EVANGELICAL™
COMMUNITY HOSPITAL

Community Health Needs Assessment

July 1, 2018 – June 30, 2021

BAKER TILLY

Candor. Insight. Results.

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About Evangelical Community Hospital

Evangelical Community Hospital is an independent, non-profit organization that employs over 1,800 individuals and has more than 341 employed and non-employed physicians on staff. The Hospital serves residents throughout the Central Susquehanna Valley, including those living in Snyder, Union, Northumberland, and Lycoming Counties. With the addition of a Mobile Medical Unit, the service area is expanding to include secondary service areas of Juniata, Centre, Clinton, and Montour Counties.

Beginning in 1926 as the vision of three local physicians, Evangelical has been providing for the healthcare needs of area residents for more than 90 years and remains a vital asset to the community. In Fiscal Year 2016-17, the Hospital:

- received 230,315 outpatient visits
- received 6,896 inpatients
- provided 2,011 patient observation stays
- delivered 901 babies
- received more than 31,000 emergency department visits

Evangelical is one of 26 independent hospitals out of Pennsylvania's 156 total hospitals and is thriving in a very competitive market. Our patients and the community are at the heart of Evangelical's mission of "providing exceptional healthcare, accessible to all, in the safest and most compassionate atmosphere possible to build a healthy community." This is accomplished by maintaining a challenging, energized work environment for our valued employees who exemplify our Core Values of:

- Quality Service
- Compassion
- Respect
- Professionalism
- Integrity
- Cooperation
- And Creativity

Our vision is to be our community's healthcare provider of choice for patients, clinicians, and employees.

Our Commitment to Community Health

To demonstrate Evangelical Community Hospital's commitment to the well-being of our community, the Hospital completes a Community Health Needs assessment (CHNA) every three years. Our most recent CHNA was conducted from October 2017-May 2018 and complies with all requirements set forth by the Affordable Care Act. The purpose of the CHNA is to provide Evangelical with pertinent health and socio-economic information that enables us to better serve our community through specific programs and services that meet the identified healthcare needs. The data collected through the assessment process clearly identified the following needs as those with the highest priority:

- Access to health care
- Behavioral health and substance abuse
- Health concerns related to lifestyle

The following report of the CHNA findings will be used by Evangelical for development of an implementation plan to address the healthcare needs of the community and assist in fulfilling the Hospital's mission of "building a healthy community." The report will be available to community stakeholders, service agencies and public health organizations who can also use this valuable information as a resource to improve or add to their current services.

Evangelical shares a common goal with other healthcare providers in the region of improving the health of all residents. The Hospital will continue to seek collaborative opportunities, as well as coordination of services, to realize a healthier community.

Please join Evangelical, and partnering agencies, as we work together to improve the health and quality of life for all who live, work, and play in our community.

Thank you and live healthy,

Kendra A. Aucker

Kendra A. Aucker
President & CEO

Overview of the 2018 CHNA

A Collaborative Approach to Community Health Improvement

The 2018 Community Health Needs Assessment (CHNA) was conducted in partnership with Evangelical Community Hospital, Allied Services Integrated Health System, and Geisinger. The study area included 19 counties across Central, Northeastern, and South Central Pennsylvania which represent the collective service areas of the collaborating hospitals. To distinguish unique service areas among hospitals and foster cooperation with local community partners to impact health needs, regional research and local reporting was developed. Evangelical Community Hospital is located in the Central Region, which is comprised of the following counties:

Central Region Service Area Counties

- Clinton County
- Columbia County
- Lycoming County
- Montour County
- Northumberland County
- Schuylkill County
- Snyder County
- Sullivan County
- Union County

The collaborating health systems agreed that by coordinating efforts to identify community health needs across the region, the health systems would conserve community resources while demonstrating leadership in convening local community partners to address common priority needs.

Best practices in community health improvement demonstrate that fostering “collective impact” is among the most successful ways to affect the health of a community. Collective impact is achieved by committing a diverse group of stakeholders toward a common goal or action, particularly to impact deep rooted social or health needs.

By taking a collaborative approach to the CHNA, Evangelical Community Hospital, Allied Services Integrated Health System, and Geisinger are leading the way to improve the health of communities in Central, Northeastern, and South Central Pennsylvania. The following pages describe the process and research methods used in the 2018 CHNA and the findings that portray the health status of the communities we serve and outline opportunities to work with our community partners to advance health among all residents across our service areas.

CHNA Leadership

The 2018 CHNA was overseen by a Planning Committee of representatives from each health system, as well as a Regional Advisory Committee of representatives from each hospital. CHNA committee members are listed below.

CHNA Planning Committee

Sheila Packer, Director Community Health and Wellness, Evangelical Community Hospital
Tamara Persing, Vice President Nursing Administration, Evangelical Community Hospital
Donna Schuck, Associate Vice President/Chief Development Officer, Evangelical Community Hospital

Allison Clark, Community Benefit Coordinator, Community Affairs, Geisinger
Joni Fegan, Strategic Planning Manager, Geisinger Holy Spirit
Barb Norton, Allied Services Integrated Health System
Gregory Lilly, Administrative Fellow, Geisinger
Phyllis Mitchell, Vice President Corporate Communications, Geisinger
Tracey Wolfe, Vice President, Medicine Institute, Geisinger

CHNA Regional Advisory Committee

Renee Blakiewicz, Administrative Director, Geisinger Community Medical Center
Julie Bordo, Operations Manager, Geisinger Wyoming Valley Medical Center/Geisinger South Wilkes-Barre
Brian Ebersole, Senior Director of Springboard Health
Olive Herb, RN Care Coordinator, Geisinger Jersey Shore Hospital
Allison Hess, Associate Vice President, Geisinger Health and Wellness
Kristy Hine, Associate Vice President, Geisinger Lewistown Hospital
Corinne Klose, Associate Vice President of Operations and Special Projects, Geisinger Shamokin Area Community Hospital
Daniel Landesberg, Administrative Director, Geisinger Wyoming Valley Medical Center/Geisinger South Wilkes-Barre
Lisa Makara, Program & Events Specialist, Geisinger Bloomsburg Hospital
Tamara Persing, Vice President Nursing Administration, Evangelical Community Hospital
Adam Robinson, Administrative Fellow, Geisinger Medical Center/Geisinger Shamokin Area Community Hospital
Nadine Srouji, MD, Medical Director, Value-Based Care & Bundling, Geisinger Holy Spirit Medical Group
Kirk Thomas, Chief Administrative Officer, Geisinger Lewistown Hospital
Brock Trunzo, Digital Marketing Producer, Geisinger Jersey Shore Hospital
Skip Wieder, Volunteer, Geisinger, United Way
Barbara Zarambo, Director of Operations, Geisinger Viewmont Imaging
Randy Zickgraf, Director Tax Services, Geisinger

