EVANGELICAL COMMUNITY HOSPITAL COMMUNITY HEALTH NEEDS ASSESSMENT

April 2015

TrippUmbach
Research • Strategy • Impact

EVANGELICAL
COMMUNITY HOSPITAL

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Introduction

Evangelical Community Hospital, a 132-bed community hospital located in Lewisburg, PA, in response to its community commitment, contracted with Tripp Umbach to facilitate a comprehensive Community Health Needs Assessment (CHNA). The community health needs assessment was conducted between October 2014 and March 2015. As a partnering hospital of a regional collaborative effort to assess community health needs; Evangelical Community Hospital collaborated with hospitals and outside organizations in the surrounding region (Juniata, Lycoming, Northumberland, Snyder and Union 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:

- A Community Clinic
- Central PA Food Bank
- CMSU
- Evangelical Community Hospital
- Family Health Council of Central PA-Selinsgrove
- Geisinger Health System
- Greater Susquehanna Valley United Way
- Greater Susquehanna Valley YMCA
- HandUP Foundation
- Higher Hope h2 Church
- Juniata County
- Middlecreek Area Community Center
- PA Dept. of Health
- PA Office of Rural Health
- Penn State Cooperative Extension
- Shikellamy School District
- Snyder County Children and Youth Services
- Snyder/Union Community Action Agency
- St. Paul's UCC
- SUM Child Development Center
- Sunbury YMCA
- Susquehanna University
- Union-Snyder Agency on Aging Inc.
- Williamsport/Lycoming Chamber of Commerce

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 Evangelical Community Hospital, 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 Evangelical Community Hospital and a project oversight committee to accomplish the assessment.

Community Definition

The community served by the Evangelical Community Hospital (ECH) includes Lycoming, Northumberland, Snyder, and Union Counties and one additional zip code area in Juniata County. The EVANGELICAL COMMUNITY HOSPITAL primary service area includes 29 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).

Evangelical Community Hospital Community Zip Codes

Table 1

Zip	Post Office	County
17086	RICHFIELD	JUNIATA
17701	WILLIAMSPORT	LYCOMING
17702	WILLIAMSPORT	LYCOMING
17752	MONTGOMERY	LYCOMING
17754	MONTOURSVILLE	LYCOMING
17756	MUNCY	LYCOMING
17772	TURBOTVILLE	NORTHUMBERLAND
17777	WATSONTOWN	NORTHUMBERLAND
17801	SUNBURY	NORTHUMBERLAND
17810	ALLENWOOD	UNION
17812	BEAVER SPRINGS	SNYDER
17813	BEAVERTOWN	SNYDER
17827	FREEBURG	SNYDER
17835	LAURELTON	UNION
17837	LEWISBURG	UNION

Zip	Post Office	County
17842	MIDDLEBURG	SNYDER
17844	MIFFLINBURG	UNION
17845	MILLMONT	UNION
17847	MILTON	NORTHUMBERLAND
17850	MONTANDON	NORTHUMBERLAND
17853	MOUNT PLEASANT MILLS	SNYDER
17855	NEW BERLIN	UNION
17856	NEW COLUMBIA	UNION
17857	NORTHUMBERLAND	NORTHUMBERLAND
17864	PORT TREVORTON	SNYDER
17870	SELINSGROVE	SNYDER
17876	SHAMOKIN DAM	SNYDER
17886	WEST MILTON	UNION
17889	WINFIELD	UNION

Consultant Qualifications

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

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

- Assuring that community members, including underrepresented residents and those with a broad-based racial/ethnic/cultural and linguistic background are included in the needs assessment process. In addition, educators, health-related professionals, media representatives, local government, human service organizations, institutes of higher learning, religious institutions and the private sector will be engaged at some level in the process.

- Obtaining statistically valid information on the health status and socio-economic/environmental factors related to the health of residents in the community and supplement general population survey data that is currently available.

- 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 Evangelical Community Hospital — resulting in the identification of community health needs. The assessment process included input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge and expertise of public health issues.

Key data sources in the community health needs assessment included:

- **Community Health Assessment Planning:** A series of meetings was facilitated by the consultants and the CHNA oversight committee consisting of leadership from Evangelical Community Hospital and other participating hospitals and organizations (i.e., Geisinger Medical Center, HealthSouth/Geisinger Health System LLC; Geisinger Wyoming Valley Medical Center; Geisinger South Wilkes-Barre; Geisinger Community Medical Center; Geisinger Lewistown Hospital; and Geisinger Bloomsburg 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 Evangelical Community Hospital 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, Evangelical Community Hospital contracted with Tripp Umbach to complete a CHNA for the same counties included in the service area (Juniata, Lycoming, Northumberland, Snyder, and Union Counties). The data sources used where the same data sources from the 2012 CHNA, which made it possible to review trends and changes across the hospital service area. 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 (beginning on page 32). Additionally, the findings from primary data (i.e., community leaders, stakeholders, and focus groups) are presented when relevant in the executive summary portion. The 2012 CHNA can be found online at:

  http://www.evanhospital.com/~/media/Files/2013_NEEDS_ASSESSMENT_USE.pdf

- **Interviews with Key Community Stakeholders:** Tripp Umbach worked closely with the CHNA oversight committee to identify leaders from organizations that included 1) Public Health expertise; 2) Professionals with access to community health related data; and 3) Representatives of underserved populations (i.e., seniors, low-income residents, and residents that are uninsured). Such persons were interviewed as part of the needs assessment planning process. A series of 18 interviews were completed with key stakeholders in the Evangelical Community Hospital community. A complete list of organizations represented in the stakeholder interviews can be found in the "Key Stakeholder Interviews" section on page 47 of this report. This process lasted from November 2014 until December 2014.

- **Survey of vulnerable populations:** Tripp Umbach worked closely with the CHNA oversight committee to assure that community members, including under-represented residents, were included in the needs assessment through a survey process. A total of 410 surveys were collected in the Evangelical Community Hospital service area which provides a +/-3.87 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., Central PA Food Bank, Union-Snyder Agency on Aging Inc., A Community Clinic, SUM Child Development Center, Family Health Council of Central PA-Selinsgrove, Snyder/Union Community Action, Snyder County Children and Youth Services, HandUP Foundation, Buffalo Valley Recreation Authority, and Middlecreek Area Community Center) 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 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 10, 2015. Consultants presented to community leaders the CHNA findings from analyzing secondary data, key stakeholder interviews and surveys. Community leaders discussed the data presented, shared their visions and plans for community health improvement in their communities, and identified and prioritized the top community health needs in the Evangelical Community Hospital 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 Evangelical Community Hospital 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 Evangelical Community Hospital advisory committee. The seven question questionnaire was offered electronically using a web-based platform. The CHNA and Action Plan were provided to commenters for review in the same manner (i.e., 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 Evangelical Community Hospital 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) Health concerns related to lifestyle; 3) The impact of socio-economic status on health outcomes; and 4) Access to healthcare. Many of the same needs were identified in the 2012 CHNA, with slightly different priorities. A summary of the top four needs in the Evangelical Community Hospital 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. Affordable behavioral healthcare options are needed to meet behavioral health needs.
2. Care coordination is needed among behavioral health, substance abuse, and primary care/medical providers.
3. 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.
4. Substance abuse services are necessary due to the prevalence of substance abuse in local communities.
5. 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. It 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 in many counties served by the hospital.

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

- ✓ Mental Health was identified as the most important health-related issue for the entire community (8 of 9 stakeholder groups identified this as an important issue) during the

Northcentral Health District/Danville stakeholder meeting during which the State Health Assessment was presented and discussed.

- ✓ Secondary data related to provider ratios and suicide rates clearly support the need to address needs related to behavioral health and substance abuse
- ✓ More than three quarters of stakeholders identified a health need related to behavioral health and/or substance abuse services.
- ✓ Survey respondent identified substance abuse and mental health as two of the top five concerns facing their communities.

Findings supported by study data:

Residents need more affordable behavioral healthcare options to meet behavioral health needs:

- Residents are not always able to afford behavioral health care when it is needed due to the lack of insurances and cost of care. This is compounded with the lack of transportation because outpatient treatment options often require regular visits.
- Behavioral health treatments (inpatient, outpatient, medications, etc.) are often expensive and not often covered by insurances leaving many residents of various income levels unable to afford behavioral health services.

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.
- Medical health and behavioral health services are fragmented. Residents with behavioral health needs are often not getting their needs met in medical care settings and vice versa.
- Pediatric inpatient facilities are not often associated with medical care providers which causes a challenge in meeting the physical health needs of children including medically frail children in an inpatient psychiatric setting.

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:

- A lack of behavioral health providers has been discussed in two previous CHNAs (2009 and 2012 CHNA studies).
  - ✓ The most recent 2012 CHNA completed by Tripp Umbach found that community leaders, stakeholders and focus group participants felt that there was a shortage of behavioral health services specifically for under/uninsured residents, after-hours care and pediatric care (i.e., psychiatry, therapy and inpatient treatment). Additionally stakeholders discussed the resistance of residents to seek behavioral health services due to stigma.
  - ✓ The previous CHNA (completed in 2009) found similar results using a household survey:

    > "Behavioral health was identified as a significant need in every community. The household survey indicated that 5.5% of the residents of the region needed mental health care, but were not able to obtain care and 74% did not obtain this care as the result of not being able to afford the cost of care."[2]

- Behavioral health concerns are growing due to an apparent increase in demand and less available services.
- Depression and a need for mental health treatment were reported by survey respondents as being the top two issues they had ever been told by a healthcare professional they had when compared to every other area (i.e., diabetes, heart problems, and cancer). Survey respondents from every county in the study area reported higher rates of depression diagnosis than is average for the state (18.3%) and nation (18.7%) with the lowest rate of respondent reported diagnosis in Juniata County (27.1%) and the highest in Lycoming County (51%). Lycoming County respondents reported higher rates of depression and need for mental health treatment than any other county surveyed.
- More than one third of survey respondents in Snyder County indicated that they needed and could not secure counseling services in the past year, with 1 in 10 respondents in Northumberland County indicating the same.
- Approximately 1 in 4 respondents in Snyder and Lycoming Counties indicated they could not secure services for a mental health condition at a time it was needed within the last year (23.2% and 25.9% respectively). 1 in 10 respondents in Northumberland and County indicated the same (11.9%).
- While there are services, there are not enough providers to meet the demand among residents. Several specific areas where services are lacking were discussed: treatment for co-occurrence, treatment for low-income populations, geriatric psychiatry, child psychiatry and inpatient treatment, play therapy for young children, and student

[2] 2009 CHNA Rural Pennsylvania Counts: A Community Needs Assessment of Five Counties

counseling at local universities. Where there are services, the wait times can be lengthy to secure initial appointments.

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

Measure of Mental Health Providers*	PA	Juniata County	Lycoming County	Northumberland County	Snyder County	Union County
Mental health providers (count)	--	3	135	28	17	59
Mental health providers (ratio Population to provider)	623:01:00	8,256:1	865:01:00	3,360:1	2,345:1	760:01:00

**County Health Ranking 2014*

- The ratio of population to mental health providers in Juniata, Northumberland and Snyder counties shows a significantly larger population to provider ratio (8,256; 3,360; and 2,345 pop. for every 1 mental health provider) than the state (623 pop. per provider). While Union and Lycoming county are closer to PA ratios (760 and 865 pop. for every 1 provider); they are still higher ratios than the state.

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

- Substance abuse has remained a health concern in the area that depends on engaging hard-to-engage residents in solutions.
- While there are services, there are not enough providers to meet the demand among residents. Several specific areas where services are lacking were discussed: local treatment for co-occurrence, inpatient treatment without a waiting list, treatment for low-income residents, methadone clinic, and transitional services and housing.
- Location makes drug trafficking more prevalent due to Interstate 80 connecting communities to much larger metropolitan areas.
- The most commonly discussed drugs were Methamphetamine, heroin, marijuana, and prescription narcotics.

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

- Poorer health outcomes related to behavioral health and substance abuse are often heavily correlated to the duration of disorder/illness.

- Children being hospitalized for inpatient behavioral health treatment a great distance from home may be negatively impacted by the absence of their family in treatment and visitation opportunities, which may cause poor treatment outcomes.
- All counties with data reported (i.e., Lycoming, and Northumberland Counties) show higher deaths due to suicide (13.7 and 16.5 per 100,000 pop) than state and national rates (12.5 and 12.3 per 100,000 pop. respectively).

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:

- ***Continue to collaborate to address substance abuse issues.*** Law enforcement, primary care physicians, and substance abuse specialists could collaborate to identify gaps in resources and a strategic plan to reduce the prevalence of drug trafficking and addiction in the area. Some areas where supply does not meet demand according to stakeholders are: prevention education, funding, inpatient/outpatient services. Physicians could be better educated about substance abuse issues in the community (i.e., prescription drug abuse) through professional certifications, trainings, and continuing education credentials.
- ***Provide evidence-based practices*** when investing in programs and services.
- ***Rotate mental health care professionals through medical care settings:*** Community leaders recommended rotating behavioral health professionals through local primary care settings. Residents would see behavioral health professionals where they receive primary care, which could reduce stigma and increase access to behavioral health care.

REDUCING THE IMPACT OF HEALTH CONCERNS RELATED TO LIFESTYLE

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

1. Residents need to increase the access and use of healthy options.
2. Lifestyle has a negative impact on health outcomes.

Reducing the impact of health concerns related to lifestyle is identified as the second community health priority by community leaders. Data shows that there are high-risk behaviors

(e.g., smoking, substance abuse, etc.) which contribute to the prevalence of lifestyle related diseases in the area and negatively impacts health outcomes. This was also reflected by community leaders, stakeholders and survey respondents.

The 2012 CHNA completed by Tripp Umbach found that there was a need for increased awareness and education related to healthy behaviors. Community leaders and stakeholders perceived the health status of many residents to be poor due to the perceived prevalence of chronic lifestyle-related illnesses, limited education on how to maintain health, limited awareness about prevention and limited motivation and/or access to healthy options. Additionally, Stakeholders felt that residents make poor lifestyle choices (i.e., smoking, inactivity, substance abuse and poor nutrition), which contributes to their unhealthy status and often leads to chronic health conditions (i.e., diabetes, obesity and respiratory issues). Stakeholders felt that residents have a limited understanding about preventive choices and healthy options due to the limited access to preventive healthcare and a lack of prevention education and outreach in their communities.

- ✓ 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 identified lifestyle related health concerns as the second community health priority.
- ✓ Almost three-quarters of the stakeholders interviewed discussed the impact and primary drivers of lifestyle choices that impact the health status and subsequent health outcomes for residents.
- ✓ Survey respondents identified substance abuse and mental health as two of the top five concerns facing their communities.

Findings supported by study data:

There is a presence of conditions that contribute to lifestyle related illness (e.g., inactivity, poor nutrition, smoking, etc.):

- According to the A State Health Assessment (2013), lifestyles that impact the health of residents is a concern across the state with 1) an increase in residents that are obese from 2000 to 2011 (21% and 29% respectively); 2) the percentage of adults who smoked cigarettes in the past 30 days is declining but still high at 22.4%; and 3) residents are not always receiving education and outreach related to healthy behaviors and preventive practices.

- Residents do not always have access to healthy nutrition and may need additional resources (i.e., seniors, homeless people, residents in more rural areas, residents earning a low-income and children in homes where substance abuse is an issue).
- Residents may not always have complete control over the conditions which lead to unhealthy behaviors (i.e., limited access to healthy produce in poorer rural areas, a lack of education, fear of crime and a lack of motivation driving obesity rates in the area.
- Family and culture play roles in the lifestyle choices/preferences of residents (e.g., diet, exercise-levels, etc.).
- Residents are not always making the healthiest choices on their own behalf.
- Rural residents often do not seek health services until health concerns have become emergencies due to culture, finances, transportation, time, etc.; resulting in poorer health outcomes and higher rates of chronic illnesses.
- Residents do not always have access to physical activities (i.e., homeless people, seniors, etc.) and may not be as active as they need to be to remain healthy contributing to the rates of diabetes, obesity, and poor health outcomes.

Table 3: Survey Responses – Physical Activity Rates Reported by Survey Respondents

Physical Activities	Juniata County	Northumberland County	Snyder County	Union County	Lycoming County	PA*	U.S.*
Yes	54.5%	59.5%	57%	56.1%	52.7%	73.7%	74.7%
No	45.5%	40.5%	43%	43.9%	47.3%	26.3%	25.3%

** Source: CDC*

- Respondents in Juniata, Northumberland, Union, Snyder, and Lycoming Counties report lower rates of physical activity than those reported for the state and nation.
- Secondary data shows a decline in the rates of residents smoking, though rates remain high (around 20% in each county). The Healthy People 2020 goal for percentage of population smoking in the U.S. is 12% by the year 2020.[3]

Lifestyle related illness has a negative impact on health outcomes:

- Obesity, diabetes, heart disease could be in part connected to the diet of a rural farming culture and sedentary lifestyles.
- Survey respondents in every county in the study area reported that diabetes, obesity and cancer are among the top five health concerns in their community. All of these health concerns have some connection to lifestyle.

[3] PA State Health Assessment 2013

- Survey respondents in every county in the study area report higher diagnosis rates for diabetes than is average for the state and the nation (10.1% and 9.7% respectively). Lycoming shows the lowest percentage of respondents reporting they were never told by a healthcare professional that they had diabetes (9.8%) and Juniata and Snyder County respondents reported the most (20% and 21.1% respectively).

Table 4: Survey Responses – Average Weight and Body Mass Index of Survey Respondents

Weight & BMI	Juniata County	Northumberland County	Union County	Snyder County	Lycoming County	Avg. Female (5'4")*	Avg. Male (5'9")*
Weight	176.45 lbs.	183.07 lbs.	170.46 lbs.	173.08 lbs.	195.46 lbs.	108-144 lbs.	121-163 lbs.
BMI**	28.49	29.47	29.1	28.68	31.96	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 higher weight and BMI than national and state averages regardless of gender.
- There are higher death rates in the hospital services area for diseases that are typically linked to lifestyle like heart disease, and diabetes. Additionally, the preventable hospitalizations linked to lifestyle are prevalent throughout the counties in the service area; two of which (namely COPD and diabetes) increased since the 2012 study. Finally, there have been increases in the rates of lifestyle related illnesses across counties in the service area (e.g., obesity, STIs, diabetes, etc.) since the 2012 study.

Lifestyle related health concerns are another need that carries forward from the previous assessment. The lifestyles of residents will always drive health outcomes. While lifestyle can be a matter of choice it is not always; particularly for the more vulnerable population in the service area. Primary data collected during this assessment from community leaders and residents offered several recommendations to address lifestyle related health concerns some of which included:

- Health providers, community-based organizations, and agencies should collaborate more to ensure vulnerable populations' needs are identified and met on an ongoing basis. Stakeholders would like to see solutions that are more community-based and less

hospital-based. For example, stakeholders recommended that outreach be done at places where residents naturally are (grocery stores, Walmart, post offices, etc.).

- Provide evidence-based practices when investing in programs and services.

THE IMPACT OF SOCIO-ECONOMIC STATUS ON HEALTH OUTCOMES

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

Reducing the impact of socio-economic status on health outcomes is identified as the third 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, unhealthy housing stock due to age/mold, 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.

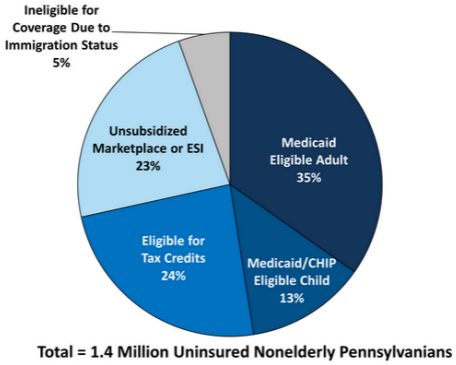
- ✓ Secondary data related to prevalence rates, socio-economic barriers to accessing healthcare (i.e., CNI), and poor health outcomes (e.g., amputations, death rates, etc.) support the need to reduce the impact of socio-economic status on health outcomes.
- ✓ Community leaders identified the impact of socio-economic status on health outcomes as the third community health priority.
- ✓ Almost half of the stakeholders interviewed discussed the impact poverty and cost of care on access to care and propensity to seek care and subsequent health outcomes for residents.
- ✓ 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.[4]

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



Total = 1.4 Million Uninsured Nonelderly Pennsylvanians

**Source: Kaiser Family Foundation*

- During the 2012 CHNA study, Community leaders, key stakeholders and focus group participants all discussed the gap between the income qualifications for state-funded health insurance and the ability of residents to afford private-pay health insurance premiums. Since that time access to health insurance options seems to have increased; though according to stakeholders the coverage is limited and the copays and/or deductibles are too high for residents to use their benefits.
- Residents may not be able to afford health insurance that is as comprehensive as Medicaid benefits —oftentimes the services that are covered by that program are better than what they can secure privately.
- Poverty is a barrier to healthcare. There are a limited number of safety net services available for residents earning just above poverty to 250% of poverty. While residents may have health insurance; they cannot always afford to use their health insurance due to unaffordable deductibles and copays. As a result, health services may be becoming unaffordable for families that do not qualify for assistance of any sort. Stakeholders and community leaders discussed the high cost of care, lack of health insurances and unaffordable copays and/or high deductibles as one cause for residents delaying/resisting seeking care. Residents may self-diagnose and attempt to treat their symptoms at home with home remedies and/or old prescriptions, which often leads to worsening symptoms until the issue becomes an emergency and must be treated in an emergency room.
- The population that is unable to afford healthcare and does not qualify for assistance is more of a moderate income earning family. There are parents in the area that earn an income that is high enough to disqualify them from medical assistance and at the same time is inadequate to afford private pay health insurance. According to the Kaiser Family

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

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.[5]

- Community based organizations that serve low-income residents served as the most predominant types of survey collection sites. The vast majority of survey respondents reported earning less than $19,999 per year. The most popular form of health insurance reported by survey respondents in Northumberland County was "no insurance" (36.2%); Lycoming County respondents reported Medicaid as the most commonly held insurance (34.5%), with Medicare and private insurances being the most popular in all other counties. Furthermore, the most common reason why survey respondents from Northumberland, Union, Snyder, and Lycoming Counties indicated that they do not have health insurance is because they can't afford it (58%, 85.7%, 75%, and 57.1% respectively).
- Lycoming and Northumberland counties saw rises in the rates of uninsured: Lycoming going from 13% to 14% uninsured and Northumberland going from 12% to 13% uninsured. There is strong correlation between zip code areas with higher rates of poverty and those with high uninsured rates (i.e., Williamsport-17701; Sunbury-17801; West Milton-17886).

Poverty increases the barriers to accessing healthcare:

- Poverty seems to be pervasive in the area. Leaders felt there are "glass ceilings" that do not allow residents in poverty to improve their financial situations. Children living with single parents are likely to be living in poverty in most areas, which may impact health outcomes. Stakeholders felt that 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.
- Youth in the area are not always getting the education they need to be successful in school and life (i.e., employment skills). Limited education can contribute to lower wages, which limits access to health care in a variety of ways.
- Most survey respondents in each of the counties reported never needing health services or needing and having no problem securing those services. However; when respondents

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

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”

- There are indications in the secondary data that the geographic pockets of poverty align with data showing fewer providers and poor health outcomes in the same areas. For example, residents in zip code areas with higher CNI scores (greater socio-economic barriers to accessing healthcare) tend to experience lower educational attainment, and lower household incomes, higher unemployment rates, as well as consistently showing less access to health care due to lack of insurance, lower provider ratios and consequently poorer health outcomes when compared to other zip code areas with lower CNI scores (fewer socio-economic barriers to accessing healthcare).
- The data suggest that there is an increase in barriers to accessing healthcare for the hospital service area with an increase in overall CNI score from the 2012 assessment (2.9 to 3.0). A closer look at the changes in score shows there were fewer zip code areas that saw increases in barriers since 2012 (10 zip codes) than those that remained unchanged or showed improvement (19 zip codes) However, the improvements were slight and the areas with increased barriers were more significant. Meaning, there are pockets where barriers to accessing healthcare are increasing at a much greater rate than anywhere else in the hospital service area.
- There is one zip code from Juniata County included in the hospital service area (17086), which is not a zip code with high barriers to accessing healthcare (2.4 decreased from 2.6 in 2012). The highest CNI scores for the study area are 3.8 in the zip code areas of Williamsport (17701) in Lycoming County and Sunbury (17801) in Northumberland County. The highest CNI score indicates the most barriers to community health care access. In 2012, the highest CNI score for the service area was 2.6 (Sunbury-17801), which increased (+0.2) since that time. While Williamsport (17701) was not included in the service area during the 2012 study the CNI score was the same at that time.
- Northumberland County showed some of the highest CNI scores during the 2012 study. Of the six zip codes areas included in the hospital services area, five zip code areas either remained unchanged or showed large increases in barriers to accessing healthcare(between +.02 and +.06).

The impact of socio-economic status on health outcomes is well documented in this assessment, previous assessments for Evangelical Community Hospital; as well as, throughout the world. It is important to focus resources on the priorities that exsist to improve health outcomes and ultimately reduce the consumption of healthcare resources in the long-run. Primary data collected during this assessment from community leaders and residents offered several recommendations to address the impact of socio-economic status on health outcomes some of which included:

- ***Secure more funding:*** Community leaders discussed at length the need for additional funding dollars to effectively meet community health needs. Leaders felt that federal dollars could be increased in the area through the designation of a rural health county, which may have requirements related to the number of physicians that would have to be met to qualify for such a designation.

INCREASING ACCESS TO HEALTHCARE

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

1. Provider to population ratios that are not adequate enough to meet the need
2. Limited access to healthcare as a result of the location of providers coupled with transportation issues
3. Need to increase awareness and care coordination

Increasing access to healthcare is identified as the fourth and final community health priority by community leaders. Access to health care is an ongoing health need in rural areas across the U.S. Apart from insurance issues, access to healthcare in the hospital services area is limited by provider to population ratios that cause lengthy wait times to secure appointments, location of providers, transportation issues, limited awareness of residents related to the location and eligibility of health programs as well as ways to be healthier.

During the 2012 CHNA, Community leaders, key stakeholders and focus group participants gave the impression that the limited access some residents have to medical, mental and dental health care may cause: an increase in the utilization of emergency medical care for non-emergent issues; waiting times for healthcare services; an increase in travel distance and time for under/uninsured residents; as well as resistance to seek health services; patients presenting in a worse state of health than they may have with greater access to services and a general decline in the health of residents.

- ✓ Secondary data related to provider ratios support the need to increase access to healthcare.
- ✓ Community leaders identified access to health care as the fourth health priority. While community leaders discussed the potential increase in access to care (i.e., preventive care, primary care, etc.) with the expansion of Medicaid; community leaders focused their discussions primarily on care coordination, number of providers, and limited transportation options.

- ✓ One-half of all 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.
- ✓ Survey respondents reported not having access to their own car as a primary method of transportation and uncertainty related to the availability of services.

Findings supported by study data:

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

- In 2012, community leaders, key stakeholders and focus group participants believed that there were not enough healthcare providers in the area to meet resident demand for under/uninsured and mental health care. While the topic was not as heavily discussed during this needs assessment; a common theme in the discussion about the availability of health services (medical, dental and behavioral) remains the limited number of providers. While there are providers in the area there are not enough providers available to meet current demand. There is a concern about an older physician workforce retiring and not being replaced by younger talent due to the difficulty of recruiting and retaining physicians in the rural service area. The shortage of health professionals (i.e., dermatologists, pulmonary specialists, child psychiatrists, pediatric dentists, and dentists accepting Medicaid) serving low-income populations is compounded by the difficulty in recruiting new professionals to the poorest and most rural areas in the hospital service area. Primary care physicians are not always taking new patients, particularly for residents with Medicaid. Also, students with health insurances that are not accepted locally (i.e., United Healthcare Insurance) struggle with securing health services outside of student health on college campuses in the area.
- In 2012, the previous CHNA found that community leaders were under the impression that there was a shortage of dentists in the area to provide both routine and specialty dental care. In 2009, Dental care was also frequently mentioned – particularly for Medicaid recipients. In fact, the household survey from the 2009 CHNA found that nearly 26,000 individuals in the region are unable to afford recommended dental care and as many as 10,000 were often or very often unable to afford prescription medication.
- The same is true for dental care today, particularly dental providers that accept Medicaid. Dental providers that will accept Medical assistance are often great distances apart and the travel/lack of transportation can make it impossible for residents to secure dental care (adult and pediatric). While there is a free dental clinic located in

Sunbury; they are limited in scope with free dental clinics, reportedly having closed and/or are no longer taking new patients in the area.

- 34.4% of respondents in Lycoming County indicated that they were unable to secure services of a physical health condition (i.e., injury or illness) in the last year (34.4%)
- With the exception of Union and Lycoming Counties (15.7% and 14.8% respectively); more than 1 in 4 respondents in every other county indicated that they needed and could not secure dental care in the last year.
- Survey respondents from Northumberland, Snyder and Lycoming Counties indicated they were unable to secure prescription medications when they were needed during the last year (20.10%, 14.1%, and 34.3% respectively).
- 1 in 10 in Northumberland County indicated they needed and could not secure women's health services during the past year.
- Available services are being reduced (i.e., preventive health services, public health services, vaccinations, public education, substance abuse, and behavioral health services due to funding cuts. Additionally, there are very few resources for low-income residents that need hearing aids due to limited funding from community-based organizations and insurance companies not covering them.
- Secondary data suggests that physician to patient population varies across counties but there are more patients for every one physician than is standard for PA. **Primary Care Providers** – Union County is the only county in the service area that has a provider rate similar to the state (87 per 100,000 pop.). Northumberland and Juniata Counties have less than one-third (30.7 and 20.5 per 100,000 pop. respectively) and Snyder County has fewer than half (42.7 per 100,000 pop.) the providers that is average for the state. **Dental Providers** – Union County is the only county in the service area that has a provider rate similar to the state (51.3 per 100,000 pop.). Whereas, again Northumberland and Juniata Counties have the least (31.7 and 8.2 per 100,000 pop. respectively). Snyder and Lycoming Counties have approximately two-thirds the state rate of dental providers (42.7 and 41.1 per 100,000 pop. respectively).

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

- The 2012 CHNA completed by Tripp Umbach found that stakeholders felt there were ample medical resources in the community that were not always accessible to residents in the most rural areas due to lack of insurance and transportation. Community leaders, key stakeholders and focus group participants were under the impression that state-funded health insurance was not readily accepted in the area among medical and dental providers at that time, causing residents to travel lengthy distances to receive health

services. While community leaders operating in the region during that time acknowledged that leaders believed that there were transportation systems, those systems were described as limited and disjointed.

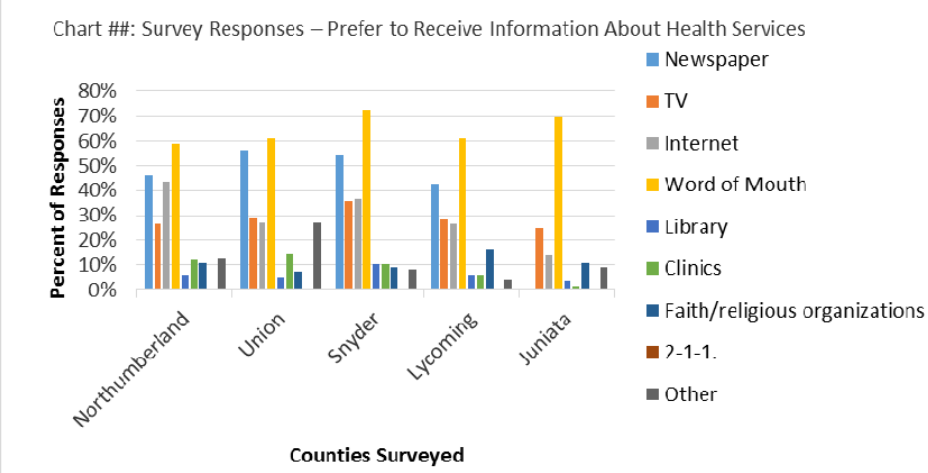
- Residents do not always have access to care (including primary/preventive care and dental care) due to a lack of transportation. This is most often true for more rural residents that do not have a private form of transportation. The distance between providers becomes a barrier to accessing healthcare due to the limited transportation options. Services tend to be situated in areas with denser populations (e.g., the lack of drug treatment services in Northumberland County with the closest services a great distance away).
- Stakeholders further noted that there are areas with limited access to specialty care (i.e., Western Snyder County).
- While the perception is often that seniors have access to transportation for medical appointments; many seniors must take an entire day to get to and from a medical appointment using public transportation for medical services.
- Additionally, it was noted that Amish and Mennonite residents do not have ready access to preventive care due to a lack of insurance, and the resources required to secure care for this population can be significant because they have to pay a driver. Many Mennonite residents seek health services at the public health department and it is unclear whether or not the limited use of preventive care is due to a lack of transportation or a cultural resistance to seek care. It will be important to further understand the underlying factors prior to any planning efforts.
- Many survey respondents indicated that their primary form of transportation is some method other than their own car in Northumberland, Union, Snyder, Lycoming and Juniata Counties (36%, 21.4%, 16.5%, 23%, and 10.2% respectively).

Need to increase awareness and care coordination

- 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. There is a growing population of seniors that will require additional support and care coordination (i.e., medication management, nutrition, and health care/insurance decisions) with the outmigration of young professionals that continues; often seniors are left without family support at home.
- Residents may have a difficult time navigating health services that are available due to a lack of awareness about what is available and no efficient way to disseminate information in an effective way. Both previous CHNAs have addressed the awareness of residents as a barrier to accessing healthcare. The 2012 CHNA found that there was a need for increased awareness and education related to healthy behaviors. In 2009, Rural Pennsylvania Counts household survey found that there are significant differences

in sources of health information by education. Individuals at the lowest end of the educational spectrum are less likely to use the internet or print materials from home in comparison to individuals with higher levels of education including some college or Bachelor's degree. However, most respondents indicated that they would obtain health information directly from their healthcare provider.

- Similar to the 2009 CHNA, survey respondents indicated they get information about services in their community by word of mouth and newspaper more often than any other option in all counties surveyed.



- Furthermore, when survey respondents reported needing health services and being unable to secure them one of the most common reasons was "unsure where to go".

Increasing access to 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:

- ***Increase health services to the more rural populations*** by developing affiliate/satellite locations of health services throughout the counties.
- ***Increase care coordination for seniors*** to assist with navigation, medication management, insurance, and health care decision-making.
- ***Increase the use of telemedicine***, particularly to cover the areas of greatest shortage where telemedicine can be effectively implemented (i.e., behavioral health).

