1	1	1.6
18414	Dalton	Lackawanna	17.2%	4.2%	5.8%	4.0%	0.3%	6.8%	4.6%	11.2%	25.0%	2	1	1	1	2	1.4
Geisinger Community Medical Center Community Summary			**32.3%**	**7.1%**	**8.4%**	**11.7%**	**1.3%**	**11.5%**	**10.5%**	**15.9%**	**39.8%**	**3.0**	**2.5**	**2.7**	**2.5**	**3.8**	**2.9**

- The overall CNI scores are around average for the scale (3.0). There are several areas within the study area that show much greater barriers to accessing healthcare related to language, poverty, education and insurance status; namely:

  - ✓ Scranton (18503, 18508, 18505, and 18510)
  - ✓ Hazleton (18201 and 18202)
  - ✓ Glen Lyon (18617)
  - ✓ Wilkes Barre (18701 and 18702)

***Note** these zip codes will be the areas with the greater health issues and poorest health outcomes due to the barriers to healthcare.*

- The highest CNI score for the three county study area is 4.8 in the zip code area of 18503-Scranton in Lackawanna County.
- Zip code area 18201-Hazleton, in Luzerne County shows higher rates of language barriers, with 18503-Scranton also showing language barriers.
- Zip code area 18701-Wilkes Barre shows the highest rates of unemployment and uninsured.
- Zip code areas 18503, 18201, 18617, 18701, and 18508 show some of the greatest barriers to accessing care related to seniors in poverty, education and insurance status.
- While child poverty is high among the zip codes, it is highest in 18617 and 18505. There are also high rates of child poverty in the zip code areas showing CNI scores between 3.4 and 4.0 for this study area. And there are still higher unemployment rates for CNI scores in this range as well with unemployment for PA at 11.5%.
- There are higher language barriers than is typical for most PA areas in zip code areas with CNI scores above 3.5.
- There are high rates of child poverty in the zip code areas showing CNI scores between 3.4 and 4.0 for this study area.
- There are still higher unemployment rates for CNI scores in this range as well with unemployment for PA at 11.5%.
- There are still higher language barriers than is typical for most PA areas in several of these zip code areas.

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

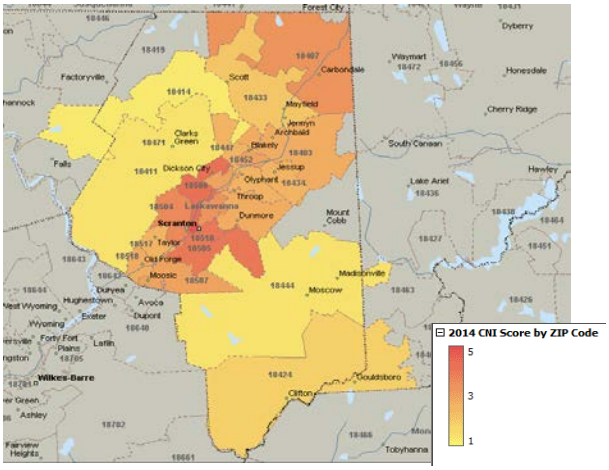
Zip	City	County	2011 CNI Score	2014 CNI Score	2011 – 2014 Change
18508	Scranton	Lackawanna	3.8	4.2	+ .4
18505	Scranton	Lackawanna	3.6	4.0	+ .4
18510	Scranton	Lackawanna	4.0	4.0	--
18504	Scranton	Lackawanna	3.8	3.6	- .2
18407	Carbondale	Lackawanna	3.4	3.4	--
18472	Waymart	Wayne	3.2	3.4	+ .2

Zip	City	County	2011 CNI Score	2014 CNI Score	2011 – 2014 Change
18509	Scranton	Lackawanna	3.4	3.4	--
18431	Honesdale	Wayne	2.8	3.0	**+ .2**
18452	Peckville	Lackawanna	2.8	3.0	**+ .2**
18507	Moosic	Lackawanna	2.8	3.0	**+ .2**
18519	Scranton	Lackawanna	3.0	3.0	--
18403	Archbald	Lackawanna	2.2	2.8	**+ .6**
18512	Scranton	Lackawanna	3.2	2.8	- .4
18518	Old Forge	Lackawanna	2.6	2.8	**+ .2**
18434	Jessup	Lackawanna	2.6	2.6	--
18447	Olyphant	Lackawanna	2.8	2.6	- .2
18517	Taylor	Lackawanna	3.2	2.6	**+ .6**
18433	Jermyn	Lackawanna	2.4	2.2	- .2
18424	Gouldsboro	Lackawanna	2.2	2.0	- .2
18436	Lake Ariel	Wayne	2.0	1.8	- .2
18411	Clarks Summit	Lackawanna	1.6	1.6	--
18444	Moscow	Lackawanna	1.6	1.6	--
18414	Dalton	Lackawanna	1.8	1.4	- .4
Geisinger Community Medical Center Community Study Area			**2.9**		

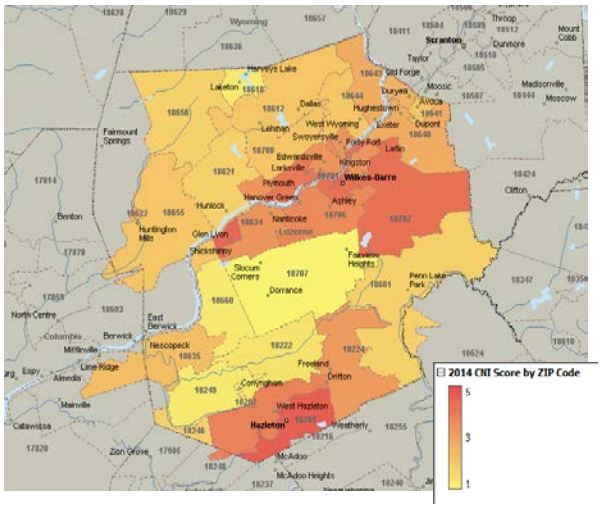
- There are 20 zip code areas that show a level of barriers above the median for the scale (3.0) all of which are in Lackawanna and Luzerne Counties and 13 of which are in one of the four areas mentioned above.

- There are 30 zip code areas that are at or below the scale median. This does not mean that there are no barriers to accessing health care in these zip codes. It is important to understand and identify the barriers and needs in each county.

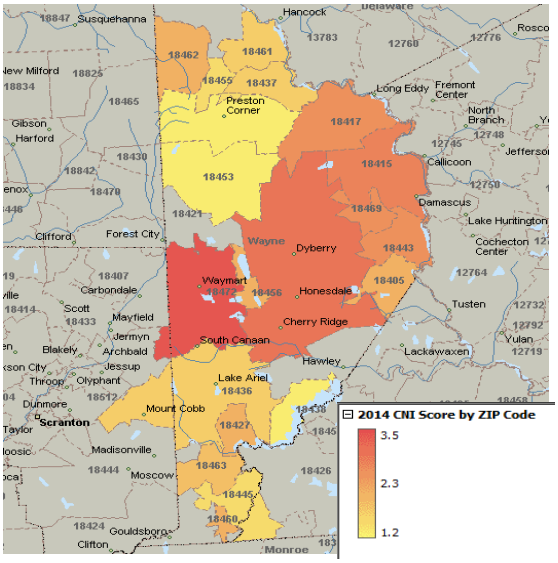
  ✓ Overall there are 35 zip code areas in the study area that maintained or increased the level of barriers to healthcare since the last assessment.



Lackawanna County shows 15 of the 21 zip codes either unchanged or having increased the level of barriers to healthcare with six showing an increase - Archbald (from 2.2 to 2.8); Scranton (from 3.6 to 4); Scranton (from 3.8 to 4.2); Old Forge (from 2.6 to 2.8); Moosic (from 2.8 to 3); and Peckville (from 2.8 to 3). There are seven zip code areas in Lackawanna County showing above average CNI scores; four of which remained unchanged- Scranton (4.8); Scranton (4); Carbondale (3.4); and Scranton (3.4).



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.



Wayne County shows an increase in barriers in two of the three zip code areas – Honesdale (from 2.8 to 3) and Waymart (from 3.2 to 3.4) with one area above average for the scale Waymart (3.4).

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), and 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 Community Medical Center service area level data is available).

- Lackawanna County in the GCMC study area ranks highly (good) in the Physical Environment category, ranking 4 out of 67 in the state of PA. The county had a positive jump in this category between 2011 and 2014, advancing in the rankings from 17 to 4.

- Wayne County does not have any top rankings, but has had large positive changes in three categories from 2011 to 2014: Health Outcomes (from 57 to 29), Mortality – Length of Life (from 62 to 24), and Clinical Care (from 45 to 25).
- Approximately a quarter of the Lackawanna County population in the GCMC study area are smokers. Close to a quarter of the population is obese. The same is said for excessive drinking in the county. The County had a decrease in the percentage of smokers and adults with obesity between 2011 and 2014.
- In Lackawanna County, 12% of the population is uninsured and 13% of the population in Wayne County is uninsured.
- In 2014, Lackawanna County has a higher PCP rate (76 per 100,000 population) than Wayne County (49 per 100,000 population), but both counties had a decrease in the PCP rate between 2011 and 2014.
- Both Lackawanna and Wayne counties had an increase in the number of sexually transmitted infections (Chlamydia rate).
- Lackawanna County has a higher unemployment rate (9.0%) and higher violent crime rate (232 per 100,000 population) between the three counties in the GCMC study area. Both counties had an increase in unemployment and violent crime from 2011 to 2014.

From 2011 to 2014:

- Wayne County has had a significant positive change in a few rankings, including Health Outcomes (from 57 to 29), Mortality – Length of Life (from 62 to 24), and Clinical Care (from 45 to 25).
- Lackawanna County went from a ranking of 17 in the Physical Environment category in 2011 to a number 4 ranking in 2014.
- Lackawanna County experienced a decrease in the percentage of adult smokers and adults with obesity.
- Both Lackawanna and Wayne Counties had an increase in the number of sexually transmitted infections (Chlamydia rate).
- Both counties also had a decrease in the number of PCPs per 100,000 population.
- Lackawanna County and Wayne County both had increases in the percentage of diabetics and diabetic screenings being conducted in the county.

- Lackawanna County had increases in both the unemployment rate and violent crime rate.

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 Community Medical Center market 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 for past study to Asthma in Younger Adults 18-39 population. Tripp Umbach did not adjust.

OVERALL:

There are several PQI in this study area that are the highest found in any of the counties served by Geisinger Health System. There is significant overlap between the counties in areas of higher than state PQI rates with three PQI measures showing higher rates in only one county.

There are higher rates throughout the study area for Dehydration and Bacterial Pneumonia.

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

Prevention Quality Indicators (PQI)	Lackawanna County	Luzerne County	Wayne County	PA
Diabetes Short-Term Complications (PQI1)	49.49	62.50	71.99	115.16
Perforated Appendix (PQI2)	200.00	548.57	454.55	343.91
Diabetes Long-Term Complications (PQI3)	116.07	111.32	138.84	119.79
Chronic Obstructive Pulmonary Disease or Adult Asthma(PQI5)	677.59	656.93	358.99	578.80
Hypertension (PQI7)	33.58	38.28	15.43	53.99
Congestive Heart Failure (PQI8)	484.91	440.59	395.96	418.29
Low Birth Weight (PQI9)	39.70	29.94	25.64	37.50
Dehydration (PQI10)	91.92	85.15	66.85	61.90
Bacterial Pneumonia (PQI11)	455.45	401.53	475.66	326.16
Urinary Tract Infection (PQI12)	283.99	219.52	149.13	197.51
Angina Without Procedure (PQI13)	15.91	9.37	15.43	11.80
Uncontrolled Diabetes (PQI14)	15.32	16.01	7.71	14.20
Asthma in Younger Adults (PQI15)	50.25	67.73	36.24	63.34
Lower Extremity Amputation Among Diabetics (PQI16)	28.87	25.78	23.14	26.40

- **Lackawanna County** shows PQI rates higher than any county served by Geisinger Health System for Urinary Tract Infection (PQI12) and COPD (PQI5). Lackawanna County also has the poorest PQI and therefore the greatest room for improvement across all three counties in the study area. Lackawanna shows higher than state rates for six additional PQI measures, five of which are the highest rates in the study area.

  - ✓ Congestive Heart Failure (PQI8)
  - ✓ Low Birth Weight (PQI9)
  - ✓ Dehydration (PQI10)
  - ✓ Bacterial Pneumonia (PQI11)
  - ✓ Angina Without Procedure (PQI13)
  - ✓ Lower Extremity Amputation Among Diabetics (PQI16)

- **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 facilities. 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)

- **Wayne County** shows the second highest rate among all counties served by Geisinger health system for Bacterial Pneumonia (PQI11). Wayne County also shows worse PQI for Diabetes Long-term Complications (PQI13) (138.84), and Bacterial Pneumonia (PQI11)* (475.66) than Lackawanna (116.07 and 455.45 respectively) and Luzerne (111.32 and 401.53 respectively). Additionally, Wayne County shows higher than state rates across three other measures:

  - ✓ Perforated Appendix (PQI2)
  - ✓ Dehydration (PQI10)
  - ✓ Angina Without Procedure (PQI13)

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

Prevention Quality Indicators (PQI)	2014 - Geisinger Community Medical Center Study Area	PA	Difference	2011 PQI Geisinger Community Medical Center	2014 PQI Geisinger Community Medical Center	Difference
Diabetes Short-Term Complications (PQI1)	51.97	115.16	- 63.19	60.81	51.97	- 8.84
Perforated Appendix (PQI2)	213.74	343.91	- 130.17	0.24	213.74	--
Diabetes Long-Term Complications (PQI3)	120.25	119.79	+ 0.46	151.76	120.25	- 31.51
Chronic Obstructive Pulmonary Disease or Adult Asthma (PQI5)	619.48	578.80	+ 40.68	368.02	619.48	--
Hypertension (PQI7)	31.08	53.99	- 22.91	56.58	31.08	- 25.50
Congestive Heart Failure (PQI8)	464.19	418.29	+ 45.90	583.23	464.19	- 119.04

Prevention Quality Indicators (PQI)	2014 - Geisinger Community Medical Center Study Area	PA	Difference	2011 PQI Geisinger Community Medical Center	2014 PQI Geisinger Community Medical Center	Difference
Low Birth Weight (PQI9)	38.90	37.50	+ 1.40	1.30	38.90	--
Dehydration (PQI10)	87.13	61.90	+ 25.23	94.12	87.13	- 6.99
Bacterial Pneumonia (PQI11)	445.33	326.16	+ 119.17	530.35	445.33	- 85.02
Urinary Tract Infection (PQI12)	259.35	197.51	+ 61.84	310.91	259.35	- 51.56
Angina Without Procedure (PQI13)	15.29	11.80	+ 3.49	23.27	15.29	- 7.98
Uncontrolled Diabetes (PQI14)	13.76	14.20	- 0.44	17.98	13.76	- 4.22
Asthma in Younger Adults (PQI15)	47.21	63.34	- 16.13	124.26	47.21	--
Lower Extremity Amputation Among Diabetics (PQI16)	25.99	26.40	- 0.41	46.85	25.99	- 20.86

Source: Calculations by Tripp Umbach

- The Geisinger Community Medical Center study area shows six of the 14 PQI measures that are higher than the state PQI value – indicating higher preventable hospital admission rates for the following:

  - ✓ PQI 3 – Diabetes Long-Term Complications (Study Area = 120.25; PA = 119.79)
  - ✓ PQI 5 – Chronic Obstructive Pulmonary Disease or Adult Asthma (Study Area = 619.48; PA = 578.80)
  - ✓ PQI 8 – Congestive Heart Failure (Study Area = 464.19; PA = 418.29)
  - ✓ PQI 9 – Low Birth Weight (Study Area = 38.90; PA = 37.50)
  - ✓ PQI 10 – Dehydration (Study Area = 87.13; PA = 61.90)
  - ✓ PQI 11 – Bacterial Pneumonia (Study Area = 445.33; PA = 326.16)
  - ✓ PQI 13 – Angina without Procedure (Study Area = 15.29; PA = 11.80)

- From 2011 to 2014, the GCMC study area had a number of decreases in PQI scores– indicating an overall drop in the number of preventable hospital admissions in the GCMC study area between 2011 and 2014. The most notable of these decreases include:

  - ✓ Bacterial Pneumonia (PQI11) – decrease of 204.1 cases per 100,000 population

- ✓ Congestive Heart Failure (PQI8) – decrease of 164.9 cases per 100,000 population
- ✓ Urinary Tract Infection (PQI12) – decrease of 113.4. cases per 100,000 population

- The only category where GCMC did not see improvement was Chronic Obstructive Pulmonary Disease or Asthma in Older Adults (PQI5).
  - ✓ GCMC had a significant increase in its PQI5 score, going from 368.0 in 2011 to 578.8 in 2014 (an increase of 210.8).