Community Engagement

Community engagement was an integral part of the 2018 CHNA. Webinars were held in October and November 2017 to announce the onset of the CHNA and encourage broad participation across the region. Throughout October and November 2017, a Key Informant Survey was sent to approximately 1,000 representatives of health and human service organizations, religious institutions, civic associations, businesses, elected officials and other community representatives. Partner Forums were held throughout the region in January 2018 to bring together these partners to review research findings and provide feedback on the most pressing community health needs. In March and April 2018, focus groups with seniors were held to better understand challenges and opportunities to improving health among high risk populations. Community Forums are planned for Fall 2018 to present CHNA findings and Implementation Plans to community residents and provide a forum for dialogue about addressing community health needs.

CHNA Methodology

The 2018 CHNA was conducted from September 2017 to April 2018 and used both primary and secondary research to illustrate and compare health trends and disparities across the region. Primary research was used to solicit input from key community stakeholders representing the broad interests of the community, including experts in public health and individuals representing medically underserved, low-income, and minority populations. Focus groups and interviews were used to collect in-depth insight from health consumers representing medically underserved or high risk populations. Existing data sources, including public health statistics, demographic and social measures, and healthcare utilization, were collected and analyzed to identify health trends across hospital service areas.

Specific research methods included:

- An analysis of statistical health and socioeconomic indicators from across the region
- An analysis and comparison of acute hospital utilization data
- A Key Informant Survey with 113 community leaders and representatives
- Six regional Partner Forums with community based organizations to identify community health priorities and facilitate collaboration toward community health improvement
- Twelve Focus Groups with seniors to examine preferences, challenges, and opportunities to accessing and receiving healthcare
- Prioritization of community health needs to determine the most pressing health issues on which to focus community health improvement efforts

The 2018 CHNA built upon the hospitals' previous CHNAs and subsequent Implementation Plans. The CHNA was conducted in a timeline to comply with IRS Tax Code 501(r) requirements to conduct a CHNA every three years as set forth by the Affordable Care Act (ACA). The research findings will be used to guide community benefit initiatives for the hospitals and engage local partners to collectively address identified health needs.

Prioritized Community Health Needs

In assessing the health needs of the community, Evangelical and its CHNA partners solicited and received input from persons who represent the broad interests of the communities served by each hospital, including those with expertise in public health, representatives of medically underserved, low income, and minority populations, and other community stakeholders who brought wide perspectives on community health needs, existing community resources to meet those needs, and gaps in the current service delivery system. Through facilitated dialogue and a series of criteria-based voting exercises, the following health issues were prioritized as the most significant health needs across the region on which to focus health improvement efforts over the coming three-year cycle.

- Access to Care
- Behavioral Healthcare
- Chronic Disease Prevention and Management

To direct community benefit and health improvement activities, Evangelical and its CHNA partners created individual Implementation Plans for each hospital to detail the resources and services that will be used to address these identified health priorities.

Board Approval

A full report of the CHNA was approved by the Evangelical Board of Directors in May 2018. The Implementation Plan will be presented for review and approval in October 2018. The Board and leadership of Evangelical Community Hospital is committed to making resources available in support of programs and services to address the identified health needs.

Research Partner

Baker Tilly was engaged as the research partner for the CHNA. Baker Tilly assisted in all phases of the CHNA including project management, quantitative and qualitative data collection, small and large group facilitation, and report writing. The Baker Tilly team has worked with more than 100 hospitals and thousands of their community partners across the nation to assess health needs and develop actionable plans for community health improvement.

2018 CHNA Research and Planning Team

Julius Green, CPA, JD, Tax Exempt Practice Leader
Colleen Milligan, MBA, CHNA Project Manager
Catherine Birdsey, MPH, Research Manager
Brittany Blau, MPH, Research Consultant
Jessica Losito, BS, Research Consultant
Keith Needham, BS, Research Consultant

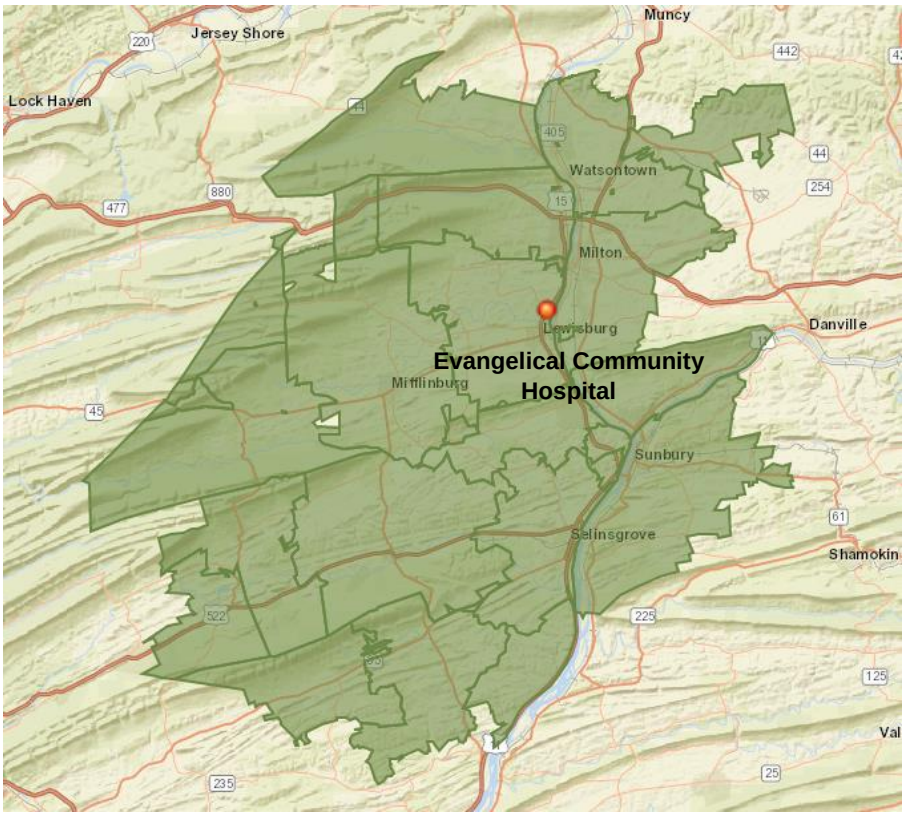
Service Area Description for Evangelical Community Hospital

Population Overview

Evangelical Community Hospital primarily serves residents in 35 zip codes spanning Juniata, Northumberland, Snyder, and Union Counties in Pennsylvania. The 2017 population of the service area is 133,124 and is projected to increase 0.5% by 2022.