- ***Provide evidence-based practices*** when investing in programs and services.
- ***Recruit and retain health service professionals:*** Community leaders indicated that there are not enough healthcare professionals (i.e., medical, behavioral health, and dental). Leaders recommended that additional health professionals be recruited and efforts be made to retain those professionals.
- ***Increase the use of community health workers:*** Community leaders recommended increasing the use of community health workers to alleviate some of the access issues related to navigation, transportation, and care coordination.

  > "Community health workers (CHWs) are frontline public health workers who have a close understanding of the community they serve. This trusting relationship enables them to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. Community health workers also build individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy." (American Public Health Association, 2008)

- ***Collaboration to address transportation issues:*** Community leaders recommended that they develop a collaborative to discuss, plan, and effectively address the issues of transportation in the rural areas.

Community Health Needs Identification Forum

The following qualitative data were gathered during a regional community planning forum held on March 10, 2015 in Danville, PA. The community planning forum was facilitated by Tripp Umbach with more than 50 community leaders from a five county region (Lycoming, Northumberland, Snyder, and Union, Counties) and lasted approximately four hours. Community leaders were identified by the community health needs assessment oversight committee for Evangelical Community Hospital. Evangelical Community Hospital is a 132-bed community hospital.

Tripp Umbach presented the results from the secondary data analysis, community leader interviews, and community surveys. These findings were used to engage community leaders in a group discussion. Community leaders were asked to share their vision for the community, discuss a plan for health improvement in their community, and prioritize their concerns. A breakout group with community leaders was used to pinpoint and identify issues/problems that were most prevalent and widespread in their community. Most importantly, the breakout group was asked to identify ways to resolve the 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 Evangelical Community Hospital service area. Below is a brief summary of the recommendations:

- ***Recruit and retain health service professionals:*** Community leaders indicated that there are not enough healthcare professionals (i.e., medical, behavioral health, and dental). Leaders recommended that additional health professionals be recruited and efforts be made to retain those professionals.

- ***Secure more funding:*** Community leaders discussed at length the need for additional funding dollars to effectively meet community health needs. Leaders felt that federal dollars could be increased in the area through the designation of a rural health county, which may have requirements related to the number of physicians that would have to be met to qualify for such a designation.

- ***Rotate mental health care professionals through medical care settings:*** Community leaders recommended rotating behavioral health professionals through local primary care settings. Residents would see behavioral health professionals where they receive primary care, which could reduce stigma and increase access to behavioral health care.

- ***Increase the use of community health workers:*** Community leaders recommended increasing the use of community health workers to alleviate some of the access issues related to navigation, transportation, and care coordination.

> "Community health workers (CHWs) are frontline public health workers who have a close understanding of the community they serve. This trusting relationship enables them to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. Community health workers also build individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy." (American Public Health Association, 2008)

- ***Collaboration to address transportation issues:*** Community leaders recommended that they develop a collaborative to discuss, plan, and effectively address the issues of transportation in the rural areas.

PROBLEM IDENTIFICATION:

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

1. **Behavioral health and substance abuse**
2. **Health concerns related to lifestyle**
3. **The impact of socio-economic status on health outcomes**
4. **Access to healthcare**

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 resolve.

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 limited number of providers, need for care coordination, lack of follow up, and affordability of care.

Perceived Contributing Factors:

- There are not enough providers to meet the demand among residents. Where there are services, the wait times can be lengthy to secure an initial appointment.
- There are gaps in the available services for adults and children related to behavioral health and substance abuse diagnosis and treatment.
- There is a lack of behavioral health specialists available to diagnose and treat children.
- Care coordination is needed among behavioral health and substance abuse providers.

- Substance abuse has remained a health concern in the area and its resolution depends on engaging residents in the resolution.
- Behavioral health concerns are growing due to an apparent increase in demand and less available services.
- Residents are not always able to afford behavioral health care when it is needed due to the lack of insurances and cost of care.

HEALTH CONCERNS RELATED TO LIFESTYLE:

Community leaders identified lifestyle related health concerns as a health priority. Leaders focused discussions around the access residents have to healthy options as well as the impact to health outcomes.

Perceived Contributing Factors:

- Residents are not as active as they may need to be to remain healthy contributing to the rates of diabetes, obesity, and poor health outcomes.
- The prevalence of diabetes contributes to poor health outcomes in the area.
- Residents do not always have access to healthy nutrition and may need additional resources.

THE IMPACT OF SOCIOECONOMIC STATUS ON HEALTH OUTCOMES:

Community leaders discussed the impact of socio-economic status on health outcomes as a top health priority. Community leaders focused their discussions primarily on the struggle inherent in poverty, limited safety net services for residents above the poverty line, and the impact of poverty on children (including educational outcomes).

Perceived Contributing Factors:

- Residents may not be able to afford health insurance that is as comprehensive as Medicaid benefits —oftentimes the services that are covered by that program are better than what they can secure privately.
- There are parents in the area that earn an income that is high enough to disqualify them from Medical Assistance and at the same time is inadequate to afford private pay health insurance.
- Poverty seems to be pervasive in the area. Leaders felt there are “glass ceilings” that do not allow residents in poverty to improve their financial situations.
- Children living with single parents are likely to be living in poverty in most areas, which may impact health outcomes.

- Poverty is a barrier to healthcare. There are a limited number of safety net services available for residents earning just above poverty to 250% of poverty. Many families are not able to afford health insurances and do not qualify for assistance.
- Youth in the area are not always getting the education they need to be successful in school and life (i.e., employment skills)
- Limited education can contribute to lower wages and limit access to health care in a variety of ways.
- Residents are not always receiving education and outreach related to healthy behaviors and preventive practices.

ACCESS TO HEALTHCARE:

Community leaders identified access to health care as a top health priority. While community leaders discussed the potential increase in access to care (i.e., preventive care, primary care, etc.) with the expansion of Medicaid; community leaders focused their discussions primarily on care coordination, number of providers, and limited transportation options.

Perceived Contributing Factors:

- Health services (i.e., primary care, dental care, etc.) are not always readily available due to a shortage of providers, which can cause lengthy wait times to secure appointments.
- There does not seem to be younger physicians filling the vacancies that are created by physicians retiring from an aging physician workforce.
- Primary care physicians are not always taking new patients, particularly for residents with Medicaid.
- While residents may have health insurance; they cannot always afford to use their health insurance due to unaffordable deductibles and copays.
- 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.
- Residents do not always have access to care due to a lack of transportation. This is most often true for more rural residents that do not have a private form of transportation.
- Residents do not always have the ability to secure preventive care due to affordability, lack of insurance, and transportation issues.
- Residents are not always able to afford dental care due to the cost and lack of insurance.
- Dental providers that will accept Medical assistance are often great distances apart and the travel/lack of transportation can make it impossible for residents to secure dental care (adult and pediatric).
- Residents may self-diagnose and attempt to treat their symptoms at home with home remedies and/or old prescriptions, which often leads to worsening symptoms until the issue becomes an emergency and must be treated in an emergency room.

Secondary Data

Tripp Umbach worked collaboratively with the Evangelical Community Hospital 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 Evangelical Community Hospital. 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 Evangelical Community Hospital study area encompasses Juniata, Lycoming, Northumberland, Snyder and Union counties, and is defined as a zip code geographic area based on 80% of the hospital's inpatient volumes. The Evangelical Community Hospital community consists of 29 zip code areas.

Demographic Profile – Key Findings:

Overall the Evangelical Community hospital service area shows improved demographics over the 2012 CHNA study with the population expected to increase (0.3%) as compared to the projected decrease (- 0.09%) of the previous study. Similarly, high school completion and annual household income have improved as well.

- ✓ The Evangelical Community Hospital study area is projected to grow in population by 425 residents over the next five years (2014 to 2019); this is a rate of 0.3%. This is consistent with trends seen for the state (projected 0.8% increase in Pennsylvania population).
- ✓ The Evangelical Community Hospital study area shows a rate of older residents (aged 65 and older) at 17.7%; this is higher than state (16.6%) and national (14.2%) norms. And the rate of residents aged 65 and older in the Evangelical Community Hospital study area is projected to rise, from 17.7% to 19.8% over the next five years.
- ✓ The average annual household income for the Evangelical Community Hospital study area is just above $64,000; less than the state and national norms (around $70,000 and $71,000 respectively) though an increase over the 2012 study ($53,064).

- ✓ Northumberland County, in the Evangelical Community Hospital study area, reports the highest rate of households that have $25K or less in annual income at 26%. This rate is higher than state (24%) and national (24.5%) rates.
- ✓ The Evangelical Community Hospital study area reports 14.9% of the residents having less than a high school diploma; this is higher than the state rate (11.5%) but a decrease from 2012 (16.6%).
- ✓ Juniata County reports the highest rate of residents with less than a high school diploma (17.9%); this is correlated to the fact that Juniata County also reports the lowest rate of residents with bachelor's or higher degrees (11.8%).
- ✓ Lycoming County reports the lowest rate of residents with less than a high school degree (13.3%); while Union County reports the highest rate of residents with a bachelor's degree or higher (21.0%).
- ✓ Union County in the Evangelical Community Hospital study area shows the most diversity within the study area with 14.9% of the population identifying as a race or ethnicity 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).[6] 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 Evangelical Community Hospital zip code areas have a CNI score of 3.0, indicating an 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.

[6] "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 Evangelical Community Hospital 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
17701	Williamsport	Lycoming	46.9%	10.4%	13.2%	17.2%	0.5%	14.5%	10.8%	25.5%	47.7%	4	4	3	3	5	3.8
17801	Sunbury	Northumberland	38.1%	12.3%	8.8%	9.8%	0.4%	17.9%	9.6%	20.5%	44.6%	4	3	4	3	5	3.8
17847	Milton	Northumberland	32.3%	8.1%	7.4%	9.7%	1.0%	15.0%	5.2%	26.1%	59.2%	5	2	4	3	4	3.6
17837	Lewisburg	Union	37.2%	7.2%	7.7%	15.7%	0.7%	11.3%	8.2%	12.0%	37.8%	3	2	3	3	5	3.2
17810	Allenwood	Union	17.7%	9.7%	4.7%	53.0%	5.8%	23.1%	7.1%	9.7%	8.7%	1	2	5	5	2	3.0
17813	Beavertown	Snyder	22.7%	5.8%	6.9%	2.3%	2.0%	17.9%	11.4%	27.4%	75.0%	5	2	4	1	3	3.0
17812	Beaver Springs	Snyder	23.5%	6.7%	7.5%	1.6%	0.6%	18.2%	12.1%	17.2%	50.0%	4	2	4	1	3	2.8
17857	Northumberland	Northumberland	26.4%	7.1%	5.4%	5.3%	0.1%	10.8%	5.4%	14.1%	38.5%	3	2	3	2	4	2.8
17870	Selinsgrove	Snyder	31.3%	6.0%	5.6%	8.9%	0.4%	11.6%	6.2%	11.8%	38.6%	3	1	3	3	4	2.8
17886	West Milton	Union	43.4%	8.4%	10.0%	7.1%	0.4%	9.4%	13.7%	12.5%	25.0%	2	3	2	2	5	2.8
17702	Williamsport	Lycoming	27.6%	7.4%	7.4%	3.1%	0.4%	14.2%	6.1%	9.5%	35.9%	3	2	3	1	4	2.6
17756	Muncy	Lycoming	20.3%	6.7%	7.3%	7.7%	0.5%	16.2%	7.2%	12.4%	33.9%	2	2	4	2	3	2.6
17842	Middleburg	Snyder	22.1%	6.3%	6.6%	3.2%	0.3%	20.7%	12.5%	13.5%	46.2%	3	2	4	1	3	2.6
17844	Mifflinburg	Union	24.7%	8.4%	5.8%	2.3%	0.4%	19.6%	8.2%	14.0%	45.5%	3	2	4	1	3	2.6
17845	Millmont	Union	19.0%	10.2%	5.1%	2.3%	0.2%	24.2%	3.3%	15.4%	46.6%	3	2	5	1	2	2.6
17864	Port Trevorton	Snyder	17.7%	7.2%	4.8%	2.1%	1.9%	27.4%	5.9%	10.4%	56.0%	4	1	5	1	2	2.6
17876	Shamokin Dam	Snyder	35.2%	6.7%	6.8%	6.0%	0.6%	11.5%	9.4%	9.7%	0.0%	1	2	3	2	5	2.6
17086	Richfield	Juniata	20.3%	7.0%	4.0%	3.4%	0.2%	17.1%	12.2%	8.4%	39.3%	3	1	4	1	3	2.4
17752	Montgomery	Lycoming	24.8%	10.6%	6.6%	3.9%	0.7%	15.2%	7.9%	16.2%	30.0%	2	2	4	1	3	2.4
17777	Watsontown	Northumberland	26.8%	5.9%	5.9%	3.4%	0.3%	13.8%	11.1%	15.2%	29.4%	2	2	3	1	4	2.4
17827	Freeburg	Snyder	22.6%	7.3%	6.7%	1.7%	0.5%	19.6%	6.2%	3.5%	25.0%	2	2	4	1	3	2.4
17850	Montandon	Northumberland	24.6%	9.0%	5.0%	4.9%	0.0%	15.0%	2.2%	5.9%	16.7%	1	2	4	2	3	2.4
17853	Mount Pleasant Mills	Snyder	20.1%	6.2%	6.5%	1.8%	0.6%	20.2%	21.1%	14.1%	28.6%	2	2	4	1	3	2.4
17772	Turbotville	Northumberland	15.0%	5.5%	4.6%	2.2%	1.3%	15.7%	10.6%	18.2%	51.9%	4	1	4	1	1	2.2
17835	Laurelton	Union	22.2%	8.3%	5.1%	3.8%	0.0%	13.3%	0.0%	0.0%	0.0%	1	2	3	1	3	2.0
17856	New Columbia	Union	18.0%	9.1%	7.2%	3.5%	0.6%	13.2%	13.3%	16.3%	25.9%	2	2	3	1	2	2.0
17754	Montoursville	Lycoming	21.5%	6.3%	6.0%	4.0%	0.6%	7.2%	4.3%	9.6%	33.6%	2	2	1	1	3	1.8
17855	New Berlin	Union	20.2%	4.3%	4.6%	1.4%	0.2%	11.1%	0.8%	9.6%	0.0%	1	1	3	1	3	1.8
17889	Winfield	Union	14.3%	4.7%	5.1%	4.2%	0.5%	11.9%	5.9%	6.0%	12.5%	1	1	3	1	1	1.4
Evangelical Community Hospital Community Summary			**31.3%**	**8.2%**	**8.0%**	**10.3%**	**0.7%**	**14.9%**	**8.6%**	**16.6%**	**40.3%**	**3.1**	**2.4**	**3.3**	**2.2**	**3.9**	**3.0**

- ✓ The highest CNI scores for the Evangelical Community Hospital study area are 3.8 in the zip code areas of Williamsport (17701) in Lycoming County and Sunbury (17801) in Northumberland County. The highest CNI score indicates the most barriers to community health care access. In 2012, the highest CNI score for the service area was 2.6 (Sunbury-17801), which increased (+0.2) since. Williamsport was not included in the service area during the 2012 study and the zip code area does not reflect a change in barriers to accessing healthcare.
- ✓ Williamsport (17701) holds the highest rates for the Evangelical Community Hospital study area for rental activity (46.9%) and uninsured (13.2%)
- ✓ Sunbury (17801) sees the highest rate for the Evangelical Community Hospital study area for unemployment (12.3%).
- ✓ Port Trevorton (17864) reports the highest rate of residents with no high school diploma (27.4%) across the Evangelical Community Hospital study area.
- ✓ Of residents aged 65 and older, Mount Pleasant Mills (17853) reports the highest rate of these residents living in poverty (21.1%); the highest for the study area.
- ✓ Beavertown (17813) shows the highest rates of poverty in married parents as well as single parents living in poverty with their children (27.4% and 75.0% respectively). Child poverty rates remain high in the hospital service area with many zip code areas showing and increase since the 2012 study.
- ✓ Northumberland County showed some of the highest CNI scores during the 2012 study. Of the six zip codes areas five zip code areas either remained unchanged or showed an increase in barriers to accessing healthcare.
- ✓ Union County consistently shows the fewest barriers to accessing healthcare. This does not mean that there are no barriers to accessing healthcare in these zip code areas and it is important to understand the barriers experienced in lower CNI scored areas as well. Union county also showed the greatest improvement in the zip code areas studied from 2012 to the current study with six of the nine zip code areas showing a decrease in barriers.
- ✓ The overall CNI score for the Evangelical Community Hospital study area is 3.0. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). Therefore, overall, the Evangelical Community Hospital study area reports an average number of barriers to health care access.

Table 6: CNI Scores for the Evangelical Community Hospital Service Area by County

County	2014 Tot. Pop.	% 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	2014 CNI Score
Juniata County Summary	24,353	24.3%	7.3%	6.7%	5.2%	0.8%	18.0%	8.3%	14.3%	49.3%	2.9
Lycoming County Summary	118,838	31.6%	8.9%	9.4%	9.0%	0.5%	13.4%	7.8%	18.7%	45.3%	3.0
Northumberland County Summary	93,017	27.4%	9.7%	7.9%	6.9%	0.4%	14.8%	8.4%	18.0%	46.0%	3.1
Snyder County Summary	35,575	26.1%	6.2%	6.1%	5.3%	0.6%	16.7%	9.8%	13.3%	41.7%	2.7
Union County Summary	47,256	27.8%	7.9%	6.5%	14.9%	1.2%	15.5%	7.9%	12.2%	32.7%	2.8

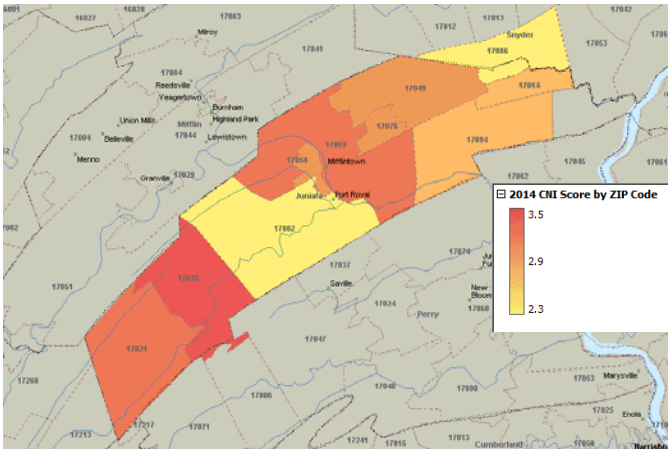
The overall CNI score for the Evangelical Community Hospital study area rose from 2.9 in 2011 to 3.0 in 2014; more barriers to health care access. There were 10 of the 29 zip code areas that saw an increase in barriers to accessing healthcare and 15 zip code areas that saw a decrease in barriers. While there were more zip code areas that saw improvements; the increases in barriers were often large increases and the decreases were less significant changes reducing their impact on the overall CNI score for the service area.

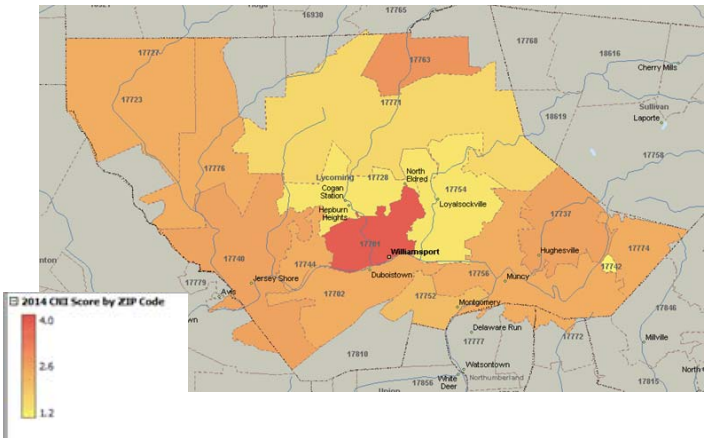
Table 7: CNI Score Trending (2011-2014) for the Evangelical Community Hospital Service Area by Zip Code

Zip	City	County	2011 CNI Score	2014 CNI Score	2011 – 2014 Change
17701	Williamsport	Lycoming	3.8	3.8	0.0
17801	Sunbury	Northumberland	3.6	3.8	+ 0.2
17847	Milton	Northumberland	3.2	3.6	+ 0.4
17837	Lewisburg	Union	3.4	3.2	- 0.2
17810	Allenwood	Union	3.6	3.0	- 0.6
17813	Beavertown	Snyder	2.6	3.0	+ 0.4
17812	Beaver Springs	Snyder	2.2	2.8	+ 0.6
17857	Northumberland	Northumberland	2.4	2.8	+ 0.4
17870	Selinsgrove	Snyder	3.0	2.8	- 0.2
17886	West Milton	Union	N/A	2.8	N/A
17702	Williamsport	Lycoming	2.8	2.6	-0.2
17756	Muncy	Lycoming	2.8	2.6	- 0.2
17842	Middleburg	Snyder	2.8	2.6	- 0.2
17844	Mifflinburg	Union	2.6	2.6	0.0
17845	Millmont	Union	2.4	2.6	+ 0.2
17864	Port Trevorton	Snyder	3.0	2.6	- 0.4

Zip	City	County	2011 CNI Score	2014 CNI Score	2011 – 2014 Change
17876	Shamokin Dam	Snyder	2.6	2.6	0.0
17752	Montgomery	Lycoming	3.0	2.4	-0.6
17086	Richfield	Juniata	2.6	2.4	- 0.2
17777	Watsontown	Northumberland	2.6	2.4	- 0.2
17827	Freeburg	Snyder	2.2	2.4	+ 0.2
17850	Montandon	Northumberland	2.4	2.4	0.0
17853	Mount Pleasant Mills	Snyder	2.8	2.4	- 0.4
17772	Turbotville	Northumberland	1.6	2.2	+ 0.6
17835	Laurelton	Union	3.0	2.0	- 1.0
17856	New Columbia	Union	2.2	2.0	- 0.2
17754	Montoursville	Lycoming	1.6	1.8	+0.2
17855	New Berlin	Union	2.2	1.8	- 0.4
17889	Winfield	Union	1.8	1.4	- 0.4
Evangelical Community Hospital Community Study Area			**2.9**	**3.0**	**+ 0.1**

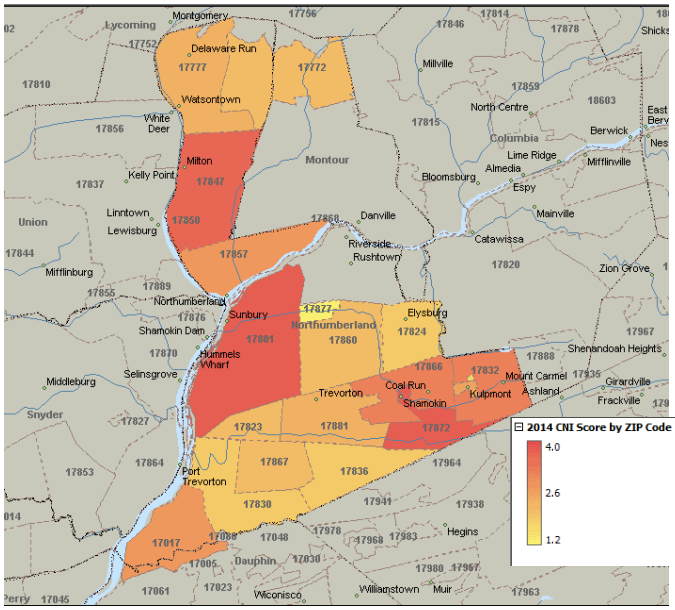
Juniata County shows a decrease in the CNI score for the one zip code area included in this study.

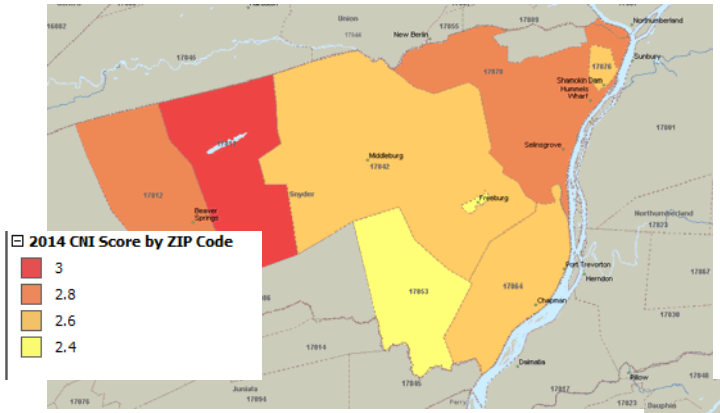




Lycoming County shows an increase in barriers in one of the five zip code areas – Montoursville (from 1.6 to 1.8). The zip code areas are all below average for the scale with the exception of Williamsport (3.8), which remained unchanged.

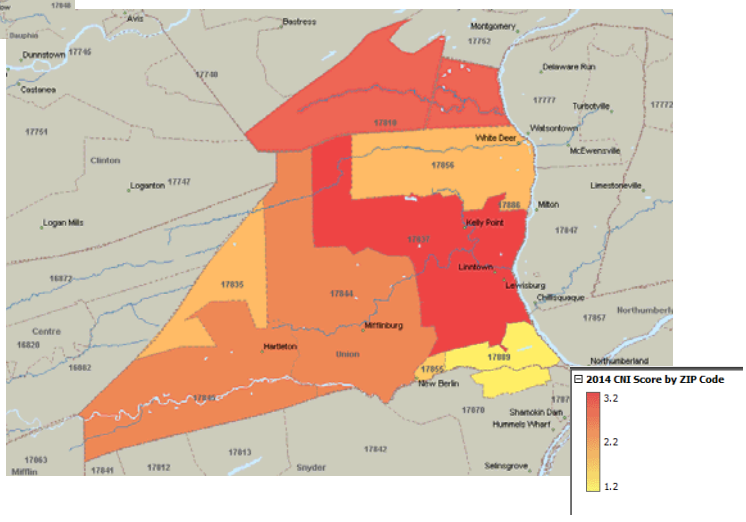
Northumberland County showed some of the highest CNI scores during the 2012 study. Of the six zip codes areas included in the hospital services area, five zip code areas either remained unchanged or showed large increases in barriers to accessing healthcare(between +.02 and +.06). Milton and Sunbury showed above average barriers previously which worsened by +0.4 and +0.2, respectively.





Snyder County shows an increase in barriers in Beaver Springs (from 2.2 to 2.8), Beavertown (from 2.6 to 3) and, Freeburg (from 2.2 to 2.4). All of which still hover around average for the scale.

Union County shows the greatest decrease in barriers with one zip code area of nine showing an increase in barriers-Millmont (from 2.4 to 2.6). Laurelton shows one of the greatest decreases in barriers (from 3.0 to 2.0).



County Health Rankings

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

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

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

- Health Outcomes —Two types of health outcomes are measured to represent the health of each county: how long people live (mortality) and how healthy people feel (morbidity). These outcomes are the result of a collection of health factors and are influenced by existing programs and policies at the local, state and federal levels.

- Health Factors — A number of different health factors shape a community's health outcomes. The County Health Rankings are based on weighted scores of four types of factors: Health behaviors (six measures), Clinical care (five measures), Social and economic (seven measures), Physical environment (four measures).

Pennsylvania has 67 counties; therefore, the rank scale for Pennsylvania is one to 67 (one being the healthiest county and 67 being the most unhealthy). The median rank is 34.

Data for the County Health Rankings is only defined as far as the county level, zip code level data is not available. Therefore, the county level data has been presented here (no Evangelical Community Hospital service area level data is available).

- Northumberland County ranks the highest in the study area for Health Outcomes (35); Health Factors (50); Morbidity (52); Social and Economic Factors (59);
- Juniata County ranked the highest in the study area for Mortality (31); Clinical; Care (42);
- Lycoming County ranked the highest in the study area for Health Behaviors (48); Physical Environment (23)
- Northumberland and Union counties tie for the highest ranks for the Evangelical Community Hospital study area adult smoking rates (23%). Adult smoking in Pennsylvania is at a rate of 20% of the population.
- Northumberland and Snyder counties tie for the highest rates of adult obesity for the counties served by Evangelical Community Hospital with a rate of 34%; the state rate being 29%.
- The counties in the counties served by Evangelical Community Hospital all report lower or equivalent rates of excessive drinking as compared with the state.
- Lycoming County reports the highest rate compared with the other counties and the state for STDs (442 cases per 100,000 pop. compared to 415 cases for PA).
- All of the counties served by Evangelical Community Hospital report higher or equivalent rates of uninsured residents than the state. Snyder County reports the highest uninsured rate at 15% while the state rate is at 12%.
- The five counties of the counties served by Evangelical Community Hospital report lower or equivalent PCP rates as compared with the state.
- All of the counties served by Evangelical Community Hospital report higher rates of diabetic and mammography screening as compared with the state (this is a good thing).
- Northumberland County reports the highest unemployment rate for the study area at 9.0%; this is also higher than the state rate at 7.9%.
- All five of the study area counties report lower violent crime rates than the state (367 per 100,000 pop. for PA).

From 2012 to 2014, the counties that saw the largest shifts in county health rankings or data were:

- Union County for Physical Environment – going from 58 in 2011 to 3 in 2014
- Northumberland County for Mortality – going from 52 in 2011 to 21 in 2014
- All five of the study area counties reported steady or declines in adult smoking rates.
- Northumberland County reported the largest rise in adult obesity for the Evangelical Community Hospital study area counties; going from 28% to 34%.
- Juniata County reports a large increase in the sexually transmitted infection / chlamydia rate from 2011 to 2014 – going from 52 per 100,000 pop. to 209 per 100,000 pop. (All of the study area counties reported a rise in their chlamydia rate from 2011 to 2014).
- Lycoming and Northumberland counties saw rises in the rates of uninsured: Lycoming going from 13% to 14% uninsured and Northumberland going from 12% to 13% uninsured.
- Snyder County saw the largest rise in residents with diabetes from 2011 to 2014; going from 9% to 12%.
- All five of the counties in the study area reported declines in unemployment rates; consistent with state and national trends.
- Snyder County reported a rise in violent crime rate; going from 296 per 100,000 pop. to 335. Four of the five study area counties (Juniata, Lycoming, Snyder, and Union – Not Northumberland) saw rises in violent crime rates; this is inconsistent with the state trend.

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 Evangelical Community Hospital 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 higher rates throughout the study area for Angina without Procedure and Perforated Appendix. Juniata and Northumberland Counties show poorer health outcomes when compared to the other counties in the service area and the state rate across PQI measures.

Table 8: Prevention Quality Indicators – County-by-County Comparison to Pennsylvania

Prevention Quality Indicators (PQI)	Juniata County	Lycoming County	Northumberland County	Snyder County	Union County	PA
Diabetes Short-Term Complications (PQI1)	679.44	104.59	94.08	14.30	25.86	115.16
Perforated Appendix (PQI2)	818.18	454.55	409.09	777.78	571.43	343.91
Diabetes Long-Term Complications (PQI3)	64.20	88.75	142.46	46.49	38.79	119.79
Chronic Obstructive Pulmonary Disease or Adult Asthma(PQI5)	357.00	357.97	544.03	295.50	192.54	578.80
Hypertension (PQI7)	37.45	47.54	32.25	39.33	23.28	53.99

Congestive Heart Failure (PQI8)	481.49	369.78	548.33	293.21	266.39	418.29
Low Birth Weight (PQI9)	59.46	23.27	20.64	41.94	16.81	37.50
Dehydration (PQI10)	74.90	57.05	59.13	21.45	25.86	61.90
Bacterial Pneumonia (PQI11)	449.39	292.65	439.47	182.36	75.00	326.16
Urinary Tract Infection (PQI12)	165.85	134.18	196.22	78.67	49.14	197.51
Angina Without Procedure (PQI13)	10.70	32.75	32.25	39.33	18.10	11.80
Uncontrolled Diabetes (PQI14)	16.05	9.51	5.38	0.00	2.59	14.20
Asthma in Younger Adults (PQI15)	49.29	30.13	30.03	9.64	12.65	63.34
Lower Extremity Amputation Among Diabetics (PQI16)	21.40	35.92	44.35	0.00	15.52	26.40

- **Union County** shows the fewest PQI rates above PA averages with two measures:
  - ✓ Perforated Appendix (PQI2)
  - ✓ Angina Without Procedure (PQI13)
- **Lycoming County** shows higher hospitalization rates for three PQI measures when compared with PA. None of which are the highest in the area:
  - ✓ Perforated Appendix (PQI2),
  - ✓ Angina Without Procedure (PQI13)- among the highest in the study area
  - ✓ Lower Extremity Amputation Among Diabetics (PQI16)
- **Snyder County** shows the highest hospitalization rates in the study area for Angina Without Procedure (PQI13) and the second highest rate of hospitalizations for Perforated Appendix (PQI2). Snyder County shows higher hospitalization rates for one additional PQI measure when compared with PA:
  - ✓ Low Birth Weight (PQI9)
- **Northumberland County** shows the highest rates in the region for Congestive Heart Failure (PQI8) and the second highest rates for Diabetes Long-Term Complications (PQI3) and Lower Extremity Amputation Among Diabetics (PQI16). Northumberland County shows higher hospitalization rates than the state for three additional PQI measures:
  - ✓ Perforated Appendix (PQI2)

- ✓ Bacterial Pneumonia (PQI11)
- ✓ Angina Without Procedure (PQI13)

- **Juniata County** shows the highest rates in the region for Diabetes Short-Term Complications (PQI1); Perforated Appendix (PQI2); and Low Birth Weight (PQI9). Juniata County shows higher hospitalization rates than the state for four additional PQI measures:

  - ✓ Congestive Heart Failure (PQI8)
  - ✓ Dehydration (PQI10)
  - ✓ Bacterial Pneumonia (PQI11)
  - ✓ Uncontrolled Diabetes (PQI 14)

Table 9: Prevention Quality Indicators – Evangelical Community Hospital Service Area (Evangelical Community Hospital) Compared to Pennsylvania with Trending

Prevention Quality Indicators (PQI)	2014 - Evangelical Community Hospital Study Area	PA	Difference	2011 PQI Evangelical Community Hospital	2014 PQI Evangelical Community Hospital	Difference
Diabetes Short-Term Complications (PQI1)	77.26	115.16	- 37.90	49.25	77.26	+ 28.01
Perforated Appendix (PQI2)	492.75	343.91	+ 148.84	0.24	492.75	--
Diabetes Long-Term Complications (PQI3)	76.68	119.79	- 43.11	90.79	76.68	- 14.11
Chronic Obstructive Pulmonary Disease or Adult Asthma (PQI5)	359.03	578.80	- 219.77	214.22	359.03	--
Hypertension (PQI7)	38.63	53.99	- 15.36	31.45	38.63	- 7.18
Congestive Heart Failure (PQI8)	325.75	418.29	- 92.54	335.28	325.75	- 9.53
Low Birth Weight (PQI9)	27.59	37.50	- 9.91	0.00	27.59	--
Dehydration (PQI10)	39.78	61.90	- 22.12	49.25	39.78	- 9.47
Bacterial Pneumonia (PQI11)	210.44	326.16	- 115.72	342.99	210.44	- 132.55
Urinary Tract Infection (PQI12)	104.36	197.51	- 93.15	98.51	104.36	+ 5.85
Angina Without Procedure (PQI13)	31.13	11.80	+ 19.33	29.08	31.13	+ 2.05
Uncontrolled Diabetes (PQI14)	4.61	14.20	- 9.59	11.87	4.61	- 7.26

Prevention Quality Indicators (PQI)	2014 - Evangelical Community Hospital Study Area	PA	Difference	2011 PQI Evangelical Community Hospital	2014 PQI Evangelical Community Hospital	Difference
Asthma in Younger Adults (PQI15)	17.34	63.34	- 46.00	49.25	17.34	--
Lower Extremity Amputation Among Diabetics (PQI16)	25.94	26.40	- 0.46	30.74	25.94	- 4.80

Source: Calculations by Tripp Umbach

- The Evangelical Community Hospital study area shows only two of the 14 PQI measure that are higher than the state PQI value in 2014 – indicating higher preventable hospital admission rates for the following:
  - ✓ PQI 2 – Perforated Appendix (Study Area = 492.75; PA = 343.91)
  - ✓ PQI 13 – Angina without Procedure (Study Area = 31.13; PA = 11.80)
- The largest PQI difference between the Evangelical Community Hospital study area and PA in which the Evangelical Community Hospital study area reports a higher PQI is for **Perforated Appendix Admissions** in which PA shows a rate of preventable hospitalizations due to perforated appendix at 343.91 per 100,000 population, whereas the Evangelical Community Hospital study area shows a rate of 492.75 preventable hospitalizations per 100,000 population (more than 140 more preventable hospitalization per 100,000 pop).
- The largest difference between the Evangelical Community Hospital study area and PA in which the Evangelical Community Hospital study area reports a lower PQI than the state is for the PQI measure **COPD or Adult Asthma**. The Evangelical Community Hospital study area reports a rate of 359.03 hospital admission per 100,000 population for this condition, the state reports 578.80 per 100,000 population (a difference of more than 200 admissions per 100,000 pop.).