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	Lackawanna County	Luzerne County	Wayne County
2011 Primary care providers (per 100,000)	--	--	92.7	85.9	71.1	41.5
2011 Dentist rate (per 100,000)	--	--	59.1	67.2	57.1	47.2
2012 Acute Hospital Readmissions (%)*	--	18.6%	18.4%	17.9%	18.5%	17.1%
Births: women under 18 years (%)	--	2.3%	2.3%	2.6%	2.8%	1.6%
Cancer Death Rate (per 100,000 pop.) *	160.6	169.3	178.3	177.5	177.2	172
Breast cancer deaths (per 100,000)*	20.6	21.7	23	18.8	20.2	25.7
Colorectal cancer deaths (per 100,000)*	14.5	15.3	16.4	15.4	19.1	19.5
Alzheimer's disease deaths (per 100,000) *	--	24.5	19.3	21.4	19.3	32.9
Chronic lower respiratory disease deaths (per 100,000)*	--	42.1	38.8	40.1	39	38.6
Coronary heart disease deaths (per 100,000) *	100.8	105.4	112.4	128.3	146.6	145.6
Diabetes deaths (per 100,000) *	--	21.2	21.1	26.4	31.5	27
Drug poisoning deaths (per 100,000) *	--	12.9	17.5	21.9	18	18
Fall deaths (per 100,000) *	--	8.1	8.6	6.6	4.7	DSU
Heart disease deaths (per 100,000) *	--	174.4	183.5	236.8	213	234.6
Influenza and pneumonia deaths (per	--	15.1	14.4	12.6	11.1	19.8

CDC National Center for Health Statistics (2010-2012)**	HP 2020	U.S.	PA	Lackawanna County	Luzerne County	Wayne County
100,000) *						
Injury deaths (per 100,000) *	53.3	58.1	63	65.1	65.1	74.1
Kidney diseases deaths (per 100,000) *	--	13.9	16.8	20.3	14.8	15.7
Lung, trachea, and bronchus cancer deaths (per 100,000) *	--	46.1	47.9	47.8	46.8	45.1
Motor vehicle traffic deaths (per 100,000) *	--	10.8	10.4	10.8	11.8	12.7
Septicemia deaths (per 100,000) *	--	10.5	13.3	16.4	12.7	10.5
Stroke deaths (per 100,000) *	33.8	38	38.8	36.6	33.9	36.6
Suicide deaths (per 100,000) *	10.2	12.3	12.5	14.5	16.1	22.6

*** 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 Lackawanna County consistently shows the poorer health outcomes when compared to Luzerne and Wayne Counties for lifestyle related death rates (i.e., diabetes, heart disease, etc.); whereas Luzerne and Wayne Counties show higher rates for most everything else when compared to the state and national benchmarks.

- ✓ Lackawanna, Luzerne, and Wayne Counties all have fewer primary care providers than is average for PA (92.7 per 100,000 pop.).
- ✓ **Primary Care Providers** – Lackawanna, Luzerne, and Wayne Counties all have fewer Primary care providers than is average for PA (92.7 per 100,000 pop.).
    - o Lackawanna County shows 85.9 per 100,000 pop. primary care providers
    - o Luzerne County shows 71.1 per 100,000 pop. primary care providers
    - o Wayne County shows 41.5 per 100,000 pop. primary care providers
- ✓ **Dental Providers** – Lackawanna and Luzerne Counties have dental provider rates similar to the state; whereas Wayne County has fewer.
    - o Lackawanna County shows 67.2 per 100,000 pop. dental providers
    - o Luzerne County shows 57.1 per 100,000 pop. dental providers
    - o Wayne County shows 47.2 per 100,000 pop. dental providers
- ✓ Lackawanna, Luzerne, and Wayne Counties show a percentage of **acute hospital readmissions** (17.9%, 18.5%, and 17.1% respectively) (Inpatient readmissions within 30

days of an acute hospital stay) than is average for the nation and the state (18.6% and 18.4% respectively).

- ✓ The percentage of **live births that are to women below 18 years of age** is similar to the state and national average (2.3% each) for each 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). Lackawanna, Luzerne, and Wayne Counties show similar death rates to the state with the exceptions:
    - o **Deaths due to breast cancer** where Wayne County shows higher rates (25.7 per 100,000 pop.) than the state or the nation (23 and 21.7 per 100,000 pop. respectively). The Healthy People 2020 goal is set at 20.6 per 100,000 pop.
    - o **Deaths due to colorectal cancer** where Luzerne and Wayne Counties show higher rates (19.1 and 19.5 per 100,000 pop. respectively) 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.
- ✓ Lackawanna and Luzerne Counties show the same as or fewer **deaths related to Alzheimer's disease** (21.4 and 19.3 per 100,000 pop. respectively); whereas, Wayne County shows much higher rates (32.9 per 100,000 pop.) than the state (19.3 per 100,000 pop.) and national rate (24.5 per 100,000 pop.).
- ✓ Lackawanna, Luzerne, and Wayne Counties show about 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 and Wayne Counties show higher **deaths due to coronary heart disease** (146.6 and 145.6 per 100,000 pop. respectively); whereas Lackawanna County shows fewer than Luzerne and Wayne Counties (128.3 per 100,000 pop). All counties remain higher 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.
- ✓ Lackawanna, Luzerne, and Wayne Counties show higher **deaths due to diabetes** (26.4, 31.5, and 27 per 100,000 pop. respectively) than the state (21.1 per 100,000 pop.), and the nation (21.2 per 100,000 pop.).
- ✓ Lackawanna, Luzerne, and Wayne Counties show higher **deaths due to drug poisoning** (21.9, 18, and 18 per 100,000 pop. respectively) than the state (17.5 per 100,000 pop.), and the nation (12.9 per 100,000 pop.).

- ✓ Lackawanna, Luzerne, and Wayne Counties all have higher **deaths due to heart disease** (236.8, 213, and 234.6 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 Lackawanna, Luzerne, and Wayne Counties (65.1, 65.1, and 74.1 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.
- ✓ Lackawanna County has higher **deaths due to kidney diseases** (20.3 per 100,000 pop.) whereas Luzerne and Wayne County have similar rates (14.8 and 15.7 per 100,000 pop.) to the state and nation (16.8 and 13.9 per 100,000 pop.).
- ✓ Lackawanna, Luzerne, and Wayne Counties show slightly higher **deaths due to motor vehicle traffic** (10.8, 11.8, and 12.7 per 100,000 pop.) than state and national rates (10.4 and 10.8 per 100,000 pop. respectively).
- ✓ Lackawanna, Luzerne, and Wayne Counties show higher **deaths due to suicide** (14.5, 16.1, and 22.6 per 100,000 pop) than state and national rates (12.5 and 12.3 per 100,000 pop. respectively). Wayne County's suicide rate is much higher. 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 Community 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 17 stakeholders of the Geisinger Community Medical Center service area, as identified by an advisory committee of Geisinger Community Medical Center. Geisinger Community Medical Center is a 248-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 Community Medical Center advisory committee. The purpose of these interviews was for stakeholders to identify health issues and concerns affecting residents in the Geisinger Community 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 17 stakeholders interviewed. Those organizations represented included:

- Advocacy Alliance
- GHS Family
- Allied Services Foundation
- United Way of Wyoming Valley
- Scranton Chamber of Commerce
- Lackawanna County Medical Society
- Panuska College for Professional Studies
- The Wright Center Healthy
- Northeast Pennsylvania Initiative
- Pennsylvania Department of Health, Northeast District
- Volunteers in Medicine Free Clinic
- Scranton School District
- United Neighborhood Centers
- Catholic Social Services
- United Way of Lackawanna & Wayne Counties
- Northeastern Pennsylvania Healthcare Foundation
- Wilkes-Barre City Health Department

STAKEHOLDER RECOMMENDATIONS:

The stakeholders provided many recommendations to address health issues and concerns for residents living in the Geisinger Community 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 is 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 lists 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 traditionally carried by 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 Community Medical Center. According to stakeholders, 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). 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 or if they 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 regimens (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 Community 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 Community 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. Stakeholders 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 266 surveys were collected in the Geisinger Community Medical Center service area which provides a +/- 6.01 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, Wayne County CareerLink, NHS Human Services, The Edward R. Leahy Jr. Center Clinic for the Uninsured, Trehab, The Wright Center, 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.

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 Lackawanna and Luzerne Counties reported their race as White (86.5% and 78.8% respectively), the next largest racial group was Black and African American (5.6% and 8.2% respectively) and third largest was Hispanic (4.8% and 8.2% respectively).

- The household income level with the most responses was $10,000-$19,999 for Lackawanna County (26.7%) and < than $10,000 for Luzerne County (23.1%).

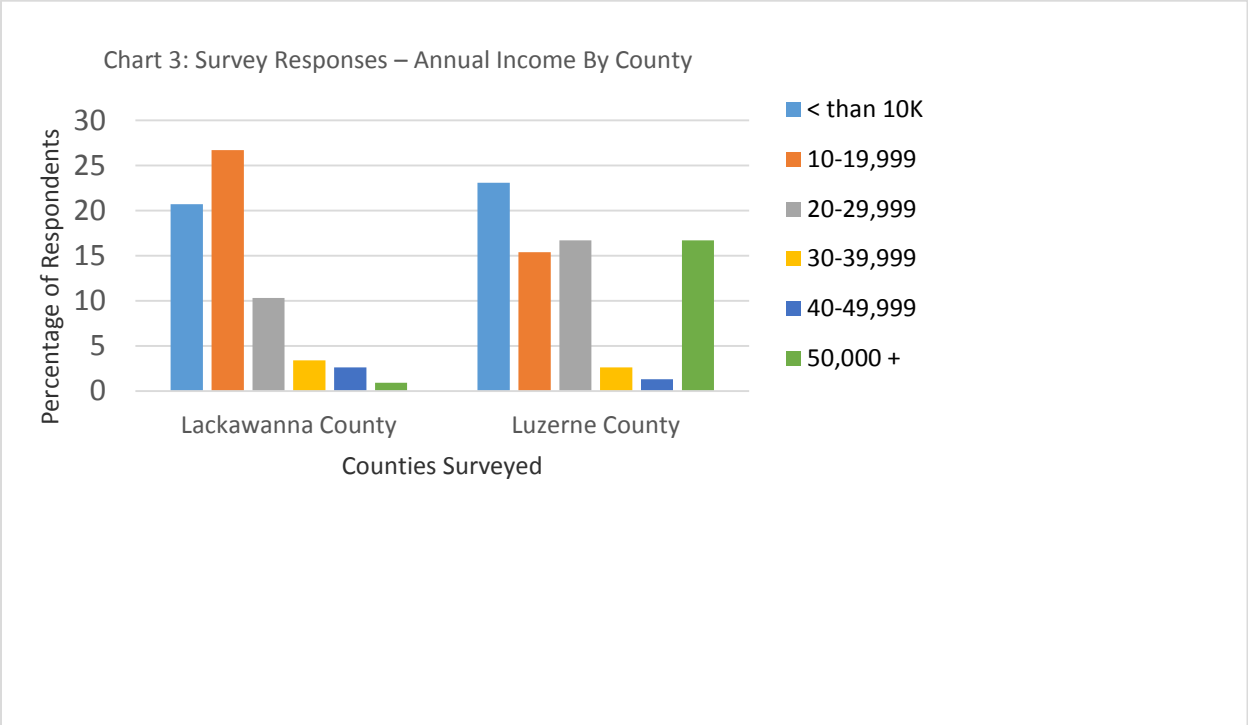
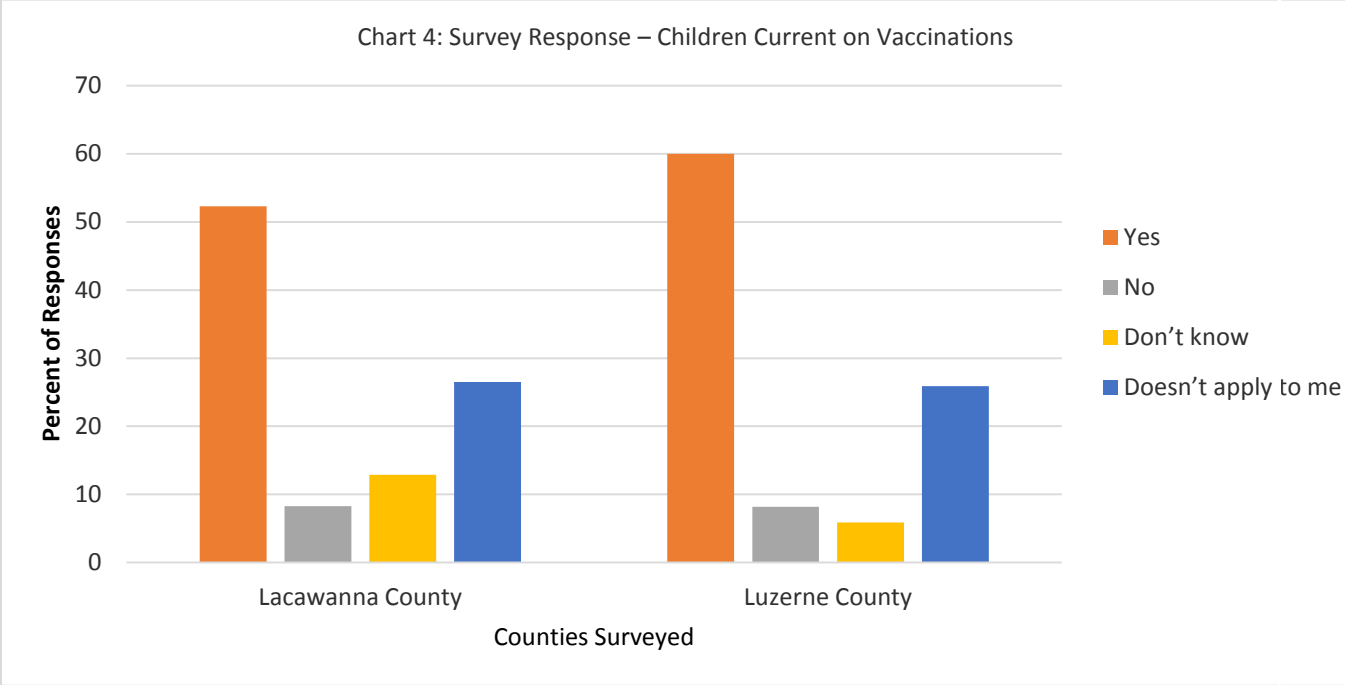


Table 3: Survey Responses – Self-Reported Age of Respondent by County

Age	Lackawanna County	Luzerne County
18-25	4.7%	7.6%
26-35	15.4%	12%
36-45	16.8%	16.3%
46-55	11.4%	20.7%
56-65	22.1%	20.7%
66-75	14.8%	6.5%
76-85	10.7%	9.8%
86+	4%	6.5%

Healthcare:

- The most popular place for residents to seek care is a doctor's office in Lackawanna and Luzerne Counties (70.4% and 70.1% respectively), with the free or reduced cost clinics (14.1% and 24.1%) being popular as well.
- The most common form of health insurance carried by respondents was Medicare in Lackawanna and Luzerne Counties (38.6% and 30% respectively) with "no insurance" the second most common in Lackawanna County (26.1%) and Private/commercial in Luzerne County (28.9%).
- The most common reason why individuals indicated that they do not have health insurance is because they can't afford it in Lackawanna and Luzerne Counties (47.2% and 44% respectively) with ineligibility being the second most common reason (30.6% and 24% respectively) .
- Most respondents had been examined by a physician within the last 12 months at least once in Lackawanna and Luzerne Counties (87% and 91.3%); however, 13% of respondents in Lackawanna County and 8.7% of respondents in Luzerne County had not.
- 33.1% of Lackawanna County respondents and 30.4% of Luzerne respondents indicated that their health was "fair" or "poor".
- Adult respondents indicated related children were up-to-date on vaccinations in Lackawanna and Luzerne Counties (52.3% and 60% respectively).