Zip Codes
17086, Juniata
17730, Northumberland
17749, Northumberland
17772, Northumberland
17777, Northumberland
17801, Northumberland
17810, Union
17812, Snyder
17813, Snyder
17827, Snyder
17831, Snyder
17833, Snyder
17835, Union
17837, Union
17842, Snyder
17843, Snyder
17844, Union
17845, Union
17847, Northumberland
17850, Northumberland
17853, Snyder
17855, Union
17856, Union
17857, Northumberland
17861, Snyder
17862, Snyder
17864, Snyder
17865, Northumberland
17870, Snyder
17876, Snyder
17883, Union
17885, Union
17886, Union
17887, Union
17889, Union

Evangelical Community Hospital Service Area



Service Area Population Growth

2017 Population	% Growth from 2010	% Growth by 2022
133,124	0.7%	0.5%

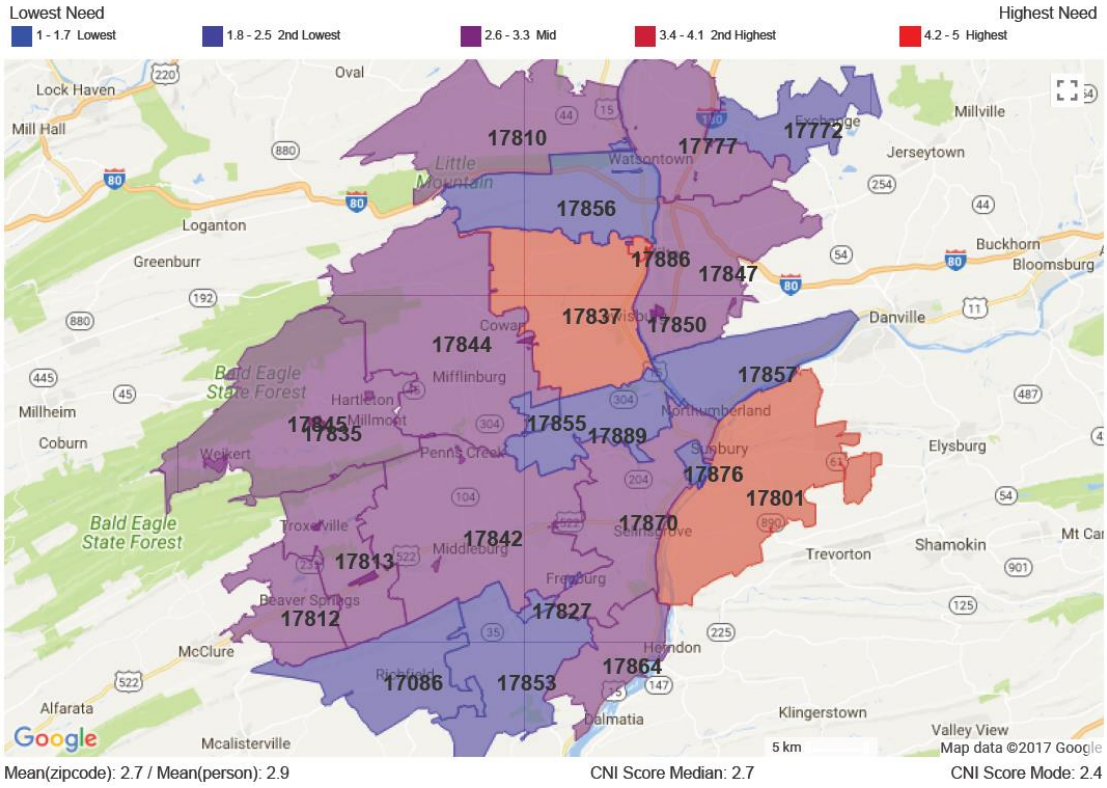
Zip code of residence is one of the most important predictors of health disparity; where residents live matters in determining their health. The Community Need Index (CNI) was developed by Dignity Health and Truven Health Analytics to illustrate the potential for health disparity at the zip code level. The CNI scores zip codes on a scale of 1.0 (low need) to 5.0 (high need) based on 2015 data indicators for five socioeconomic barriers:

- Income: Poverty among elderly households, families with children, and single female-headed families with children
- Culture/Language: Minority populations and English language barriers

- Education: Population over 25 years without a high school diploma
- Insurance coverage: Unemployment rate among population 16 years or over and population without health insurance
- Housing status: Householders renting their home

The weighted average CNI score for Evangelical Community Hospital's 35 zip code service area is 2.9, indicating moderate overall community need. Laurelton in Union County has the highest CNI score (3.6), but the score is based on a low population count. Zip codes 17801, Sunbury, 17837, Lewisburg, 17847, Milton, and 17886, West Milton have the next highest CNI score (3.4).

Community Needs Index for Evangelical Community Hospital's Service Area



The following table analyzes social determinants of health contributing to zip code CNI scores. Zip codes are shown in comparison to their respective county and the state, and are presented in descending order by CNI score. Cells highlighted in yellow are more than 2% points *higher* than the county statistic. Exception: English speaking cells are more than 2% points *lower* than the county statistic.

Residents within the primary service area zip codes generally have lower poverty rates; five zip codes exceed the respective county rate. However, residents in 10 zip codes have higher uninsured rates and residents in six zip codes have lower educational attainment. Residents within the Snyder County zip codes of 17864, Port Treverton, and 17853, Mount Pleasant Mills, are the most impacted by these indicators.

Zip code 17810, Allenwood, has greater population diversity, but the zip code is home to a Federal Correctional Institution. Incarcerated populations are historically disproportionately diverse.