From 2011 to 2014, four of the PQI measures' definitions changed drastically and, therefore, cannot be accurately compared (PQI 2, PQI 5, PQI 9 & PQI 15).

- Of the 10 remaining PQI measures, seven of the 10 Evangelical Community Hospital study area values saw **reductions in PQI rates** from 2011 to 2014. The largest reduction was for Bacterial Pneumonia (going from 342.99 preventable hospitalizations per 100,000 to 210.44 per 100,000).
- Three PQI values for the Evangelical Community Hospital study area saw a **rise in preventable hospitalizations** from 2011 to 2014, these were for:

- ✓ Diabetes, short-term complications (going from 49.25 per 100,000 pop. to 77.26 per 100,000 pop.)
- ✓ Urinary Tract Infections (going from 98.51 per 100,000 pop. to 104.36 per 100,000 pop.)
- ✓ Angina without Procedure (going from 29.08 per 100,000 pop. to 31.13 per 100,000 pop.)

CDC National Center for Health Statistics:

The Centers for Disease Control and Prevention provides a data source called Health Indicators Warehouse, which is maintained by the National Center for Health Statistics and 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 10: 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	Juniata County	Lycoming County	Northumberland County	Snyder County	Union County
2011 Primary care providers (per 100,000)	--	--	92.7	20.5	66.8	30.7	42.7	87
2011 Dentist rate (per 100,000)	--	--	59.1	8.2	41.1	31.7	42.7	51.3
2012 Acute Hospital Readmissions (%)*	--	18.6%	18.4%	15.4%	13.8%	17.4%	18.8%	14.8%
Births: women under 18 years (%)	--	2.3%	2.3%	--	2.8%	2.5%	1.9%	2.2%
Cancer Death Rate (per 100,000 pop.) *	160.6	169.3	178.3	167.3	180.6	176.2	144.8	141.3
Breast cancer deaths (per 100,000)*	20.6	21.7	23	--	17.1	22.1	--	--
Colorectal cancer deaths (per 100,000)*	14.5	15.3	16.4	--	17.1	15.7	--	--
Alzheimer's disease deaths (per 100,000) *	--	24.5	19.3	21.3	26.2	26	14.3	21.2
Chronic lower respiratory disease deaths (per 100,000)*	--	42.1	38.8	56.2	55	44.1	44	24.3
Coronary heart disease deaths (per 100,000) *	100.8	105.4	112.4	87.2	100.5	149.3	93	102
Diabetes deaths (per 100,000) *	--	21.2	21.1	33.4	32	18.2	23.4	19.9
Drug poisoning deaths (per 100,000) *	--	12.9	17.5	--	10.1	12.3	--	--
Fall deaths (per 100,000) *	--	8.1	8.6	--	--	9.4	--	--
Heart disease deaths (per 100,000) *	--	174.4	183.5	167	162.1	223.2	167.9	177.5
Influenza and pneumonia deaths (per 100,000) *	--	15.1	14.4	--	8.7	20.5	20.4	15.4
Injury deaths (per 100,000) *	53.3	58.1	63	56.7	51.2	65.4	52.1	33.6
Kidney diseases deaths (per 100,000) *	--	13.9	16.8	--	13.6	21.4	18.6	14.1
Lung, trachea, and bronchus cancer deaths (per 100,000) *	--	46.1	47.9	50	47.3	50.9	38.8	41.7
Motor vehicle traffic deaths (per 100,000) *	--	10.8	10.4	--	13.8	18.6	15.4	--
Septicemia deaths (per 100,000) *	--	10.5	13.3	--	8.8	17.8	--	--
Stroke deaths (per 100,000) *	33.8	38	38.8	36.9	35.9	40.7	39.8	47.7

CDC National Center for Health Statistics (2010-2012)**	HP 2020	U.S.	PA	Juniata County	Lycoming County	Northumberland County	Snyder County	Union County
Suicide deaths (per 100,000) *	10.2	12.3	12.5	--	13.7	16.5	--	--

*** 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

There is a similar trend in the CDC National Center for Health Statistics data that presents in the majority of all other secondary data sources; Union County consistently shows better health outcomes when compared to the other counties in the hospital service area; whereas, Northumberland and Juniata consistently show the poorest health outcomes.

- ✓ All counties served by the hospital have fewer providers (Primary care and Dental) than is average for PA (Primary Care - 92.7 and Dental – 59.1 per 100,000 pop. respectively).
  - o **Primary Care Providers** – Union County is the only county in the service area that has a provider rate similar to the state (87 per 100,000 pop.). Northumberland and Juniata Counties have less than one-third (30.7 and 20.5 per 100,000 pop. respectively) and Snyder County has fewer than half (42.7 per 100,000 pop.) the providers that is average for the state.
  - o **Dental Providers** – Union County is the only county in the service area that has a provider rate similar to the state (51.3 per 100,000 pop.). Whereas, again Northumberland and Juniata Counties have the least (31.7 and 8.2 per 100,000 pop. respectively). Snyder and Lycoming Counties have approximately two-thirds the state rate of dental providers (42.7 and 41.1 per 100,000 pop. respectively).
- ✓ Most counties in the service area show a lower percentage of **acute hospital readmissions** (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) except Snyder County (18.8%).
- ✓ The percentage of **live births to women that are below 18 years of age** is below or similar to the state and national average (2.3% each).
- ✓ 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). Where there is data available; Juniata, Lycoming and Northumberland Counties show higher death rates than Snyder and Union Counties.
- ✓ Juniata, Snyder, and Union Counties shows fewer **deaths related to Alzheimer's disease** than any other county in the service area (21.3, 14.3, and 21.2 per 100,000 pop.), which

is higher than the state (19.3 per 100,000 pop.) for all but Juniata County and lower than the national rate (24.5 per 100,000 pop.). Conversely, Lycoming and Northumberland Counties show higher the U.S. averages (26.2 and 26 per 100,000 pop. respectively).

- ✓ Union County has lower **deaths due to chronic lower respiratory disease** than any other county in the service area (24.3 per 100,000 pop.). In fact, every other county has higher death rates for this indicator than the state and nation (38.8 and 42.1 per 100,000 pop. respectively), with Juniata and Lycoming Counties showing the highest rates in the service area (56.2 and 55 per 100,000 pop.).
- ✓ Northumberland County shows the highest **deaths due to coronary heart disease** than any other county in the services area, the state (112.4 per 100,000 pop.), or the nation (105.4 per 100,000 pop.). Every other county shows lower death rates than the U.S. average, with Juniata County having the lowest rate (87.2 per 100,000 pop.).
- ✓ Juniata and Lycoming Counties show higher **deaths due to diabetes** (33.4 and 32 per 100,000 pop. respectively) than the state (21.1 per 100,000 pop.), the nation (21.2 per 100,000 pop.), or any other county, with Northumberland, Snyder, and Union Counties showing similar rates to national and state norms (18.2, 23.4, and 19.9 respectively).
- ✓ Northumberland County has higher **deaths due to falls** (9.4 per 100,000 pop.) than state and national rates (8.6 and 8.1 per 100,000 pop. respectively)
- ✓ Northumberland County has significantly higher **deaths due to heart disease** than any other county in the service area, the state (183.5 per 100,000 pop.) or nation (174.4 per 100,000 pop.). Juniata, Lycoming, Snyder, and Union Counties are at or below state rates (167, 162.1, 167.9, and 177.5 per 100,000 pop. respectively).
- ✓ Northumberland and Snyder County have more **deaths due to influenza and pneumonia** (20.5 and 20.4 per 100,000 pop. respectively) than the state or national rates (14.4 and 15.1 per 100,000 pop. respectively).
- ✓ **Injury death rates** are similar for all the counties in the service area as state and national rates (63 and 58.1 per 100,000 pop. respectively) except Union County, which is much lower (33.6 per 100,000 pop.).
- ✓ **Deaths due to kidney disease** are highest in Northumberland and Snyder Counties (21.4 and 18.6 per 100,000 pop.) when compared to state and national rates (16.8 and 13.9 per 100,000 pop. respectively).
- ✓ All counties with data reported (i.e., Lycoming, Northumberland, and Snyder Counties) show higher **deaths due to motor vehicle traffic** (13.8, 18.6, and 15.4 per 100,000 pop) than state and national rates (10.4 and 10.8 per 100,000 pop. respectively).

- ✓ Northumberland County shows higher **deaths due to septicemia** (17.8 per 100,000 pop.) than the state and national rates (13.3 and 10.5 per 100,000 pop. respectively).
- ✓ Northumberland, Snyder and Union Counties show higher **deaths due to stroke** (40.7, 39.8, and 47.7 per 100,000 pop. respectively) than the state and national rates (38.8 and 38 per 100,000 pop. respectively), with Juniata and Lycoming showing fewer deaths (36.9 and 35.9 per 100,000 pop. respectively).
- ✓ All counties with data reported (i.e., Lycoming, and Northumberland Counties) show higher **deaths due to suicide** (13.7 and 16.5 per 100,000 pop) than state and national rates (12.5 and 12.3 per 100,000 pop. respectively).

Key Stakeholder Interviews

Tripp Umbach conducted interviews with community leaders in the Evangelical Community Hospital 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 below 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 18 stakeholders of the Evangelical Community Hospital service area, as identified by an advisory committee of Evangelical Community Hospital. Evangelical Community Hospital is a 132 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 Evangelical Community Hospital advisory committee. The purpose of these interviews was for stakeholders to identify health issues and concerns affecting residents in the Evangelical Community Hospital service area, as well as ways to address those concerns.

There was a diverse representation of community-based organizations and agencies among the 18 stakeholders interviewed. Those organizations represented included:

- Central PA Food Bank
- CMSU
- A Community Clinic
- Evangelical Community Hospital
- Greater Susquehanna Valley United Way
- Greater Susquehanna Valley YMCA
- HandUP Foundation
- Higher Hope h2 Church
- Juniata County
- PA Dept. of Health
- PA Office of Rural Health
- Penn State Cooperative Extension
- Shikellamy School District
- Snyder County Children and Youth Services
- St. Paul's UCC
- Susquehanna University
- Union-Snyder Agency on Aging Inc.
- Williamsport/Lycoming Chamber of Commerce

STAKEHOLDER RECOMMENDATIONS:

The stakeholders provided many recommendations to address health issues and concerns for residents living in the Evangelical Community Hospital service area. Below is a brief summary of the recommendations:

- Continue to collaborate to address substance abuse issues. Law enforcement, primary care physicians, and substance abuse specialists could collaborate to identify gaps in resources and a strategic plan to reduce the prevalence of drug trafficking and addiction in the area. Some areas where supply does not meet demand according to stakeholders are: prevention education, funding, inpatient/outpatient services. Physicians could be better educated about substance abuse issues in the community (i.e., prescription drug abuse) through professional certifications, trainings, and continuing education credentials.
- Increase health services to the more rural populations by developing affiliate/satellite locations of health services throughout the counties.
- Increase care coordination for seniors to assist with navigation, medication management, insurance, and health care decision-making.
- Health providers, community-based organizations, and agencies should collaborate more to ensure vulnerable populations' needs are identified and met on an ongoing basis. Stakeholders would like to see solutions that are more community-based and less hospital-based. For example, stakeholders recommended that outreach be done at places where residents naturally are (grocery stores, Walmart, post offices, etc.).
- Increase the use of telemedicine, particularly to cover the areas of greatest shortage where telemedicine can be effectively implemented (i.e., behavioral health).
- Increase the use of community health workers and/or patient navigators to serve as the liaison between community residents and health providers; as well as provide care coordination.
- Provide evidence-based practices when investing in programs and services.

PROBLEM IDENTIFICATION:

During the interview process, the stakeholders stated six overall health needs and concerns in their community. In random order, these were:

1. Lifestyle of residents
2. Availability of health services
3. Behavioral health, including substance abuse

4. Delay/resistance in seeking health services
5. Common health issues
6. Environmental influence

LIFESTYLES OF RESIDENTS:

Almost three-quarters 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.

- ✓ Generational/cultural influence - Stakeholders discussed the role that familial influence plays in nutritional preferences, and substance abuse more than any other health issues. Stakeholders indicated that substance abuse is more prevalent in lower-income families. Also, children often adopt the dietary preferences of their youth, which in the service area is considered to be unhealthy. Finally, the propensity of residents in a rural area to seek health services is often based in cultural values and beliefs, which may lead to a population of residents with poorer health outcomes.
- ✓ 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 live more than 30 minutes from the nearest grocery store). Residents consume diets that are carryovers from the previous farming history. These diets can be detrimental to a sedentary population according to stakeholders. Foods that are more processed are often cheaper and easier to prepare than produce and meats, etc. 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. Additionally, seniors may not be getting adequate nutrition due to their limited capacity; loss of senses that allowed them to enjoy food (i.e., sight, smell, taste, etc.); and an experience of depression may reduce the desire to eat. There is concern among stakeholders that seniors are often too proud to seek assistance with nutrition issues.
- ✓ Exercise – Stakeholders indicated that residents may not always exercise to a level that is healthy due to fear of crime in the community; a lack of indoor recreational outlets during the winter months; and personal motivation. Also, physical education classes are limited in schools for children. Stakeholders indicated that seniors and people that are homeless may not have access to exercise opportunities.

- ✓ 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. Nearly one-half of 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 (i.e., educational outreach and preventive screenings). Residents must want to change their health status before they will be motivated to do so.

Stakeholders discussed the following consequences of the lifestyle of residents on health outcomes of populations served by Evangelical Community Hospital.

- It can be difficult to improve population health indicators due to the lifestyles and personal preferences/choices of residents.
- Stakeholders felt that rural residents seek health services much later and have higher chronic illness as a result.

AVAILABILITY OF HEALTH SERVICES:

One-half of all 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.

- ✓ Number of practicing professionals serving vulnerable populations - Physicians are retiring and/or migrating out of the area, reducing the number of available primary care physicians. The shortage of health professionals (i.e., dermatologists, pulmonary specialists, child psychiatrists, pediatric dentists, and dentists accepting Medicaid) serving low-income populations is compounded by the difficulty in recruiting new professionals to the poorest and most rural areas in the hospital service area.
- ✓ Acceptance of insurances - Stakeholders noted that insurance issues have been persistent prior to and throughout the implementation of Affordable Care Act. There are limited health providers offering care (i.e., dental, routine/preventive, behavioral, and vision) to residents that are uninsured or insured with certain types of insurance (medical access, Medicaid, etc.); leading existing services to be inaccessible to under/uninsured residents. Additionally, stakeholders indicated that students with health insurances that are not accepted locally (i.e., United Healthcare Insurance) struggle with securing health services outside of student health on college campuses in the area. Medicaid may not always cover services that residents require when they need them (i.e., replacement dentures).

- ✓ Funding – Stakeholders identified a lack of funding and funding cuts as impacting the services available for preventive health services, public health services (i.e., vaccinations), public education, substance abuse, and behavioral health services. Additionally, there are very few resources for low-income residents that need hearing aids due to limited funding from community-based organizations and insurance companies not covering them.
- ✓ Location of providers - Stakeholders noted that there are pockets of poverty among families and seniors where health services are available but not accessible. Also, stakeholders articulated that there are a lack of providers (i.e., specialists, dentists, etc.) taking new patients that are covered by the type of insurances carried by traditionally low-income populations (i.e., Medicaid). While there is a free dental clinic located in Sunbury; they are limited in scope with free dental clinics, reportedly having closed and/or are no longer taking new patients in the area. Amish and Mennonite residents do not have ready access to preventive care due to a lack of insurance, and the resources required to secure care for this population can be significant because they have to pay a driver. Many Mennonite residents seek health services at the public health department. Stakeholders noted that there are areas with limited access to specialty care (i.e., Western Snyder County). 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 Evangelical Community Hospital. Also, services tend to be situated in areas with denser populations (e.g., the lack of drug treatment services in Northumberland County with the closest services a great distance away).
- ✓ Many seniors must take an entire day to get to and from a medical appointment using public transportation for medical services.
- ✓ Care coordination – Stakeholders felt that physicians may be talking at an educational level that residents do not comprehend. 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.

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

- Limited appointment availability related to the number of physicians that are able to see patients and the need to triage patients in scheduling procedures, which causes patient to wait for long periods of time to secure appointments for primary care, specialty care, and dental care.

- 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.).

NEED FOR BEHAVIORAL HEALTH INCLUDING SUBSTANCE ABUSE SERVICES:

Behavioral health services and issues were discussed separate from medical or dental health services with four out of five stakeholders; with more than three-quarters of stakeholders identifying a health need related to behavioral health and/or substance abuse services.

- ✓ Care coordination –According to stakeholders, the medical health issues of residents with behavioral health issues are often overlooked in behavioral health settings and vice versa in medical settings, leaving health issues to be untreated for a period of time. Additionally, many pediatric inpatient facilities are not associated with any major medical provider, leaving children with medical and behavioral health dual-diagnoses without local treatment options. Stakeholders also felt that behavioral health services rely on medication too much, which can cause substance abuse issues (i.e., some anti-anxiety medications).
- ✓ Shortage of behavioral health services – Stakeholders recognized that while there are behavioral health services there is a shortage of services (i.e., co-occurrence, treatment for low-income populations, geriatric services, child psychiatry and inpatient treatment, play therapy for young children, and University student counseling) in relationship to the demand. The wait times for behavioral health services (psychiatry, therapy, and support services) are reported to be as long as three months in Columbia, Montour, Snyder, and Union Counties, which can cause residents to lose motivation to seek treatment. Additionally, when there are substance abuse services available, there is a lengthy wait for admission.
- ✓ Poor treatment outcomes – Stakeholders recognized that residents with substance abuse and/or behavioral health issues often have poor treatment outcomes due to a resistance to seek treatment because of a fear of stigmatization, inability to afford treatment options, transportation issues and/or limited follow through with treatment recommendations.
- ✓ Substance abuse –Stakeholders overwhelmingly 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. Stakeholders felt that the prevalence of substance abuse among residents (including youth) has increased due to drugs being readily accessible with trafficking on the major highways that connect New York with other major metropolitan areas. Substance abuse is impacting the development of youth in the area as well as students at local universities. 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. The most common drugs appear to be methamphetamine, heroin, marijuana, and prescription narcotics with the perception that prescription drugs are more prevalent among adults 30-40 years old that are employed. Meth labs are being identified in the areas, which cause residents to be at risk of being exposed to an explosion. Substance abuse often increases the consumption of health care resources due to poor health outcomes, which increases the length of time spent abusing a substance.

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.
- Children being hospitalized for inpatient behavioral health treatment a great distance from home may be negatively impacted by the absence of their family in treatment and visitation opportunities, which may cause poor treatment outcomes.

DELAYED/RESISTANCE SEEKING NEEDED HEALTH SERVICES:

Almost one-half of the stakeholders interviewed articulated that residents either delayed or resisted seeking health services (including medical, mental, 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:

- ✓ Cost of care – Stakeholders articulated that uninsured and under-insured residents may resist seeking health services due to the cost of uninsured care, unaffordable copays and/or high deductibles. Homeless persons are not likely to receive routine health care. While more often than not the population impacted by this issue is a lower-income population; health services may become unaffordable for families that do not qualify for assistance of any sort due to higher copays and deductibles. Additionally, stakeholders felt that there is anxiety and a lack of understanding among residents related to the health insurance options resulting from the implementation of ACA.
- ✓ Stigma – Stakeholders articulated a resistance to seek health services (i.e., Behavioral Health) due to the stigma associated with a diagnosis and treatment.
- ✓ Awareness –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 the services they need. The ever-changing provider landscape makes it difficult for residents to know what services are available in their community. Additionally, residents newly diagnosed with a chronic health issue may find it difficult to navigate the health resources available to them due to limited awareness of what is available. Seniors often need assistance making health care

decisions and may disengage when overwhelmed. Additionally, residents may not understand their health status enough to know from what services they could benefit.

- ✓ Transportation – Over one-half of the 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.
- ✓ Timing of appointments – Stakeholders discussed the inability of families in the hospital service area to secure specialty care (i.e., intensive and/or ongoing care) for children due to the travel time required and an inability to lose wages and/or their job due to missed work.

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 residents with Medicaid often have to have all their teeth pulled by the time they seek dental care.

COMMON HEALTH ISSUES:

- ✓ 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.
- ✓ Obesity –More than one-third of the stakeholders discussed the prevalence and cause of obesity among residents served by Evangelical Community Hospital. Stakeholders identified that there are several factors that perpetuate obesity in their communities, namely diet, exercise, access to resources, and education. Stakeholders discuss the low activity levels among residents (including children) in the services area. When low activity levels are coupled with poor nutrition, there is a greater risk of obesity. Stakeholders cited limited access to healthy produce in poorer rural areas, a lack of education, fear of crime and a lack of motivation among residents as the factors that drive obesity rates in the area. Stakeholders also noted the role that families and culture can play in establishing both healthy and unhealthy dietary habits. Stakeholders discussed the prevalence of childhood obesity as well, citing the absence of physical education and the teaching of parents as the primary factors in childhood obesity. Stakeholders recognized that perpetual obesity will have an impact on health outcomes for residents.
- ✓ Diabetes – Five 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 incidents of diabetes that are not the result of a genetic predisposition.

- ✓ Heart disease – Four stakeholders discussed the prevalence of heart disease and its connection with the diet of a rural farming culture, sedentary lifestyles, and age.
- ✓ Cancer - Two stakeholders felt that the rates of cancer were rising (one of which was a public health professional).
- ✓ Senior Health – Stakeholders felt that seniors were at greater risk for certain health issues (i.e., heart disease, diabetes, and pulmonary issues) due to aging.

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

ENVIRONMENTAL INFLUENCES:

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

- ✓ Infrastructure/rural area – more than three-quarters 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, the decline of the farming industry, and limited white collar employment opportunities often requires that the priorities of residents are focused on survival and basic necessities. There are limited housing subsidies due to funding cuts, which makes securing stable, safe housing difficult for lower-income residents.

  While there are public transit options in Union and Snyder counties, the scope of services provided are limited due to budgeting. The lack of transportation has an impact on the ability of residents and students at the university to secure health services (medical, dental, and behavioral), employment and healthy nutrition.

  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 underinsured because employers cannot afford to offer insurances and/or employees are hired at part-time hours to avoid the required cost of health insurance benefits for full-time employees.

- ✓ Poverty – More than one-third of the stakeholders interviewed discussed the impact of poverty on the health of residents. Specifically, stakeholders felt there were seniors and single families in poverty in the service area who are not always able to access the wealth of health services in the area. Stakeholders also recognized the impact of stress,

limited access to healthy nutrition, and limited access to health services (i.e., medical, dental, and behavioral) experienced by residents in poverty. Stakeholders articulated the relationship between poverty and behavioral health due to a heightened level of stress and trauma that is often part of the experience of poverty. Stakeholders connect poverty and the inability of residents (e.g., seniors) 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. No matter the level of health services available to the population, if residents do not choose to be healthier, the health outcomes will remain unchanged

Survey of Vulnerable Populations

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

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), and residents that are uninsured.

A total of 410 surveys were collected in the Evangelical Community Hospital service area which provides a +/-3.87 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., Central PA Food Bank, Union-Snyder Agency on Aging Inc., A Community Clinic, SUM Child Development Center, Family Health Council of Central PA-Selinsgrove, Snyder/Union Community Action, Snyder County Children and Youth Services, HandUP Foundation, Sunbury YMCA, and Middlecreek Area Community Center) 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 Juniata, Northumberland, Union, Snyder, and Lycoming Counties reported their race as White (91.1%, 92.6%, 89.7%, 85.2%, 87.2%, 90.6%, respectively), the next largest racial group was Black and African American.
- ✓ The household income level reported by most respondents was less than $29,999 a year for all counties represented.

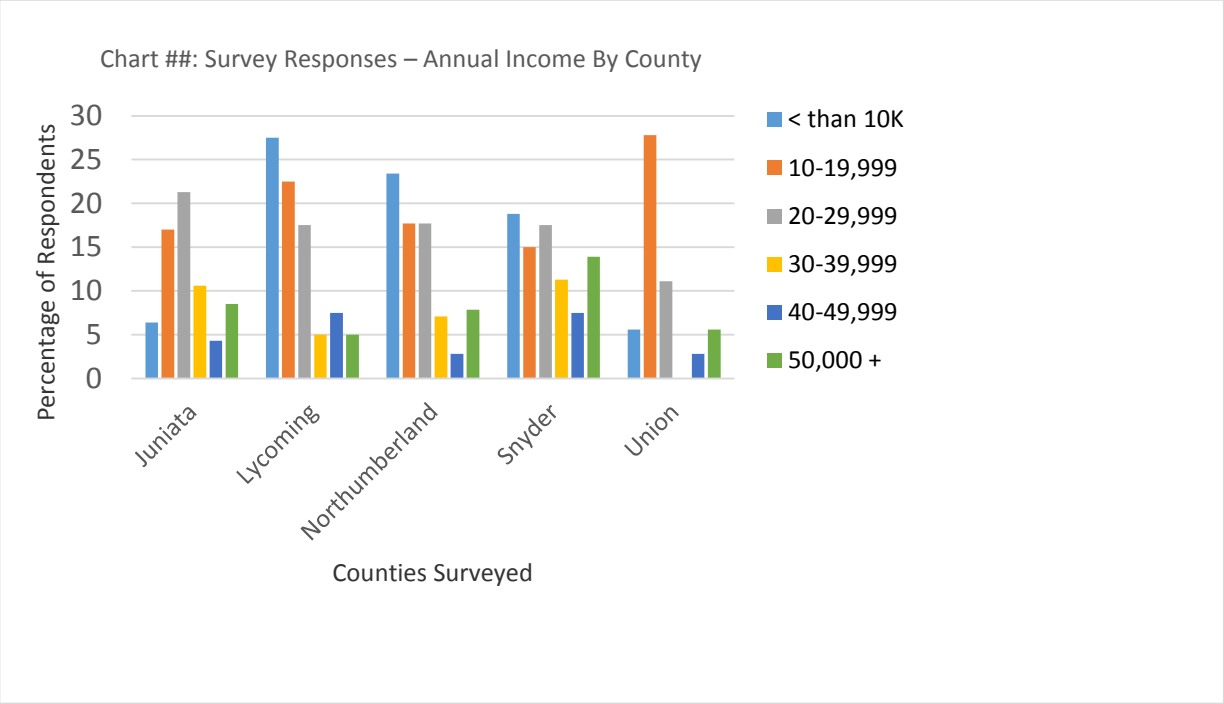
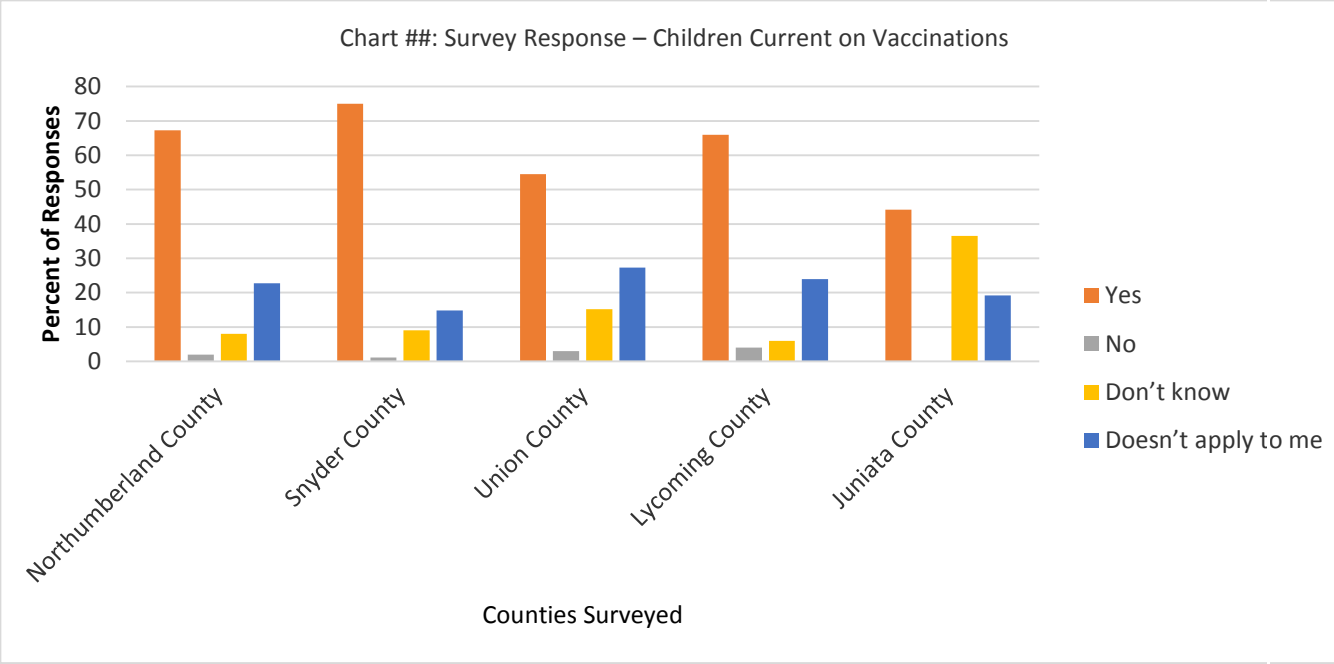


Table 11: Survey Responses – Self-Reported Age of Respondent by County

Age	Juniata County	Northumberland County	Snyder County	Union County	Lycoming County
18-25	1.7%	27.5%	17.2%	22%	3.6%
26-35	--	19%	18.4%	9.8%	23.2%
36-45	1.7%	9.2%	17.2%	12.2%	14.3%
46-55	--	13.1%	10.3%	4.9%	26.8%
56-65	15.5%	12.4%	16.1%	4.9%	12.5%
66-75	39.7%	14.4%	18.4%	19.5%	17.9%
76-85	32.8%	4.6%	1.1%	12.2%	1.8%
86+	8.6%	--	1.1%	14.6%	--

Healthcare:

- ✓ The most popular place for respondents to seek care in Juniata, Northumberland, Union, Snyder, and Lycoming Counties is a doctor's office (95%, 60.4%, 79.55%, 87.6%, and 77.4% respectively), with the free or reduced cost clinics being popular in Northumberland County (22.7%).
- ✓ The most common form of health insurance carried by respondents was Medicare in Union (42.9%) and Juniata (55.9%) Counties; Medicaid in Lycoming (34.5%) County; Private in Snyder (29.7%) County; and no insurance in Northumberland County (36.2%).
- ✓ The most common reason why individuals from Northumberland, Union, Snyder, and Lycoming Counties indicated that they do not have health insurance is because they can't afford it in all counties (58%, 85.7%, 75%, and 57.1% respectively). Juniata County did not have respondents reporting "no health insurance". This is most likely due to the average age of Juniata County respondents being 66-75 years.
- ✓ Most respondents had been examined by a physician within the last 12 months at least once. However, at least 1 in 10 respondents in Northumberland (10.9%) and Lycoming (10.3%) Counties had not.
- ✓ The most common responses to "how is your health?" were "Good" (42.3%) and "Very Good" (27.6%) and, this is consistent across the counties with approximately 20% of respondents in each county indicating their health was "fair" or "poor". However; 36.2% of Lycoming County respondents indicated that their health was "fair" or "poor", which is much higher than any other county where surveys were collected.
- ✓ Adult respondents indicated related children were up-to-date on vaccinations with no less than 0% (Juniata County) and no more than 4% (Lycoming County) indicating they were aware children were not vaccinated. There was an average of 87.4% of respondents across all counties surveyed indicating children were either current on vaccinations or the question did not apply.



- ✓ Many respondents indicated that their primary form of transportation is some method other than their own car in Northumberland, Union, Snyder, Lycoming and Juniata Counties (36%, 21.4%, 16.5%, 23%, and 10.2% respectively).