- Many respondents indicated that their primary form of transportation is some method other than their own car in Lackawanna (45.3%) and Luzerne (37.2%) Counties, using a

family/friend's car (26.2% and 18.5% respectively), public transportation (11.3% and 17.4 respectively), and walking (7.8% and 1.1% respectively) as an alternative.

Table 4: Survey Responses Related to HIV/AIDS Testing

Ever Been Tested for HIV	Lackawanna County	Luzerne County	PA	U.S.
Yes	30.7%	32.2%	32.2%	35.2%
No	69.3%	67.8%	67.8%	64.8%

- Survey respondents from Lackawanna and Luzerne Counties report screening rates (30.7% and 32.2% respectively) similar to state and national norms.

Health Services:

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

Test Received	Lackawanna County	Luzerne County
Blood test	66.5%	73.1%
Check up	53.5%	62.4%
Flu shot	45.8%	57%
Cholesterol test	43.2%	53.8%

- Respondents from Luzerne County seemed to have received more testing in general than those in Lackawanna County.
- More respondents indicated they get information about services in their community by word of mouth in both Lackawanna (63%) and Luzerne (53.9%) Counties.
- While most respondents did not prefer to receive health services in a language other than English (89.6% and 84.6% respectively); 8.9% of respondents reported this preference in Lackawanna County and slightly more (12.1%) in Luzerne County.
- Most respondents in both counties 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".
- 15.5% of respondents in Lackawanna County and 10.4% in Luzerne County indicated they did not secure dental services due to a lack of insurance, with 12% of respondents in Lackawanna County indicating dental services are not available to them.
- 12.7% of respondents indicated that vision services are not available to them in Lackawanna County whereas only 6.2% responded the same in Luzerne County. Notably,

more respondents reported that vision services are available to them in Luzerne County (80.2%) than Lackawanna County (72.9%).

- Approximately one in four respondents in both counties 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 (33.8% and 34% respectively), and additional instructions (27.3% and 50% respectively).

Common Health Issues:

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

Ever Diagnosed with	Lackawanna County	Luzerne County	PA*	U.S.*
Depression	32.4%	26.9%	18.3%	18.7%
Needing Mental Health Treatment	23.9%	21.7%	--	--
Diabetes	22.9%	19.4%	10.1%	9.7%
Heart Problem	14.9%	23.7%	--	--
Cancer – Types: breast, prostate and skin	8.5%	9.7%	--	--

** Source: CDC*

- Respondents in Lackawanna and Luzerne Counties report poorer health outcomes 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%).
- Lackawanna and Luzerne County survey respondents report higher rates of depression diagnosis (32.4% and 26.9% respectively) than is average for the state (18.3%) and nation (18.7%).
- Respondents in Lackawanna and Luzerne Counties report higher diagnosis rates for diabetes (22.9% and 19.4% respectively) 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	Lackawanna County	Luzerne County
Cancer	43.7%	55.7%
Drug and Alcohol use	39.7%	54.5%
Diabetes	34.9%	44.3%

Health Concern	Lackawanna County	Luzerne County
Heart Disease	30.2%	36.4%
High Blood Pressure	29.4%	37.5%

- ✓ When asked to identify five of their top health concerns in their communities; respondents chose Cancer, Drug and Alcohol use, Diabetes, Heart Disease, and High Blood Pressure most often. The additional choices that were not as popular were: adolescent health, asthma, mental health, 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	Lackawanna County	Luzerne County	Avg. Female (5'4")*	Avg. Male (5'9")*
Weight	180.5 lbs.	174.89 lbs.	108-144 lbs.	121-163 lbs.
BMI**	28.9	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 (87.2% and 96.7% respectively); there were 12.8% of respondents in Lackawanna County and only 3.3% in Luzerne County that indicated they have no access.
- ✓ One in 10 respondents in Lackawanna County and One 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	Lackawanna County	Luzerne County	PA*	U.S.*
Everyday	18.7%	16.3%	15.7%	13.4%
Some days	4.3%	4.3%	5.3%	5.4%
Not at all	74.8%	78.3%	--	--

- ✓ Lackawanna and Luzerne County respondents reported higher rates of smoking everyday (18.7% and 16.3% respectively) 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	Lackawanna County	Luzerne County	PA*	U.S.*
Yes	52.3%	55.4%	73.7%	74.7%
No	47.7%	44.6%	26.3%	25.3%

- ✓ Respondents in Lackawanna and Luzerne Counties report lower rates of physical activity (52.3% and 55.4% respectively) 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 Community Medical Center 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 overuse of pain medication and increased use of emergency health services.

Geisinger Community Medical Center, working closely with community partners, understands 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 are medical resources in the region with multiple clinics that serve under/uninsured residents. Lackawanna, Luzerne, and Wayne Counties have pockets of underserved residents namely, Scranton (18503, 18508, 18505, and 18510); Hazleton (18201 and 18202); Glen Lyon (18617); and Wilkes-Barre (18701 and 18702) 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 Community Medical 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 each county and address the multiple barriers to healthcare.

The lifestyles of residents in Lackawanna and Luzerne Counties 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 CHNA document to Geisinger Community Medical Center staff, providers, leadership and boards.
- ❑ Conduct an open community forum where the CHNA 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 CHNA.
- ❑ 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 CHNA process.
- ❑ Develop "Working Groups" to focus on specific strategies to address the top needs identified in the CHNA. 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

Public Commentary Results

GEISINGER COMMUNITY MEDICAL CENTER
February 26, 2015

Community:
Geisinger Community Medical Center service area

INTRODUCTION:

Tripp Umbach solicited feedback related to the community health needs assessment (CHNA) and action plan completed on behalf of Geisinger Community Medical Center (GCMC). GCMC is a 248-bed community hospital. Feedback was requested using a variety of venues (i.e., on-site at the hospital, electronic mail, and at local community-based organizations) using a variety of methods (i.e., electronic and hard copy). Requests for community comment offered residents and community leaders the opportunity to react to the methods, findings, and subsequent actions taken as a result of the last CHNA and planning process. What follows is a summary of the community response regarding the 2013 CHNA Action Plan for GCMC.

This report represents a section of the overall community health needs assessment completed for GCMC.

DATA COLLECTION:

The following qualitative data were gathered during a period of public comment, during which Tripp Umbach solicited public commentary from community leaders and residents. Commenters were asked to review the CHNA and Action Plan adopted by GCMC 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 Community 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 and flyers were circulated and electronic requests were made for public comment throughout the collection period which lasted from December 2014 until February 2015.

PUBLIC COMMENTS:

When asked if the CHNA commenters reviewed "included input from community members or organizations" commenters replied that it did and were unsure if there were any community members excluded. GCMC's 2013 CHNA included 1,457 household surveys, 26 stakeholder interviews, nine focus groups with target populations, and extensive input from the steering committee comprised of more than 30 community leaders.

There were no needs identified as having been excluded in response to the question "Are there needs in the community related to health (e.g., physical health, mental health, medical services, dental services, etc.) that were not presented in the CHNA". The needs Identified in the 2013 CHNA were related to:

- Lack of resource awareness by patients/residents.
- Lack of understanding of key health issues and preventive care.
- Demand for medical assistance services is increasing because regional poverty is higher.
- Lack of collaboration among organizations/resources/providers.
- Increasing racial and ethnic diversity by requiring cultural training and professionals with multiple language proficiencies.
- Mental health issues are mounting, but the stigma of treatment still exists.
- Perception of quality must be addressed with medical professionals and residents/patients.
- Physician skills, such as time management and customer service, are needed.
- Physician shortage must be addressed.
- Lackawanna and Luzerne Counties fall behind the Commonwealth in several areas with regard to health status and physicians per capita.
- Area hospitals have opportunities to work together in several specialty areas.
- Each insurer is using a different methodology to reach plan participants about wellness programs.
- Information on health care programs in the community is scattered and can be difficult to piece together.
- Respondents are in overall good health.
- Based on research results, income and mental health status are related.
- High blood pressure and high cholesterol are high among sample.
- There are a high number of overweight and obese residents.
- There are many low-income residents.
- Substance abuse is a problem in the region.
- There is a strong correlation between substance abuse and mental health issues.
- There is a strong correlation between substance abuse and poverty.
- Social service resources are disjointed and stressed.
- Medical personnel must be trained to spot mental health issues.
- There is a perception of poor quality of care within the region.
- There is a perception of unavailability of health care providers within the region.
- Respondents are disappointed by the lack of respect and lack of cooperation within the regional health care system.
- Research and innovation improve perceptions of quality.
- Names of renowned facilities improve perceptions of quality.
- Facility design and décor impact quality perception.
- There is no collaboration between primary care physicians and specialists.
- Primary care physicians see that the quality of specialists is an issue.
- Primary care physicians see that wait time to see specialists, coupled with testing, prognosis and treatment plan, as a problem.

There was no other additional feedback or comments provided by the public related to GCMC's CHNA and/or Action Plan.

APPENDIX B

Secondary Data Profile

GEISINGER COMMUNITY MEDICAL
February 2, 2015

GEISINGER COMMUNITY MEDICAL CENTER (GCMC)

COMMUNITY HEALTH NEEDS ASSESSMENT
SECONDARY DATA PROFILE

February 2015

TrippUmbach
Research • Strategy • Impact

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 GCMC includes Lackawanna and Wayne counties. The GCMC community includes 23 populated zip code areas (excluding zip codes for P.O. Boxes and offices). The majority of the zip code areas for the GCMC community are within Lackawanna County; three zip codes are within Wayne County.

Zip	County	City
18403	Lackawanna	Archbald
18407	Lackawanna	Carbondale
18411	Lackawanna	Clarks Summit
18414	Lackawanna	Dalton
18424	Lackawanna	Gouldsboro
18431	Wayne	Honesdale
18433	Lackawanna	Jermyn
18434	Lackawanna	Jessup
18436	Wayne	Lake Ariel
18444	Lackawanna	Moscow
18447	Lackawanna	Olyphant
18452	Lackawanna	Peckville

Zip	County	City
18472	Wayne	Waymart
18504	Lackawanna	Scranton
18505	Lackawanna	Scranton
18507	Lackawanna	Moosic
18508	Lackawanna	Scranton
18509	Lackawanna	Scranton
18510	Lackawanna	Scranton
18512	Lackawanna	Scranton
18517	Lackawanna	Taylor
18518	Lackawanna	Old Forge
18519	Lackawanna	Scranton

Key Points – Community Needs for GCMC

- The GCMC study area is projected to experience a 0.4% decrease in population over the next five years (2014 – 2019); this equates to approximately 1,173 less people in the primary service area.

- **The average household income in 2014 for the GCMC study area was $63,966; this is lower than state and national rates ($69,931 and $71,320 respectively).**
  - The GCMC study area shows more households earning $25K or less annually as compared with Pennsylvania and the U.S.; 25.1% for the GCMC study area, 24.0% for PA and 24.5% for the U.S.

- **The GCMC study area shows higher rates of older individuals than state and national norms. The GCMC study area has 19.4% 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 GCMC study area is projected to rise, from 19.4% to 21.7%.**

- **The GCMC study area reports 11.3% of the population having not received a high school diploma; this is lower than the state rate at 11.5% and national rate of 14.2%.**

- **When compared to the diversity of Pennsylvania or the U.S., we can see that the GCMC study area is more homogeneous.**
  - Only 11.5% of the GCMC population identify as a race/ethnicity other than White, Non-Hispanic; whereas 19.6% in PA and 35.8% in the U.S. identify as a race other than White, Non-Hispanic.

Key Points – Community Needs for GCMC

- **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 overall CNI score for the GCMC study area is 2.9. This score is slightly below the median (3.0).**
  - 7 zip codes in the 23 zip code study area fall above the median CNI score (3.0)
  - 12 zip codes fall below the median
  - 4 zip codes have a CNI score of 3.0

- **The highest CNI score for the GCMC community is 4.2 for Scranton (18508) in Lackawanna County.**
  - Scranton (18508) also has the highest rate of limited English speakers (3.7%) in the GCMC study area.

- **A number of other Scranton zip code areas have the highest rates of the measures used to calculate the CNI for the GCMC study area:**
  - Scranton (18505) has the highest minority rate (29.6%) and married parents with children living in poverty (32.6%).
  - Scranton (18510) has the highest uninsured rate (12.1%).
  - Scranton (18509) has the highest rental rate (49.3%).
  - Scranton (18519) has the most residents over 65 years living in poverty (20.7%).

Key Points – Community Needs for GCMC

- **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.**
  - Lackawanna County ranks well in terms of Physical Environment, ranking in the top 5 in the state of PA, yet ranks poorly in Health Outcomes and Mortality (Length of Life) with rankings of 56 and 58, respectively.
  - Wayne County does not have any top rankings, nor does it have any very poor rankings either as it does not fall in the top 5 or bottom 5 for any category. Wayne County performs better than Lackawanna County in every health ranking category, with the exception of Physical Environment.

- **In 2014:**
  - 12% of the population was uninsured in Lackawanna County and 13% of the population in Wayne County was uninsured.
  - Approximately a quarter of the Lackawanna County population in the GCMC community are smokers. Close to a quarter of the population is obese. The same is said for excessive drinking in the county.
  - Lackawanna County has a higher unemployment rate (9.0%) and higher violent crime rate (232 per 100,000 population) between the two counties in the GCMC community.

- **Between 2011 and 2014:**
  - Wayne County had large positive changes in three ranking categories from 2011 to 2014: Health Outcomes (from 57 to 29), Mortality – Length of Life (from 62 to 24), and Clinical Care (from 45 to 25).
  - Lackawanna County had a positive jump in the Physical Environment, advancing in the rankings from 17 to 4.
  - Both Lackawanna and Wayne counties had a decrease in the number of PCPs (83 to 76 per 100,000 population for Lackawanna County and 55 to 49 for Wayne County)
  - Lackawanna County had increases in both the unemployment rate and violent crime rate.

Key Points – Community Needs for GCMC

- 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.

- In 8 out of the 14 subgroups, the GCMC study area had a lower PQI score, or less preventable hospital admissions than the state for:
  - Asthma in Younger Adults, Diabetes Short-Term Complications, Diabetes Long-Term Complications Hypertension, Perforated Appendix, Dehydration , Bacterial Pneumonia,, Urinary Tract Infection

- From 2011 to 2014, the GCMC study area had a number of decreases in PQI scores– indicating an overall drop in the number of preventable hospital admissions in the GCMC study area between 2011 and 2014. The most notable of these decreases include:
  - Bacterial Pneumonia (PQI11) – decrease of 204.1 cases per 100,000 population
  - Congestive Heart Failure (PQI8) – decrease of 164.9 cases per 100,000 population
  - Urinary Tract Infection (PQI12) – decrease of 113.4. cases per 100,000 population

- The only category where GCMC did not see improvement was Chronic Obstructive Pulmonary Disease or Asthma in Older Adults (PQI5).
  - GCMC had a significant increase in its PQI5 score, going from 368.0 in 2011 to 578.8 in 2014 (an increase of 210.8).

Community Demographic Profile

- **The GCMC study area shows a decline in population over the next 5 years at a rate of -0.4%.** The population trend seen for the GCMC study area is consistent with the counties in the study area as well; Lackawanna and Wayne counties also see projected population declines. The population decline in the GCMC community is not consistent with state, meaning people are community into PA but not to the GCMC community.

- **The GCMC community shows projected declines in the percentages of younger individuals (18 and younger)** while at the same time showing projected increases in the percentages of older individuals (55 and older) in the next 5 years. This is important to note when assessing morbidity and mortality data as the different age groups encounter different health care needs.

- **The GCMC community shows an average annual household income of $63,966.** The GCMC community and Wayne and Lackawanna counties have average household incomes below state and U.S. levels. Generally, rural areas show lower income levels as compared with more urban areas.

- **The GCMC community shows 11.3% of the population have not received a high school diploma.** Wayne County shows the highest rate with 13.2% of the population without a high school diploma. On the other hand, 49.9% of the GCMC community have some college education or received a college degree.

- **The GCMC community is not very diverse in comparison to state and national demographics.** 11.5% of the population in the GCMC community identify as a race/ethnicity other than White, Non-Hispanic whereas 19.6% in PA and 35.8% in the U.S. identify as a race other than White, Non-Hispanic.