Social Determinants of Health Indicators by Zip Code

	Black/ African American	Hispanic / Latino	English Speaking (only)	HHs in Poverty	Unemp-loyment	Less than HS Diploma	Without Health Insurance	CNI Score
Juniata County	**0.8%**	**3.5%**	**90.8%**	**12.7%**	**5.3%**	**17.4%**	**14.5%**	
17086 (Richfield)	0.8%	1.2%	92.8%	8.0%	3.7%	18.2%	16.1%	2.4
Northumberland County	**2.6%**	**3.7%**	**95.8%**	**13.2%**	**5.7%**	**13.6%**	**9.6%**	
17801 (Sunbury)	2.5%	7.1%	95.5%	14.5%	6.8%	15.6%	10.7%	3.4
17847 (Milton)	2.6%	6.4%	96.5%	13.6%	6.6%	13.3%	8.6%	3.4
17850 (Montandon)	1.4%	3.0%	98.8%	17.6%	5.8%	14.4%	12.2%	3.0
17777 (Watsontown)	1.0%	1.5%	94.4%	10.3%	3.3%	12.9%	14.6%	2.8
17857 (Northumberland)	1.2%	3.3%	96.9%	7.5%	5.2%	10.5%	7.5%	2.4
17772 (Turbotville)	0.6%	0.8%	94.2%	8.1%	3.7%	14.0%	10.8%	1.8
17749 (Mc Ewensville)	1.5%	0.0%	100.0%	3.5%	2.6%	3.9%	17.9%	NA
Snyder County	**1.2%**	**2.4%**	**89.9%**	**10.8%**	**3.2%**	**16.6%**	**14.8%**	
17812 (Beaver Springs)	0.3%	0.4%	91.6%	16.1%	3.9%	20.9%	15.4%	2.8
17864 (Port Trevorton)	0.7%	0.9%	61.0%	12.1%	3.2%	33.4%	40.9%	2.8
17870 (Selinsgrove)	2.4%	4.7%	92.0%	10.0%	2.2%	12.0%	9.8%	2.8
17842 (Middleburg)	0.8%	1.4%	94.5%	12.1%	3.8%	16.1%	12.8%	2.6
17813 (Beavertown)	0.3%	0.7%	96.9%	11.4%	3.8%	15.3%	8.1%	2.6
17876 (Shamokin Dam)	0.7%	2.0%	96.6%	11.4%	3.7%	9.0%	5.2%	2.4
17853 (Mount Pleasant Mills)	0.6%	0.6%	84.0%	10.4%	4.1%	23.8%	22.9%	2.4
17827 (Freeburg)	0.2%	0.3%	94.1%	9.7%	6.4%	11.2%	11.4%	2.4
Union County	**7.3%**	**6.1%**	**90.6%**	**12.7%**	**5.1%**	**15.1%**	**11.5%**	
17835 (Laurelton)	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	3.6
17837 (Lewisburg)	6.8%	6.7%	91.4%	15.6%	4.8%	14.4%	6.8%	3.4
17886 (West Milton)	4.0%	4.8%	97.1%	14.8%	6.9%	16.7%	5.3%	3.4
17810 (Allenwood)	30.3%	19.9%	79.0%	10.1%	4.3%	15.8%	17.5%	3.2
17845 (Millmont)	0.7%	1.1%	92.2%	11.4%	6.2%	18.5%	18.3%	3.0
17844 (Mifflinburg)	1.0%	1.2%	90.0%	11.7%	4.9%	17.6%	17.5%	2.6
17856 (New Columbia)	1.4%	1.4%	99.6%	8.9%	6.5%	10.2%	12.3%	2.2
17855 (New Berlin)	0.3%	0.4%	98.1%	10.0%	4.0%	6.8%	7.3%	1.8
17889 (Winfield)	0.8%	1.1%	92.1%	4.8%	3.7%	12.4%	14.7%	1.8
17887 (White Deer)	0.0%	0.7%	100.0%	15.6%	3.6%	17.3%	22.8%	NA
Pennsylvania	**11.2%**	**7.4%**	**89.4%**	**12.9%**	**6.2%**	**10.1%**	**8.8%**	

*The following zip codes are Postal Office (PO) boxes and are not reported: 17730, 17831, 17833, 17843, 17861, 17862, 17865, 17883, and 17885.

Secondary Data Profile: Central Region

The Central Region is comprised of nine counties and is served by six of the CHNA collaborating hospitals, including Evangelical Community Hospital.

Central Region Service Area Counties

- Clinton County
- Columbia County
- Lycoming County
- Montour County
- Northumberland County
- Schuylkill County
- Snyder County
- Sullivan County
- Union County

CHNA Collaborating Hospitals Serving the Central Region

- Evangelical Community Hospital
- Geisinger Medical Center
- Geisinger Shamokin Area Community Hospital
- Geisinger Bloomsburg Hospital
- Geisinger HealthSouth
- Geisinger Jersey Shore Hospital

Secondary Data Profile Summary

Secondary data, including demographic and public health indicators, were analyzed for the Central Region to better understand community drivers of health status, health and socioeconomic trends, and emerging community needs. Data were compared to state and national benchmarks, as available, to identify areas of strength and opportunity for the region.

All reported demographic data were provided by ESRI Business Analyst, 2017 and the US Census Bureau, American Community Survey, unless otherwise noted. Health data were compiled from secondary sources, including the Pennsylvania Department of Health, the Centers for Disease Control and Prevention (CDC), the Behavioral Risk Factor Surveillance System (BRFSS), the University of Wisconsin County Health Rankings & Roadmaps program, among other sources. A comprehensive list of data sources can be found in Appendix A.

Public health data were analyzed for a number of health issues, including access to care, health behaviors and outcomes, chronic disease prevalence and mortality, mental health and substance abuse, and maternal and child health. This section provides a summary of the data findings. Full analysis of the demographic and public health measures follows this summary.

Public health data for the service counties are compared to state and national averages and Healthy People 2020 (HP 2020) goals, where applicable, to provide benchmark comparisons. Healthy People is a U.S. Department of Health and Human Services health promotion and disease prevention initiative. Healthy People provides science-based, 10-year national objectives for improving the health of all Americans.

The Central Region population is primarily White, but becoming more diverse. The White population as a percentage of the total population is declining in all counties, while Black/African American and Hispanic/Latino populations are growing. The demographic shift is a statewide

trend. Minority populations are the only growing demographic in Pennsylvania. The Hispanic/Latino population is one of the fastest growing demographic groups. Montour, Northumberland and Schuylkill Counties are projected to experience the greatest increase in the Hispanic/Latino population.

Pennsylvania fares better than the nation on most economic indicators. Pennsylvania residents are less likely to live in poverty, have a similar unemployment rate as the nation's average, and are more likely to have attained at least a high school diploma.