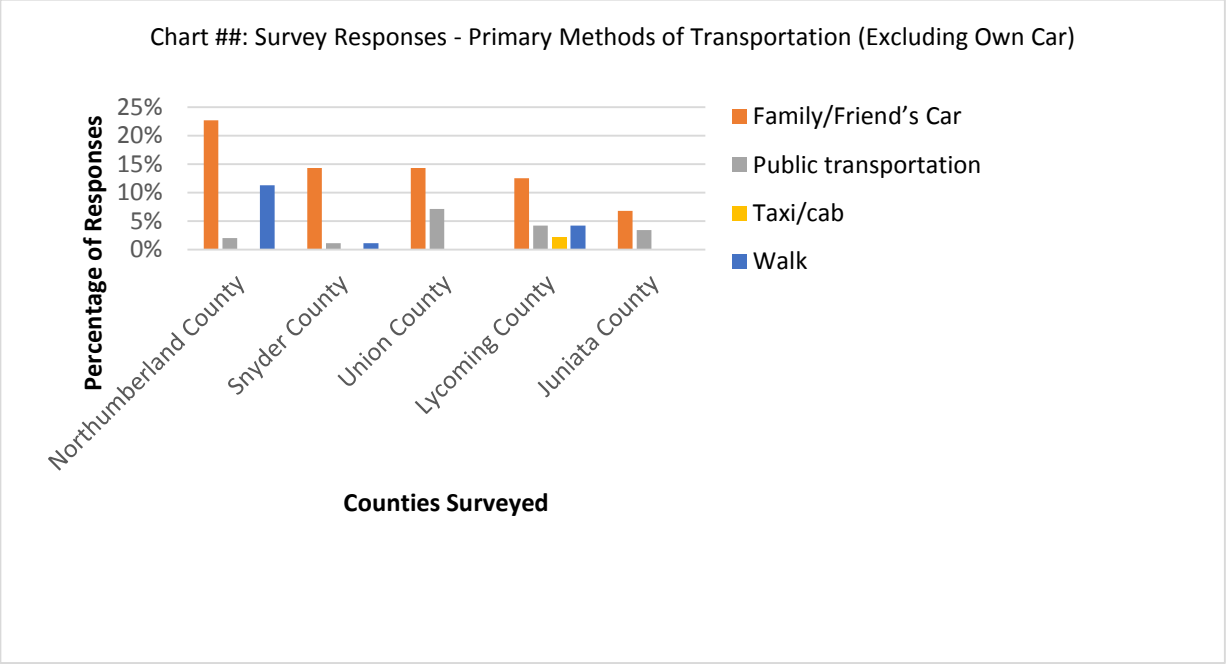


Table 12: Survey Responses Related to HIV/AIDS Testing

Ever Been Tested for HIV	Northumberland County	Snyder County	Union County	Lycoming County	Juniata County	PA	U.S.
Yes	45.1%	29.1%	34.1%	43.8%	19.3%	32.2%	35.2%

No	54.9%	70.9%	65.9%	56.3%	80.7%	67.8%	64.8%

- ✓ Snyder and Juniata County respondents report much lower HIV screening rates (29.1% and 19.3% respectively) when compared to PA (32.2%) or the U.S. (35.2%). Northumberland, Union, and Lycoming County respondents report screening rates (45.1%, 34.1%, and 43.8%) similar to state and national norms.

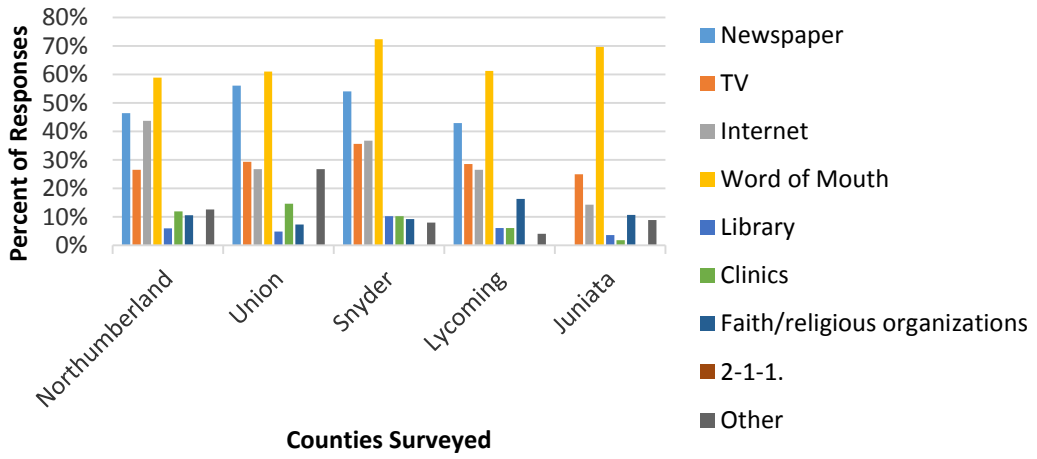
Health Services:

Table 13: Survey Responses – Health Services Received During the Previous 12 Month Period

Test Received	Northumberland County	Snyder County	Union County	Lycoming County	Juniata County
Blood test	60.5%	59.3%	69%	55.2%	80.6%
Check up	56.7%	56%	71.4%	50%	58.1%
Flu shot	41.4%	41.8%	57.1%	36.2%	69.4%
Cholesterol test	27.4%	31.9%	33.3%	27.6%	69.4%
Urinalysis	24.8%	20.9%	26.2%	15.5%	30.6%

- ✓ Respondents in Union and Juniata Counties appear to report receiving more testing than respondents from other counties. The results for Juniata County may be the result of the average age of respondents being 66-75 years.
- ✓ Respondents indicated they get information about services in their community by word of mouth and newspaper more often than any other option in all counties surveyed.

Chart ##: Survey Responses – Prefer to Receive Information About Health Services



- ✓ Most respondents did not prefer to receive health services in a language other than English.
- ✓ Most respondents in each of the 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”.
- ✓ More than one third of respondents in Snyder County indicated that they needed and could not secure counseling services in the past year, with 1 in 10 respondents in Northumberland County indicating the same.
- ✓ 34.4% of respondents in Lycoming County indicated that they were unable to secure services of a physical health condition (i.e., injury or illness) in the last year (34.4%)
- ✓ With the exception of Union and Lycoming Counties (15.7% and 14.8% respectively); more than 1 in 4 respondents in every other county indicated that they needed and could not secure dental care in the last year.
- ✓ Respondents in Northumberland, Snyder and Lycoming Counties indicated they were unable to secure prescription medications when they were needed during the last year (20.10%, 14.1%, and 34.3% respectively).
- ✓ Approximately 1 in 4 respondents in Snyder and Lycoming Counties indicated they could not secure services for a mental health condition at a time it was needed within the last

year (23.2% and 25.9% respectively). 1 in 10 respondents in Northumberland and County indicated the same (11.9% and 11.2% respectively).

- ✓ 1 in 10 in females Northumberland County indicated they needed and could not secure women's health services during the past year.

Common Health Issues:

Table14: Survey Responses – Health Issues Respondents Reported Ever Diagnosed with

Ever Diagnosed with	Juniata County	Northumberland County	Union County	Snyder County	Lycoming County	PA*	U.S.*
Depression	27.1%	38.10%	40%	34.40%	51%	18.3%	18.7%
Needing Mental Health Treatment	18.6%	26.50%	29.30%	25.60%	43.10%	--	--
Diabetes	20%	12.30%	17.10%	21.10%	9.80%	10.1%	9.7%
Heart Problem	33.3%	16.80%	16.70%	13.50%	27.50%	--	--
Cancer – Types: breast, prostate and skin	22%	6.50%	14.30%	9%	10%	--	--

** Source: CDC*

- ✓ Respondents in Northumberland, Union, Snyder, Lycoming and Juniata Counties report poorer health outcomes related to depression and diabetes than is average for the state or the nation.
- ✓ Depression and the need for mental health treatment are the greatest rates of respondent reported diagnosis when compared to every other area (i.e., diabetes, heart problems, and cancer). Every county in the study area reports higher rates of depression diagnosis than is average for the state (18.3%) and nation (18.7%) with the lowest rate of respondent reported diagnosis in Juniata County (27.1%) and the highest in Lycoming County (51%). Lycoming County respondents reported higher rates of depression and need for mental health treatment than any other county surveyed.
- ✓ Respondents in every county in the study area report higher diagnosis rates for diabetes than is average for the state and the nation (10.1% and 9.7% respectively). Lycoming shows the lowest percentage of respondents reporting they were never told by a healthcare professional that they had diabetes (9.8%) and Juniata and Snyder County respondents reported the most (20% and 21.1% respectively).

Table 15: Survey Responses – Top Health Concerns Reported

Health Concern	Juniata County	Northumberland County	Snyder County	Union County	Lycoming County
Cancer	66.7%	26.6%	38.4%	52.8%	48.6%
Drug and Alcohol use	50%	25.9%	45.3%	50%	62.2%
Diabetes	63%	61.5%	37.2%	47.2%	48.6%
Mental Health	25.9%	30.8%	31.4%	19.4%	32.4%
Obesity	50%	35.7%	31.4%	33.3%	45.9%

- ✓ When asked to identify five of the top health concerns in their communities; there was a great deal of agreement across counties. The additional choices that were not as popular were: adolescent health, asthma, cancer, diabetes, drug and alcohol use, family planning / birth control, flood related health concerns (like mold), heart disease, hepatitis infections, high blood pressure, HIV, maternal and child health, mental health (e.g., depression, suicide), obesity, pollution (e.g., air quality, garbage), sexually transmitted diseases, stroke, teen pregnancy, tobacco use, violence or injury, other, and don't know.

Lifestyle:

Table 16: Survey Responses – Average Weight and Body Mass Index of Survey Respondents

Weight & BMI	Juniata County	Northumberland County	Union County	Snyder County	Lycoming County	Avg. Female (5'4")*	Avg. Male (5'9")*
Weight	176.45 lbs.	183.07 lbs.	170.46 lbs.	173.08 lbs.	195.46 lbs.	108-144 lbs.	121-163 lbs.
BMI**	28.49	29.47	29.1	28.68	31.96	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 higher weight and BMI than national and state averages regardless of gender.
- ✓ A resounding majority of individuals report having good access to fresh fruits and vegetables (91.6%); this finding fluctuates across counties – for Lycoming County, only 68.4% of the residents report having access to fresh fruits and vegetables.
- ✓ Slightly fewer residents report eating fresh fruits and vegetables, but it is still a majority (89.9%); this is consistent across the counties.

Table 17: Survey Responses – Smoking Rates Reported by Respondents

Smoking	Juniata County	Northumberland County	Snyder County	Union County	Lycoming County	PA*	U.S.*
Everyday	5.1%	1.3%	1.1%	2.4%	4.2%	15.7%	13.4%
Some days	--	2.6%	4.4%	2.4%	--	5.3%	5.4%
Not at all	93.2%	94.8%	93.4%	95.2%	93.8%	--	--

**Behavioral Risk Factor Surveillance System*

✓ Self-reported smoking rates are lower in the counties studied than is average for the state or the nation.

Table 18: Survey Responses – Physical Activity Rates Reported by Survey Respondents

Physical Activities	Juniata County	Northumberland County	Snyder County	Union County	Lycoming County	PA*	U.S.*
Yes	54.5%	59.5%	57%	56.1%	52.7%	73.7%	74.7%
No	45.5%	40.5%	43%	43.9%	47.3%	26.3%	25.3%

**Behavioral Risk Factor Surveillance System*

✓ Respondents in Juniata, Northumberland, Union, Snyder, and Lycoming Counties report lower rates of physical activity than those reported for the state and nation.

Conclusions and Recommended Next Steps

The community needs identified through the Evangelical Community Hospital 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 to cost of healthcare in the region. For example: unmet behavioral health and substance abuse needs lead to increased use of emergency health services, increased death rates due to suicide, and higher consumption of other human service resources (e.g., the penal system).

Evangelical Community Hospital, 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 is a wealth of medical resources in the region with multiple clinics that serve under/uninsured residents. However, Northumberland, Lycoming and Juniata counties are the most underserved counties in the hospital service area. While Juniata County is an underserved county; the zip code included in the hospital service area is not a particularly underserved population. That having been said, residents of the Evangelical Community Hospital service area may not have as much access to the healthcare resources in the region due to the need for an increase in providers, limited awareness and 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 Northumberland and Lycoming Counties and address the multiple barriers to healthcare. It will be necessary to review evidence based practices prior to planning to address any of the needs identified in this assessment due to the complex interaction of the underlying factors at work driving this need in local communities.

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

Recommended Action Steps:

- ❑ Widely communicate the results of the community health needs assessment document to Evangelical Community Hospital staff, providers, leadership and boards.

- ❑ Conduct an open community forum where the community health needs assessment results are presented widely to community residents, as well as through multiple outlets such as: local media, neighborhood associations, community-based organizations, faith-based organizations, schools, libraries and employers.

- ❑ Take an inventory of available resources in the community that are available to address the top community health needs identified by the community health needs assessment.

- ❑ Review relevant evidence based practices that the community has the capacity to implement.

- ❑ Implement a comprehensive "grass roots" community engagement strategy to build upon the resources that already exist in the community and the energy of and commitment of community leaders that have been engaged in the community health needs assessment process.

- ❑ Develop "Working Groups" to focus on specific strategies to address the top needs identified in the community health needs assessment. The working groups should meet for a period of four to six months to review evidence based practices and develop action plans for each health priority which should include the following:

    - ✓ Objectives
    - ✓ Anticipated impact
    - ✓ Planned action steps
    - ✓ Planned resource commitment
    - ✓ Collaborating organizations
    - ✓ Evaluation methods
    - ✓ Annual progress

APPENDIX A

Public Commentary Results

EVANGELICAL COMMUNITY HOSPITAL
February 26, 2015

Community:

Evangelical Community Hospital service area

INTRODUCTION:

Tripp Umbach solicited feedback related to the community health needs assessment (CHNA) and action plan completed on behalf of Evangelical Community Hospital. Evangelical Community Hospital is a 132-bed community hospital. Feedback was requested using a web-based platform. The CHNA and Action Plan were provided to commenters for review in the same manner (i.e., electronically). 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 Evangelical Community Hospital.

This report represents a section of the overall community health needs assessment completed for Evangelical Community Hospital.

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 Evangelical Community Hospital 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 Evangelical Community Hospital 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.

PUBLIC COMMENTS:

When asked if the CHNA commenters reviewed "included input from community members or organizations" eighty-five percent of commenters replied that it did. Only eight percent of commenters indicated that the assessment they reviewed did not include input from community members and organizations. When asked if there were community members or organizations that should have been included; there was no specific population identified as missing from the assessment. Evangelical Community Hospital's 2013 CHNA included interviews from 15 stakeholders, three focus groups (one with providers and two with resident populations), as well as input from more than 60 community leaders during a regional community health needs

identification forum. The assessment was collaborative in nature and included more than 24 organizations and agencies from the hospital service area.

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"; eighty-five percent of commenters did not indicate that there were any needs not represented in the most recent CHNA. Fifteen percent of commenters indicated there was a need that was not presented, which was related to 1) Services related to mental health and 2) Financial education. The needs Identified in the 2013 CHNA were related to:

- Improving access to affordable healthcare related to:
  - Shrinking number of healthcare providers (Physicians, pediatricians and mental health providers)
  - Under/unemployment leading to under/uninsured
  - High cost of health insurance
  - Gap between eligibility for state-funded health insurance
  - Limited acceptance of state-funded health insurance
  - Lack of transportation and rural nature of the region requiring residents to travel a great distance for healthcare.
- Improving healthy behaviors related to:
  - Limited access to healthy options (grocery store, clean environment to exercise in, etc.)
  - Limited awareness/health education regarding healthy choices (i.e., smoking cessation, healthy cooking, etc.)
  - Poor lifestyle choices (smoking, substance abuse, etc.),
  - Limited motivation and/or incentives for the practice of healthy behavior.
- Transportation, specifically to health service providers access to healthcare including primary care, specialty care, cancer care, dental care, and mental health care
  - Impact on access to health care (i.e., lower attendance for scheduled appointments, and the ability to get to and from clinics for uninsured)

Ninety-one percent of commenters indicated that the Action Plan that resulted from the CHNA was directly related to the needs identified. Nine percent of commenters indicated that the Action Plans that resulted from the CHNA were not directly related to the needs identified because transportation issues were not directly addressed. Furthermore, commenters indicated that the CHNA and Action Plan implemented by Evangelical Community Hospital benefit the community in the following ways:

- Increased public awareness
- Impacted health screenings and programs

There were two additional comments provided. These included:

1. I noted that the barrier of transportation was not directly tackled and I am not sure I understand how Improving Healthy Behaviors is being measured so I cannot say for sure that the action items were directly related

2. Transportation was not addressed; however, it is a complex issue that goes way beyond the hospital.

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

APPENDIX B

Secondary Data Profile

EVANGELICAL COMMUNITY HOSPITAL
March 10, 2015

EVANGELICAL COMMUNITY HOSPITAL (ECH)

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 the Evangelical Community Hospital (ECH) includes Juniata, Lycoming, Northumberland, Snyder, and Union Counties. The ECH primary service area includes 29 populated zip code areas (excluding zip codes for P.O. boxes and offices).

Zip	City	County
17086	RICHFIELD	JUNIATA
17701	WILLIAMSPORT	LYCOMING
17702	WILLIAMSPORT	LYCOMING
17752	MONTGOMERY	LYCOMING
17754	MONTOURSVILLE	LYCOMING
17756	MUNCY	LYCOMING
17772	TURBOTVILLE	NORTHUMBERLAND
17777	WATSONTOWN	NORTHUMBERLAND
17801	SUNBURY	NORTHUMBERLAND
17810	ALLENWOOD	UNION
17812	BEAVER SPRINGS	SNYDER
17813	BEAVERTOWN	SNYDER
17827	FREEBURG	SNYDER
17835	LAURELTON	UNION
17837	LEWISBURG	UNION
17842	MIDDLEBURG	SNYDER

Zip	City	County
17844	MIFFLINBURG	UNION
17845	MILLMONT	UNION
17847	MILTON	NORTHUMBERLAND
17850	MONTANDON	NORTHUMBERLAND
17853	MOUNT PLEASANT MILLS	SNYDER
17855	NEW BERLIN	UNION
17856	NEW COLUMBIA	UNION
17857	NORTHUMBERLAND	NORTHUMBERLAND
17864	PORT TREVORTON	SNYDER
17870	SELINSGROVE	SNYDER
17876	SHAMOKIN DAM	SNYDER
17886	WEST MILTON	UNION
17889	WINFIELD	UNION

Key Points – Community Needs for ECH

- **The ECH study area is projected to grow in population by 425 residents over the next five years (2014 to 2019); this is a rate of 0.3%. This is consistent with trends seen for the state (projected 0.8% increase in Pennsylvania population).**

- **The ECH study area shows a rate of older residents (aged 65 and older) at 17.7%; this is higher than state (16.6%) and national (14.2%) norms. And the rate of residents aged 65 and older in the ECH study area is projected to rise, from 17.7% to 19.8% over the next five years.**

- **The average annual household income for the ECH study area is just above $64,000; which is below state and national norms (around $70,000 and $71,000 respectively).**
  - Northumberland County, in the ECH study area, reports the highest rate of households that have $25K or less in annual income at 26%. This rate is higher than state (24%) and national (24.5%) rates.

- **The ECH study area reports 14.9% of the residents having less than a high school diploma; this is higher than the state rate (11.5%).**
  - Juniata County reports the highest rate of residents with less than a high school diploma (17.9%); this is correlated to the fact that Juniata County also reports the lowest rate of residents with bachelor's or higher degrees (11.8%).
  - Lycoming County reports the lowest rate of residents with less than a high school degree (13.3%); while Union County reports the highest rate of residents with a Bachelor's degree or higher (21.0%).

- **Union County in the ECH study area shows the most diversity within the study area with 14.9% of the population identifying as a race or ethnicity other than White, Non-Hispanic.**

Key Points – Community Needs for ECH

- **The Community Need Index (CNI) is a measure of the number and strength of barriers to health care access that a specific region (in this case zip code areas) has in the community. Measures include minority population, unemployment, single parents living in poverty with their children or 65 and older residents living in poverty. The scale ranges from 1.0 to 5.0; 1.0 indicating very few barriers to health care access, 5.0 indicating many barriers to health care access.**

- **The highest CNI scores for the ECH study area are 3.8 in the zip code areas of Williamsport (17701) in Lycoming County and Sunbury (17801) in Northumberland County. The highest CNI score indicates the most barriers to community health care access.**
  - Williamsport (17701) holds the highest rates for the ECH study area for rental activity (46.9%) and uninsured (13.2%).
  - Sunbury (17801) sees the highest rate for the ECH study area for unemployment (12.3%).

- **Other zip code areas with notable barriers to healthcare include:**
  - Port Trevorton (17864) reports the highest rate of residents with no high school diploma (27.4%) across the ECH study area.
  - Of residents aged 65 and older, Mount Pleasant Mills (17853) reports the highest rate of these residents living in poverty (21.1%); the highest for the study area.
  - Beavertown (17813) shows the highest rates of poverty in married parents as well as single parents living in poverty with their children (27.4% and 75.0% respectively).

- **The weighted average CNI score for the entire ECH study area is 3.0; average for the scale (3.0).**

- **The overall CNI score for the ECH study area rose from 2.9 in 2011 to 3.0 in 2014; more barriers to health care access.**

Key Points – Community Needs for ECH

- **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.**

- **Of the five counties in the ECH study area:**
  - Northumberland County ranked the highest for; Health Outcomes (35), Health Factors (50), Morbidity (52), and Social and Economic Factors (59).
  - Juniata County ranked the highest for; Mortality (31), and Clinical Care (42).
  - Lycoming County ranked the highest for; Health Behaviors (48), and Physical Environment (23).

- **From 2011 to 2014, the counties that saw the largest shifts in county health rankings or data were:**
  - **Union County for Physical Environment – going from 58 in 2011 to 3 in 2014**
  - **Northumberland County for Mortality – going from 52 in 2011 to 21 in 2014**
  - **Northumberland County reported the largest rise in adult obesity for the ECH study area counties; going from 28% to 34%.**
  - **Juniata County reports a large increase in the sexually transmitted infection / chlamydia rate from 2011 to 2014 – going from 52 per 100,000 pop. to 209 per 100,000 pop. (All of the ECH study area counties reported a rise in their chlamydia rate from 2011 to 2014).**
  - **Snyder County saw the largest rise in residents with diabetes from 2011 to 2014; going from 9% to 12%.**

Key Points – Community Needs for ECH

- **The PQI index identifies potentially avoidable hospitalizations for the benefit of targeting priorities and overall community health. Lower index scores represent less admissions for each of the PQIs. There are 14 quality indicators.**
  - **The ECH study area shows only two of the 14 PQI measures that are higher than the state PQI value – indicating higher preventable hospital admission rates for Perforated Appendix and Angina without Procedure.**
- **From 2011 to 2014, four of the PQI measures' definitions changed drastically and, therefore, cannot be accurately compared (PQI 2, PQI 5, PQI 9 & PQI 15).**
  - Of the 10 remaining PQI measures, seven of the 10 ECH study area values saw reductions in PQI rates from 2011 to 2014. The largest reduction was for Bacterial Pneumonia (going from 342.99 preventable hospitalizations per 100,000 to 210.44 per 100,000).
  - Three PQI values for the ECH study area saw a rise in preventable hospitalizations from 2011 to 2014, these were for:
    - **Diabetes, short-term complications** (going from 49.25 per 100,000 pop. to 77.26 per 100,000 pop.)
    - **Urinary Tract Infections** (going from 98.51 per 100,000 pop. to 104.36 per 100,000 pop.)
    - **Angina without Procedure** (going from 29.08 per 100,000 pop. to 31.13 per 100,000 pop.)

Community Demographic Profile

- The ECH study area is projected to experience a 0.3% population growth over the next five years (2014 – 2019).
- The ECH study area shows higher rates of older individuals than state and national norms. The ECH study area has 17.7% of the population aged 65 and older; while Pennsylvania reports 16.6% and the U.S. reports 14.2%.
- The average household income in 2014 across the ECH study area is $64,009; this is lower than state and national rates ($69,931 and $71,320 respectively) but higher than many of the counties included in the ECH study area.
- The ECH study area reports 14.9% of the residents having less than a high school diploma; this is higher than the state rate (11.5%).
  - Juniata County reports the highest rate of residents with less than a high school diploma (17.9%); this is correlated to the fact that Juniata County also reports the lowest rate of residents with bachelor's or higher degrees (11.8%).
- The ECH study area shows less diversity as compared with Pennsylvania and the United States. Only 8.7% of the population in the ECH study area identify as a race/ethnicity other than White, Non-Hispanic whereas 21.9% in PA and 37.9% in the U.S. identify as a race other than White, Non-Hispanic.
  - Union County in the ECH study area shows the most diversity within the study area with 14.9% of the population identifying as a race or ethnicity other than White, Non-Hispanic.

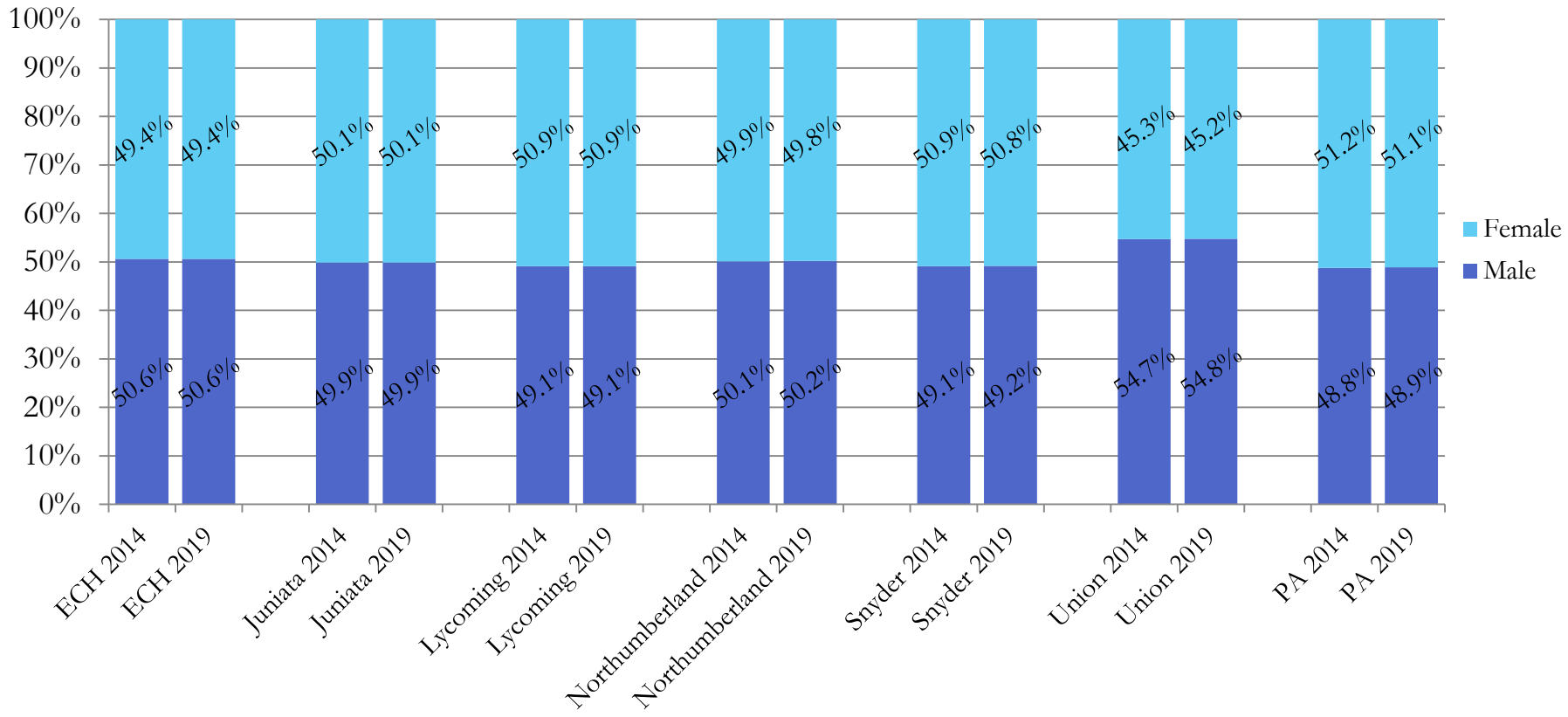
Population Trends

	ECH Study Area	Juniata County	Lycoming County	Northumberland County	Snyder County	Union County	PA
2014 Total Population	165,374	24,353	118,838	93,017	35,575	47,256	12,791,290
2019 Projected Population	165,799	24,621	120,811	93,043	35,644	47,344	12,899,019
# Change	+ 425	+ 268	+ 1,973	+ 26	+ 69	+ 88	+ 107,729
% Change	+ 0.3%	+ 1.1%	+ 1.7%	+ 0.0%	+ 0.2%	+ 0.2%	+ 0.8%

- The ECH study area is projected to experience a 0.3% population growth over the next five years (2014 – 2019); this equates to approximately 425 more people in the primary service area.
- Overall, the State of Pennsylvania is projected to experience population growth at a similar rate (0.8%).
- The county in the ECH study area with the largest projected population growth rate is Lycoming County at 1.7%.

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

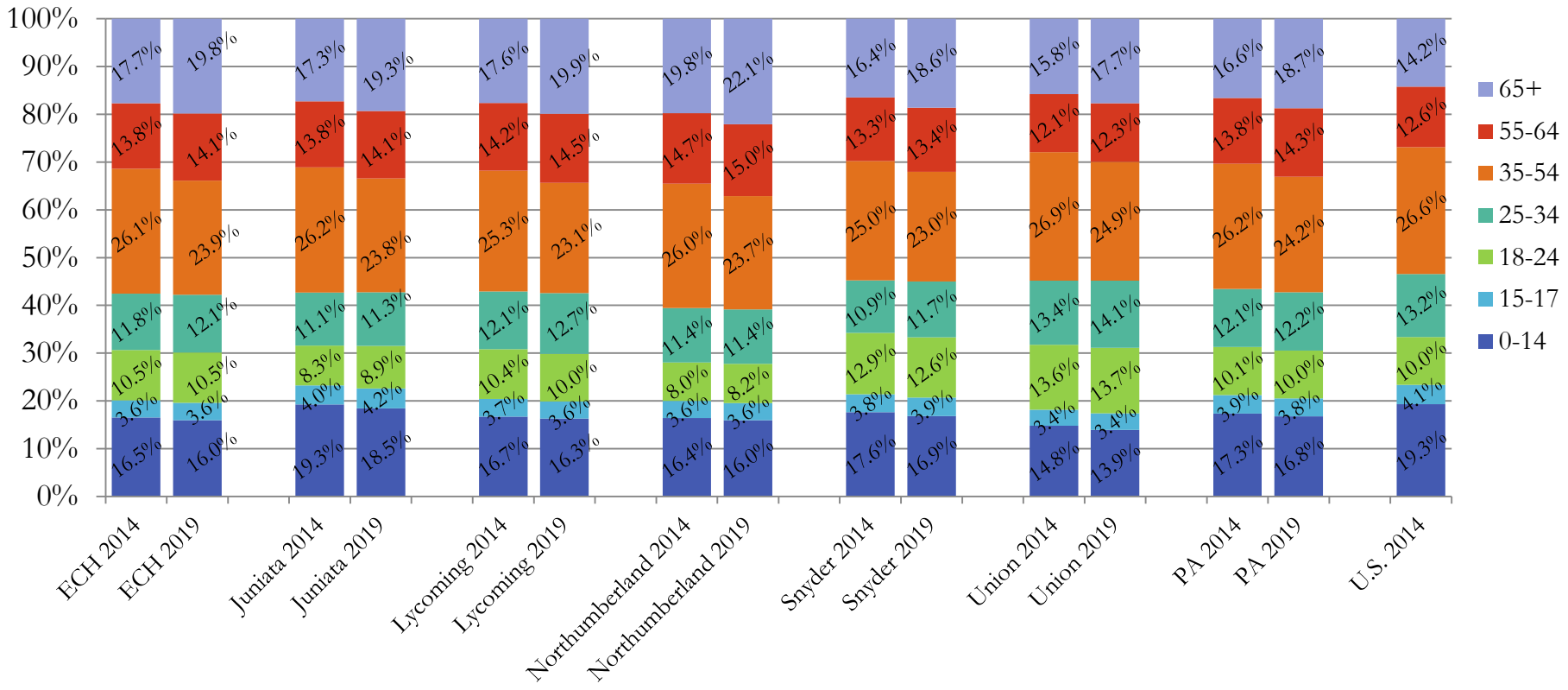
Gender



- The ECH study area shows slightly higher percentages of men as opposed to women (50.6% compared with 49.4%).

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

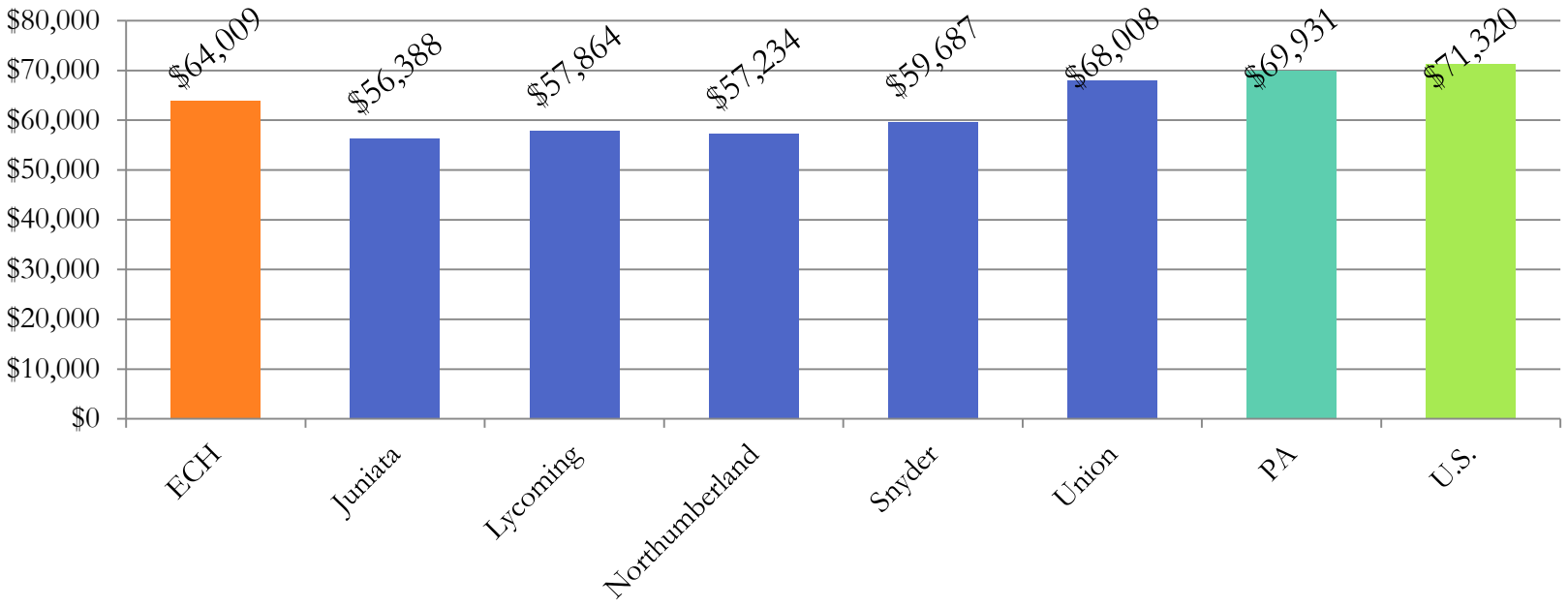
Age



- The ECH study area shows higher rates of older individuals than state and national norms. The ECH study area has 17.7% 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 ECH study area is projected to rise, from 17.7% to 19.8% over the next five years.