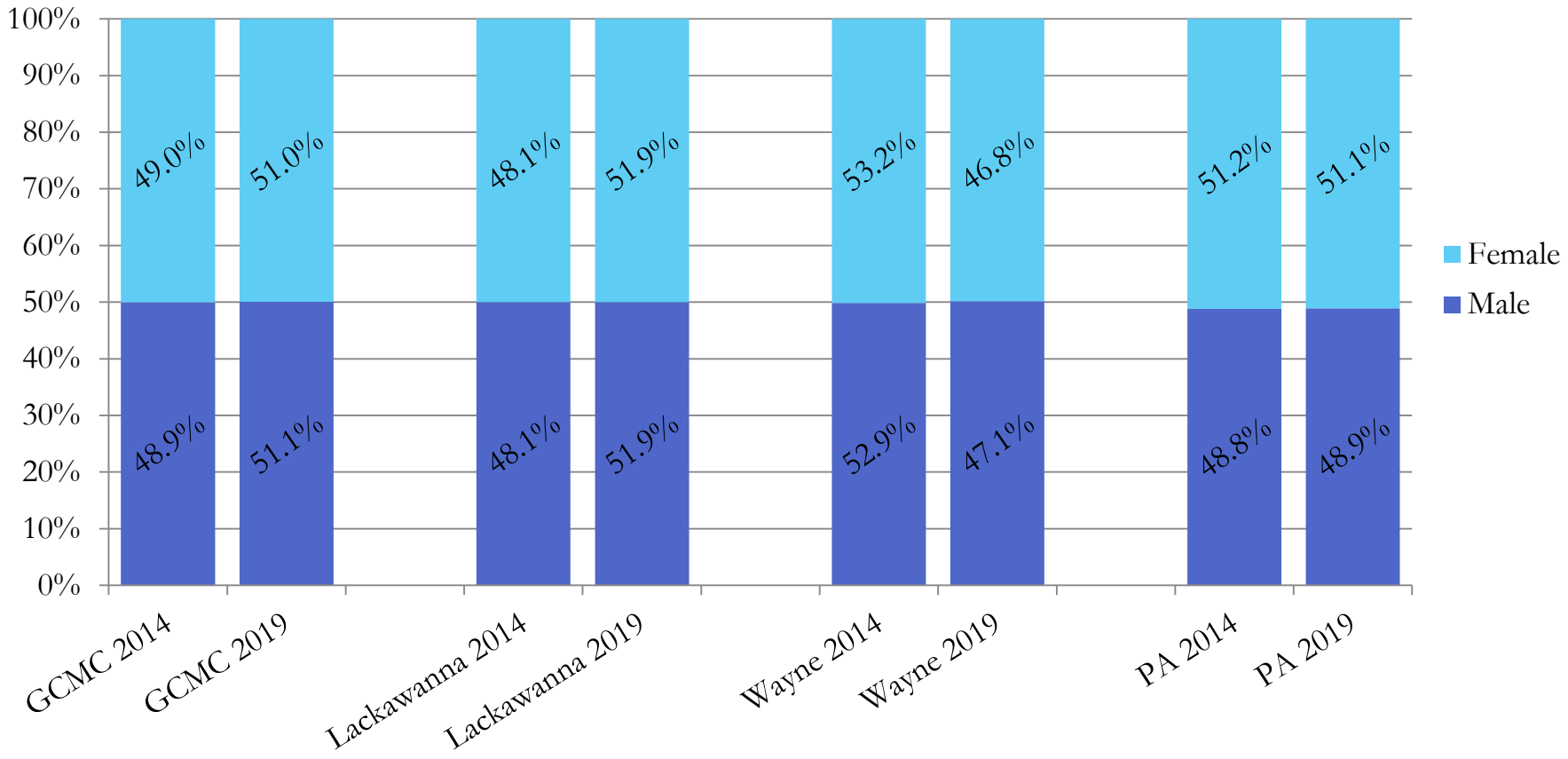
Population Trends

	GCMC Study Area	Lackawanna County	Wayne County	PA
2014 Total Population	264,665	212,039	46,999	12,791,290
2019 Projected Population	263,492	211,921	45,947	12,899,019
# Change	-1,173	-118	-1,052	+107,729
% Change	-0.4%	-0.1%	-2.2%	+0.8%

- The GCMC study area shows a decline in population over the next 5 years at a rate of -0.4%; this equates to a loss of 1,173 residents.
- The population trend seen for the GCMC study area is consistent with the counties in the study area as well; Lackawanna and Wayne counties also see projected population declines (0.1% and 2.2% respectively).
- The trends seen for the GCMC and Lackawanna and Wayne counties differ from that of Pennsylvania population trends. Pennsylvania is projected to see a 0.8% rise in population between 2014 and 2019.

Source: 2014 The Nielsen Company, 2014 Truven Health Analytics Inc.

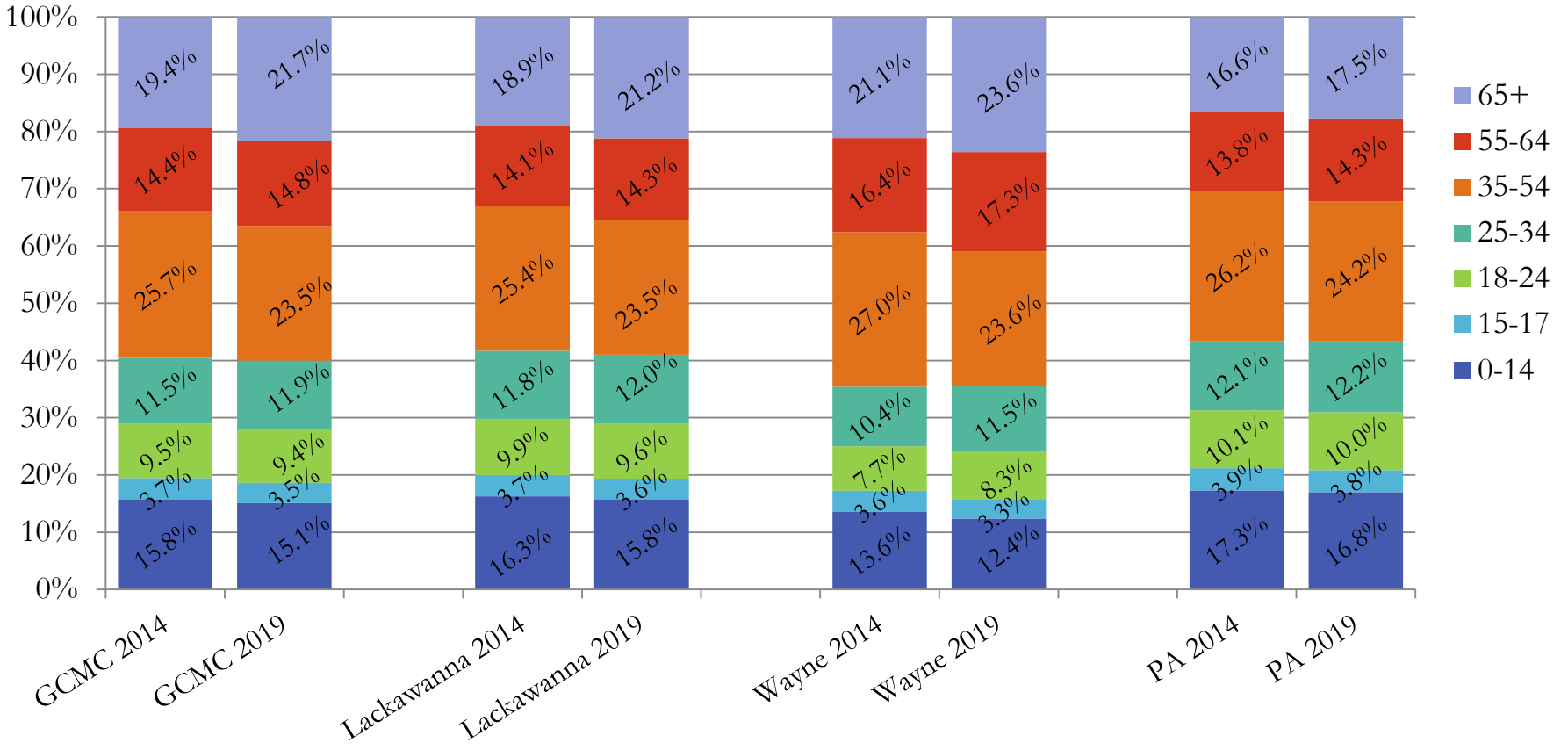
Gender



- The GCMC study area shows slightly higher percentages of women as opposed to men in 2014 but it is predicted to have a slightly higher percentage of men then women by 2019.

Source: 2014 The Nielsen Company, 2014 Truven Health Analytics Inc.

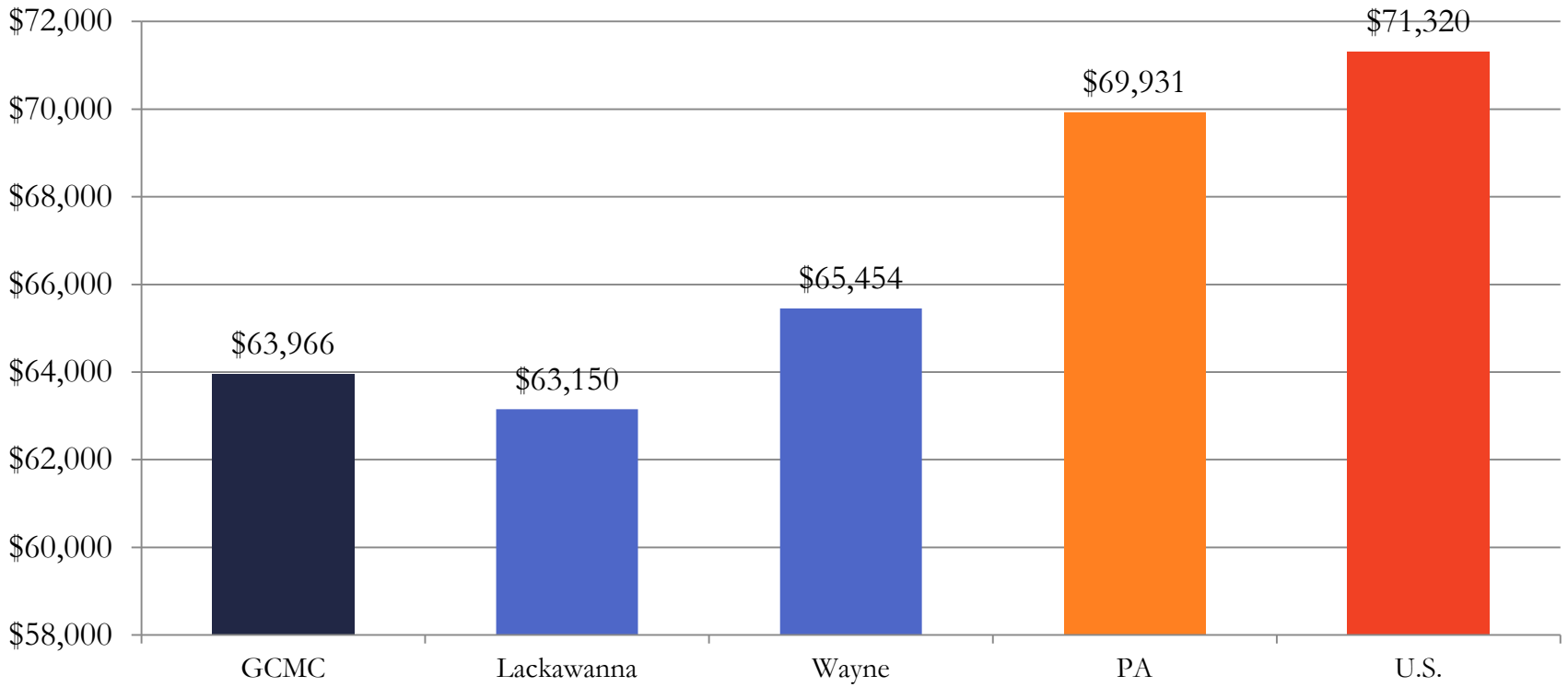
Age



- The GCMC study area and the counties of Lackawanna and Wayne show projected declines in the percentages of younger individuals (24 and younger) while at the same time showing projected increases in the percentages of older individuals (55 and older) in the next 5 years. This is important to note when assessing morbidity and mortality data as the different age groups encounter different health care needs.

Source: 2014 The Nielsen Company, 2014 Truven Health Analytics Inc.

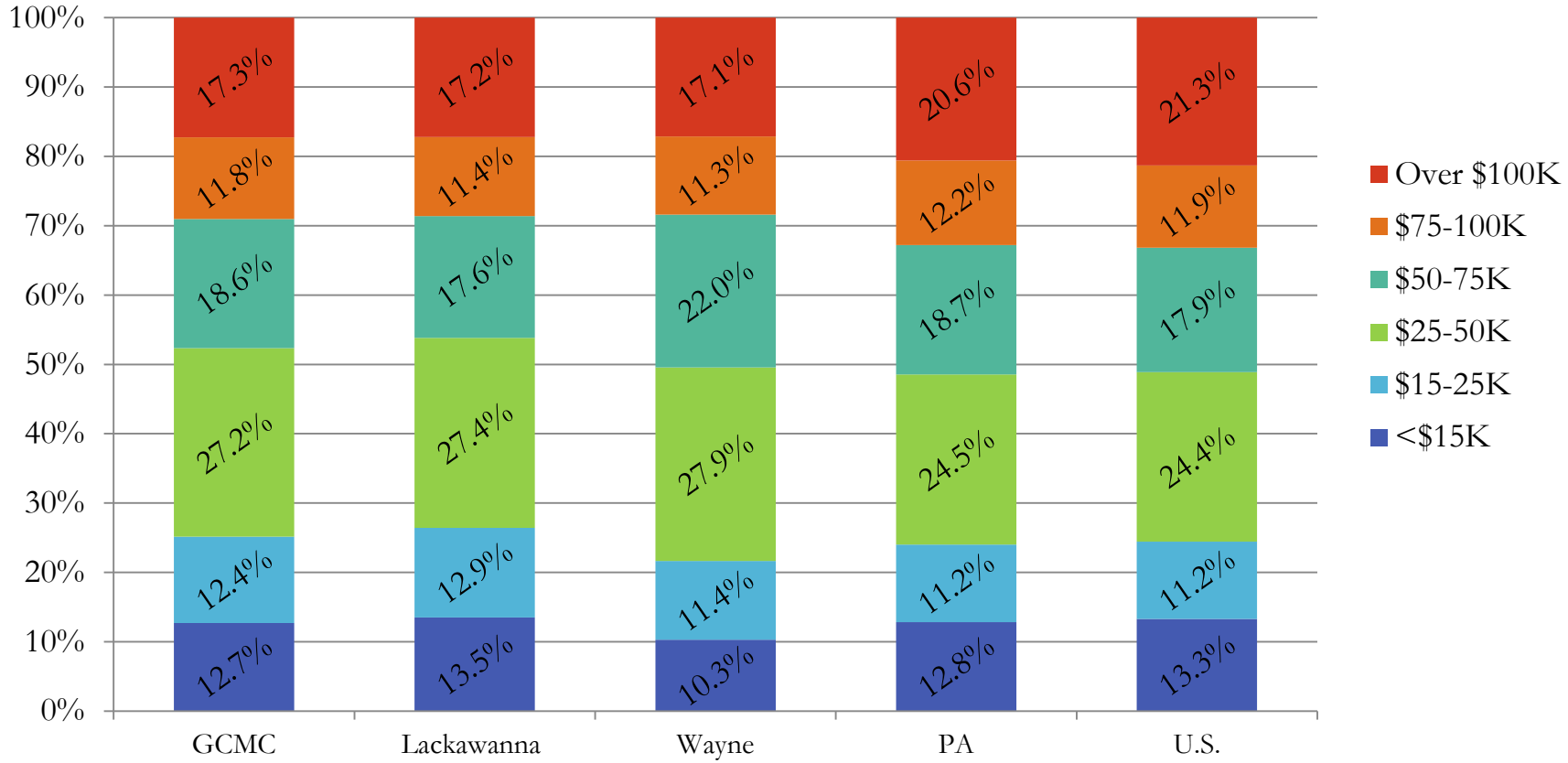
Average Household Income (2014)



- The GCMC study area shows an average annual household income of $63,966.
- Wayne County has an average household income of $65,454 and Lackawanna County has an average household income $63,150.
- The GCMC study area and Wayne and Lackawanna counties have average household incomes below state and U.S. levels. Generally, rural areas show lower income levels as compared with more urban areas.