Within the Central Region, residents have a lower median household income when compared to the state and the nation. Residents in Clinton, Columbia and Lycoming have higher poverty rates than the state and the nation. Similarly, education attainment is lower among most Central Region counties, except in Montour, Snyder, and Sullivan.

Racial and ethnic minority groups like Black/African American or Hispanic/Latino residents are more likely to be impacted by adverse socioeconomic factors, including poverty, unemployment, or education attainment. Poverty is one of the biggest drivers of disparity in the Central Region. Poverty rates among minority populations are double the rates among Whites. Socioeconomic disparity contributes to worse health outcomes. Because population counts for minority residents across the region are low, health disparities are primarily evidenced by state and national trends.

Areas of Strength for the Central Region:

- Health Insurance Coverage: The percentage of uninsured residents declined since the last CHNA for all counties except Columbia and Snyder. All counties except Snyder have a lower uninsured rate when compared to the nation.
- Mental Health Provider Rate: The provider rate per 100,000 population increased from the 2015 CHNA for all counties except Montour.
- Smoking: Adult smoking rates declined from the 2015 CHNA for nearly every county. All counties have a similar or lower smoking rate compared to the state and the nation.
- Top Causes of Death: Heart disease and cancer are the top causes of death within the Central Region. The death rate due to heart disease declined for all counties except Schuylkill from 2006 to 2015. While in decline, heart disease death rates for Clinton, Columbia, Northumberland, and Schuylkill counties continue to exceed state and national death rates. The death rate due to cancer declined for all counties; nearly all counties meet the Healthy People 2020 goal for cancer death.
- Notifiable Diseases**:** All counties except Sullivan have a lower gonorrhea incidence rate than the state and the nation. Among counties with annual reporting, incidence rates decreased or remained stable. Similarly, all counties have a lower incidence of HIV.

- Senior Health: Senior Medicare Beneficiaries have similar or lower rates of Alzheimer's disease, asthma, cancer, and stroke compared to the state and the nation. Alzheimer's disease prevalence rates are lower than the state and the nation, but five counties have a higher rate of death due to the disease. Beneficiaries in nearly all counties are more likely to receive diabetes and mammogram screenings.
- Teen Birth: The percentage of births to teenagers declined across all counties.

Areas of Opportunity for the Central Region:

- Health Insurance Coverage: Across the state and the nation, uninsured rates are higher among Blacks/African Americans and Hispanics/Latinos than Whites. Within the Central Region, Columbia, Lycoming, Montour, Northumberland, Schuylkill, Sullivan, and Union have higher uninsured rates among Blacks/African Americans and Hispanics/Latinos.
- Provider Rates:
  - Primary Care: All counties except Montour and Union have a lower primary care provider to population rate than the state and the nation. Geographic areas within five counties are designated as Health Professional Shortage Areas (HPSAs) for primary care.
  - Mental Healthcare: All counties except Montour have lower provider rates than the state and the nation. Clinton and Lycoming Counties are HPSAs for mental healthcare.
  - Dental Healthcare: All counties except Union are HPSAs for dental care for low income populations.
- Health Outcomes: Nearly all counties have declined in health outcomes rankings since the 2015 CHNA. A leading contributor is premature death; six counties have a higher premature death rate than the state and the nation.
- Obesity: Adults in all counties except Union have higher obesity rates than the state and the nation. Obesity rates among 7^{th}-12^{th} grade students also exceed the state benchmark.
- Chronic Lower Respiratory Disease: Despite declining smoking rates, all counties except Columbia and Union have a higher chronic lower respiratory disease death rate compared to the state and the nation. Death rates have been variable with inconsistent annual trends.
- Diabetes: Adult diabetes prevalence increased for all counties except Snyder. All counties except Snyder have a higher prevalence rate than the state.
- Notifiable Diseases**:**
  - Chlamydia**:** Chlamydia incidence increased for all counties except Clinton, but current rates for nearly all counties are lower than state and national rates.
  - Lyme Disease**:** Lyme disease incidence increased across the region. Six out of nine counties have a higher incidence rate of Lyme Disease than the state.

- Mental Health and Substance Abuse:
  - Suicide Death: The suicide rate for reportable counties (Columbia, Lycoming, Northumberland, and Schuylkill) exceeds the Healthy People 2020 goal. The rate for all counties except Columbia also exceeds the state and the nation.
  - Mental and Behavioral Disorders Death: The mental and behavioral disorders death rate increased across the state and for all reportable counties in the region.
  - Excessive Drinking: Excessive drinking rates among adults increased for four counties (Lycoming, Montour, Snyder, and Union). Lycoming, Montour, and Union Counties also have a higher rate of driving deaths due to DUI.
  - Drug-Induced Deaths:
    - Drug-induced deaths include drug overdoses and deaths from medical conditions resulting from chronic drug use. Pennsylvania has a higher drug-induced death rate than the nation; Clinton, Northumberland, and Schuylkill Counties also have a higher death rate.
    - Deaths due to drug-related overdoses increased for all counties except Montour and Sullivan. Schuylkill County has the highest overdose death rate in the region; the rate exceeds the state rate.
  - Youth Indicators: The percentage of students who felt sad or depressed on most days during the past year increased for all reported counties. Students in Lycoming County have some of the highest depression rates and are among the most likely to have used alcohol or marijuana in the past 30 days.
- Senior Health: Approximately 50% or more of senior Medicare Beneficiaries have high cholesterol and/or hypertension. Beneficiaries in Northumberland and Schuylkill Counties have some of the highest rates of chronic disease overall.
- Maternal and Child Health:
  - Prenatal Care: Six out of nine counties do not meet the Healthy People 2020 goal for the percentage of mothers receiving first trimester prenatal care. Black/ African American and Hispanic/Latina mothers are the least likely to receive care.
  - Smoking during Pregnancy: The percentage of mothers who smoke during pregnancy decreased, but no counties meet the Healthy People 2020 goal for the indicator. White mothers are the most likely to smoke during pregnancy.
  - Breastfeeding: The percentage of mothers who breastfeed increased, but six counties do not meet the Healthy People 2020 goal for the indicator. White and Black/African American mothers are the least likely to breastfeed.