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

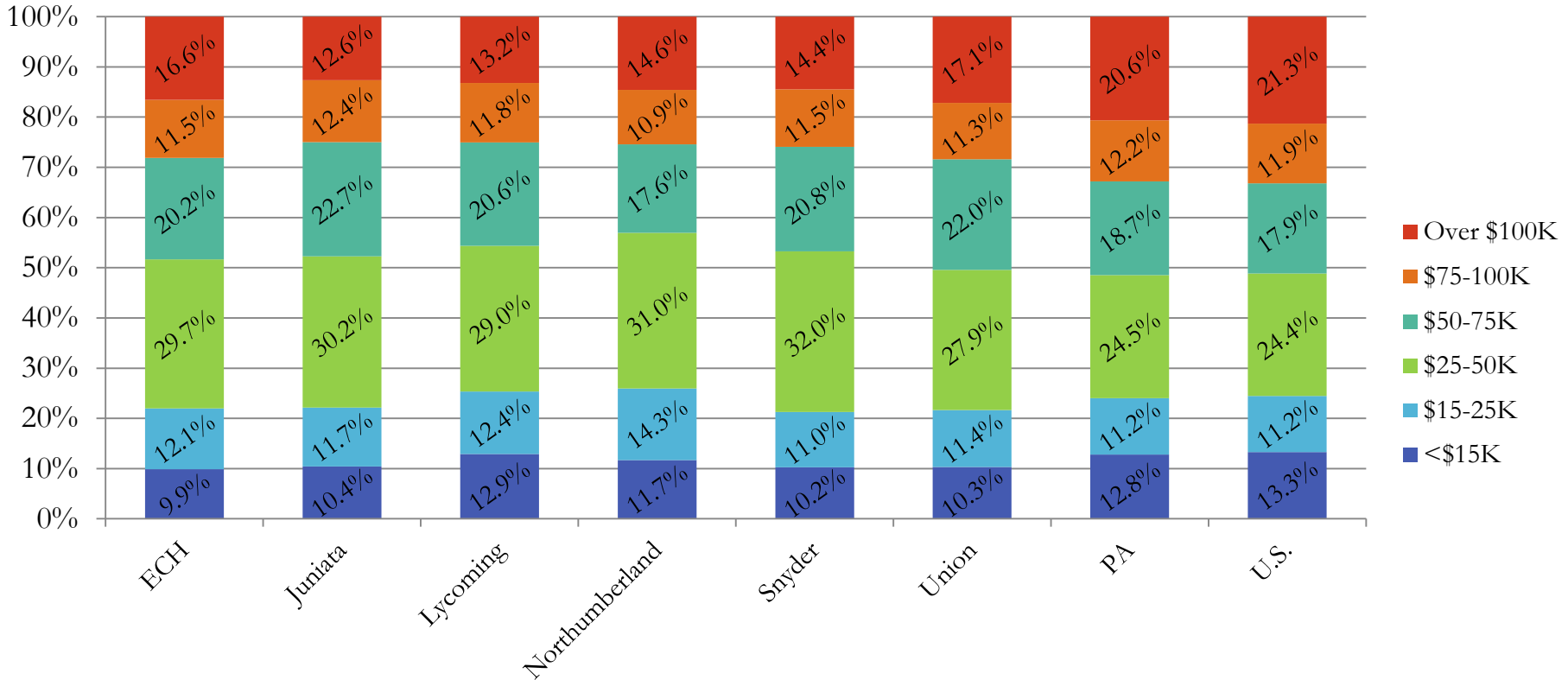
Average Household Income (2014)



- The average household income in 2014 across the ECH study area is $64,009; this is lower than state and national rates ($69,931 and $71,320 respectively) but higher than many of the counties included in the ECH study area.
- The lowest average annual household income for the ECH study area is found in Juniata County ($56,388). The highest average annual household income for the study area is for Union County at ($68,008).
- All of the counties as well as the study area report lower average annual household income values than the state or nation.

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

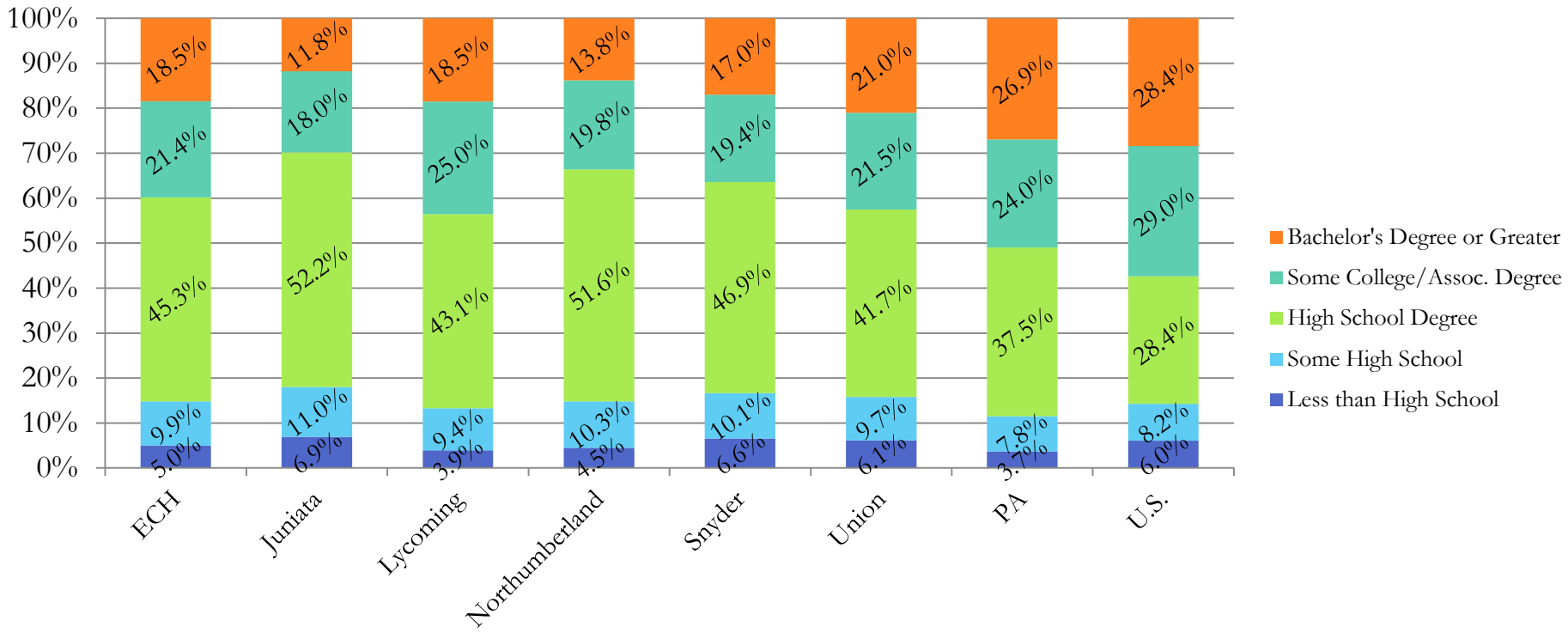
Household Income Detail (2014)



- The ECH study area reports higher percentages of resident households earning between $25K - $50K annually than state and national norms. However, the study area also reports a lower percentage of residents earning less than $25K as compared with state and national rates.
- Northumberland County, in the ECH study area, reports the highest rate of households earning less than $25K per year at 26%.

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

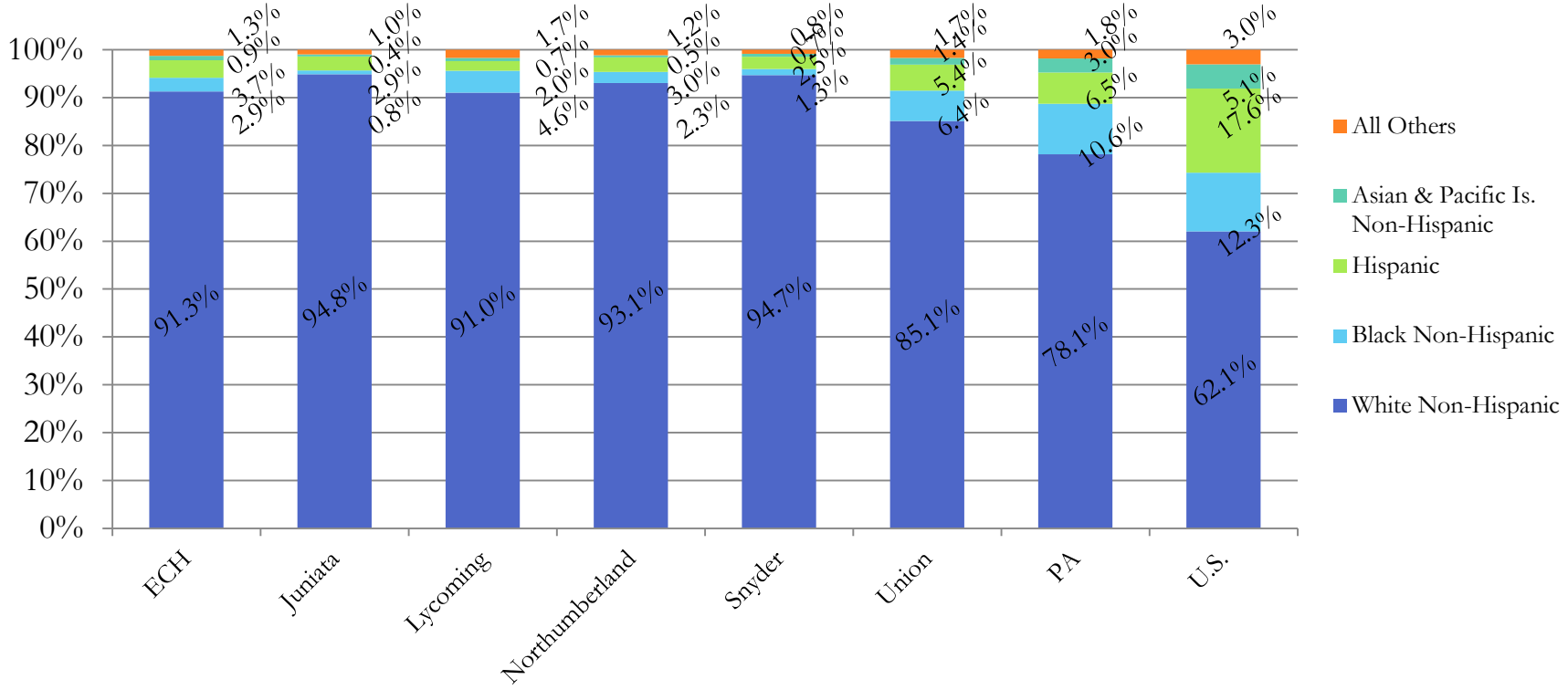
Education Level (2014)



- The ECH study area reports 14.9% of the residents having less than a high school diploma; this is higher than the state rate (11.5%).
- Juniata County reports the highest rate of residents with less than a high school diploma (17.9%); this is correlated to the fact that Juniata County also reports the lowest rate of residents with bachelor's or higher degrees (11.8%).
- Lycoming County reports the lowest rate of residents with less than a high school degree (13.3%); while Union County reports the highest rate of residents with a Bachelor's degree or higher (21.0%).

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

Race/Ethnicity (2014)



- The ECH study area shows less diversity as compared with Pennsylvania and the United States. Only 8.7% of the population in the ECH study area identify as a race/ethnicity other than White, Non-Hispanic whereas 21.9% in PA and 37.9% in the U.S. identify as a race other than White, Non-Hispanic.

- Union County in the ECH study area shows the most diversity within the study area with 14.9% of the population identifying as a race or ethnicity other than White, Non-Hispanic.

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

Community Need Index

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

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

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

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

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

- **Housing Barriers –**
  Percentage renting houses

Assigning CNI Scores

- To determine the severity of barriers to health care access in a given community, the CNI gathers data about the community's socio-economy. For example, what percentage of the population is elderly and living in poverty; what percentage of the population is uninsured; what percentage of the population is unemployed, etc.

- Using this data we assign a score to each barrier condition. A score of 1.0 indicates a zip code area with the lowest socio-economic barriers (low need), while a score of 5.0 represents a zip code area with the most socio-economic barriers (high need). The scores are then aggregated and averaged for a final CNI score (each barrier receives equal weight in the average).

- A CNI score above 3.0 will typically indicate a specific socio-economic factor impacting the community's access to care. At the same time, a CNI score of 1.0 does not indicate the community requires no attention at all, which is why a larger community such as the study area community presents a unique challenge to hospital leadership.

Community Need Index

- The highest CNI scores for the ECH study area are 3.8 in the zip code areas of Williamsport (17701) in Lycoming County and Sunbury (17801) in Northumberland County. The highest CNI score indicates the most barriers to community health care access.
  - Williamsport (17701) holds the highest rates for the ECH study area for rental activity (46.9%) and uninsured (13.2%)
  - Sunbury (17801) sees the highest rate for the ECH study area for unemployment (12.3%).
- Port Trevorton (17864) reports the highest rate of residents with no high school diploma (27.4%) across the ECH study area.
- Of residents aged 65 and older, Mount Pleasant Mills (17853) reports the highest rate of these residents living in poverty (21.1%); the highest for the study area.
- Beavertown (17813) shows the highest rates of poverty in married parents as well as single parents living in poverty with their children (27.4% and 75.0% respectively).
- The overall CNI score for the ECH study area is 3.0. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). Therefore, overall, the ECH study area reports an average number of barriers to health care access.
- The overall CNI score for the ECH study area rose from 2.9 in 2011 to 3.0 in 2014; more barriers to health care access.

CNI Scores (Data)

Zip	City	County	2014 Tot. Pop.	Rental %	Unemp %	Uninsu %	Minor %	Lim Eng	No HS Dip	65+ Pov	M w/ Chil Pov	Sin w/ Chil Pov	Inc Rank	Insur Rank	Educ Rank	Cult Rank	Hous Rank	2014 CNI Score
17701	Williamsport	Lycoming	45,291	46.9%	10.4%	13.2%	17.2%	0.5%	14.5%	10.8%	25.5%	47.7%	4	4	3	3	5	3.8
17801	Sunbury	Northumberland	16,087	38.1%	12.3%	8.8%	9.8%	0.4%	17.9%	9.6%	20.5%	44.6%	4	3	4	3	5	3.8
17847	Milton	Northumberland	12,222	32.3%	8.1%	7.4%	9.7%	1.0%	15.0%	5.2%	26.1%	59.2%	5	2	4	3	4	3.6
17837	Lewisburg	Union	20,205	37.2%	7.2%	7.7%	15.7%	0.7%	11.3%	8.2%	12.0%	37.8%	3	2	3	3	5	3.2
17810	Allenwood	Union	6,152	17.7%	9.7%	4.7%	53.0%	5.8%	23.1%	7.1%	9.7%	8.7%	1	2	5	5	2	3.0
17813	Beavertown	Snyder	2,237	22.7%	5.8%	6.9%	2.3%	2.0%	17.9%	11.4%	27.4%	75.0%	5	2	4	1	3	3.0
17812	Beaver Springs	Snyder	1,456	23.5%	6.7%	7.5%	1.6%	0.6%	18.2%	12.1%	17.2%	50.0%	4	2	4	1	3	2.8
17857	Northumberland	Northumberland	7,514	26.4%	7.1%	5.4%	5.3%	0.1%	10.8%	5.4%	14.1%	38.5%	3	2	3	2	4	2.8
17870	Selinsgrove	Snyder	14,715	31.3%	6.0%	5.6%	8.9%	0.4%	11.6%	6.2%	11.8%	38.6%	3	1	3	3	4	2.8
17886	West Milton	Union	560	43.4%	8.4%	10.0%	7.1%	0.4%	9.4%	13.7%	12.5%	25.0%	2	3	2	2	5	2.8
17702	Williamsport	Lycoming	10,713	27.6%	7.4%	7.4%	3.1%	0.4%	14.2%	6.1%	9.5%	35.9%	3	2	3	1	4	2.6
17756	Muncy	Lycoming	12,925	20.3%	6.7%	7.3%	7.7%	0.5%	16.2%	7.2%	12.4%	33.9%	2	2	4	2	3	2.6
17842	Middleburg	Snyder	9,344	22.1%	6.3%	6.6%	3.2%	0.3%	20.7%	12.5%	13.5%	46.2%	3	2	4	1	3	2.6
17844	Mifflinburg	Union	9,929	24.7%	8.4%	5.8%	2.3%	0.4%	19.6%	8.2%	14.0%	45.5%	3	2	4	1	3	2.6
17845	Millmont	Union	2,705	19.0%	10.2%	5.1%	2.3%	0.2%	24.2%	3.3%	15.4%	46.6%	3	2	5	1	2	2.6
ECH Community Summary			217,131	31.3%	8.2%	8.0%	10.3%	0.7%	14.9%	8.6%	16.6%	40.3%	3.1	2.4	3.3	2.2	3.9	3.0

- The highest CNI scores for the ECH study area are 3.8 in the zip code areas of Williamsport (17701) in Lycoming County and Sunbury (17801) in Northumberland County. The highest CNI score indicates the most barriers to community health care access.
  - Williamsport (17701) holds the highest rates for the ECH study area for rental activity (46.9%) and uninsured (13.2%)
  - Sunbury (17801) sees the highest rates for the ECH study area for unemployment (12.3%).
- The overall CNI score for the ECH study area is 3.0. The average CNI score for the scale is 3.0 (range 1.0 to 5.0). Therefore, overall, the ECH study area reports an average number of barriers to health care access.
- Allenwood (17810) shows the highest rate of minority population (53.0%) and population with limited English proficiency (5.8%); but it is important to note that Allenwood includes a correctional facility that is contributing to this rate. The next highest minority rate in the ECH study area is for Williamsport (17701) at 17.2%.

Source: Thomson Reuters

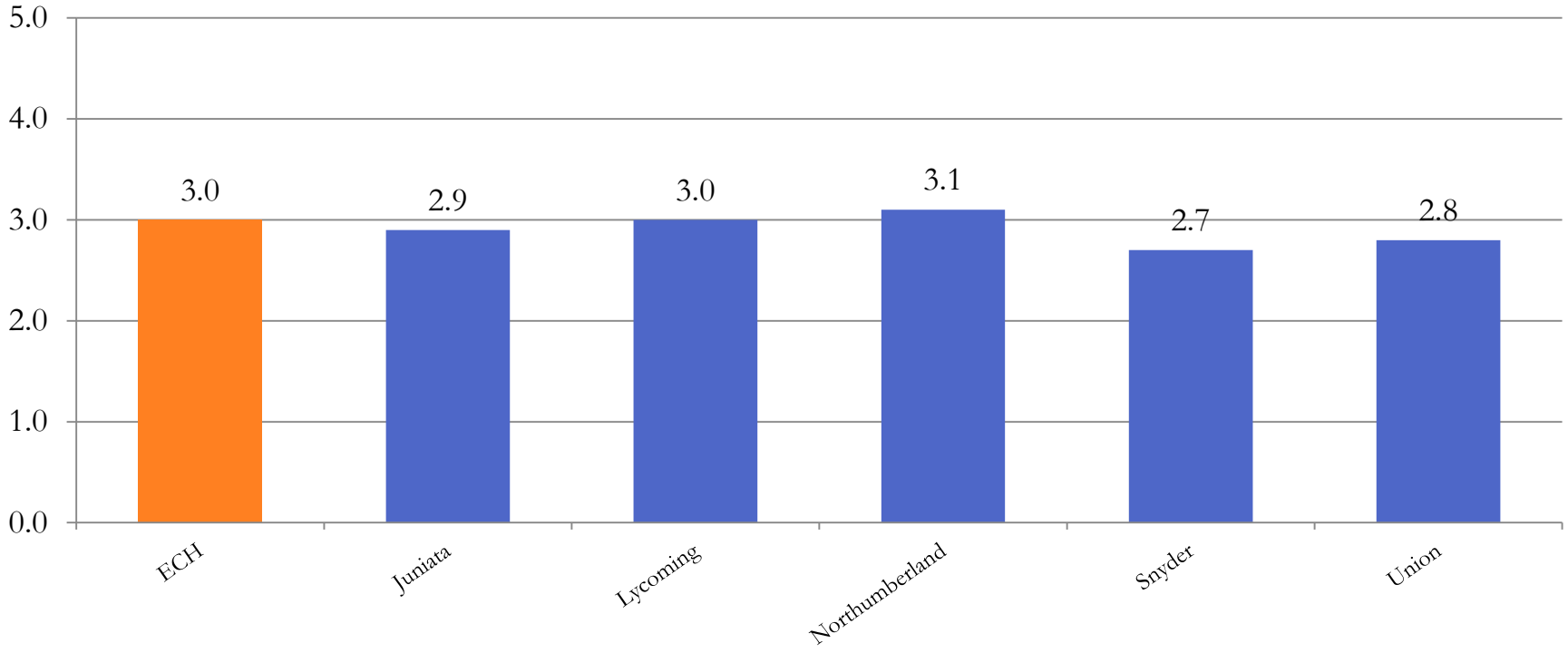
CNI Scores (Data)

Zip	City	County	2014 Tot. Pop.	Rental %	Unemp %	Uninsu %	Minor %	Lim Eng	No HS Dip	65+ Pov	M w/ Chil Pov	Sin w/ Chil Pov	Inc Rank	Insur Rank	Educ Rank	Cult Rank	Hous Rank	2014 CNI Score
17864	Port Trevorton	Snyder	2,518	17.7%	7.2%	4.8%	2.1%	1.9%	27.4%	5.9%	10.4%	56.0%	4	1	5	1	2	2.6
17876	Shamokin Dam	Snyder	1,623	35.2%	6.7%	6.8%	6.0%	0.6%	11.5%	9.4%	9.7%	0.0%	1	2	3	2	5	2.6
17086	Richfield	Juniata	2,067	20.3%	7.0%	4.0%	3.4%	0.2%	17.1%	12.2%	8.4%	39.3%	3	1	4	1	3	2.4
17752	Montgomery	Lycoming	4,612	24.8%	10.6%	6.6%	3.9%	0.7%	15.2%	7.9%	16.2%	30.0%	2	2	4	1	3	2.4
17777	Watsontown	Northumberland	7,432	26.8%	5.9%	5.9%	3.4%	0.3%	13.8%	11.1%	15.2%	29.4%	2	2	3	1	4	2.4
17827	Freeburg	Snyder	595	22.6%	7.3%	6.7%	1.7%	0.5%	19.6%	6.2%	3.5%	25.0%	2	2	4	1	3	2.4
17850	Montandon	Northumberland	286	24.6%	9.0%	5.0%	4.9%	0.0%	15.0%	2.2%	5.9%	16.7%	1	2	4	2	3	2.4
17853	Mount Pleasant Mills	Snyder	3,087	20.1%	6.2%	6.5%	1.8%	0.6%	20.2%	21.1%	14.1%	28.6%	2	2	4	1	3	2.4
17772	Turbotville	Northumberland	2,783	15.0%	5.5%	4.6%	2.2%	1.3%	15.7%	10.6%	18.2%	51.9%	4	1	4	1	1	2.2
17835	Laurelton	Union	26	22.2%	8.3%	5.1%	3.8%	0.0%	13.3%	0.0%	0.0%	0.0%	1	2	3	1	3	2.0
17856	New Columbia	Union	3,857	18.0%	9.1%	7.2%	3.5%	0.6%	13.2%	13.3%	16.3%	25.9%	2	2	3	1	2	2.0
17754	Montoursville	Lycoming	12,368	21.5%	6.3%	6.0%	4.0%	0.6%	7.2%	4.3%	9.6%	33.6%	2	2	1	1	3	1.8
17855	New Berlin	Union	1,020	20.2%	4.3%	4.6%	1.4%	0.2%	11.1%	0.8%	9.6%	0.0%	1	1	3	1	3	1.8
17889	Winfield	Union	2,802	14.3%	4.7%	5.1%	4.2%	0.5%	11.9%	5.9%	6.0%	12.5%	1	1	3	1	1	1.4
ECH Community Summary			217,131	31.3%	8.2%	8.0%	10.3%	0.7%	14.9%	8.6%	16.6%	40.3%	3.1	2.4	3.3	2.2	3.9	3.0

- Port Trevorton (17864) reports the highest rate of residents with no high school diploma (27.4%) across the ECH study area.
- Of residents aged 65 and older, Mount Pleasant Mills (17853) reports the highest rate of these residents living in poverty (21.1%); the highest for the study area.
- Beavertown (17813) shows the highest rates of poverty in married parents as well as single parents living in poverty with their children (27.4% and 75.0% respectively).

Source: Thomson Reuters

Community Need Index



- The average CNI score for the ECH study area is 3.0; average for the scale.
- Northumberland County is the only county of the five counties included in the ECH study area that reports a CNI score above that of the ECH overall score or the median for the scale; the overall CNI score for Northumberland County is 3.1.
- Snyder County reports the lowest CNI score for the study area at 2.7.

Source: Thompson Reuters

CNI Scores (Data)

Zip	City	County	2011 CNI Score	2014 CNI Score	2011 – 2014 Change
17701	Williamsport	Lycoming	3.8	3.8	0.0
17801	Sunbury	Northumberland	3.6	3.8	+ 0.2
17847	Milton	Northumberland	3.2	3.6	+ 0.4
17837	Lewisburg	Union	3.4	3.2	- 0.2
17810	Allenwood	Union	3.6	3.0	- 0.6
17813	Beavertown	Snyder	2.6	3.0	+ 0.4
17812	Beaver Springs	Snyder	2.2	2.8	+ 0.6
17857	Northumberland	Northumberland	2.4	2.8	+ 0.4
17870	Selinsgrove	Snyder	3.0	2.8	- 0.2
17886	West Milton	Union	N/A	2.8	N/A
17702	Williamsport	Lycoming	2.8	2.6	-0.2
17756	Muncy	Lycoming	2.8	2.6	- 0.2
17842	Middleburg	Snyder	2.8	2.6	- 0.2
17844	Mifflinburg	Union	2.6	2.6	0.0
17845	Millmont	Union	2.4	2.6	+ 0.2
17864	Port Trevorton	Snyder	3.0	2.6	- 0.4
17876	Shamokin Dam	Snyder	2.6	2.6	0.0
17752	Montgomery	Lycoming	3.0	2.4	-0.6
17086	Richfield	Juniata	2.6	2.4	- 0.2
17777	Watsontown	Northumberland	2.6	2.4	- 0.2
17827	Freeburg	Snyder	2.2	2.4	+ 0.2
17850	Montandon	Northumberland	2.4	2.4	0.0
17853	Mount Pleasant Mills	Snyder	2.8	2.4	- 0.4
17772	Turbotville	Northumberland	1.6	2.2	+ 0.6
17835	Laurelton	Union	3.0	2.0	- 1.0
17856	New Columbia	Union	2.2	2.0	- 0.2
17754	Montoursville	Lycoming	1.6	1.8	+0.2
17855	New Berlin	Union	2.2	1.8	- 0.4
17889	Winfield	Union	1.8	1.4	- 0.4
ECH Community Study Area			**2.9**	**3.0**	**+ 0.1**

- From the previous study to the current study, the Evangelical Community Hospital went from 23 zip code areas in the primary service area to 29.
- Of the 23 ECH zip code areas,
  - **eight saw rises in CNI** score indicating an increase in the number of barriers to health care access
  - **12 saw declines in CNI** score, indicating a decrease in the number of barriers to health care access
  - **Three zip code areas remained consistent** from 2011 to 2014.
- Laurelton (17835) saw the largest decline in CNI going from 3.0 in 2011 to 2.0 in 2014.
- Beaver Springs (17812) and Turbotville (17772) saw the largest rises in CNI score each increasing 0.6.
- The overall CNI score for the ECH study area rose from 2.9 in 2011 to 3.0 in 2014; more barriers to health care access.

County Health Rankings Data

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

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

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 Data

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

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

- Pennsylvania has 67 counties; therefore, the rank scale for Pennsylvania is 1 to 67 (1 being the healthiest county and 67 being the most unhealthy).

- Data for the County Health Rankings is only defined as far as the county level, zip code level data is not available. Therefore, the county level data has been presented here (no Evangelical Community Hospital service area level data is available).

- Of the five counties in the ECH study area:
  - Northumberland County ranked the highest for:
    - Health Outcomes (35)
    - Health Factors (50)
    - Morbidity (52)
    - Social and Economic Factors (59)
  - Juniata County ranked the highest for:
    - Mortality (31)
    - Clinical Care (42)
  - Lycoming County ranked the highest for:
    - Health Behaviors (48)
    - Physical Environment (23)

Source: 2014 County Health Rankings

County Health Rankings Data

- Northumberland and Union counties tie for the highest ranks for the the counties in ECH study area adult smoking rates (23%). Adult smoking in Pennsylvania is at a rate of 20% of the population.
- Northumberland and Snyder counties tie for the highest rates of adult obesity for the counties in the ECH study area with a rate of 34%; the state rate being 29%.
- The counties in the ECH study area all report lower or equivalent rates of excessive drinking as compared with the state.
- Lycoming County reports the highest rate compared with the other counties and the state for STDs (442 cases per 100,000 pop. compared to 415 cases for PA).
- All of the counties in the ECH study area report higher or equivalent rates of uninsured residents than the state. Snyder County reports the highest uninsured rate at 15% while the state rate is at 12%.
- The five counties of the ECH study area report lower or equivalent PCP rates as compared with the state (this is not a good thing).
- All of the ECH study area counties report higher rates of diabetic and mammography screening as compared with the state (this is a good thing).
- Northumberland County reports the highest unemployment rate for the study area at 9.0%; this is also higher than the state rate at 7.9%.
- All five of the study area counties report lower violent crime rates than the state (367 per 100,000 pop. for PA).