Source: 2014 The Nielsen Company, 2014 Truven Health Analytics Inc.

Household Income Detail (2014)

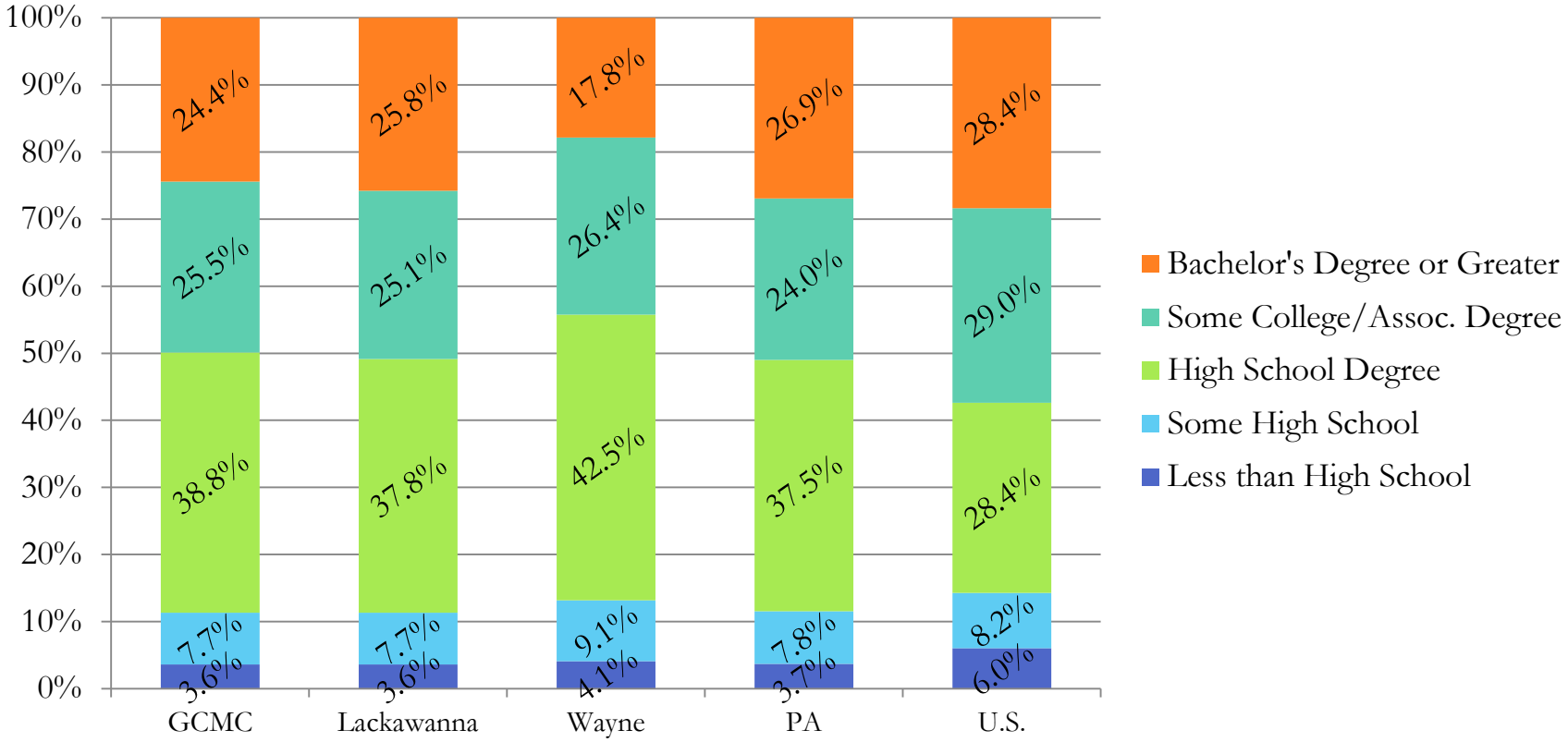


- The GCMC study area shows more households earning $25K annually or less as compared with PA and the U.S.; 25.1% for the GCMC study area , 24.0% for PA and 24.5% for the U.S.

- Lackawanna County shows the highest rates of low income households with 26.4% of their population earning $25K annually or less. On the other hand, 21.7% of Wayne County's population earns $25K annually or less.

Source: 2014 The Nielsen Company, 2014 Truven Health Analytics Inc.

Education Level (2014)

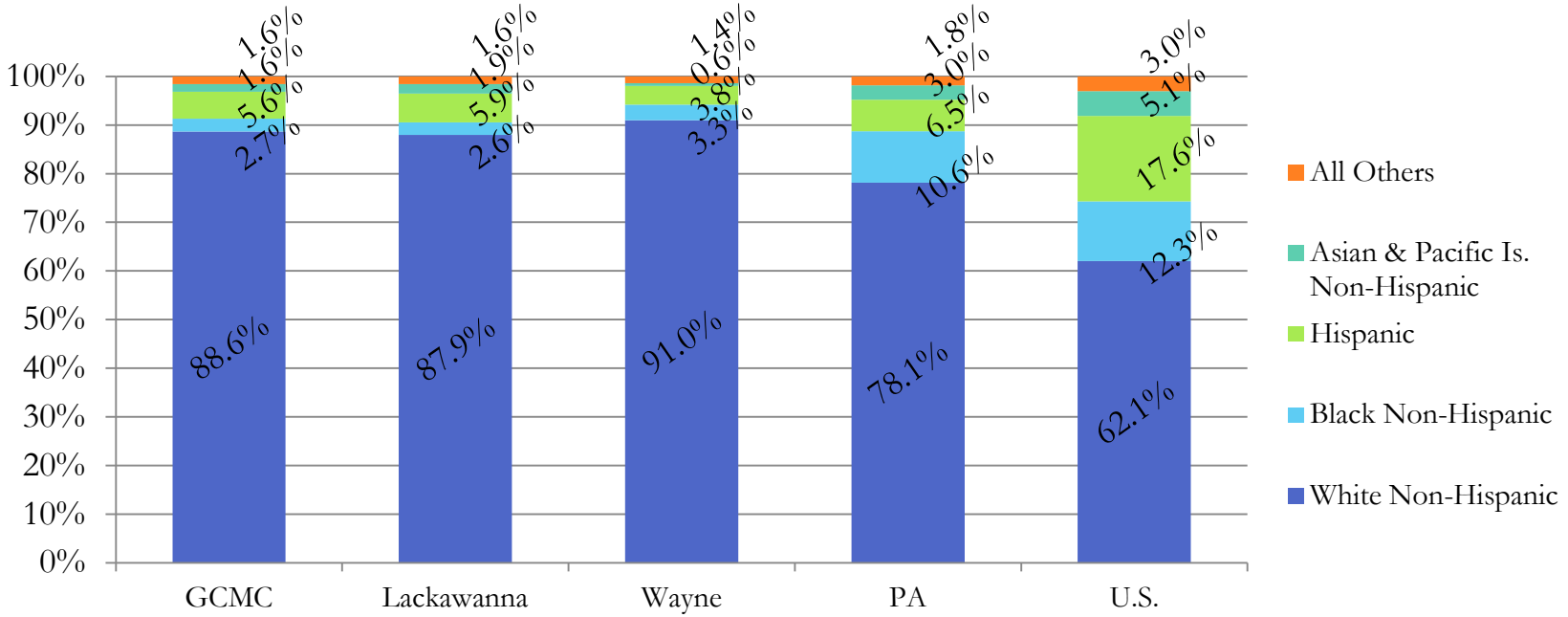


- The GCMC study area shows 11.3% of the population have not received a high school diploma. Wayne County shows the highest rate with 13.2% of the population without a high school diploma. The state rate (12.6%) and U.S. rate (15.1%) are higher than the rate for the GCMC study area. Educational level is highly related to occupation and therefore income.

- On the other hand, 49.9% of the GCMC study area have received some college education or received a college degree.

Source: 2014 The Nielsen Company, 2014 Truven Health Analytics Inc.

Race/Ethnicity (2014)



- The GCMC study area shows little diversity in comparison to state and national diversity levels. 11.5% of the GCMC population identify as a race/ethnicity other than White, Non-Hispanic whereas 19.6% in PA and 35.8% in the U.S. identify as a race other than White, Non-Hispanic.

- When compared to the diversity of PA or the U.S., we can see that the GCMC study area is very homogeneous.

Source: 2014 The Nielsen Company, 2014 Truven Health Analytics Inc.

Community Need Index

- **The GCMC study area has a CNI score of 2.9**. The median CNI score for the scale is 3.0. The CNI score of the GCMC study area indicates that the study area has fewer barriers to healthcare access than average.
- **12 of the 23 zip codes included in the GCMC study area fall below the median CNI score (3.0).** This further indicates that the study area has fewer barriers to healthcare access than average.
- **From the data, we can see that various zip code areas have the highest rates of the measures used to calculate the CNI:**
  - Scranton (18508) the highest rate of limited English speakers (3.7%).
  - Scranton (18505) has the highest minority rate (29.6%) and married parents with children living in poverty (32.6%).
  - Scranton (18510) has the highest uninsured rate (12.1%).
  - Scranton (18509) has the highest rental rate (49.3%).
  - Scranton (18519) has the most residents over 65 years living in poverty (20.7%).
  - Carbondale (18407) has the highest unemployment rate (11.4%).
  - Waymart (18472) has the highest percentage of residents with no high school diploma (18.5%).
  - Moosic (18507) has the most single parents with children living in poverty (64.7%).

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.

Assigning CNI Scores (2014)

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
18508	Scranton	Lackawanna	11,937	44.9%	8.7%	11.9%	20.2%	3.7%	18.3%	20.1%	20.1%	50.7%	4	4	4	4	5	4.2
18505	Scranton	Lackawanna	20,435	45.8%	7.1%	11.5%	29.6%	3.1%	12.8%	12.9%	32.6%	63.4%	5	3	3	4	5	4.0
18510	Scranton	Lackawanna	13,908	60.1%	10.5%	12.1%	26.0%	3.8%	12.2%	14.9%	28.3%	53.1%	4	4	3	4	5	4.0
18504	Scranton	Lackawanna	21,153	43.4%	7.7%	10.2%	15.9%	1.7%	15.0%	11.7%	18.8%	42.9%	3	3	4	3	5	3.6
18407	Carbondale	Lackawanna	13,423	35.2%	11.4%	10.2%	5.9%	0.6%	12.4%	10.0%	17.3%	33.8%	3	4	3	2	5	3.4
18472	Waymart	Wayne	7,104	22.5%	10.1%	7.2%	28.9%	1.4%	18.5%	15.3%	11.7%	34.4%	3	3	4	4	3	3.4
18509	Scranton	Lackawanna	13,372	49.3%	5.7%	9.5%	16.2%	1.5%	14.6%	10.7%	15.1%	36.0%	3	3	3	3	5	3.4
18431	Honesdale	Wayne	12,689	27.8%	6.5%	7.1%	5.2%	0.3%	13.2%	10.5%	19.8%	46.8%	4	2	3	2	4	3.0
18452	Peckville	Lackawanna	4,966	28.0%	10.1%	8.0%	5.4%	1.3%	11.3%	7.2%	13.7%	38.0%	3	3	3	2	4	3.0
18507	Moosic	Lackawanna	5,195	22.5%	4.0%	7.6%	8.5%	1.0%	8.8%	10.3%	18.5%	64.7%	5	2	2	3	3	3.0
18519	Scranton	Lackawanna	5,093	36.2%	4.3%	9.5%	8.5%	0.3%	9.7%	20.7%	11.2%	36.8%	3	2	2	3	5	3.0
GCMC Study Area			**244,133**	**32.3%**	**7.1%**	**8.4%**	**11.7%**	**1.3%**	**11.5%**	**10.5%**	**15.9%**	**39.8%**	**3.0**	**2.5**	**2.7**	**2.5**	**3.8**	**2.9**

Source: Thomson Reuters

Assigning CNI Scores (2014)

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
18403	Archbald	Lackawanna	7,067	20.2%	9.2%	8.1%	4.6%	0.2%	11.2%	16.6%	14.1%	36.3%	3	3	3	2	3	2.8
18512	Scranton	Lackawanna	12,414	35.6%	6.2%	7.0%	5.8%	0.5%	10.0%	6.5%	13.8%	38.2%	3	2	2	2	5	2.8
18518	Old Forge	Lackawanna	8,269	31.5%	11.3%	9.3%	6.0%	0.2%	12.0%	8.7%	9.2%	27.0%	2	3	3	2	4	2.8
18434	Jessup	Lackawanna	4,113	28.7%	5.6%	8.4%	4.6%	0.9%	9.8%	7.6%	20.4%	40.4%	3	2	2	2	4	2.6
18447	Olyphant	Lackawanna	9,935	30.2%	5.3%	8.6%	5.8%	0.4%	10.4%	16.2%	11.9%	33.9%	3	2	2	2	4	2.6
18517	Taylor	Lackawanna	5,122	30.0%	8.0%	7.1%	7.9%	0.6%	10.7%	7.9%	13.2%	39.6%	3	2	2	2	4	2.6
18433	Jermyn	Lackawanna	6,827	22.5%	6.2%	9.1%	3.8%	0.6%	8.8%	12.2%	13.8%	32.3%	2	3	2	1	3	2.2
18424	Gouldsboro	Lackawanna	5,578	12.9%	7.4%	5.3%	7.9%	0.6%	10.7%	3.4%	16.4%	43.7%	3	2	2	2	1	2.0
18436	Lake Ariel	Wayne	13,843	12.9%	5.0%	5.1%	5.8%	0.7%	10.7%	6.7%	8.9%	29.8%	2	1	3	2	1	1.8
18411	Clarks Summit	Lackawanna	23,264	20.2%	4.3%	4.4%	6.0%	0.5%	5.1%	3.5%	5.0%	20.4%	1	1	1	2	3	1.6
18444	Moscow	Lackawanna	13,137	15.1%	6.3%	5.7%	3.6%	0.5%	8.7%	6.8%	6.6%	40.8%	3	1	2	1	1	1.6
18414	Dalton	Lackawanna	5,289	17.2%	4.2%	5.8%	4.0%	0.3%	6.8%	4.6%	11.2%	25.0%	2	1	1	1	2	1.4
GCMC Study Area			**244,133**	**32.3%**	**7.1%**	**8.4%**	**11.7%**	**1.3%**	**11.5%**	**10.5%**	**15.9%**	**39.8%**	**3.0**	**2.5**	**2.7**	**2.5**	**3.8**	**2.9**

Source: Thomson Reuters

Assigning CNI Scores (2014)