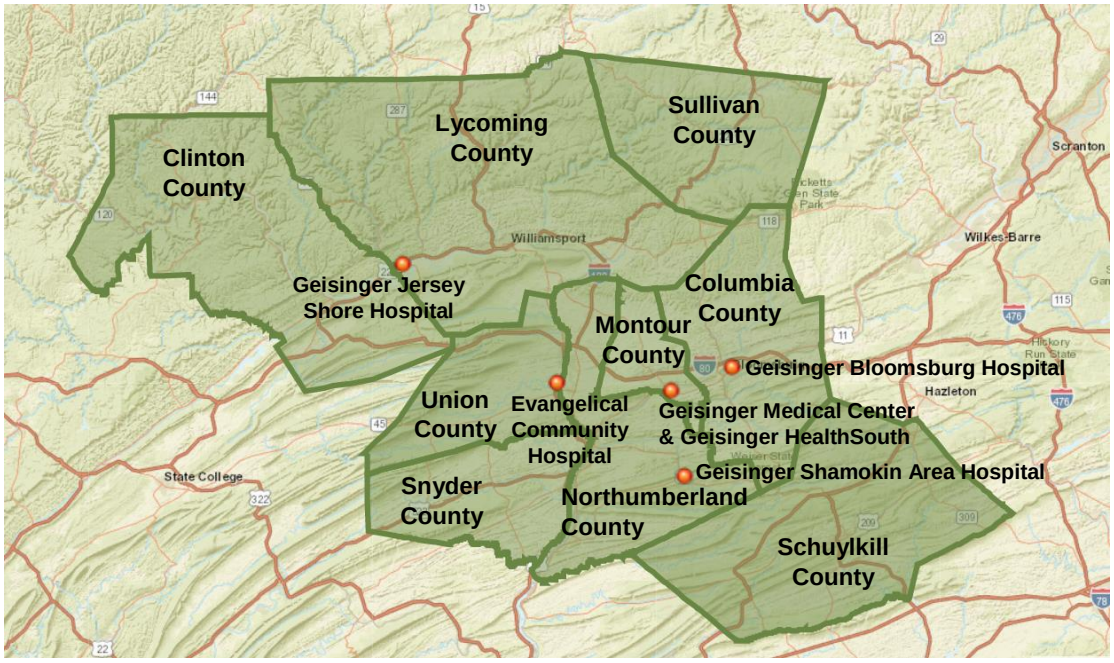
Full Report of Demographic Analysis

The following section outlines key demographic indicators related to the social determinants of health within the Central Region. Social determinants of health are factors within the environment in which people live, work, and play that can affect health and quality of life, and are often the root cause of health disparity. Healthy People 2020 defines a health disparity as "a particular type of health difference that is closely linked with social, economic, or environmental disadvantage." All reported demographic data are provided by ESRI Business Analyst, 2017 and the US Census Bureau, American Community Survey, unless otherwise noted.

Central Region Demographic Overview

The 2017 population of the Central Region is 577,141. Lycoming and Schuylkill Counties comprise the majority of the population (46%). Counties with some of the smallest population counts (Clinton, Montour, and Snyder) are expected to have the largest growth by 2022.

Central Region Counties and CHNA Collaborating Hospitals



Population Growth

County	2017 Population	% Growth from 2010	% Growth by 2022
Clinton	40,309	2.7%	2.1%
Columbia	67,293	0.0%	-0.8%
Lycoming	116,794	0.6%	0.0%
Montour	19,011	4.1%	2.7%
Northumberland	94,060	-0.5%	-1.1%
Schuylkill	146,871	-1.0%	-1.3%
Snyder	41,142	3.6%	2.2%
Sullivan	6,303	-1.9%	-1.7%
Union	45,358	0.9%	1.1%

The Central Region population is primarily White, but diversity is increasing. The percentage of White residents decreased about 1 percentage point from 2010 to 2017, while the percentages of Black/African American and/or Hispanic/Latino increased slightly since 2010. These trends are expected to continue through 2022. Consistent with the demographics of the area, residents are more likely to speak English as their primary language.

2017 Population Overview

County	White	Black or African American	Asian	Hispanic or Latino (any race)	Speak English Only*
Clinton	95.8%	1.8%	0.6%	1.6%	94.4%
Columbia	94.4%	2.0%	1.2%	2.9%	96.8%
Lycoming	91.5%	4.8%	0.7%	2.2%	96.4%
Montour	92.5%	1.7%	3.6%	3.2%	94.1%
Northumberland	93.6%	2.6%	0.5%	3.7%	95.8%
Schuylkill	92.6%	3.1%	0.6%	4.4%	95.5%
Snyder	96.1%	1.2%	0.7%	2.4%	89.9%
Sullivan	93.9%	4.1%	0.5%	1.9%	97.3%
Union	86.8%	7.3%	1.7%	6.1%	90.6%
Pennsylvania	79.6%	11.2%	3.5%	7.4%	89.4%
United States	70.2%	12.8%	5.6%	18.2%	79.0%

*Data is reported for 2011-2015.

2010-2022 Population Change by Race/Ethnicity

County	White		Black/African American		Hispanic or Latino	
	2010	2022	2010	2022	2010	2022
Clinton	96.5%	95.2%	1.6%	1.9%	1.1%	2.0%
Columbia	95.4%	93.3%	1.9%	2.3%	2.0%	3.7%
Lycoming	92.7%	91.5%	4.5%	4.8%	1.3%	2.2%
Montour	95.3%	90.7%	1.4%	1.9%	1.8%	4.2%
Northumberland	95.4%	92.3%	2.0%	3.1%	2.4%	4.8%
Schuylkill	94.4%	91.1%	2.7%	3.5%	2.8%	5.9%
Snyder	96.9%	95.4%	1.1%	1.4%	1.7%	3.1%
Sullivan	95.9%	92.4%	2.6%	5.2%	1.4%	2.4%
Union	87.7%	86.2%	7.4%	7.3%	5.2%	6.5%

Pennsylvania has a higher median age than the nation. The median age of Lycoming, Montour, Northumberland, Schuylkill, and Sullivan Counties exceeds the state. Sullivan County has the highest median age, exceeding the state by 11 points.