Source: 2014 County Health Rankings

County Health Rankings Data

- From 2011 to 2014, the counties that saw the largest shifts in county health rankings or data were:
  - **Union County for Physical Environment – going from 58 in 2011 to 3 in 2014**
  - **Northumberland County for Mortality – going from 52 in 2011 to 21 in 2014**
  - **All five of the study area counties reported steady or declines in adult smoking rates.**
  - **Northumberland County reported the largest rise in adult obesity for the ECH study area counties; going from 28% to 34%.**
  - **Juniata County reports a large increase in the sexually transmitted infection / chlamydia rate from 2011 to 2014 – going from 52 per 100,000 pop. to 209 per 100,000 pop. (All of the ECH study area counties reported a rise in their chlamydia rate from 2011 to 2014).**
  - **Lycoming and Northumberland counties saw rises in the rates of uninsured: Lycoming going from 13% to 14% uninsured and Northumberland going from 12% to 13% uninsured.**
  - **Snyder County saw the largest rise in residents with diabetes from 2011 to 2014; going from 9% to 12%.**
  - **All five of the counties in the ECH study area reported declines in unemployment rates; consistent with state and national trends.**
  - **Snyder County reported a rise in violent crime rate; going from 296 per 100,000 pop. to 335 Four of the five study area counties (Juniata, Lycoming, Snyder, and Union – Not Northumberland) saw rises in violent crime rates; this is inconsistent with the state trend.**

Source: 2014 County Health Rankings

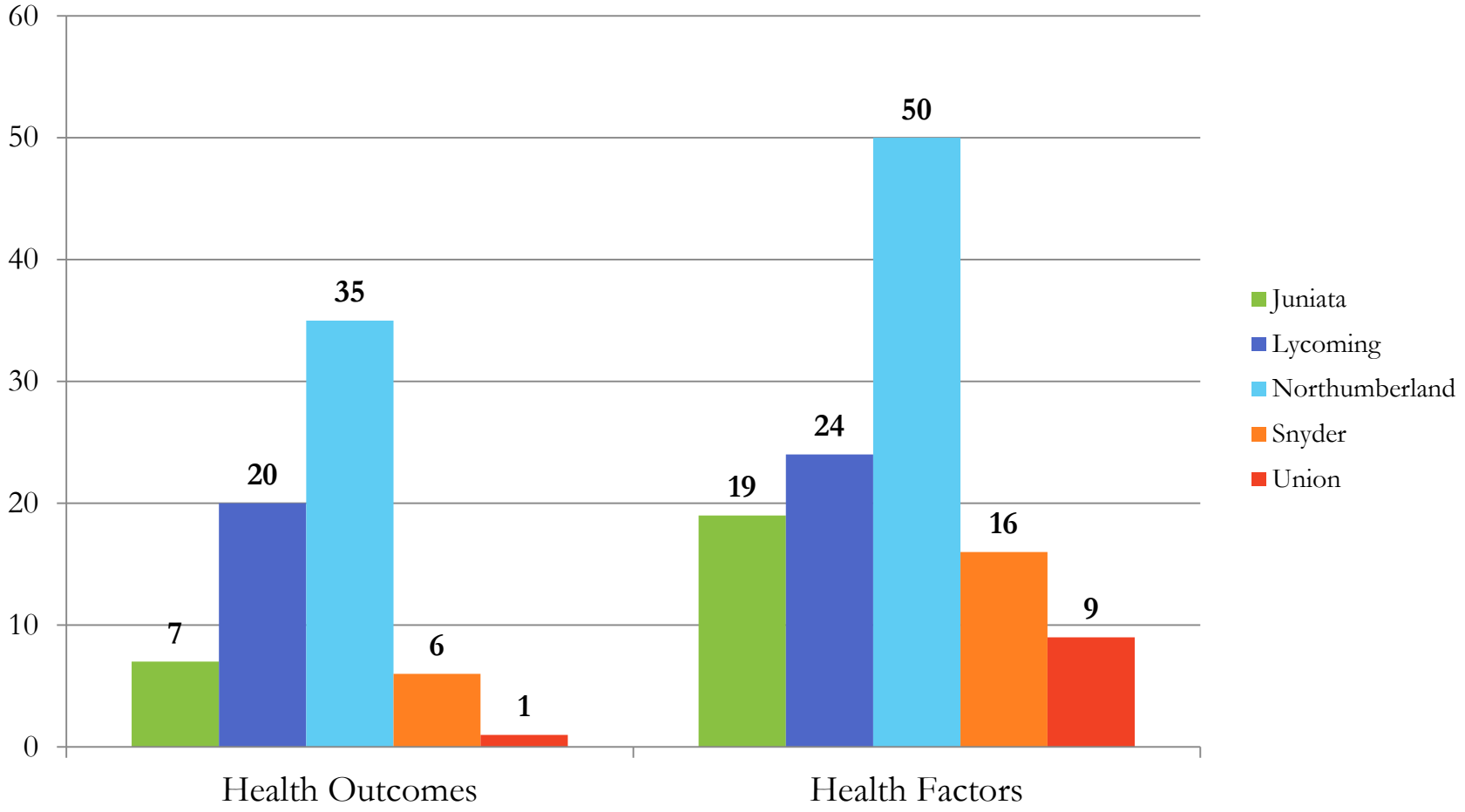
County Health Rankings Data

(2014 ranking on top; 2011 ranking in parentheses)

County	Health Outcomes	Health Factors	Mortality (Length of Life)	Morbidity (Quality of Life)	Health Behaviors	Clinical Care	Social and Economic Factors	Physical Environment
Juniata	7 (9)	19 (25)	31 (20)	1 (4)	24 (30)	42 (39)	16 (20)	2 (31)
Lycoming	20 (26)	24 (28)	20 (31)	19 (19)	48 (49)	11 (3)	27 (43)	23 (33)
Northumberland	35 (53)	50 (48)	21 (52)	52 (54)	46 (45)	26 (17)	59 (57)	17 (30)
Snyder	6 (4)	16 (18)	12 (14)	4 (1)	19 (20)	10 (9)	32 (51)	5 (2)
Union	1 (1)	9 (16)	3 (2)	3 (3)	27 (23)	2 (7)	18 (24)	3 (58)

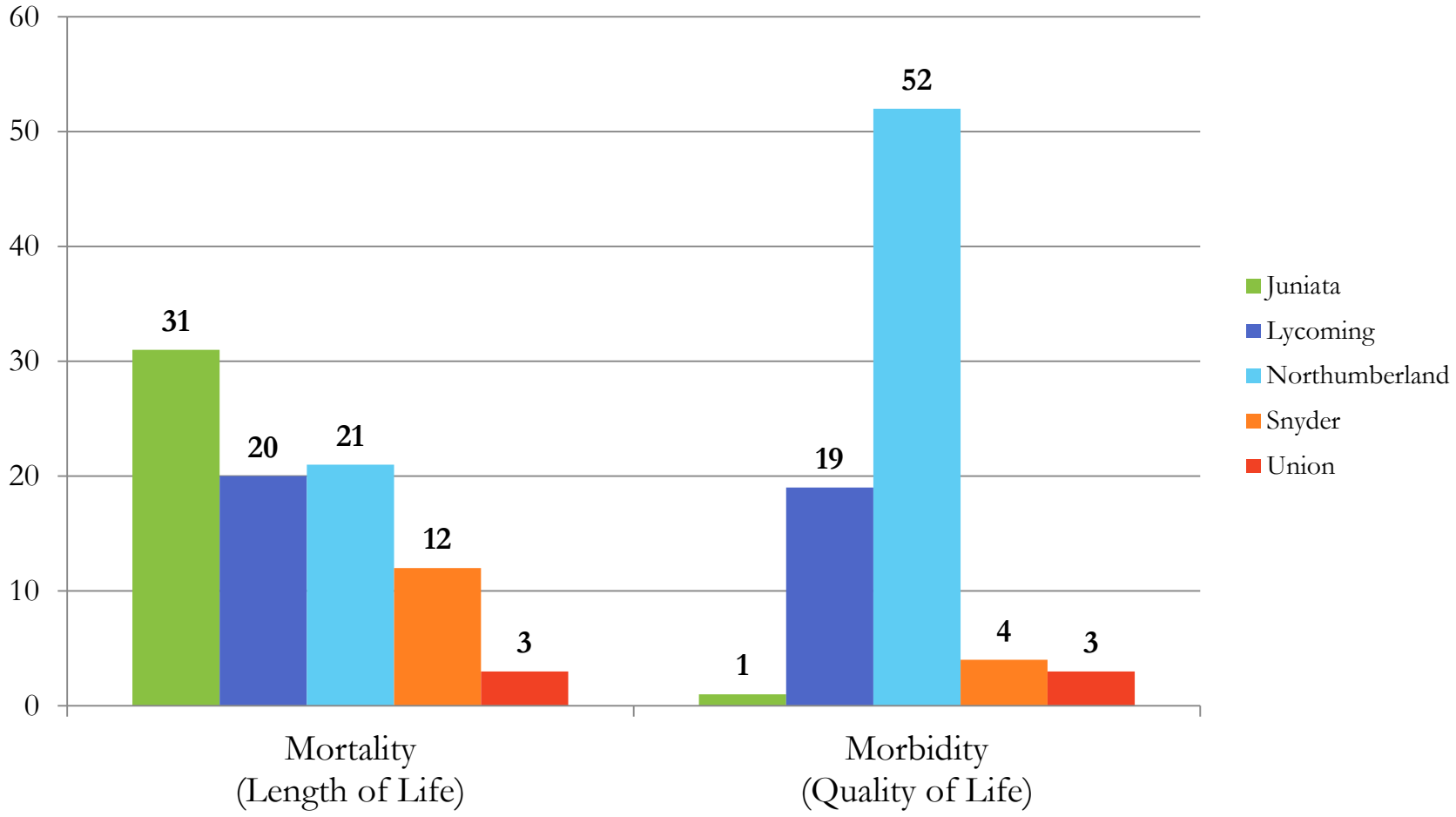
Source: 2014 and 2011 County Health Rankings; Green = top 5 (good ranking). Red = bottom 5 (poor ranking).

County Health Rankings Data (2014)



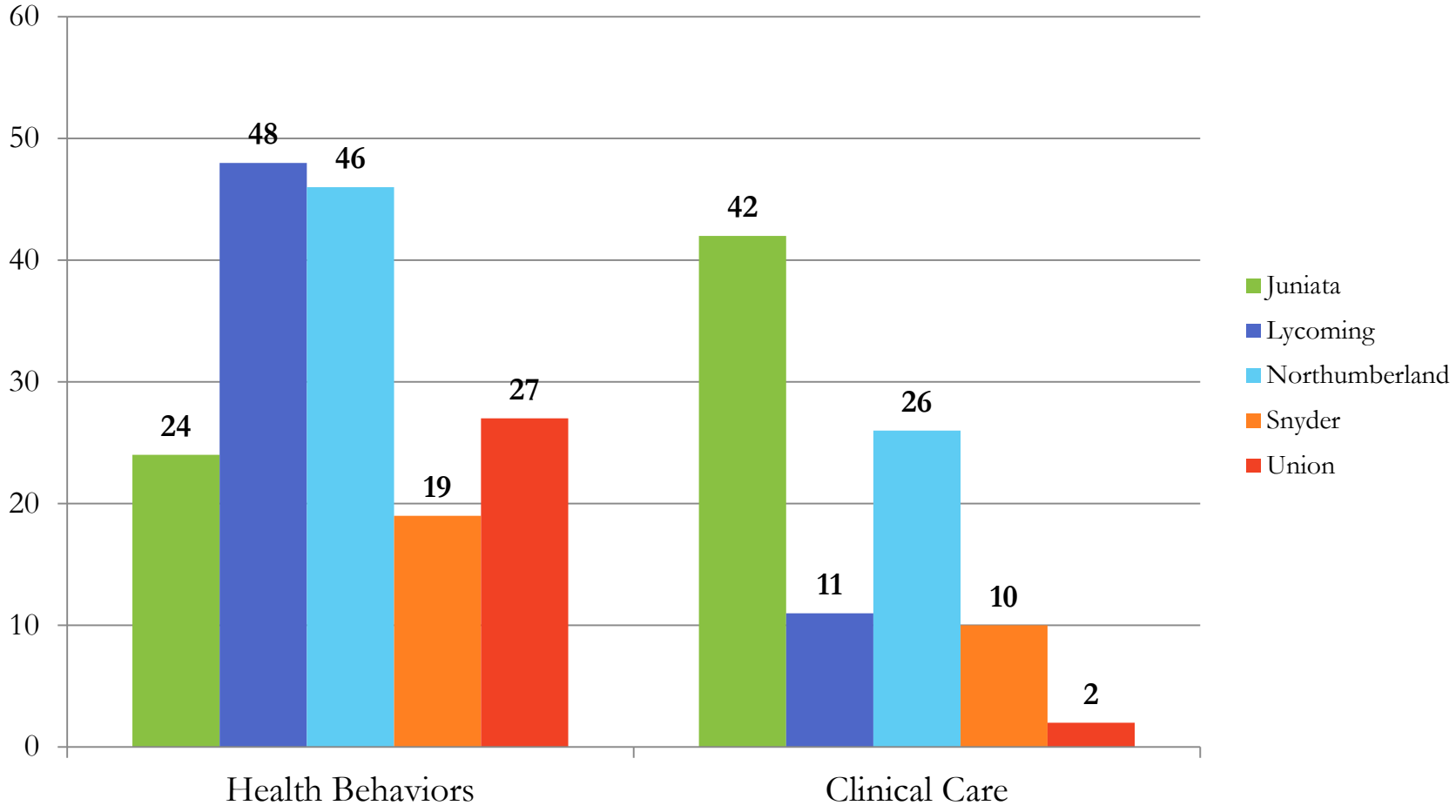
Source: 2014 County Health Rankings

County Health Rankings Data



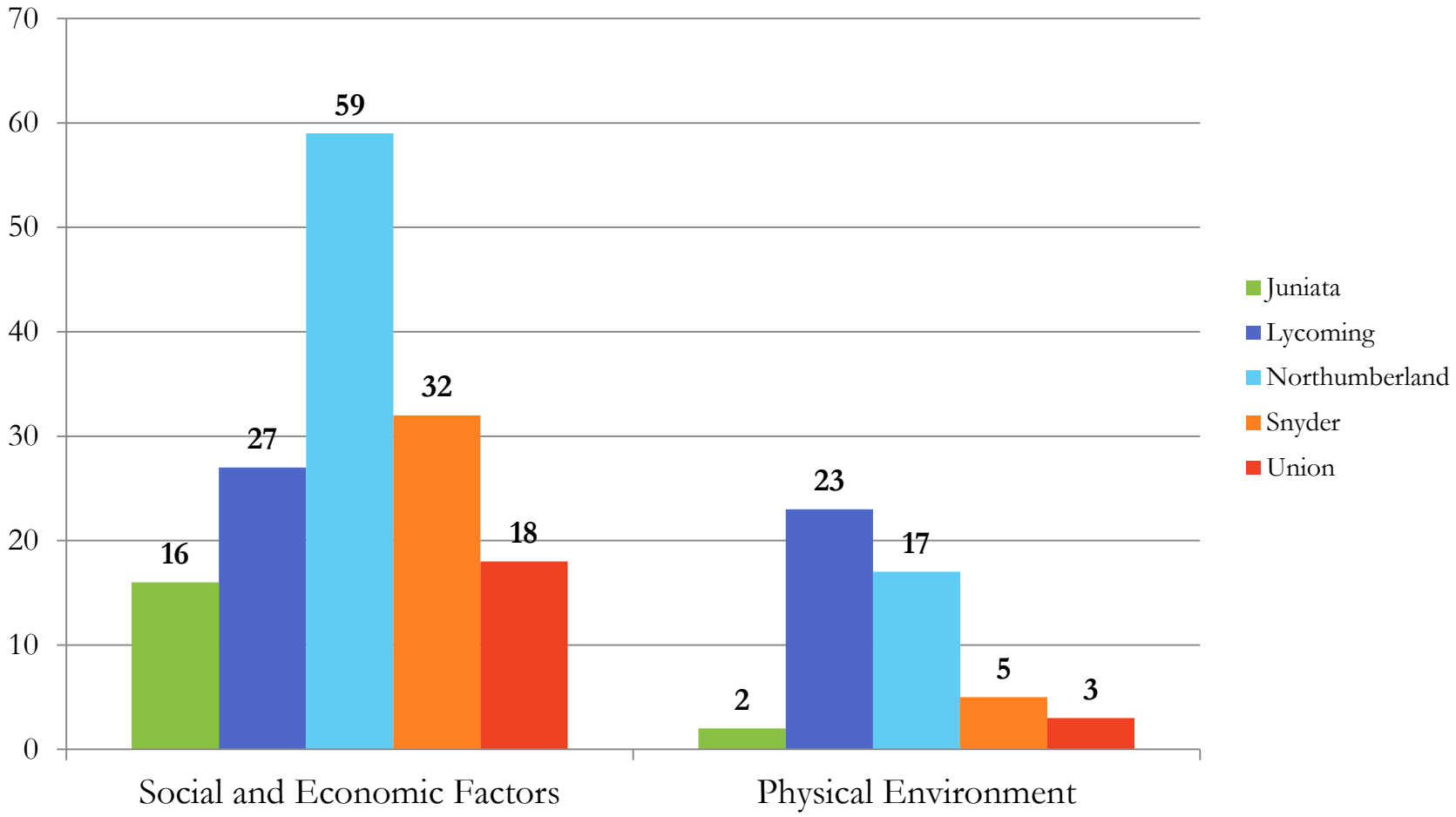
Source: 2014 County Health Rankings

County Health Rankings Data



Source: 2014 County Health Rankings

County Health Rankings Data



Source: 2014 County Health Rankings

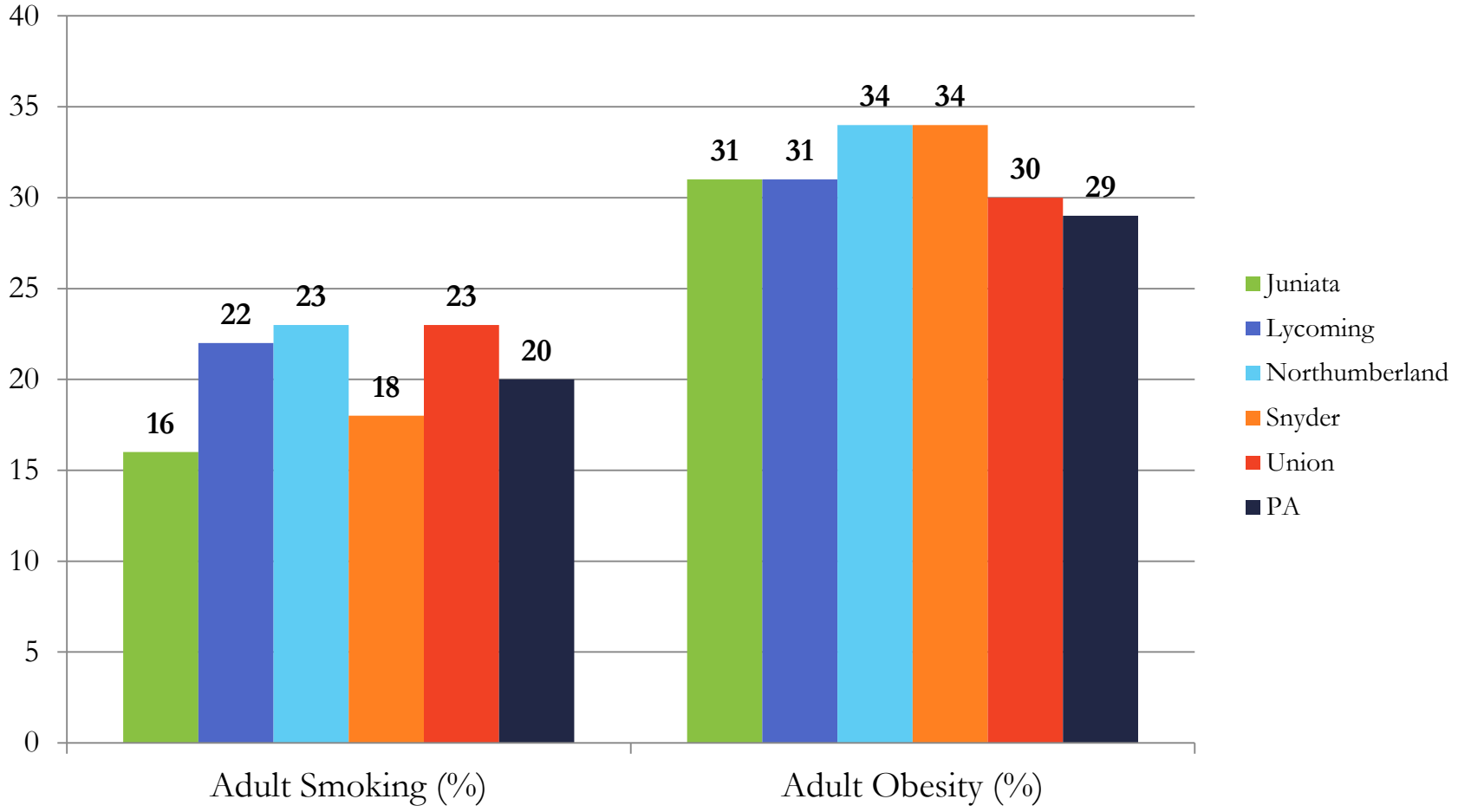
County Health Rankings Data

(2014 data on top; 2011 data in parentheses)

County	Adult Smoking (%)	Adult Obesity (%)	Excessive Drinking (%)	Sexually Transmitted Infections (Chlamydia Rate)	Uninsured (%)	PCP Rate (per 100,000 pop.)
Juniata	16 (19)	31 (31)	N/A (N/A)	209 (52)	14 (17)	25 (30)
Lycoming	22 (28)	31 (28)	17 (18)	442 (319)	14 (13)	69 (76)
Northumberland	23 (26)	34 (28)	16 (18)	231 (188)	13 (12)	37 (36)
Snyder	18 (20)	34 (31)	15 (9)	161 (139)	15 (15)	58 (36)
Union	23 (23)	30 (29)	13 (13)	185 (128)	12 (18)	80 (89)
Pennsylvania	20 (22)	29 (28)	17 (18)	415 (340)	12 (13)	80 (94)

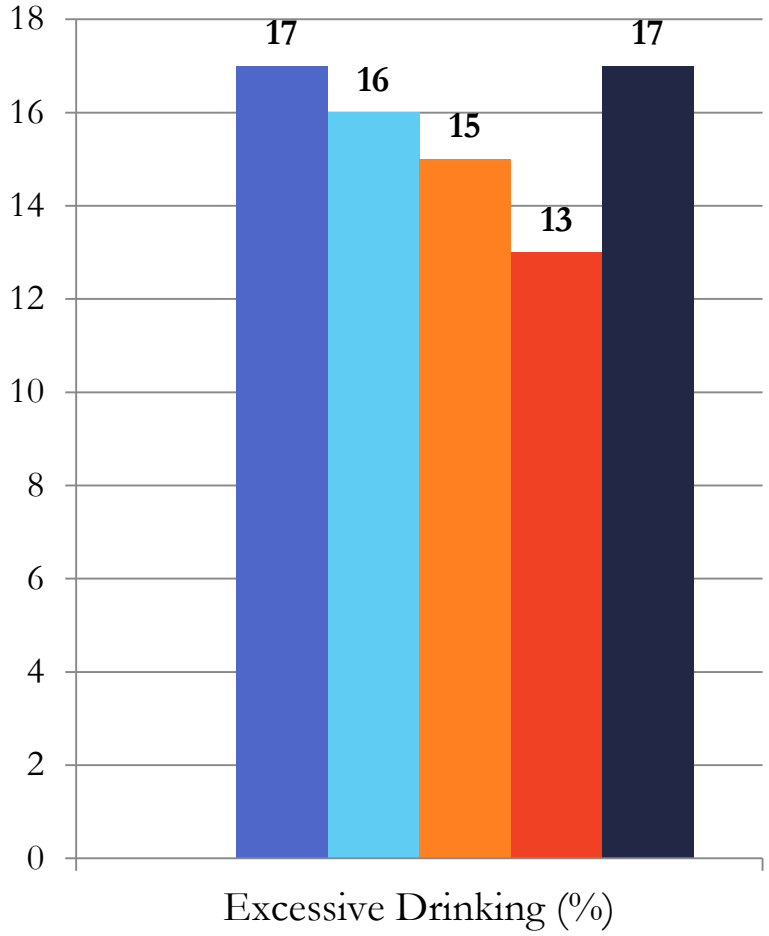
Source: 2014 and 2011 County Health Rankings

County Health Rankings Data

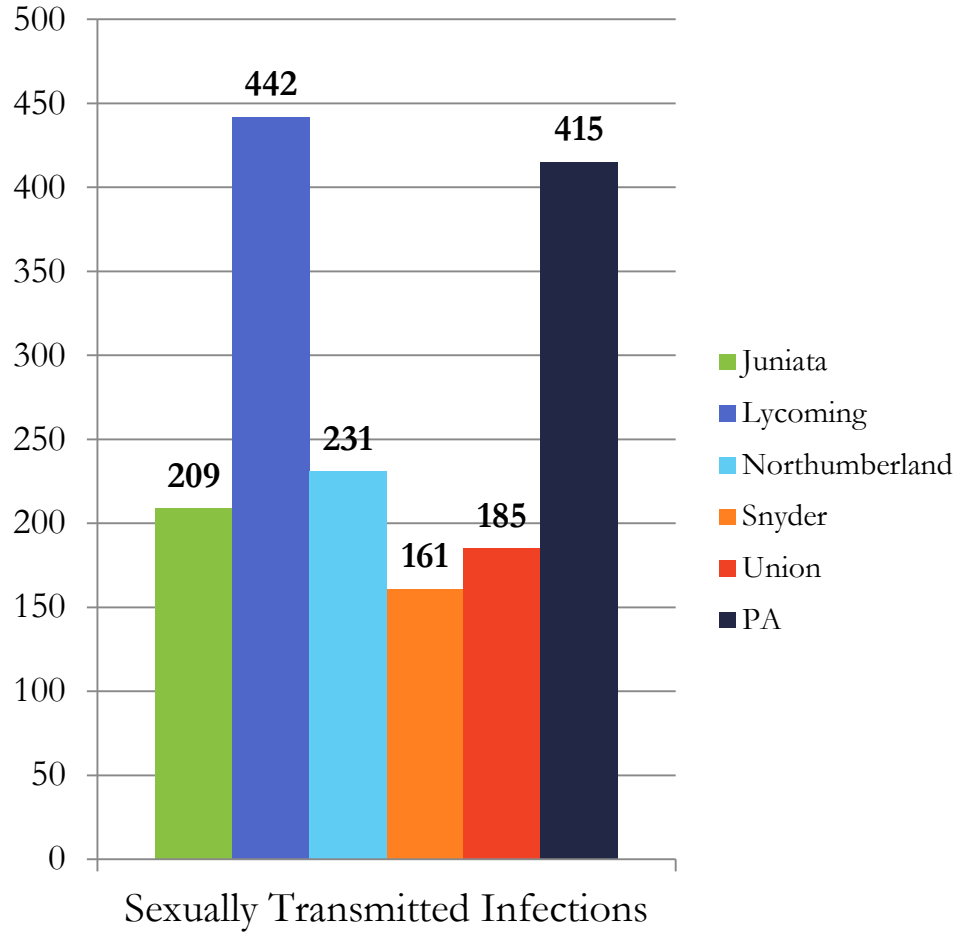


Source: 2014 County Health Rankings

County Health Rankings Data



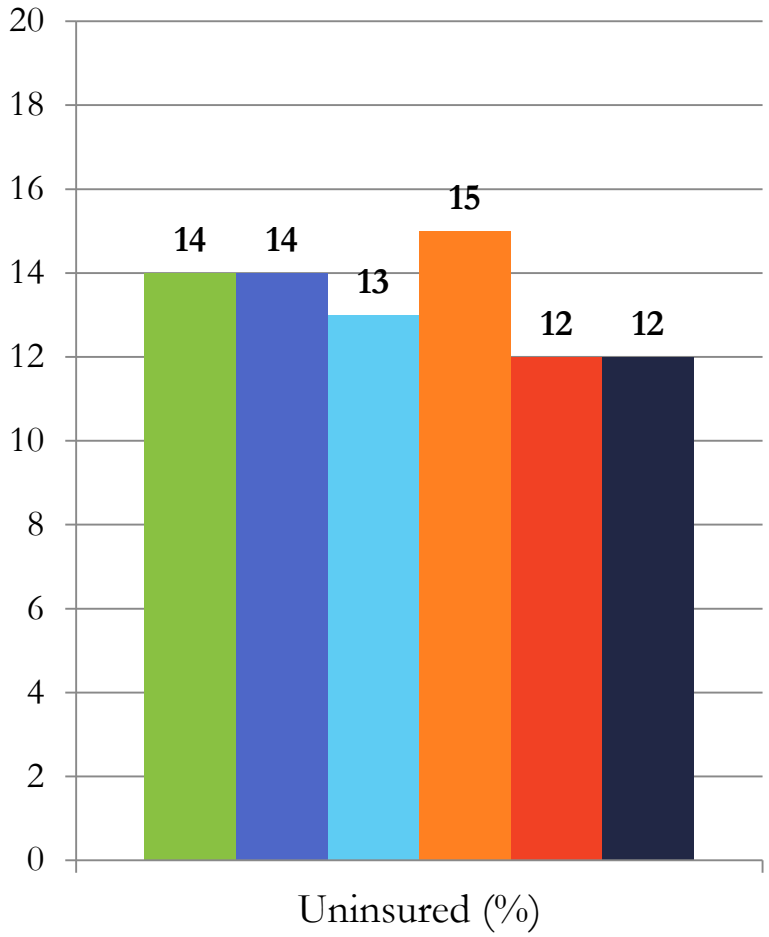
Excessive Drinking (%)

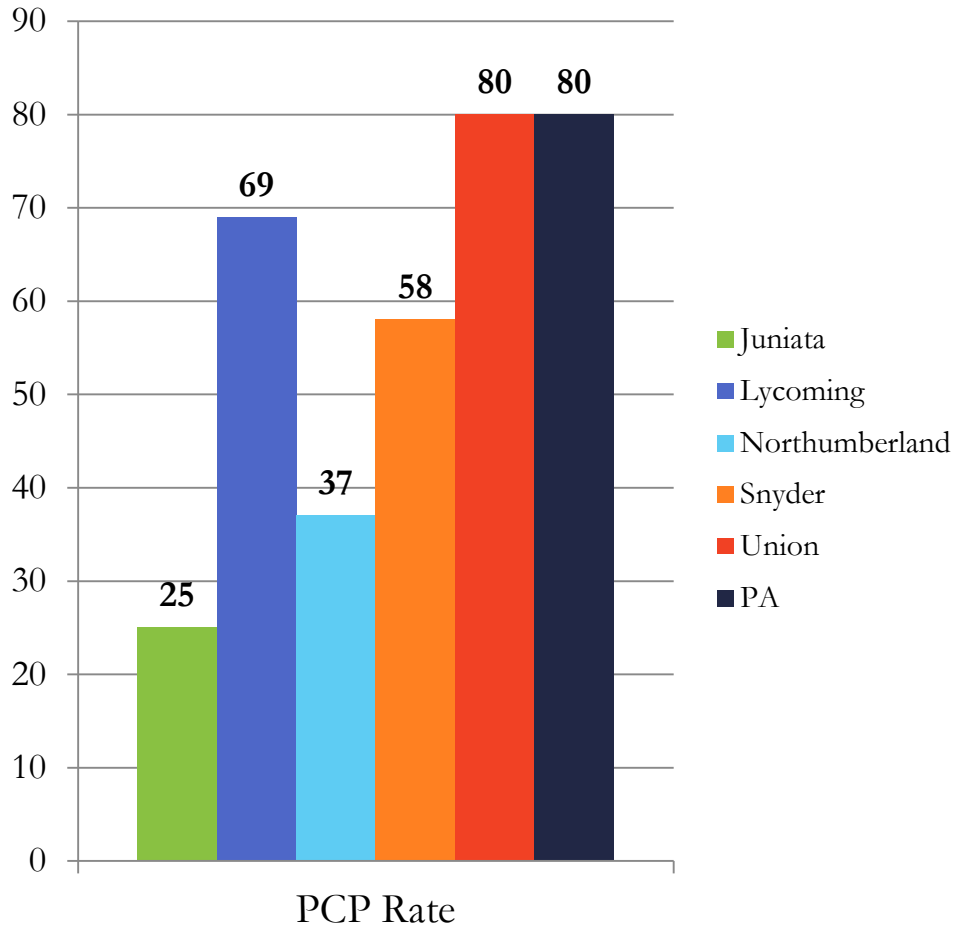


Sexually Transmitted Infections (Chlamydia rate)

Source: 2014 County Health Rankings

County Health Rankings Data





Source: 2014 County Health Rankings

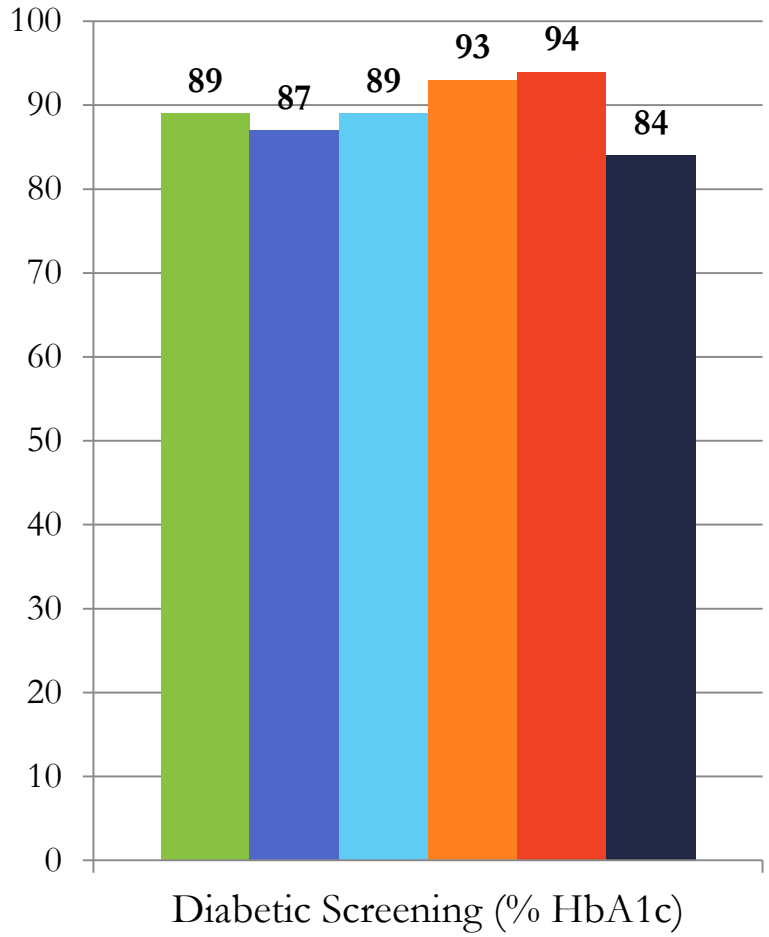
County Health Rankings Data

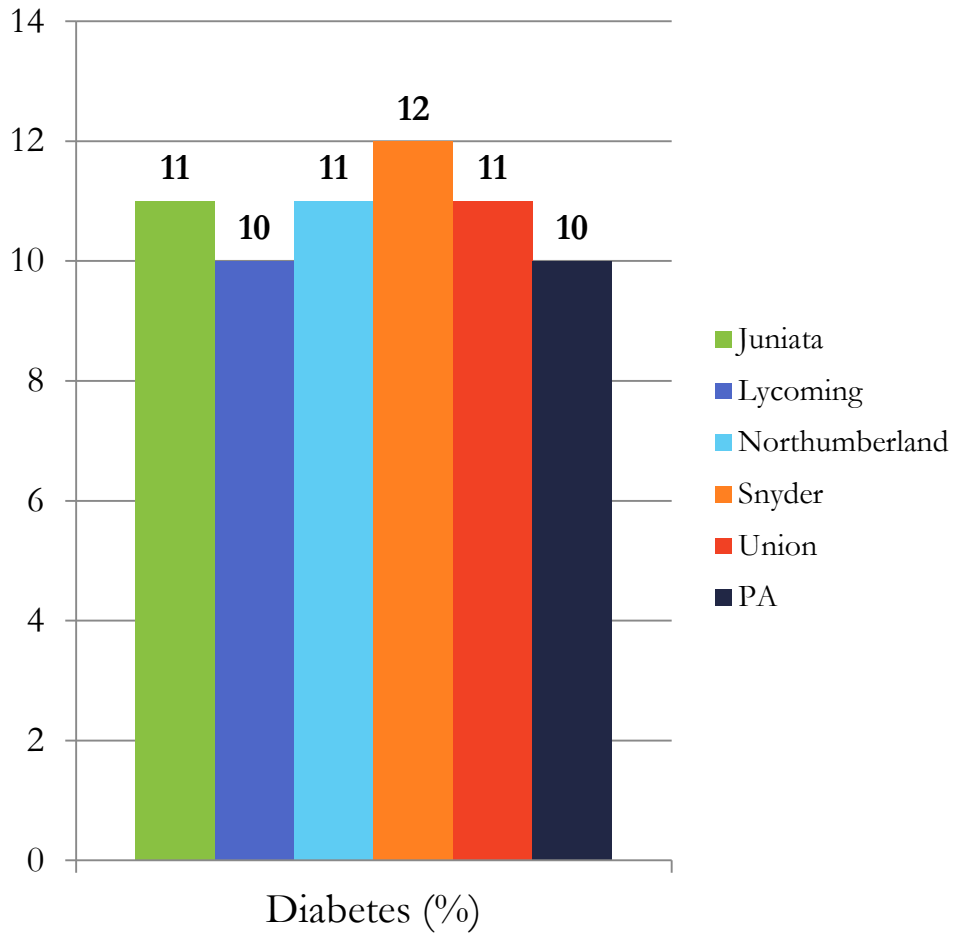
(2014 data on top; 2011 data in parentheses)

County	Diabetic Screening (% HbA1c)	Diabetes (% Diabetic)	Mammography Screening	Unemployment (% unemployed)	Inadequate Social Support (% no social-emotional support)	Violent Crime Rate (per 100,000 pop.)
Juniata	89 (88)	11 (10)	73.2 (76.0)	7.3 (8.0)	15 (14)	96 (89)
Lycoming	87 (86)	10 (9)	73.9 (74.7)	7.8 (8.9)	22 (22)	177 (152)
Northumberland	89 (92)	11 (10)	71.8 (70.6)	9.0 (9.8)	18 (19)	340 (376)
Snyder	93 (95)	12 (9)	78.1 (71.3)	8.2 (9.1)	23 (23)	335 (296)
Union	94 (86)	11 (9)	76.4 (83.8)	7.7 (9.1)	24 (26)	96 (81)
Pennsylvania	84 (84)	10 (9)	63.0 (64.5)	7.9 (8.1)	21 (21)	367 (419)