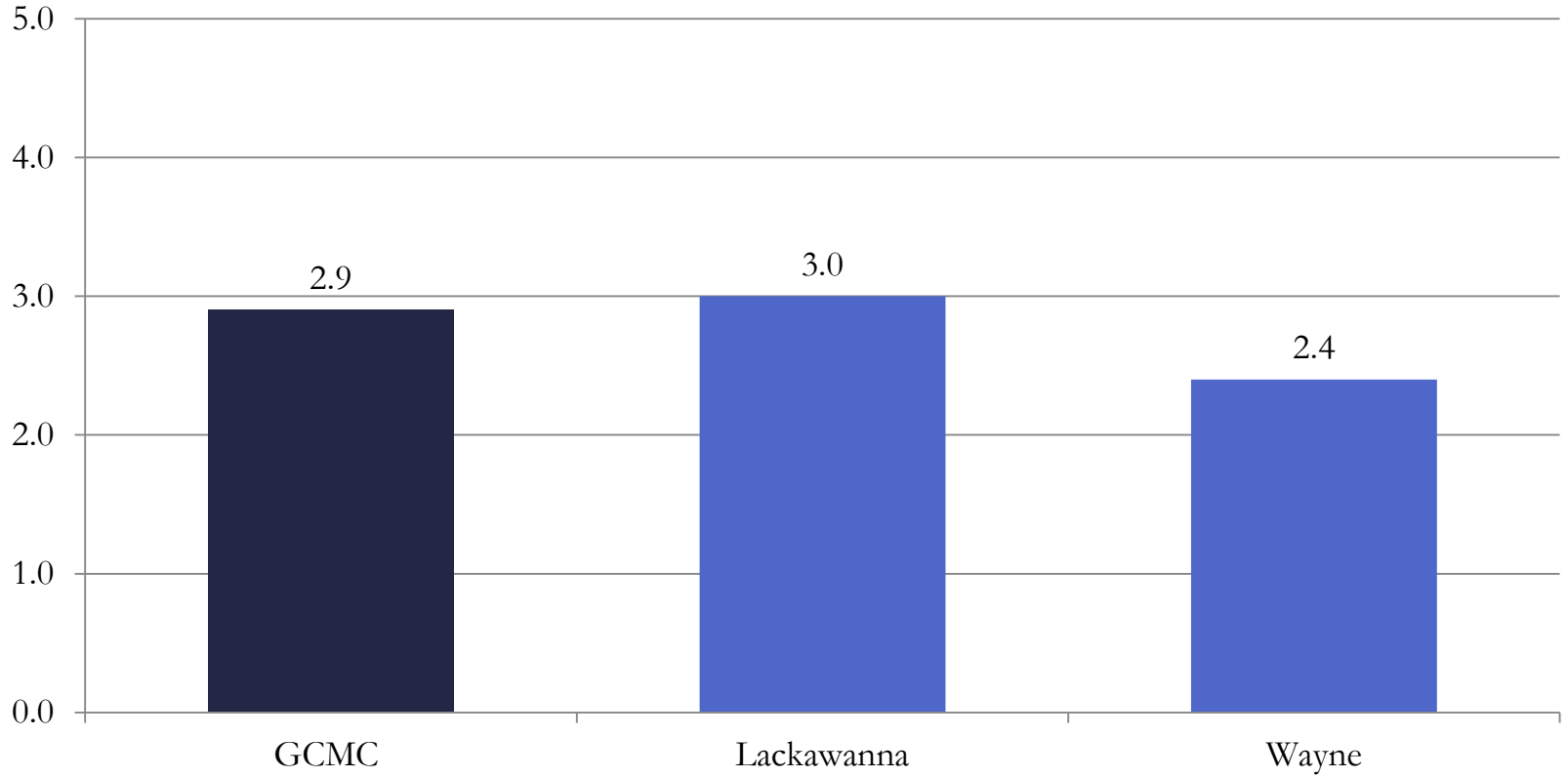
- The highest CNI score for the GCMC study is 4.2 for Scranton (18508) in Lackawanna County. The highest CNI score indicates the most barriers to study area health care access.

- From the data, we can see that various zip code areas have the highest rates of the measures used to calculate the CNI:
  - Scranton (18508) the highest rate of limited English speakers (3.7%).
  - Scranton (18505) has the highest minority rate (29.6%) and married parents with children living in poverty (32.6%).
  - Scranton (18510) has the highest uninsured rate (12.1%).
  - Scranton (18509) has the highest rental rate (49.3%).
  - Scranton (18519) has the most residents over 65 years living in poverty (20.7%).
  - Carbondale (18407) has the highest unemployment rate (11.4%).
  - Waymart (18472) has the highest percentage of residents with no high school diploma (18.5%).
  - Moosic (18507) has the most single parents with children living in poverty (64.7%).

- For the 23 zip codes in the GCMC study area, 7 zip codes have CNI scores above the median (3.0), 4 zip code areas have a CNI of 3.0 and the other 12 zip codes have a CNI score that falls below the median. The GCMC study area contains a majority of zip codes that fall below the median CNI score. This indicates that there are fewer barriers to accessible healthcare.

- The GCMC study area was not included in the previous community health needs assessment conducted in 2011, so it is not possible to compare current CNI scores for the 23 zip codes to current CNI scores.

Community Need Index (2014)



- The CNI score for the GCMC study area is 2.9. This is slightly below the median CNI score of 3.0 and indicates that the GCMC study area has somewhat fewer barriers to healthcare access than average.

Source: Thompson Reuters

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--We measure 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)

Source: 2014 County Health Rankings
A collaboration of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute

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

Source: 2014 County Health Rankings
A collaboration of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute

County Health Rankings

- 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). 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 GCMC level data are available).
- Lackawanna County in the GCMC study area ranks highly (good) in the Physical Environment category, ranking 4 out of 67 in the state of PA. The county had a positive jump in this category between 2011 and 2014, advancing in the rankings from 17 to 4.
- Wayne County does not have any top rankings, but has had large positive changes in three categories from 2011 to 2014: Health Outcomes (from 57 to 29), Mortality – Length of Life (from 62 to 24), and Clinical Care (from 45 to 25).

County Health Rankings Data

- Approximately a quarter of the Lackawanna County population in the GCMC study area are smokers. Close to a quarter of the population is obese. The same is said for excessive drinking in the county. The county had a decrease in the percentage of smokers and adults with obesity between 2011 and 2014.
- In Lackawanna County, 12% of the population is uninsured and 13% of the population in Wayne County is uninsured.
- In 2014, Lackawanna County has a higher PCP rate (76 per 100,000 population) than Wayne County (49 per 100,000 population), but both counties had a decrease in the PCP rate between 2011 and 2014.
- Both Lackawanna and Wayne counties had an increase in the number of sexually transmitted infections (Chlamydia rate).
- Lackawanna County has a higher unemployment rate (9.0%) and higher violent crime rate (232 per 100,000 population) between the two counties in the GCMC study area. Both counties had an increase in unemployment and violent crime from 2011 to 2014.

County Health Rankings Data

2014 rankings on top; 2011 rankings on bottom

County	Health Outcomes	Health Factors	Mortality (Length of Life)	Morbidity (Quality of Life)	Health Behaviors	Clinical Care	Social and Economic Factors	Physical Environment
Lackawanna	56 (49)	29 (19)	58 (48)	48 (46)	30 (26)	27 (29)	43 (23)	4 (17)
Wayne	29 (57)	22 (29)	24 (62)	36 (41)	22 (27)	25 (45)	34 (29)	53 (42)

In 2014:

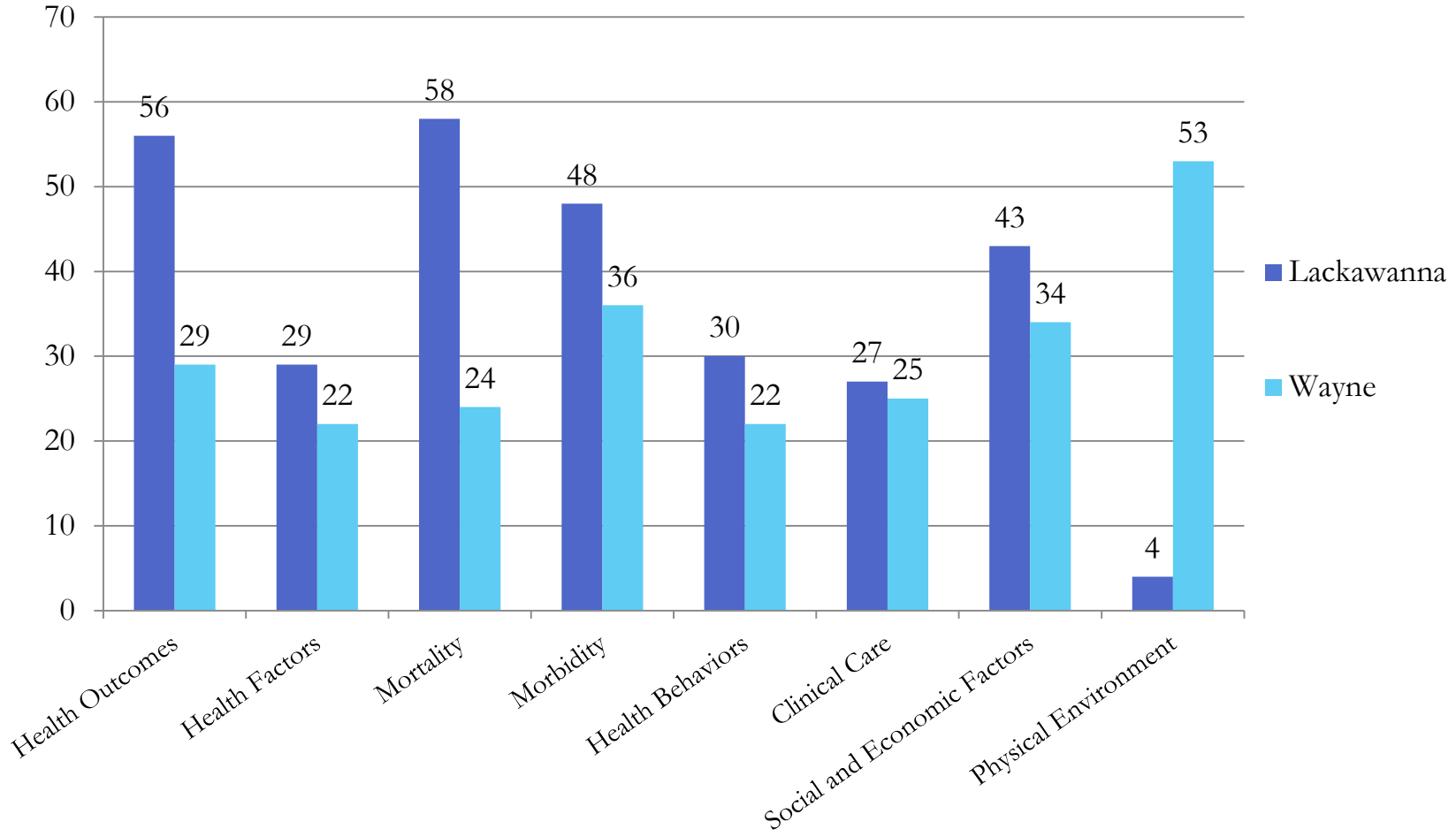
- Lackawanna County ranks well in terms of Physical Environment, ranking in the top 5 in the state of PA, yet ranks poorly in Health Outcomes and Mortality (Length of Life) with rankings of 56 and 58, respectively.
- Wayne County does not have any top rankings, as it does not fall in even the top 20 in any categories, but has better rankings than Lackawanna County in every category but Physical Environment.

Between 2011 and 2014:

- Wayne County has had a significant positive change in a few rankings, including Health Outcomes (from 57 to 29), Mortality – Length of Life (from 62 to 24), and Clinical Care (from 45 to 25).
- Lackawanna County went from a ranking of 17 in the Physical Environment category in 2011 to a number 4 ranking in 2014.

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

2014 data on top; 2011 data on bottom

County	Adult Smoking (%)	Adult Obesity (%)	Excessive Drinking (%)	Sexually Transmitted Infections (Chlamydia Rate)	Uninsured (%)	PCP Rate
Lackawanna	23 (27)	25 (26)	24 (24)	190 (155)	12 (10)	76 (83)
Wayne	19 (24)	29 (28)	18 (16)	89 (67)	13 (17)	49 (55)
Pennsylvania	20 (22)	29 (28)	17 (18)	415 (340)	12 (13)	80 (94)

In 2014:

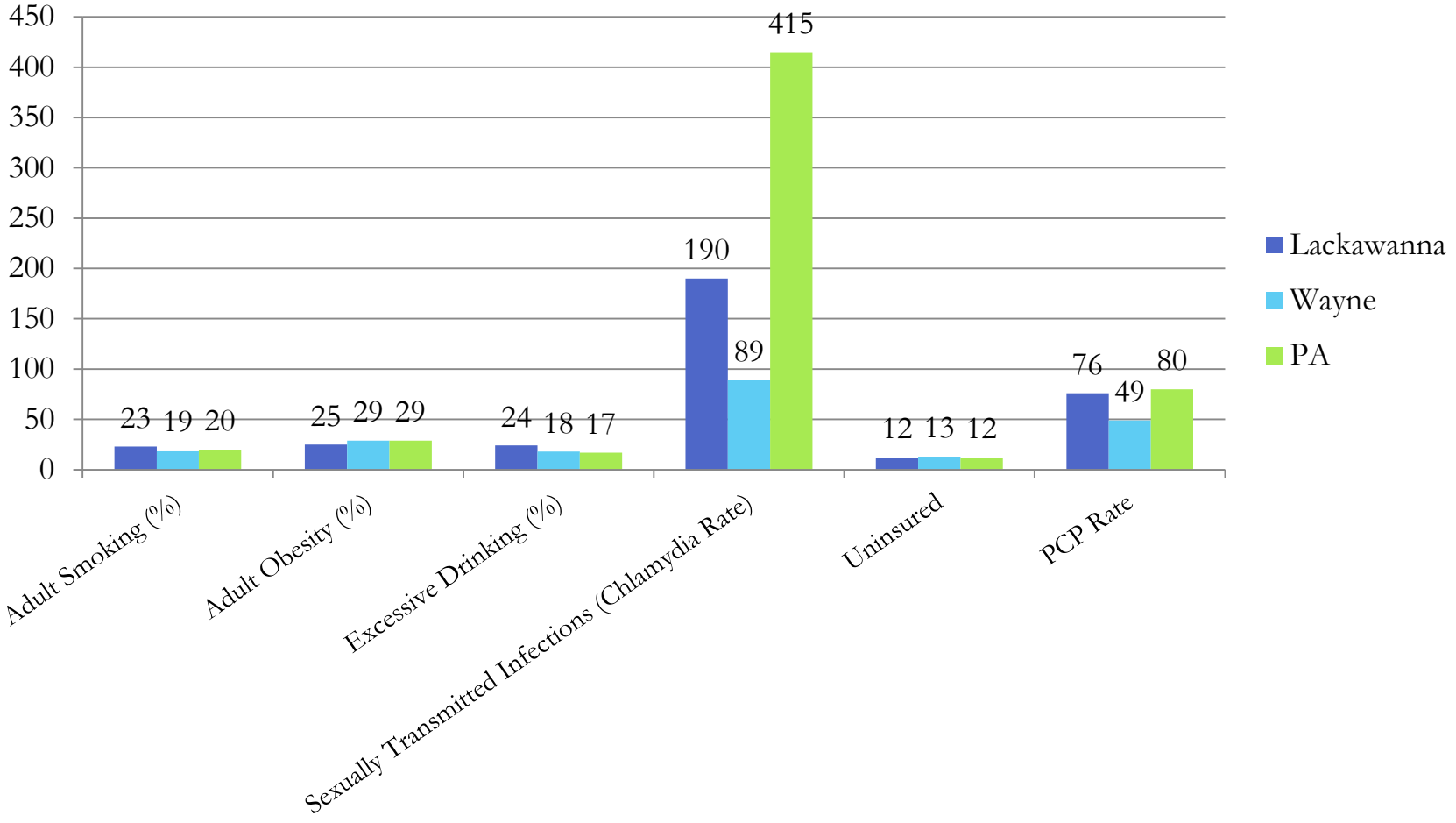
- Approximately a quarter of the Lackawanna County population in the GCMC study area are smokers. Close to a quarter of the population is obese. The same is said for excessive drinking in the county.
- Between 10-15% of the population in both Lackawanna and Wayne counties are uninsured.
- The PCP rate is lower in Wayne than Lackawanna County, with 76 PCPs for 100,000 population in Lackawanna and 49 PCPs in Wayne.

Between 2011 and 2014:

- Lackawanna County experienced a decrease in the percentage of adult smokers and adults with obesity.
- Both Lackawanna and Wayne counties had an increase in the number of sexually transmitted infections (Chlamydia rate).
- Both counties also had a decrease in the number of PCPs per 100,000 population.