2017 Population by Age

County	Under 14 years	15-24 years	25-34 years	35-54 years	55-64 years	65+ years	Median Age
Clinton	16.0%	17.4%	11.4%	22.6%	13.8%	18.6%	39.8
Columbia	14.0%	19.4%	10.7%	22.9%	14.0%	18.9%	40.7
Lycoming	16.0%	13.9%	12.0%	24.2%	14.6%	19.1%	42.2
Montour	16.7%	10.1%	11.2%	24.9%	15.3%	21.7%	45.4
Northumberland	15.8%	10.6%	12.0%	25.0%	15.0%	21.4%	44.9
Schuylkill	15.2%	10.2%	12.2%	26.6%	14.8%	20.7%	44.9
Snyder	17.6%	15.1%	11.5%	24.0%	13.7%	17.9%	40.2
Sullivan	11.0%	11.3%	9.1%	22.0%	19.6%	26.7%	52.6
Union	14.1%	17.5%	13.2%	25.5%	12.4%	17.0%	38.9
Pennsylvania	16.8%	13.2%	12.5%	13.7%	14.1%	18.1%	41.3
United States	18.6%	13.3%	13.8%	6.6%	12.9%	15.6%	38.2

All counties within the Central Region have a lower median household income than the state and the nation. Sullivan County has the lowest median household income, but similar poverty rates to the state. Clinton, Columbia, and Lycoming Counties have the highest poverty rates among all residents and/or children. Approximately 22% to 25% of children in Clinton and Lycoming Counties live in poverty. Montour County has the highest median household income and the lowest poverty rates.

All Central Region counties except Montour have a higher percentage of blue collar workers when compared to the state and the nation. The unemployment rate for all counties is similar to or lower than the state unemployment rate, ranging from 3% to 6%.

2017 Median Household Income and 2011-2015 Poverty/Food Stamp Status

County	Median Household Income	People in Poverty	Children in Poverty	Households with Food Stamp/ SNAP Benefits
Clinton	$44,575	16.4%	25.3%	15.7%
Columbia	$47,243	16.1%	18.1%	10.5%
Lycoming	$46,554	14.5%	22.4%	12.9%
Montour	$54,967	9.9%	13.1%	9.8%
Northumberland	$43,180	13.8%	21.3%	12.5%
Schuylkill	$48,724	13.1%	19.6%	14.2%
Snyder	$50,524	10.8%	17.2%	11.3%
Sullivan	$42,008	13.0%	19.6%	8.7%
Union	$52,091	12.8%	17.8%	11.2%
Pennsylvania	$56,184	13.5%	19.2%	12.9%
United States	$56,124	15.5%	21.7%	13.2%

2017 Population by Occupation and Unemployment

County	White Collar Workforce	Blue Collar Workforce	Unemployment Rate
Clinton	45.0%	55.0%	4.4%
Columbia	53.0%	47.0%	4.9%
Lycoming	53.0%	47.0%	6.3%
Montour	62.0%	38.0%	5.4%
Northumberland	48.0%	52.0%	5.7%
Schuylkill	49.0%	51.0%	6.1%
Snyder	46.0%	54.0%	3.2%
Sullivan	43.0%	57.0%	6.0%
Union	51.0%	49.0%	5.1%
Pennsylvania	60.0%	40.0%	6.2%
United States	61.0%	39.0%	5.5%

Homeownership is a measure of housing affordability and economic stability. All counties have a lower median home value when compared to the state, but only householders in Montour, Schuylkill, and Snyder Counties are more likely to own their home. All three counties have some of the lowest poverty rates in the region.

2017 Population by Household Type

County	Renter-Occupied	Owner-Occupied	Median Home Value
Clinton	30.9%	69.1%	$124,034
Columbia	32.5%	67.5%	$149,820
Lycoming	33.6%	66.4%	$141,489
Montour	29.7%	70.3%	$176,572
Northumberland	29.6%	70.4%	$114,977
Schuylkill	26.4%	73.6%	$109,425
Snyder	27.5%	72.5%	$152,255
Sullivan	21.6%	78.4%	$158,380
Union	30.5%	69.5%	$169,454
Pennsylvania	32.3%	67.7%	$182,727
United States	37.3%	62.7%	$207,344

Education is the largest predictor of poverty and one of the most effective means of reducing inequalities. A higher percentage of residents in all counties except Montour conclude their education with a high school diploma when compared to the state. Montour County residents are more likely to have a bachelor's degree or higher when compared to peer counties.

2017 Population (25 Years or Over) by Educational Attainment

County	Less than a High School Diploma	High School Graduate/GED	Bachelor's Degree or Higher
Clinton	12.1%	39.8%	18.2%
Columbia	10.8%	40.6%	22.6%
Lycoming	11.2%	34.4%	21.8%
Montour	9.9%	34.8%	30.6%
Northumberland	13.6%	43.3%	15.8%
Schuylkill	11.8%	40.3%	16.5%
Snyder	16.6%	39.9%	17.8%
Sullivan	9.9%	43.7%	17.3%
Union	15.1%	31.3%	21.9%
Pennsylvania	10.1%	31.2%	30.3%
United States	12.6%	23.4%	31.0%

Across the Central Region, Black/African American and Hispanic/Latino residents are impacted by higher rates of poverty and unemployment when compared to Whites. Montour County is the exception; Blacks/African Americans have favorable rates compared to Whites.

Note: Black/African American and Hispanic/Latino residents account for a small percentage of county residents. Percentages shown below may be based on small counts.

2011-2015 Social and Economic Differences by Race and Ethnicity

County	People in Poverty					
	White		Black/African American		Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
Clinton	5,744	15.9%	107	46.3%	130	35.3%
Columbia	9,166	15.2%	379	55.7%	391	26.0%
Lycoming	13,044	12.7%	1,996	40.4%	738	41.9%
Montour	1,719	10.2%	3	1.8%	180	48.4%
Northumberland	11,644	13.4%	278	39.7%	626	28.8%
Schuylkill	17,031	12.7%	525	41.0%	1,317	31.9%
Snyder	3,863	10.5%	46	17.6%	107	16.4%
Sullivan	579	9.9%	151	96.2%	29	25.9%
Union	4,173	12.1%	244	46.7%	527	45.5%

County	Unemployment Rate					
	White		Black/African American		Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
Clinton	1,848	5.9%	70	13.2%	74	18.9%
Columbia	2,856	5.3%	255	23.3%	137	11.4%
Lycoming	6,063	6.8%	1,063	26.9%	36	2.7%
Montour	979	6.8%	13	5.5%	170	62.2%
Northumberland	5,195	7.0%	994	40.9%	323	18.1%
Schuylkill	9,729	8.5%	974	26.8%	494	14.6%
Snyder	1,536	4.9%	35	10.1%	63	11.4%
Sullivan	383	7.1%	127	80.7%	36	32.5%
Union	1,698	5.2%	1,152	37.6%	180	8.8%