Source: 2014 and 2011 County Health Rankings

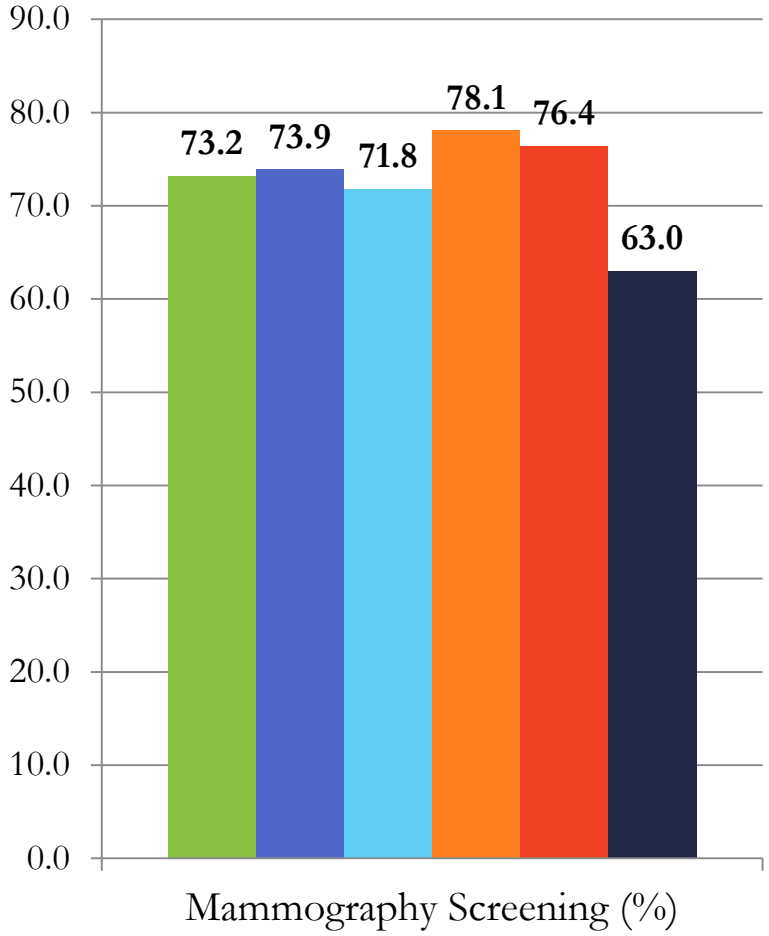
County Health Rankings Data

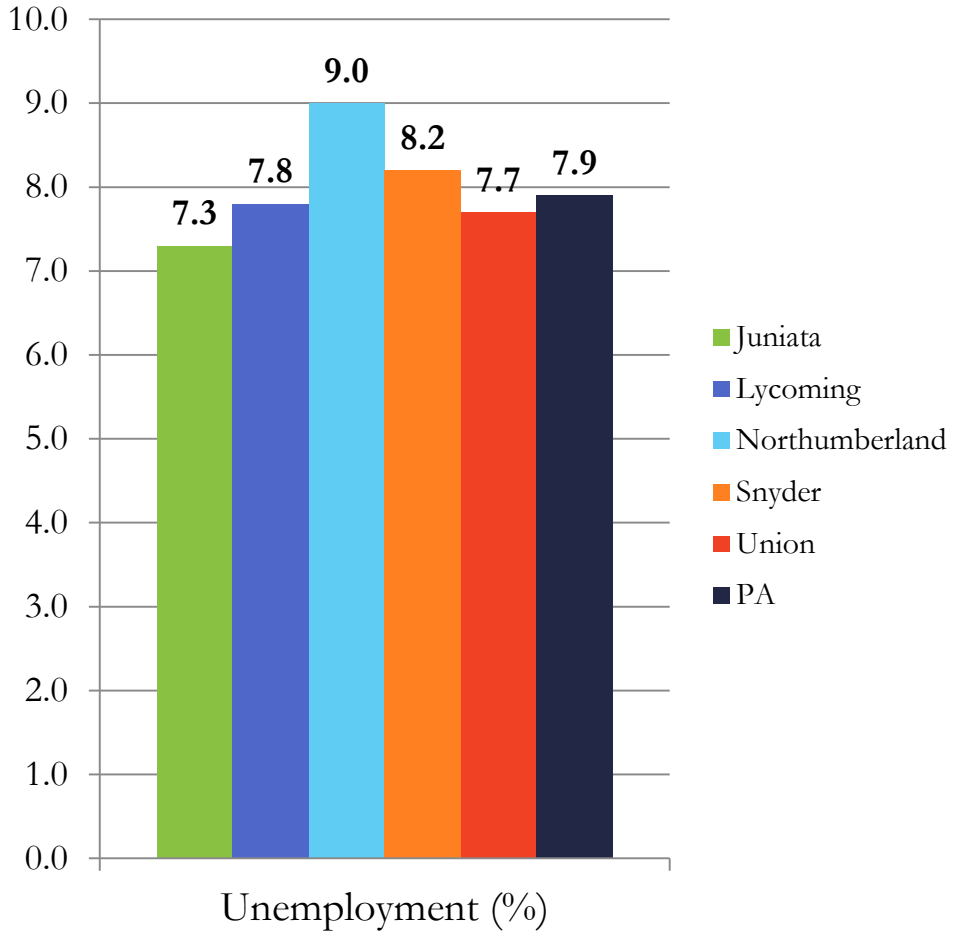




Source: 2014 County Health Rankings

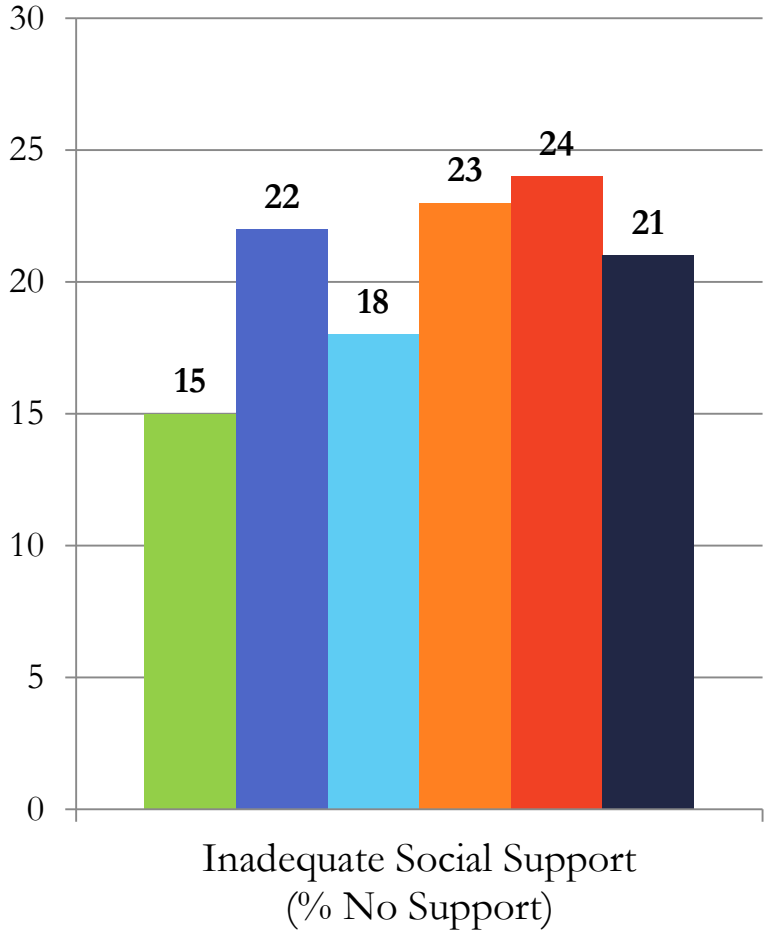
County Health Rankings Data

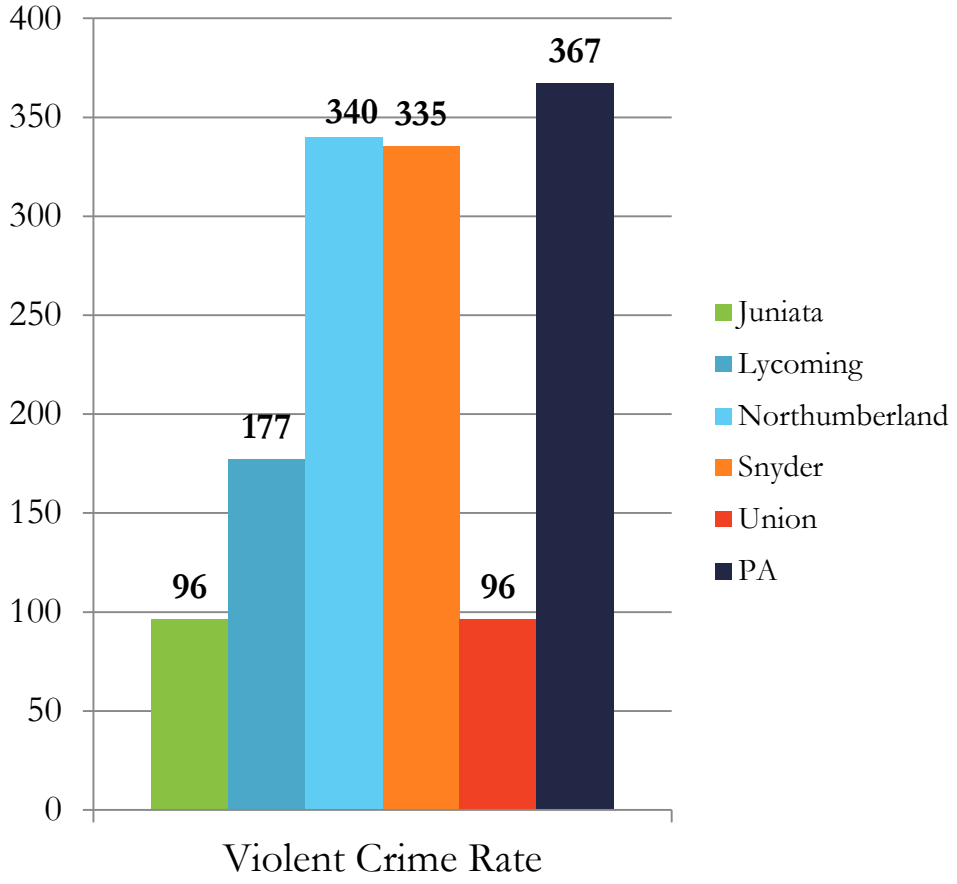




Source: 2014 County Health Rankings

County Health Rankings Data





Source: 2014 County Health Rankings

Prevention Quality Indicators Index (PQI)

- The **Prevention Quality Indicators index (PQI)** was developed by the **Agency for Healthcare Research and Quality (AHRQ)**. PQI is similarly referred to as Ambulatory Care Sensitive Hospitalizations. The quality indicator rates are derived from inpatient discharges by zip code using ICD diagnosis and procedure codes. There are 14 quality indicators.

- The PQI index identifies potentially avoidable hospitalizations for the benefit of targeting priorities and overall community health. **Lower index scores represent less admissions for each of the PQIs.**

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)

- The ECH study area shows only two of the 14 PQI measure that are higher than the state PQI value in 2014 – indicating higher preventable hospital admission rates for the following:
  - PQI 2 – Perforated Appendix (Study Area = 492.75; PA = 343.91)
  - PQI 13 – Angina without Procedure (Study Area = 31.13; PA = 11.80)
- The largest PQI difference between the ECH study area and PA in which the ECH study area reports a higher PQI is for Perforated Appendix Admissions in which PA shows a rate of preventable hospitalizations due to perforated appendix at 343.91 per 100,000 population, whereas the ECH study area shows a rate of 492.75 preventable hospitalizations per 100,000 population (more than 140 more preventable hospitalization per 100,000 pop).
- The largest difference between the ECH study area and PA in which the ECH study area reports a lower PQI than the state is for the PQI measure COPD or Adult Asthma. The ECH study area reports a rate of 359.03 hospital admission per 100,000 population for this condition, the state reports 578.80 per 100,000 population (a difference of more than 200 admission per 100,000 pop.).

Source: AHRQ

Prevention Quality Indicators Index (PQI)

- From 2011 to 2014, four of the PQI measures' definitions changed drastically and, therefore, cannot be accurately compared (PQI 2, PQI 5, PQI 9 & PQI 15).
- Of the 10 remaining PQI measures, seven of the 10 ECH study area values saw reductions in PQI rates from 2011 to 2014. The largest reduction was for Bacterial Pneumonia (going from 342.99 preventable hospitalizations per 100,000 to 210.44 per 100,000).
- Three PQI values for the ECH study area saw a rise in preventable hospitalizations from 2011 to 2014, these were for:
  - Diabetes, short-term complications (going from 49.25 per 100,000 pop. to 77.26 per 100,000 pop.)
  - Urinary Tract Infections (going from 98.51 per 100,000 pop. to 104.36 per 100,000 pop.)
  - Angina without Procedure (going from 29.08 per 100,000 pop. to 31.13 per 100,000 pop.)

Source: AHRQ

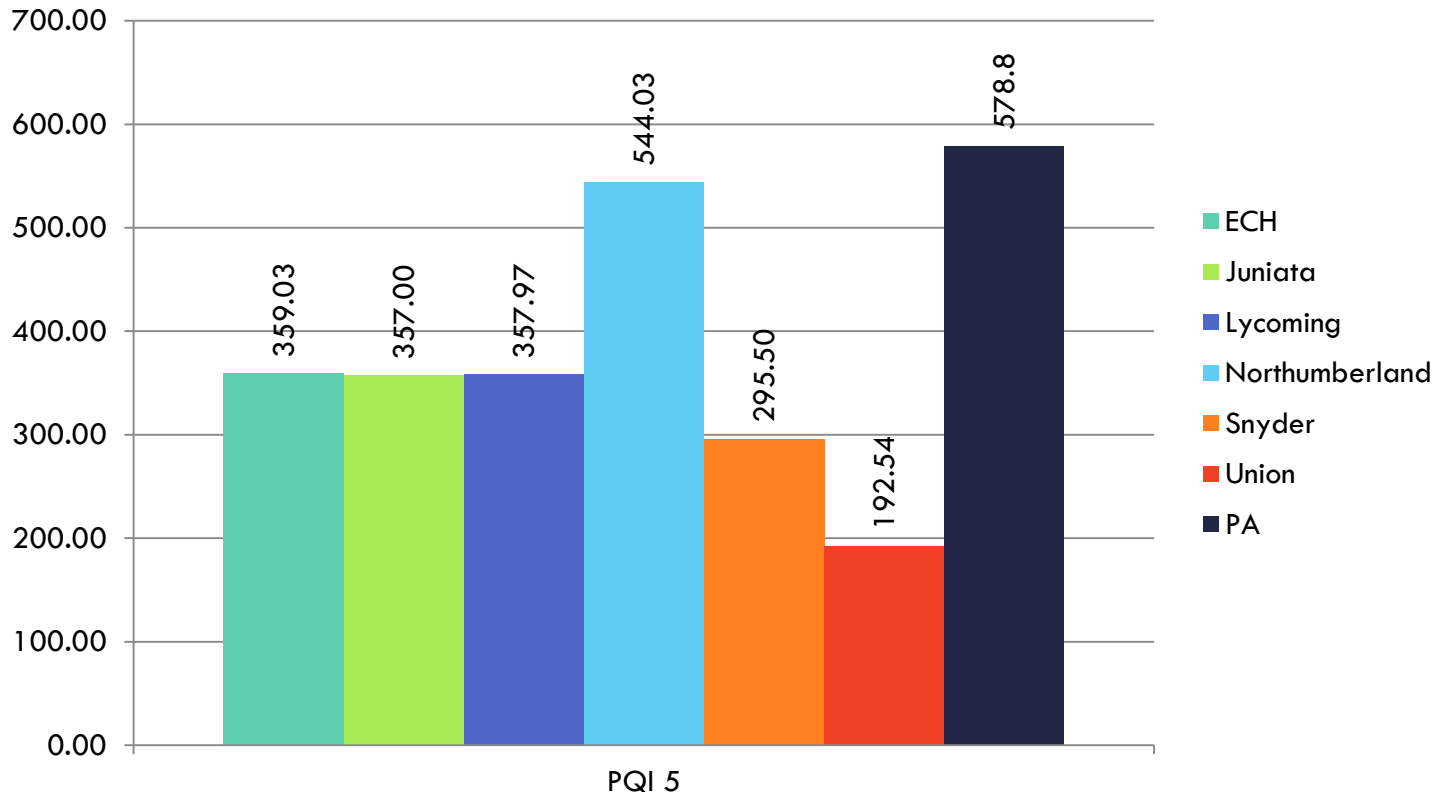
Prevention Quality Indicators Index (PQI)

Prevention Quality Indicators (PQI)	2014 - ECH Study Area	PA	Difference	2011 PQI ECH	2014 PQI ECH	Difference
Diabetes Short-Term Complications (PQI1)	77.26	115.16	- 37.90	49.25	77.26	+ 28.01
Perforated Appendix (PQI2)	492.75	343.91	+ 148.84	0.24	492.75	--
Diabetes Long-Term Complications (PQI3)	76.68	119.79	- 43.11	90.79	76.68	- 14.11
Chronic Obstructive Pulmonary Disease or Adult Asthma(PQI5)	359.03	578.80	- 219.77	214.22	359.03	--
Hypertension (PQI7)	38.63	53.99	- 15.36	31.45	38.63	- 7.18
Congestive Heart Failure (PQI8)	325.75	418.29	- 92.54	335.28	325.75	- 9.53
Low Birth Weight (PQI9)	27.59	37.50	- 9.91	0.00	27.59	--
Dehydration (PQI10)	39.78	61.90	- 22.12	49.25	39.78	- 9.47
Bacterial Pneumonia (PQI11)	210.44	326.16	- 115.72	342.99	210.44	- 132.55
Urinary Tract Infection (PQI12)	104.36	197.51	- 93.15	98.51	104.36	+ 5.85
Angina Without Procedure (PQI13)	31.13	11.80	+ 19.33	29.08	31.13	+ 2.05
Uncontrolled Diabetes (PQI14)	4.61	14.20	- 9.59	11.87	4.61	- 7.26
Asthma in Younger Adults (PQI15)	17.34	63.34	- 46.00	49.25	17.34	--
Lower Extremity Amputation Among Diabetics (PQI16)	25.94	26.40	- 0.46	30.74	25.94	- 4.80

*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

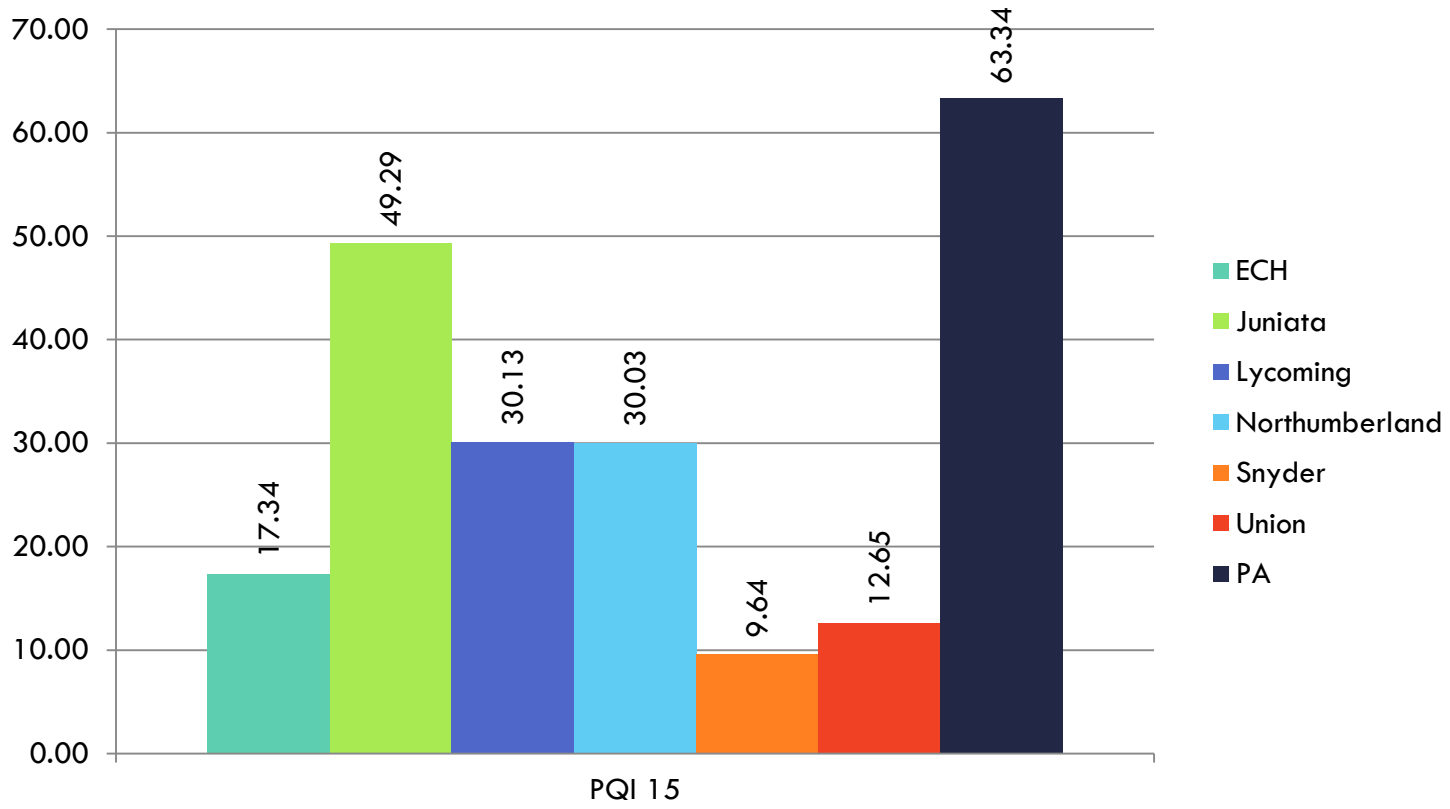
Chronic Lung Conditions



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

Source: AHRQ

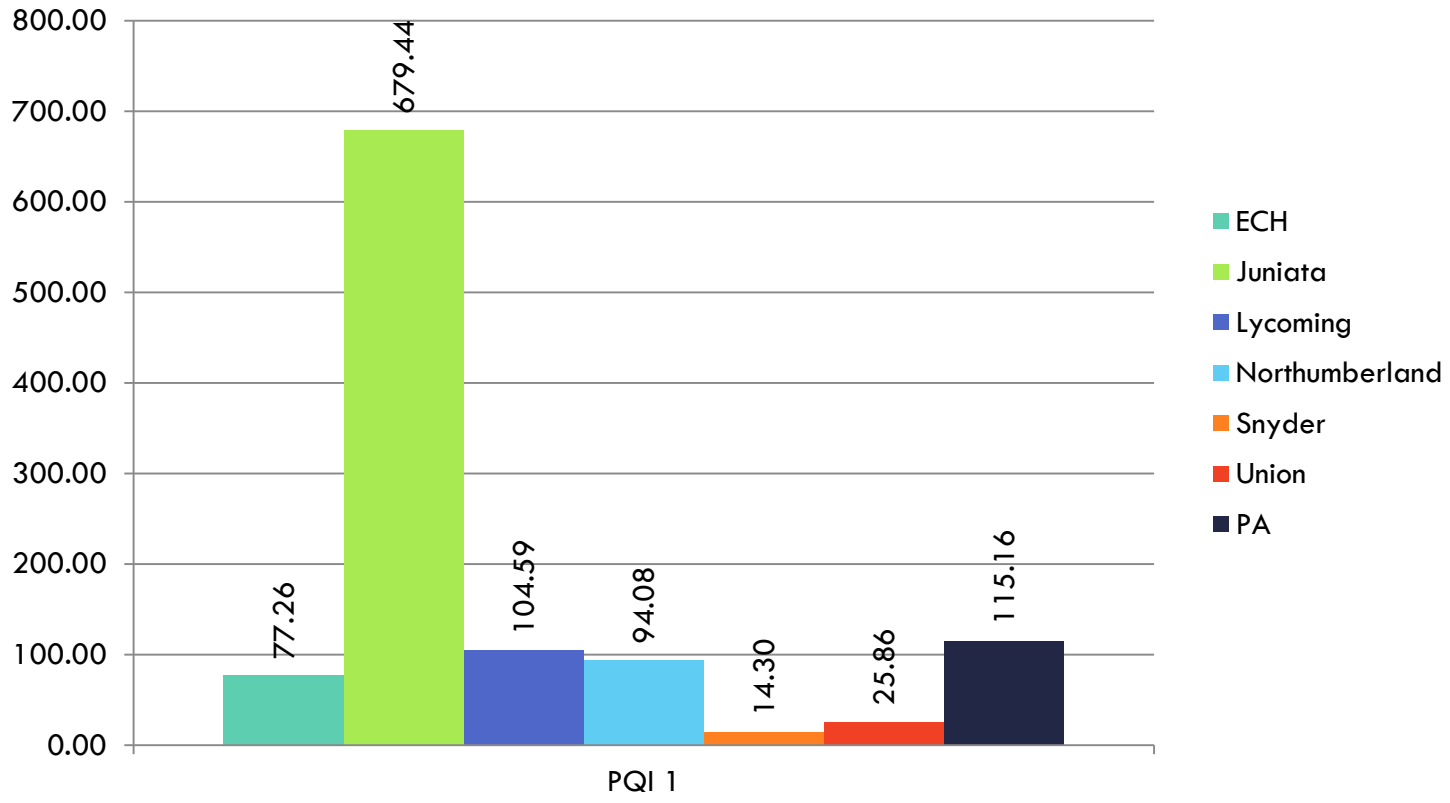
Chronic Lung Conditions (cont'd)



PQI 15 Asthma in Younger Adults Admission Rate

Source: AHRQ

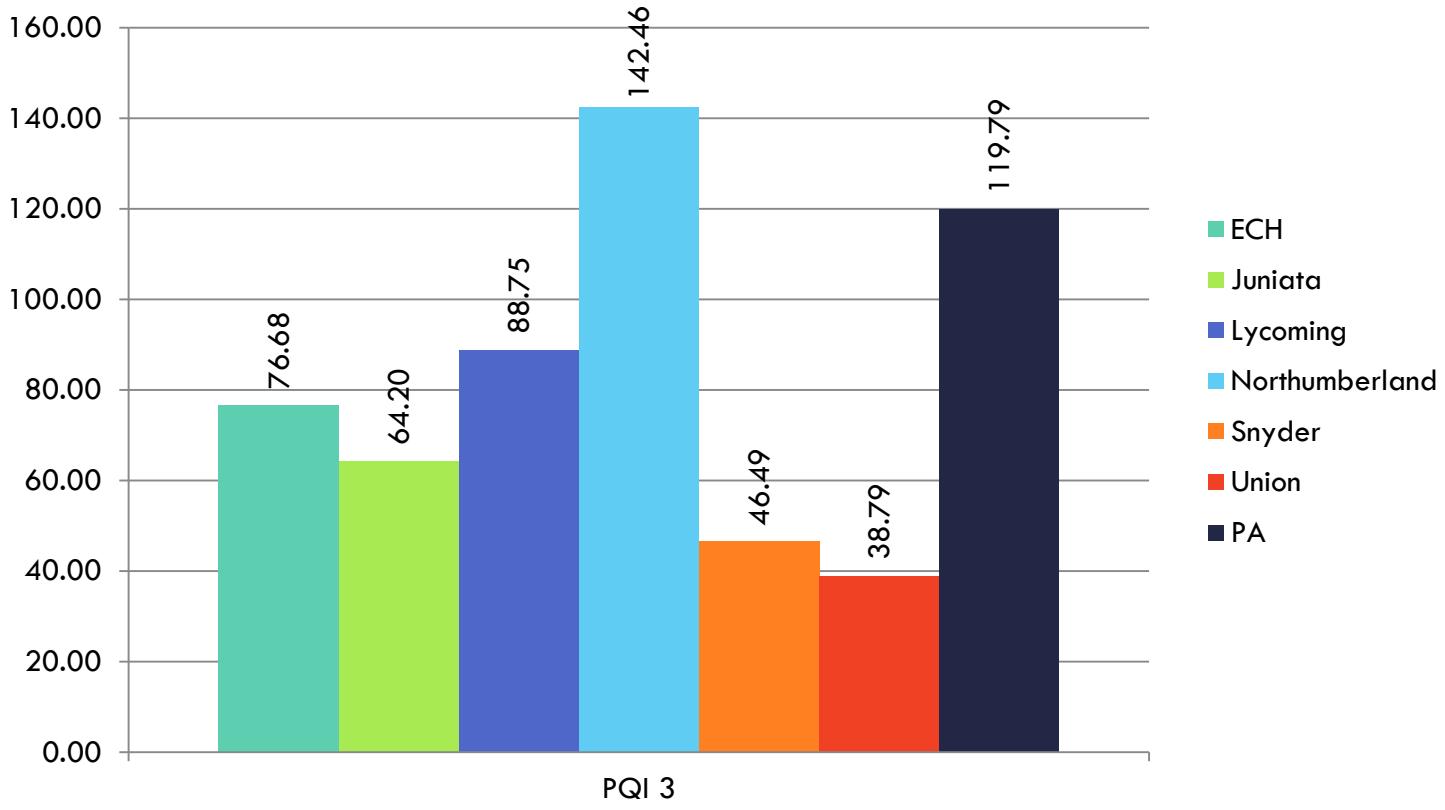
Diabetes



PQI 1 Diabetes Short-Term Complications Admission Rate

Source: AHRQ

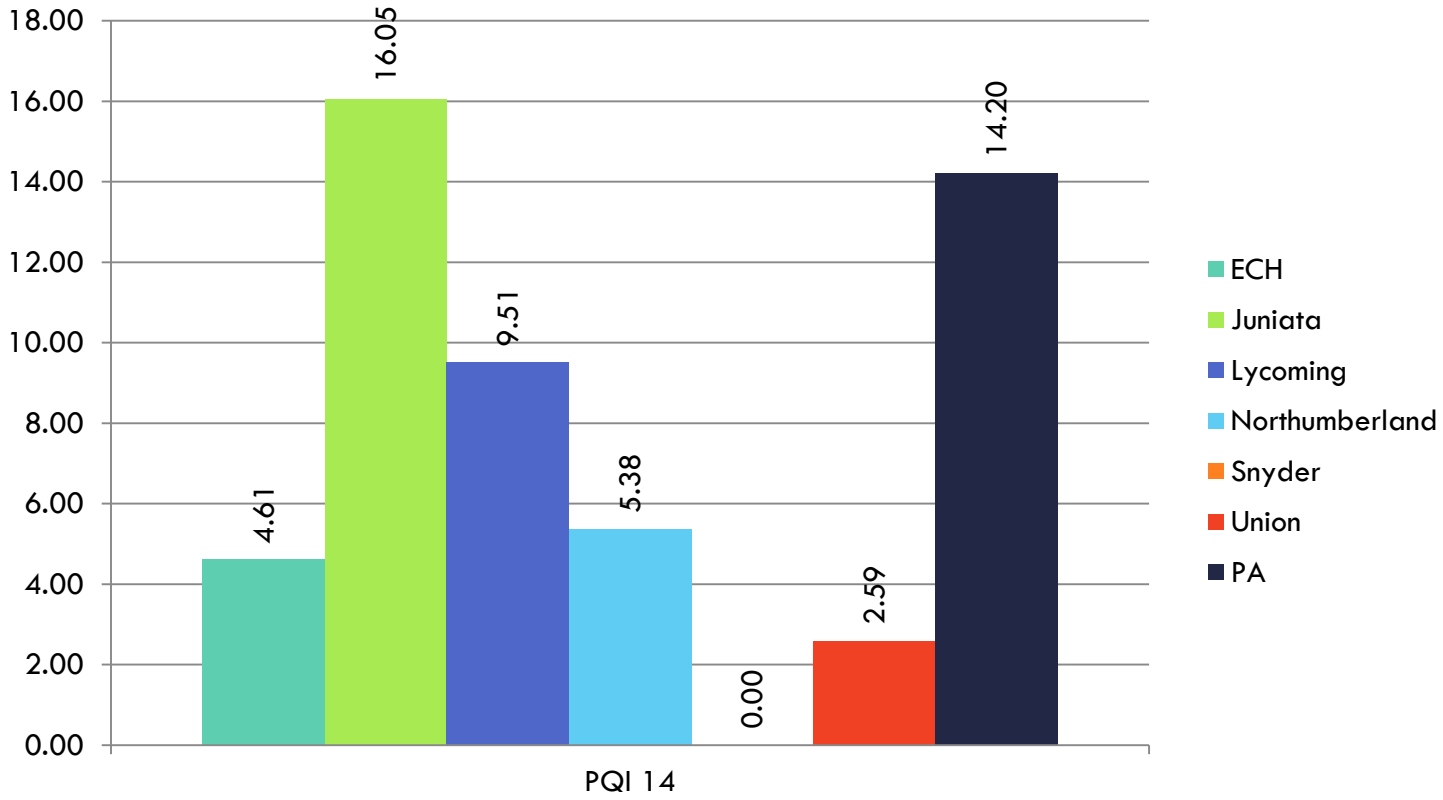
Diabetes (cont'd)