Source: 2014 and 2011 County Health Rankings;

County Health Rankings Data



Source: 2014 County Health Rankings

County Health Rankings Data

2014 data on top; 2011 data on bottom

County	Diabetic Screening (% HbA1c)	Diabetes (% Diabetic)	Mammography Screening	Unemployment (% unemployed)	Inadequate Social Support (% no social-emotional support)	Violent Crime Rate
Lackawanna	81 (80)	11 (10)	67.1 (61.3)	9.0 (8.3)	22 (21)	232 (228)
Wayne	88 (82)	11 (10)	67.7 (72.1)	7.6 (7.5)	26 (27)	125 (205)
Pennsylvania	84 (84)	10 (9)	63.0 (64.5)	7.9 (8.1)	21 (21)	367 (419)

In 2014:

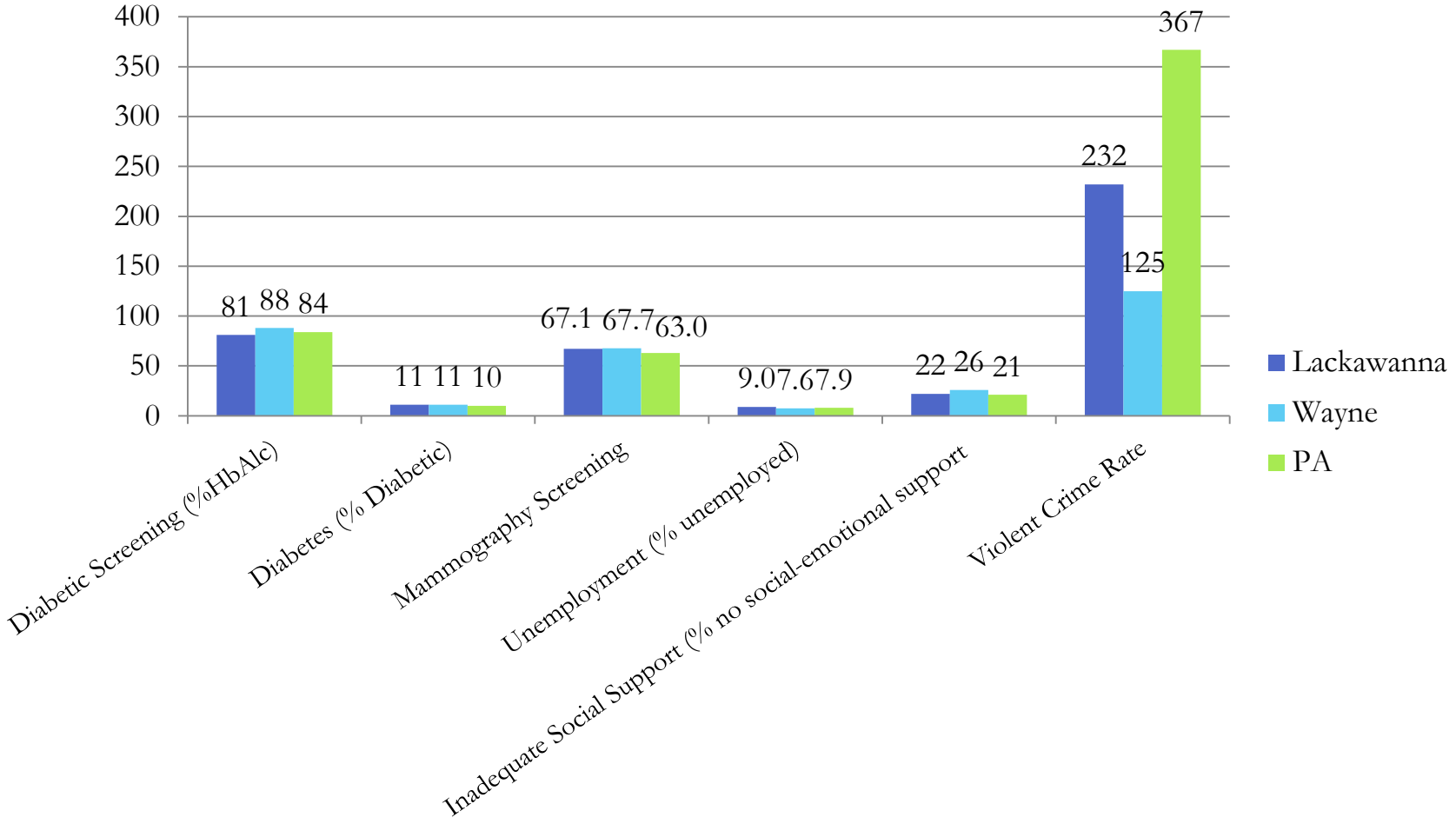
- Lackawanna County has a higher unemployment rate (9.0%) and higher violent crime rate (232 per 100,000 population) between the two counties in the GCMC community.
- 11% of the population in both counties are diabetic, but Wayne county has a higher percentage of diabetic screenings (88%).

Between 2011 and 2014:

- Lackawanna County and Wayne County both had increases in the percentage of diabetics and diabetic screenings being conducted in the county.
- Lackawanna County had increases in both the unemployment rate and violent crime rate.

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.**

Source: AHRQ

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.

Source: AHRQ

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

Source: AHRQ

Prevention Quality Indicators Index (PQI)

In 2014:

- In 6 out of the 14 subgroups, the GCMC study area had a lower PQI score, or less preventable hospital admissions than the state:
  - Diabetes Short-Term Complications (PQI1), Perforated Appendix (PQI2), Hypertension (PQI7), Uncontrolled Diabetes (PQI14), Asthma in younger Adults(PQI15), Lower Extremity Amputation Among Diabetics (PQI16)

Between 2011 and 2014:

- The GCMC study area had a number of decreases in PQI scores, or preventable hospital admissions– indicating an overall drop in the number of preventable hospital admissions in the GCMC study area between 2011 and 2014. The most notable of these decreases include:
  - Congestive Heart Failure (PQI8) – decrease of 119.04 cases per 100,000 pop.
  - Bacterial Pneumonia (PQI11) – decrease of 85.02 cases per 100,000 pop.
  - Asthma in Younger Adults (PQI15) – decrease of 77.05 cases per 100,000 pop.

- At the same time, the GCMC study area had a large increase in preventable hospital admissions from 2011 to 2014 for COPD or Asthma in older Adults (PQI5), going from a PQI score of 368.90 in 2011 to 619.48 in 2014.

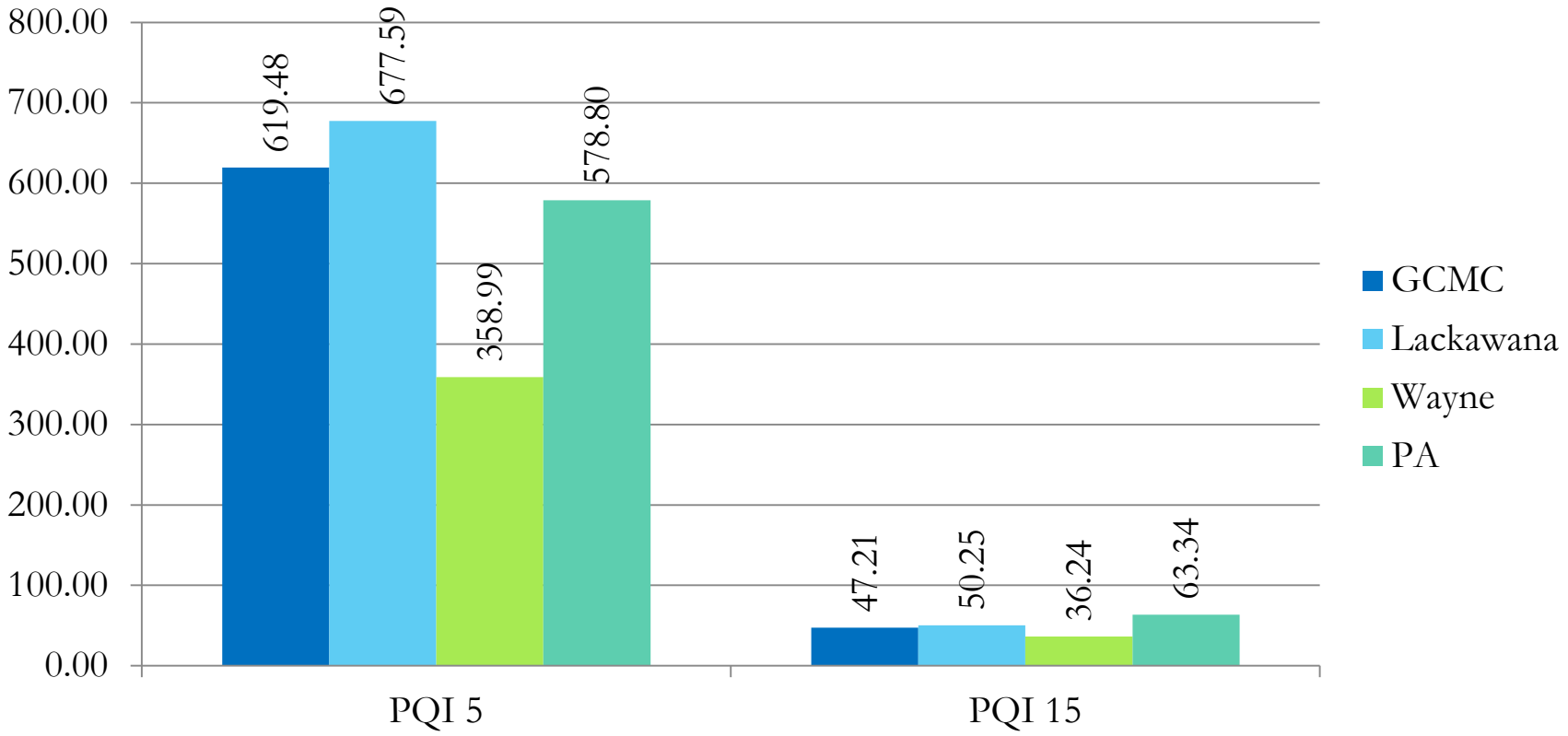
Prevention Quality Indicators Index (PQI)

Prevention Quality Indicators (PQI)	GCMC Study Area	PA	Difference	2011 PQI GCMC	2014 PQI GCMC	Difference
Diabetes Short-Term Complications (PQI1)	51.97	115.16	- 63.19	60.81	51.97	- 8.84
Perforated Appendix (PQI2)	213.74	343.91	- 130.17	0.24	213.74	--
Diabetes Long-Term Complications (PQI3)	120.25	119.79	+ 0.46	151.76	120.25	- 31.51
Chronic Obstructive Pulmonary Disease or Asthma in Older Adults (PQI5)	619.48	578.80	+ 40.68	368.02	619.48	--
Hypertension (PQI7)	31.08	53.99	- 22.91	56.58	31.08	- 25.50
Congestive Heart Failure (PQI8)	464.19	418.29	+ 45.90	583.23	464.19	- 119.04
Low Birth Weight (PQI9)	38.90	37.50	+ 1.40	1.30	38.90	--
Dehydration (PQI10)	87.13	61.90	+ 25.23	94.12	87.13	- 6.99
Bacterial Pneumonia (PQI11)	445.33	326.16	+ 119.17	530.35	445.33	- 85.02
Urinary Tract Infection (PQI12)	259.35	197.51	+ 61.84	310.91	259.35	- 51.56
Angina Without Procedure (PQI13)	15.29	11.80	+ 3.49	23.27	15.29	- 7.98
Uncontrolled Diabetes (PQI14)	13.76	14.20	- 0.44	17.98	13.76	- 4.22
Asthma in Younger Adults(PQI15)	47.21	63.34	- 16.13	124.26	47.21	--
Lower Extremity Amputation Among Diabetics (PQI16)	25.99	26.40	- 0.41	46.85	25.99	- 20.86

*Red values indicate a PQI value for the specific study area that is higher than the PQI for PA or the previous study year.
*Green values indicate a PQI value for the specific study area that is lower than the PQI for PA or the previous study year.

Source: AHRQ

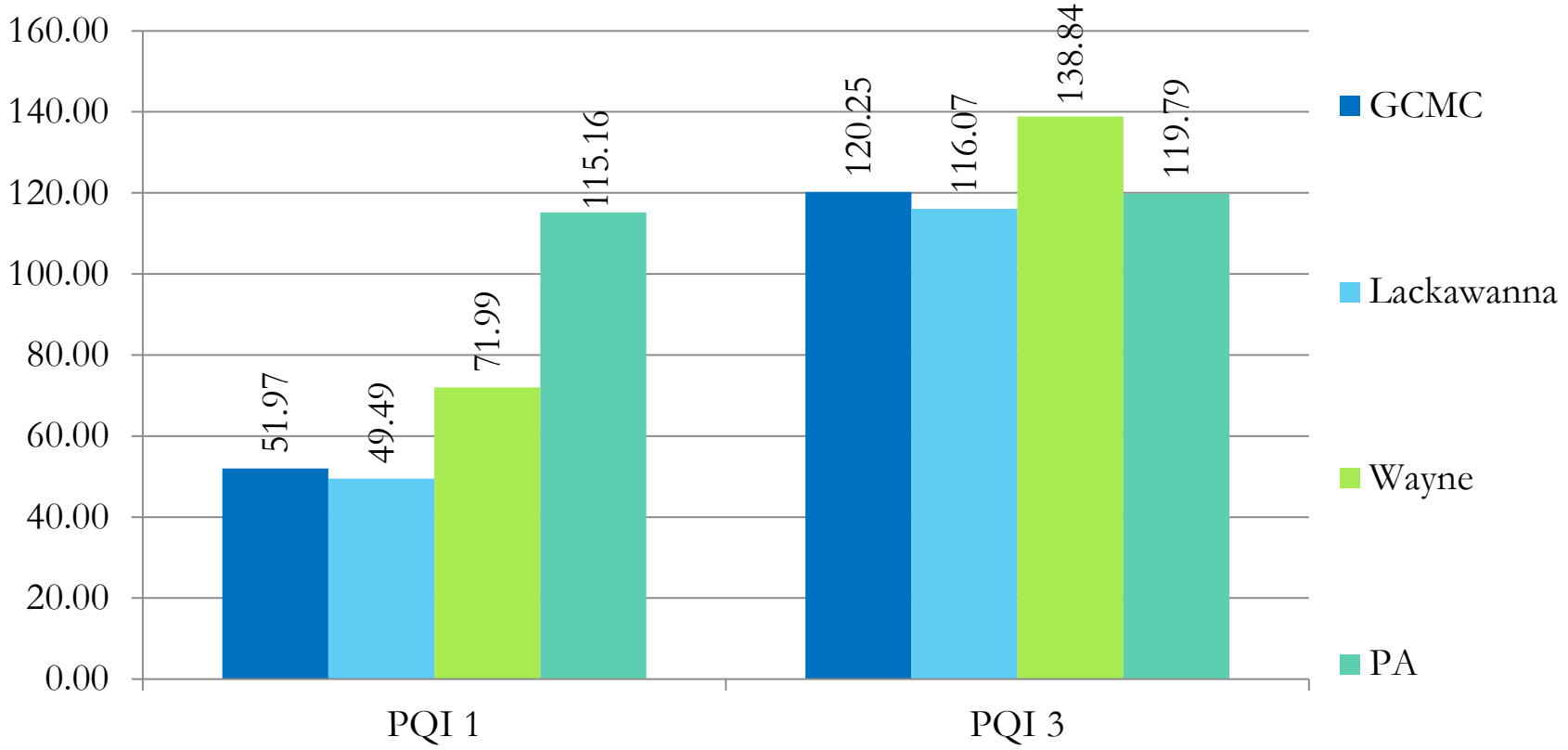
Chronic Lung Conditions



PQI 5 Chronic Obstructive Pulmonary Disease or Asthma in Older Adults Admission Rate
PQI 15 Asthma in Younger Adults Admission Rate