PQI 3 Diabetes Long-Term Complications Admission Rate

Source: AHRQ

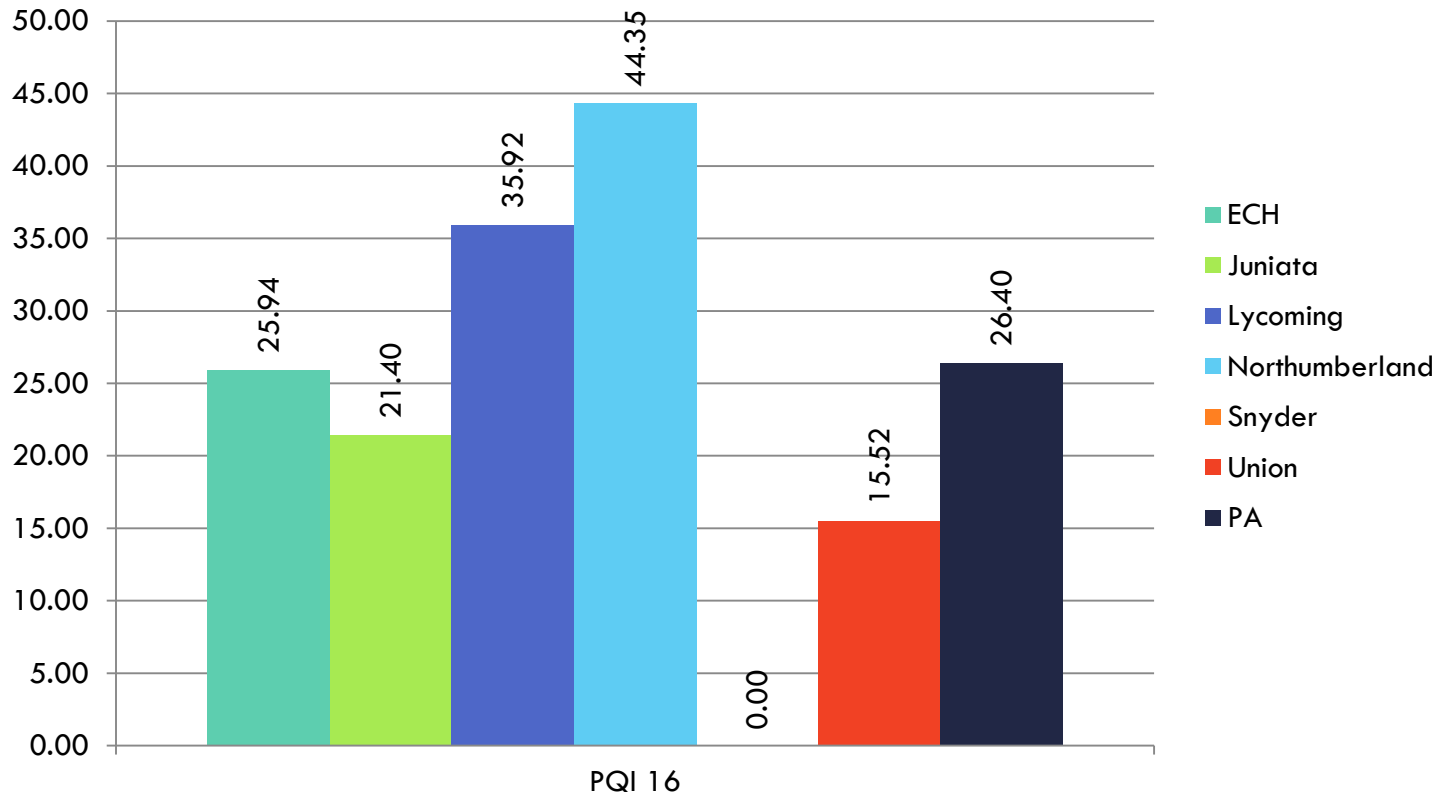
Diabetes (cont'd)



PQI 14 Uncontrolled Diabetes Admission Rate

Source: AHRQ

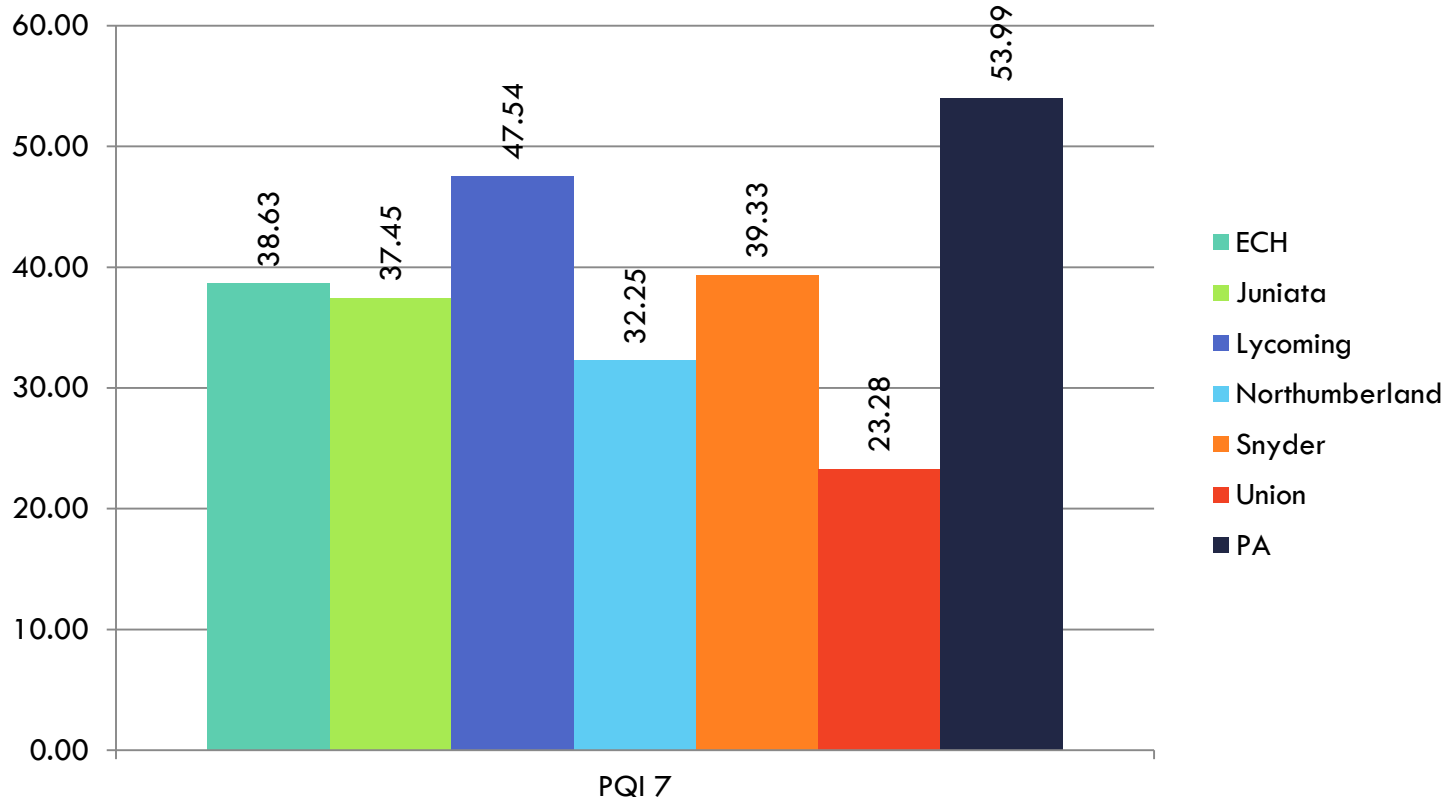
Diabetes (cont'd)



PQI 16 Lower Extremity Amputation Rate Among Diabetic Patients

Source: AHRQ

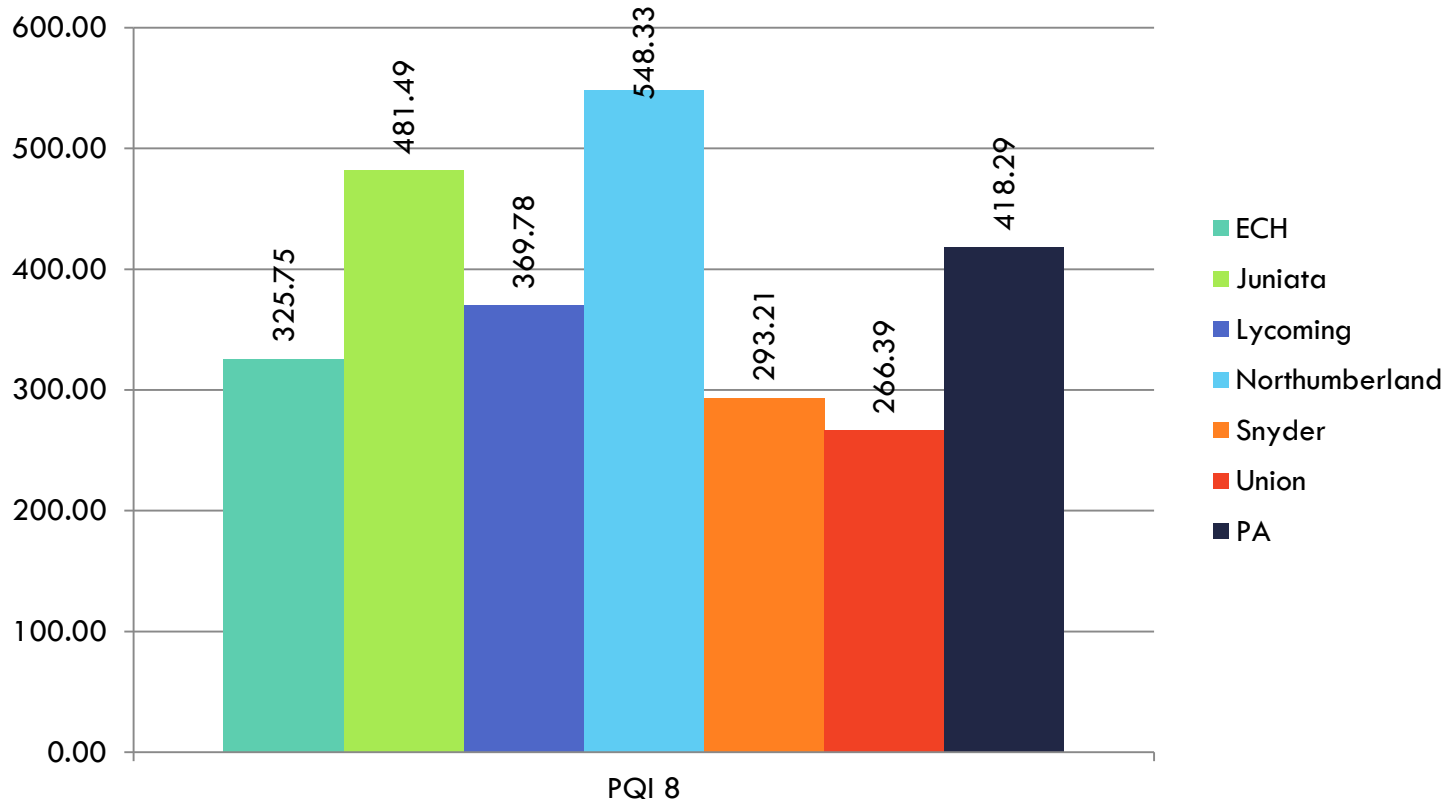
Heart Conditions



PQI 7 Hypertension Admission Rate

Source: AHRQ

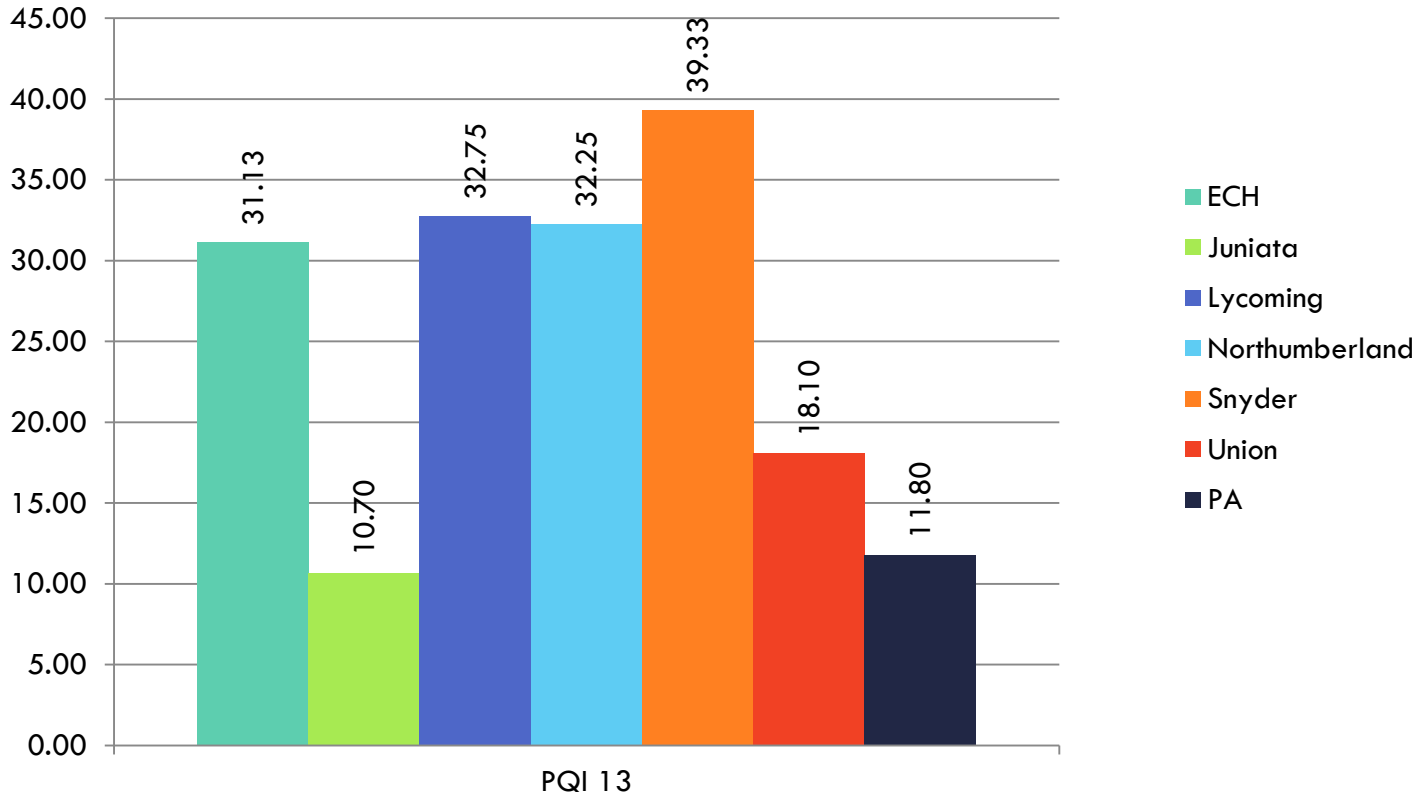
Heart Conditions (cont'd)



PQI 8 Congestive Heart Failure Admission Rate

Source: AHRQ

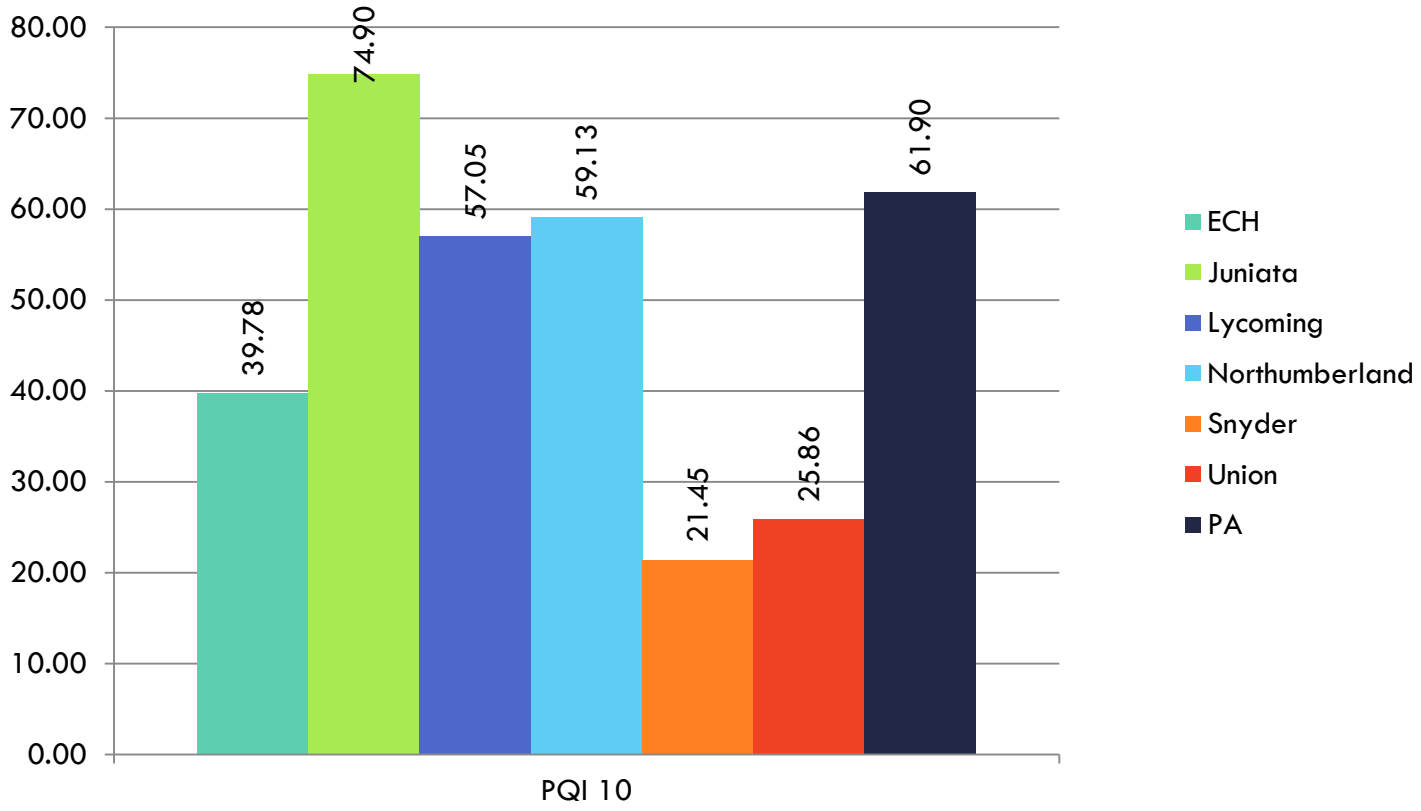
Heart Conditions (cont'd)



PQI 13 Angina Without Procedure Admission Rate

Source: AHRQ

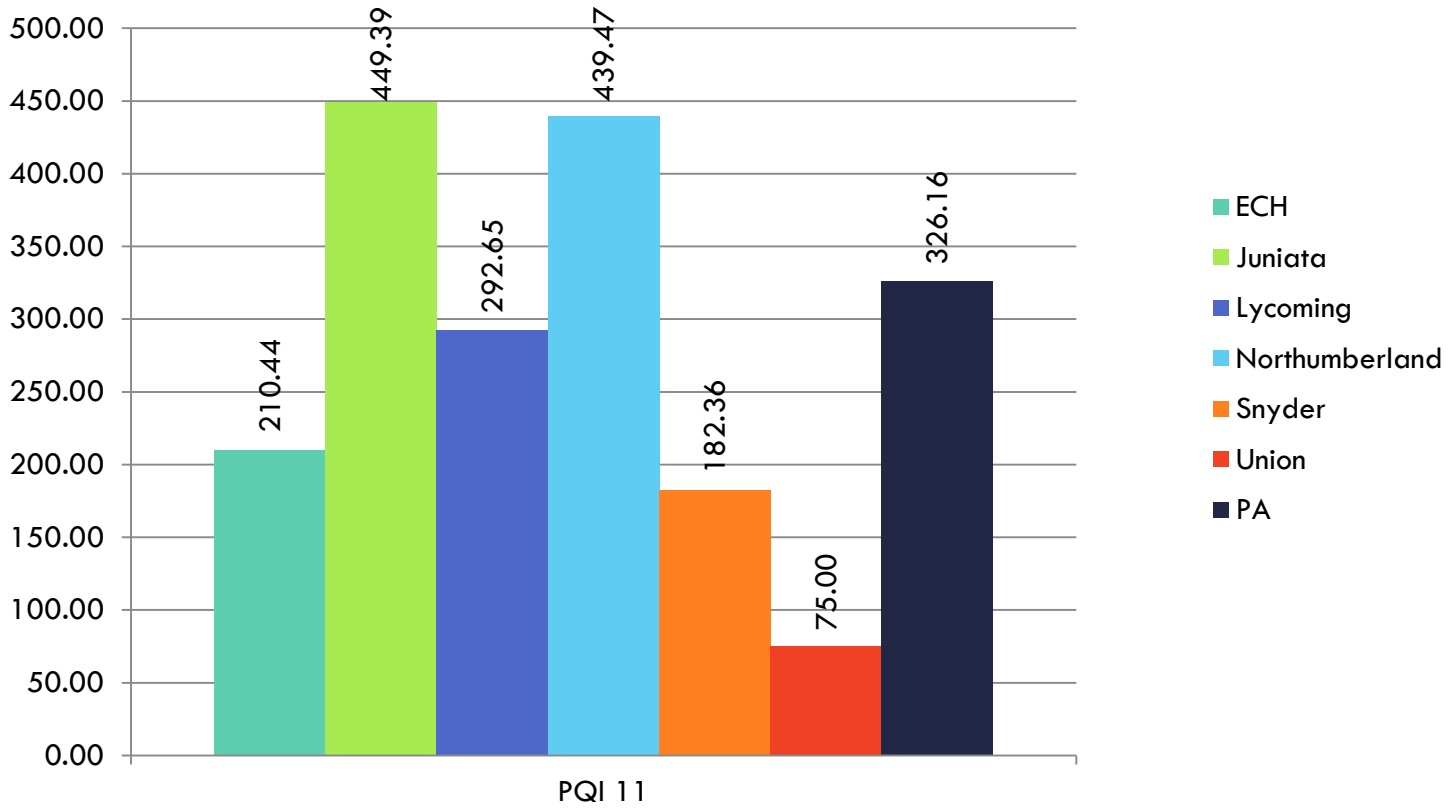
Other Conditions



PQI 10 Dehydration Admission Rate

Source: AHRQ

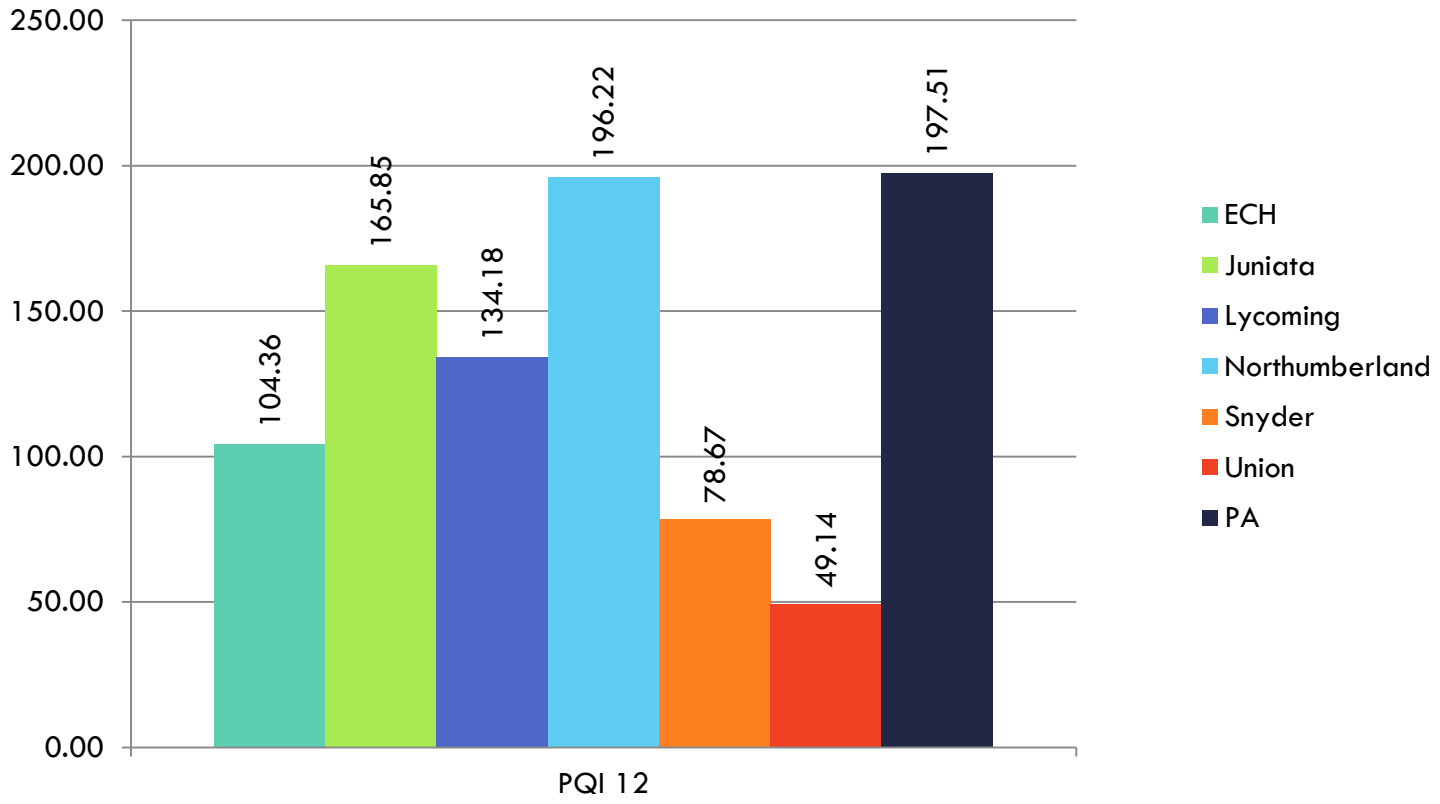
Other Conditions (cont'd)



PQI 11 Bacterial Pneumonia Admission Rate

Source: AHRQ

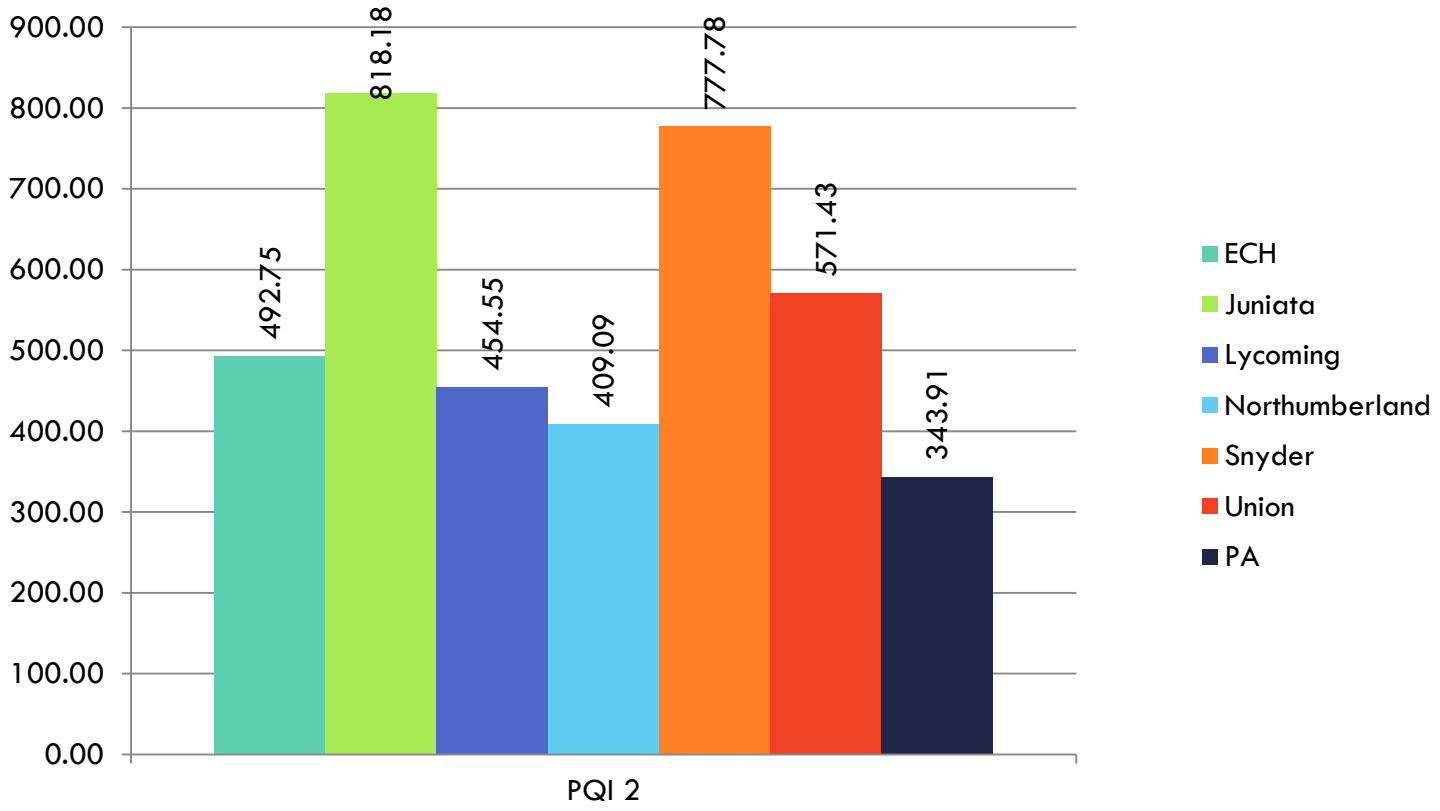
Other Conditions (cont'd)



PQI 12 Urinary Tract Infection Admission Rate

Source: AHRQ

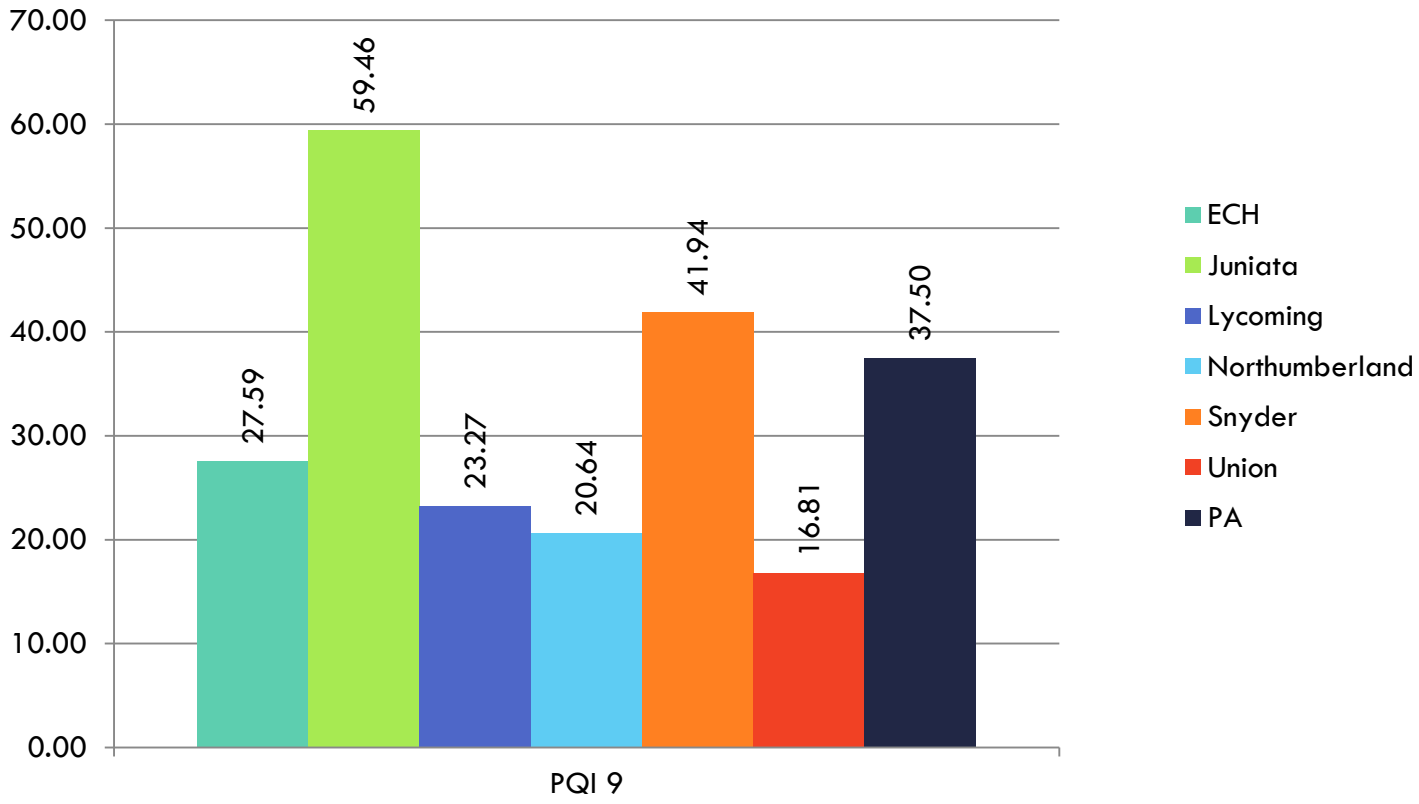
Other Conditions (cont'd)



PQI 2 Perforated Appendix Admission Rate

Source: AHRQ

Other Conditions (cont'd)



PQI 9 Low Birth Weight Rate

Source: AHRQ

ECH–
Initial Reactions to Secondary Data

- The consultant team has identified the following data trends and their potential impact:
  - The ECH study area population is projected to rise by 425 residents (rate of 0.3%) over the next five years (2014-2019).
  - The ECH study area reports higher rates of older residents (aged 65 and older) as compared with the state and U.S.; and this rate is expected to rise over the next five years.
  - The highest CNI scores for the ECH study area are 3.8 in the zip code areas of Williamsport (17701) in Lycoming County and Sunbury (17801) in Northumberland County. The highest CNI score indicates the most barriers to community health care access. Williamsport (17701) holds the highest rates for the ECH study area for rental activity (46.9%) and uninsured (13.2%). Sunbury (17801) sees the highest rate for the ECH study area for unemployment (12.3%).
    - The overall CNI score for the ECH study area rose from 2.9 in 2011 to 3.0 in 2014; more barriers to health care access.
  - The ECH study area shows only two of the 14 PQI measures that are higher than the state PQI value – indicating higher preventable hospital admission rates for Perforated Appendix and Angina without Procedure.
  - Of the five counties in the ECH study area:
    - Northumberland County ranked the highest for; Health Outcomes (35), Health Factors (50), Morbidity (52), and Social and Economic Factors (59). From 2011 to 2014, Northumberland County experienced a rise in ranking for Mortality – going from 52 in 2011 to 21 in 2014. Northumberland County reported the largest rise in adult obesity for the ECH study area counties; going from 28% to 34%.
    - Juniata County ranked the highest for; Mortality (31), and Clinical Care (42). Juniata County reports a large increase in the sexually transmitted infection / chlamydia rate from 2011 to 2014 – going from 52 per 100,000 pop. to 209 per 100,000 pop. (All of the ECH study area counties reported a rise in their chlamydia rate from 2011 to 2014).
    - Lycoming County ranked the highest for; Health Behaviors (48), and Physical Environment (23).