Source: AHRQ

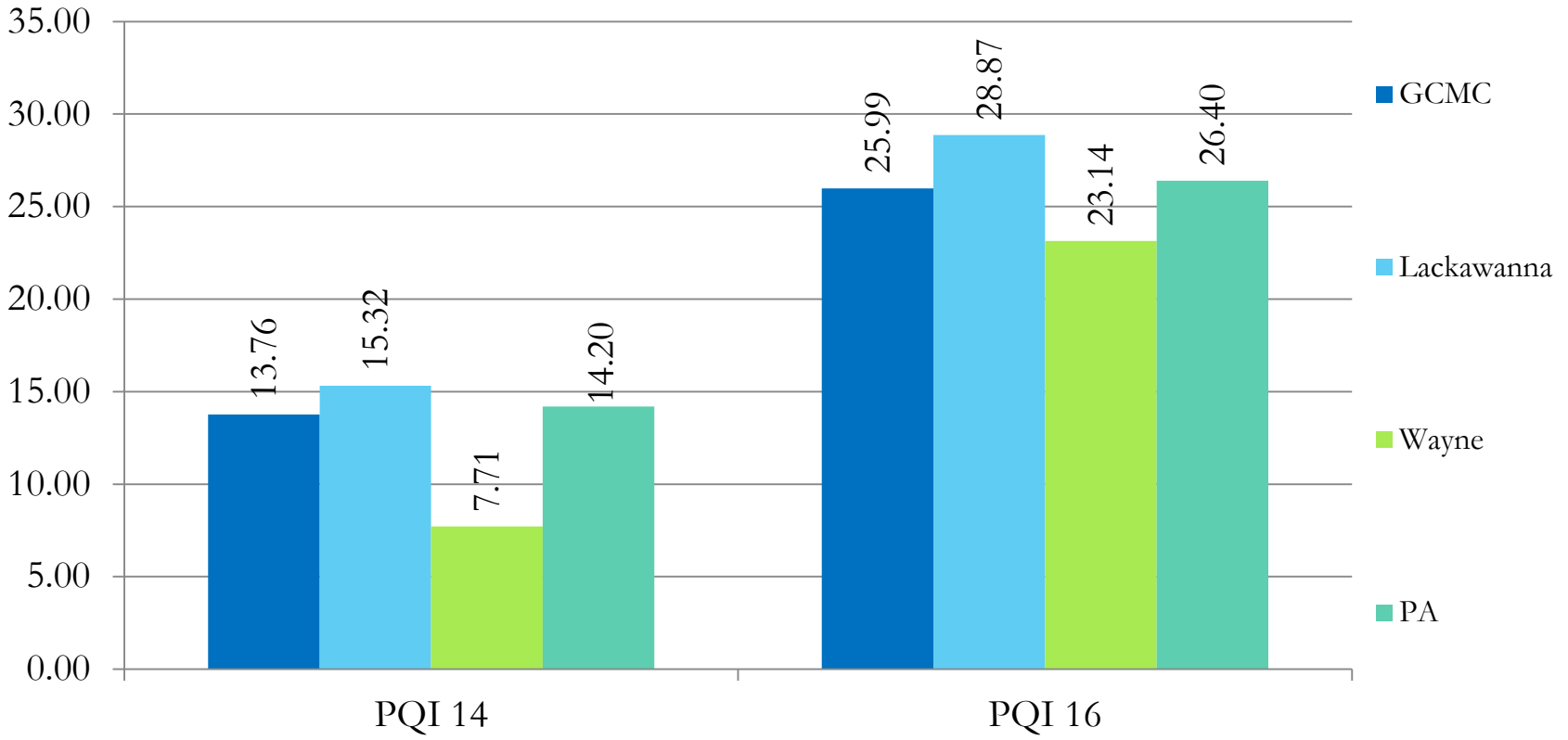
Diabetes



PQI 1 Diabetes Short-Term Complications Admission Rate
PQI 3 Diabetes Long-Term Complications Admission Rate

Source: AHRQ

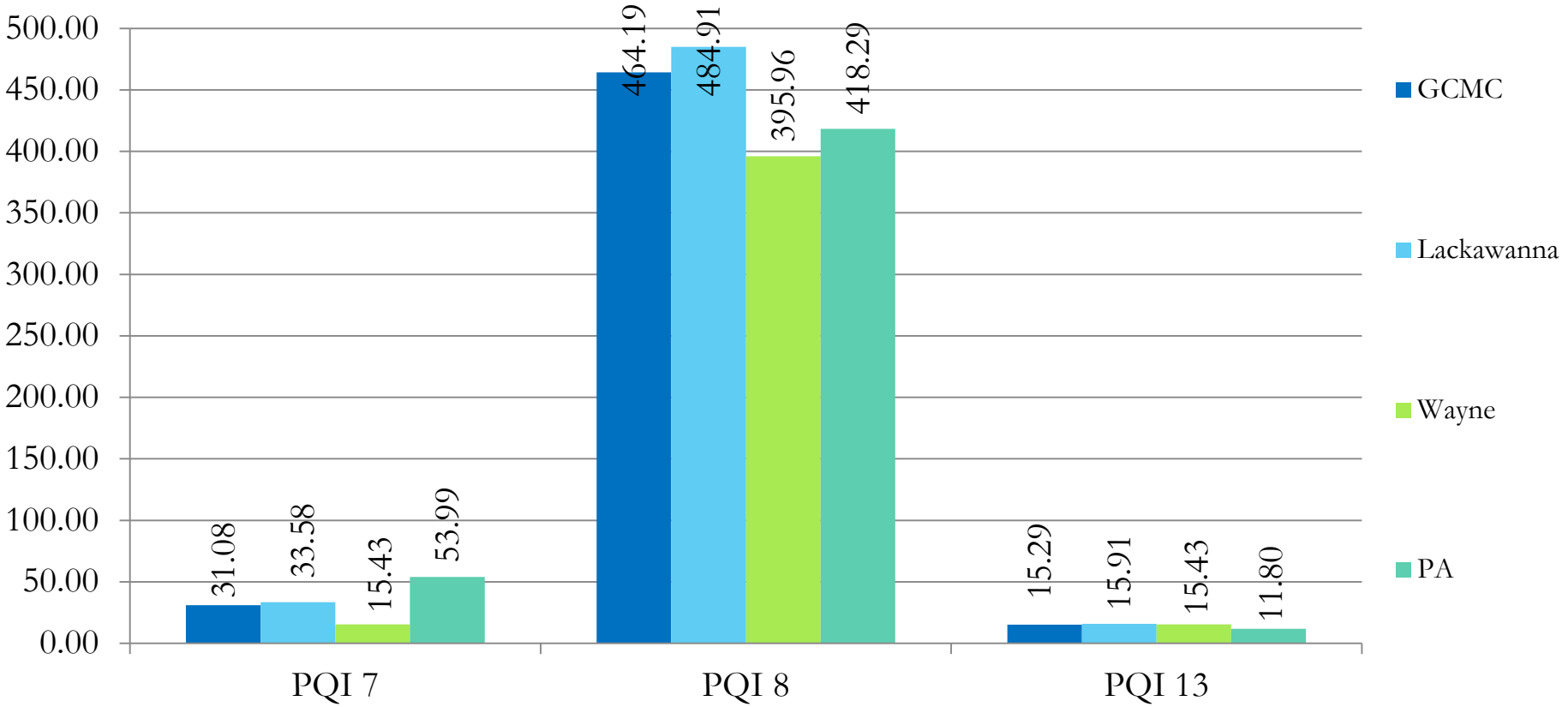
Diabetes (cont'd)



PQI 14 Uncontrolled Diabetes Admission Rate
PQI 16 Lower Extremity Amputation Rate Among Diabetic Patients

Source: AHRQ

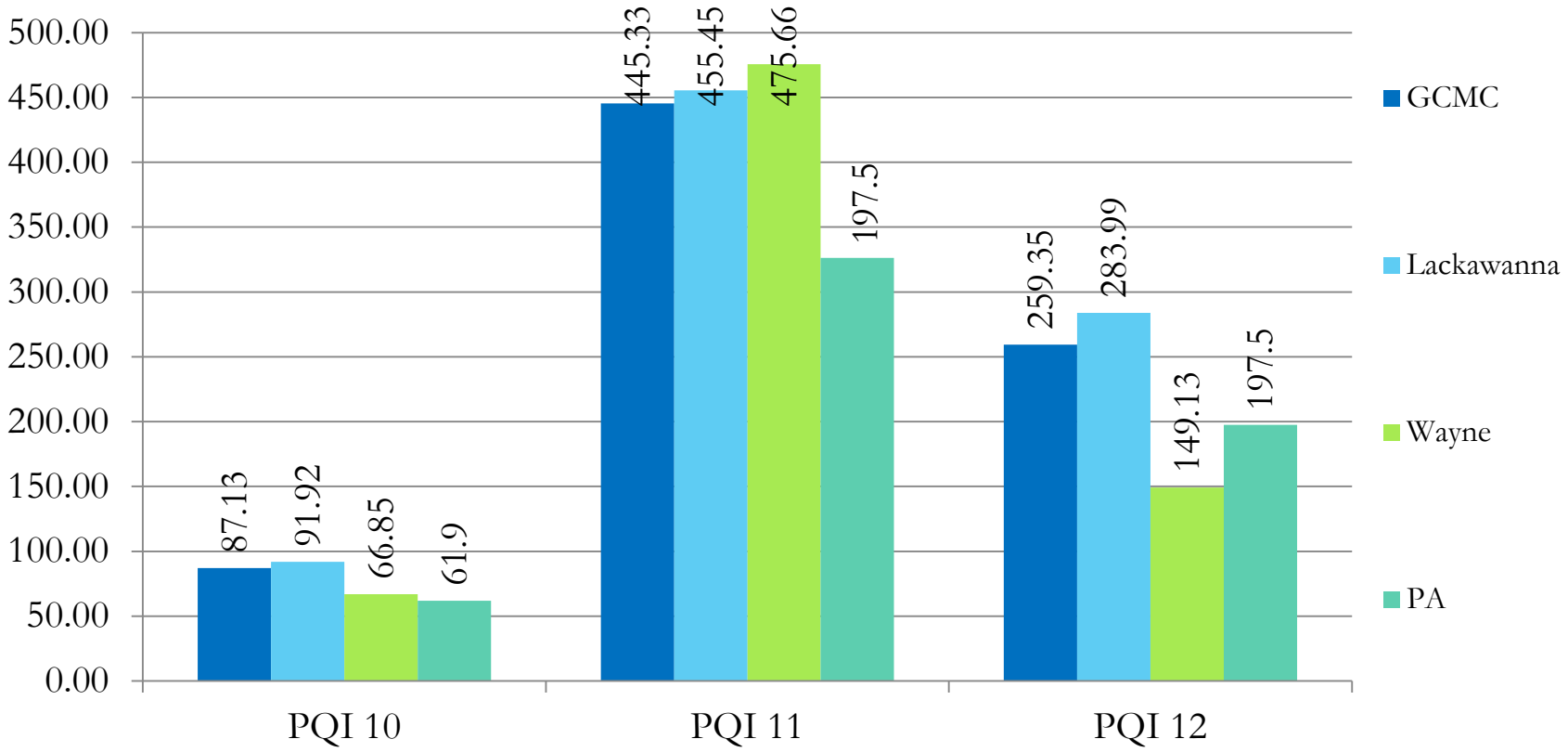
Heart Conditions



PQI 7 Hypertension Admission Rate
PQI 8 Congestive Heart Failure Admission Rate
PQI 13 Angina Without Procedure Admission Rate

Source: AHRQ

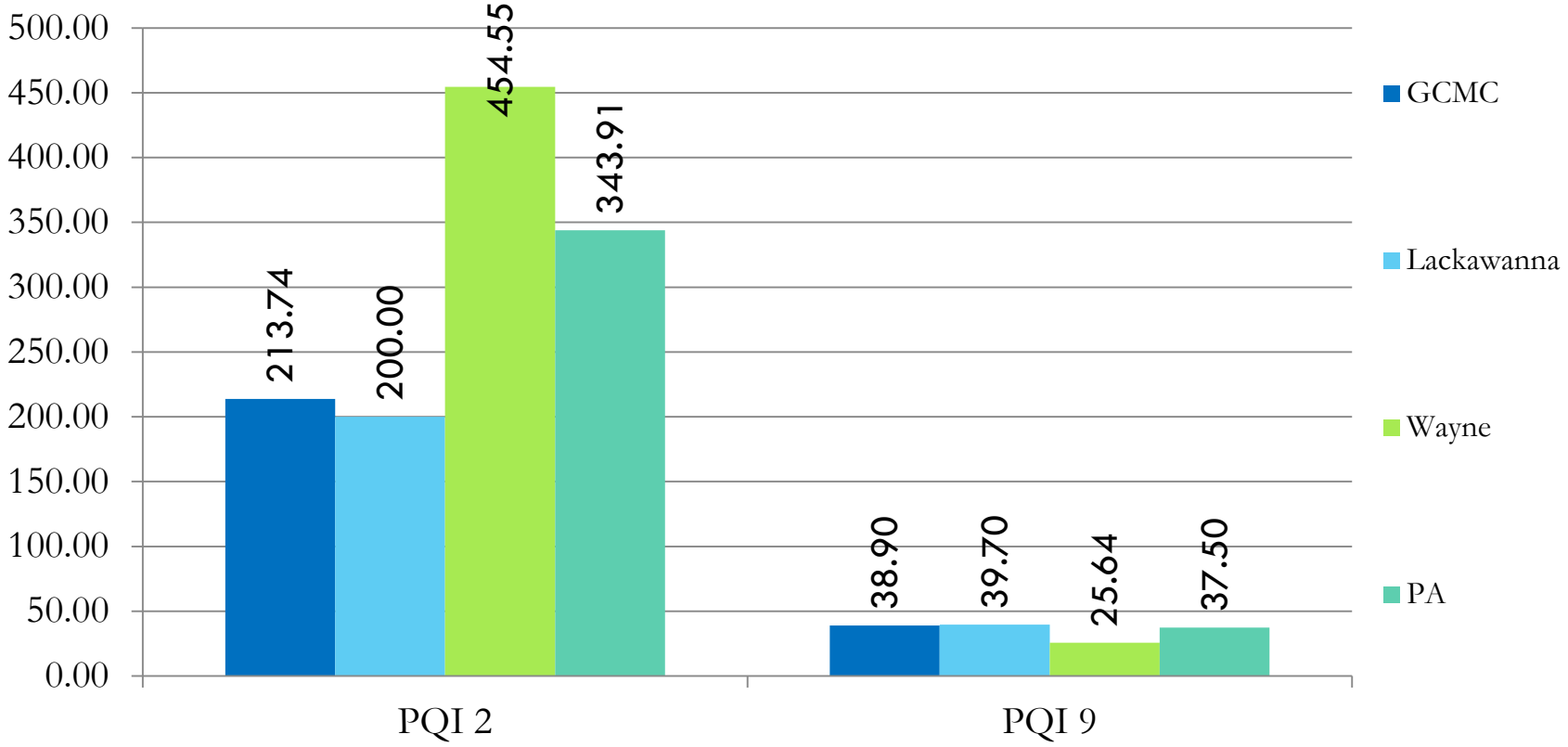
Other Conditions



PQI 10 Dehydration Admission Rate
PQI 11 Bacterial Pneumonia Admission Rate
PQI 12 Urinary Tract Infection Admission Rate

Source: AHRQ

Other Conditions



PQI 2 Perforated Appendix Admission Rate
PQI 9 Low Birth Weight Rate

Source: AHRQ

GCMC–
Initial Reactions to Secondary Data

- The consultant team has identified the following data trends and their potential impact:
  - The GCMC study area is projected to experience a 0.4% decrease in population over the next five years (2014 – 2019); this equates to approximately 1,173 less people in the primary service area.
  - The GCMC study area shows higher rates of older individuals than state and national norms. the rate of residents aged 65 and older in the GCMC study area is projected to rise, from 19.4% to 21.7%.
  - The GCMC study area shows more households earning $25K annually or less as compared with PA and the U.S.; 25.1% for the GCMC community, 24.0% for PA and 24.5% for the U.S Low income correlates to many other measures of residents able to seek and receive adequate health care.
  - The highest CNI score for the GCMC community is 4.2 for Scranton (18508) in Lackawanna County.
  - A number of Scranton zip codes have the highest rates of the measures used to calculate the CNI for the GCMC study area:
    - Scranton (18508) also has the highest rate of limited English speakers (3.7%) in the GCMC study area.
    - Scranton (18505) has the highest minority rate (29.6%) and married parents with children living in poverty (32.6%).
    - Scranton (18510) has the highest uninsured rate (12.1%).
    - Scranton (18509) has the highest rental rate (49.3%).
    - Scranton (18519) has the most residents over 65 years living in poverty (20.7%).
  - Of the counties in the GCMC study area, Wayne county has better ranking than Lackawanna County in every category but physical environment. Lackawanna County ranks in the top 5 in the state of PA for Physical Environment, yet ranks poorly in Health Outcomes and Mortality (Length of Life) with rankings of 56 and 58, respectively.
  - The GCMC study area had a lower PQI score, or less preventable hospital admissions, than the state in 8 out of the 14 subgroups:
    - Asthma in Younger Adults, Diabetes, Short-Term Complications, Diabetes Long-Term Complications, Hypertension, Perforated Appendix, Dehydration, Bacterial Pneumonia, Urinary Tract Infection
  - From 2011 to 2014, the GCMC study area had decreases in PQI scores in all but one category (PQI5)– indicating an overall drop in the number of preventable hospital admissions in the GCMC study area between 2011 and 2014.