County	Bachelor's Degree or Higher					
	White		Black/African American		Hispanic/Latino	
	Count	Percentage	Count	Percentage	Count	Percentage
Clinton	4,162	17.0%	28	17.1%	37	18.2%
Columbia	8,859	20.9%	92	24.5%	121	14.2%
Lycoming	15,891	20.9%	188	6.2%	242	28.3%
Montour	3,477	27.2%	28	27.5%	47	19.5%
Northumberland	9,716	14.8%	36	2.1%	80	6.5%
Schuylkill	15,920	15.7%	126	4.3%	249	9.2%
Snyder	4,127	16.0%	43	26.4%	54	13.8%
Sullivan	776	16.0%	6	100.0%	12	18.5%
Union	5,808	22.1%	225	8.1%	142	8.7%

Central Region Special Population Groups

The Amish are a prominent population group within Central Pennsylvania communities. According to the 2010 study, *The Amish Population: County Estimates and Settlement Patterns*, "The Amish are growing faster than almost any other subculture, religious or non-religious, in North America. One reason is that they are a "high fertility" group. For the Amish, large families are an expression both of religious convictions and of a people whose economy is based on agriculture and other manual trades where the labor of children is valued."

The following table depicts estimated population counts for Amish settlements within the Central Region. The population is captured by church district, which is typically comprised of a few

dozen families. Clinton County has the largest estimated Amish population, followed by Lycoming County.

2017 Amish Population by Settlement

County	Settlement	Districts	Population
Centre/Clinton	Nittany Valley/Howard	7	1,244
Clinton	Loganton/Sugar Valley	7	1,022
Columbia/Montour	Bloomsburg/Danville	5	662
Lycoming	White Deer Valley/Allenwood	5	784
Lycoming	Williamsport/Nippenose Valley	2	310
Montour/Northumberland	Turbotville/Danville	3	328
Northumberland	Northumberland/Dornsife	3	452
Snyder	McClure	3	320
Union	Winfield	2	150
Central Region		37	5,272
Pennsylvania		497	74,251

Source: Elizabethtown College, Young Center for Anabaptist and Pietist Studies, 2017

A study published in 2016 by The Sentencing Project, a nonprofit advocacy organization, found that in state prisons, African Americans are incarcerated five times more than Whites, and Hispanics are incarcerated nearly two times more than Whites. The following table identifies state and federal prison facilities within the Central Region and corresponding demographic data for each facility's zip code of origin to identify potential factors influencing racial and ethnic diversity within Central Region counties. In example, the increased percentages of Black African/American and Hispanic/Latino populations within Union County may be impacted by prison inmate populations which reflect greater diversity than the overall population.

State and Federal Prison Facilities and Racial/Ethnic Demographics

Prison Facility	Location	Inmate Population	Zip Code Demographics		County Demographics	
			Black/African American	Hispanic/ Latino	Black/African American	Hispanic/ Latino
State Correctional Institution, Muncy	17756, Muncy (Lycoming County)	1,381	0.3%	1.8%	4.8%	2.2%
State Correctional Institution, Coal Twp.	17866, Coal Twp. (Northumberland County)	2,308	12.7%	3.9%	2.6%	3.7%
Federal Correctional Institution, Schuylkill	17954, Minersville (Schuylkill County)	1,377	1.8%	4.0%	3.1%	4.4%
State Correctional Institution, Frackville	17931, Frackville (Schuylkill County)	1,229	0.4%	1.7%	3.1%	4.4%
State Correctional Institution, Mahanoy	17932, Frackville (Schuylkill County)	2,363	NA	NA	3.1%	4.4%
Federal Correctional Institution, Allenwood	18710, Allenwood (Union County)	3,316	29.8%	14.7%	7.3%	6.1%
US Penitentiary, Lewisburg	17837, Lewisburg (Union County)	786	6.8%	6.7%	7.3%	6.1%

Source: Federal Bureau of Prisons and Pennsylvania Department of Corrections

Full Report of Public Health Statistical Analysis

Public health data were analyzed across a number of health issues, including access to care, health behaviors and outcomes, chronic disease morbidity and mortality, mental health and substance abuse trends, and maternal and child health measures.

Data were compiled from secondary sources including the Pennsylvania Department of Health, the Centers for Disease Control and Prevention (CDC), the Behavioral Risk Factor Surveillance System (BRFSS), the University of Wisconsin County Health Rankings & Roadmaps program, among other sources. A comprehensive list of data sources can be found in Appendix A.

Public health data focus on county-level reporting; zip code data is provided as available. Public health data for the service counties are compared to state and national averages and Healthy People 2020 (HP 2020) goals, where applicable, to provide benchmark comparisons. Healthy People is a U.S. Department of Health and Human Services health promotion and disease prevention initiative. Healthy People provides science-based, 10-year national objectives for improving the health of all Americans.

Age-adjusted rates are referenced throughout the report to depict the burden of disease among residents. Age-adjusted rates are summary measures adjusted for differences in age distributions so that data from one year to another, or between one geographic area and another, can be compared as if the communities reflected the same age distribution.

The BRFSS is a telephone survey conducted nationally by the CDC to assess health-related risk behaviors, chronic health conditions, and the use of preventive services. BRFSS findings are reported by county or by region. The regions reported in this assessment include:

- Region 1: Berks and Schuylkill Counties
- Region 2: Bradford, Sullivan, Tioga, Lycoming, Clinton and Potter Counties
- Region 3: Centre, Columbia, Montour, Northumberland, Snyder and Union Counties

Access to Healthcare

Central Region service counties received the following County Health Rankings for Clinical Care Access out of 67 counties in Pennsylvania. The rankings are based on a number of indicators, including health insurance coverage and provider access. All Central Region counties except Columbia, Montour, and Schuylkill have a higher (worse) ranking from the 2014 rankings reported as part of the 2015 CHNA. Montour County is ranked first in the state.

2017 Clinical Care County Health Rankings

#1 Montour County (#3 in 2014)
#3 Union County (#2 in 2014)
#11 Snyder County (#10 in 2014)
#12 Lycoming County (#11 in 2014)
#17 Columbia County (#34 in 2014)
#27 Northumberland County (#26 in 2014)
#41 Schuylkill County (#41 in 2014)
#55 Clinton County (#39 in 2014)
#59 Sullivan County (#52 in 2014)

Health Insurance Coverage

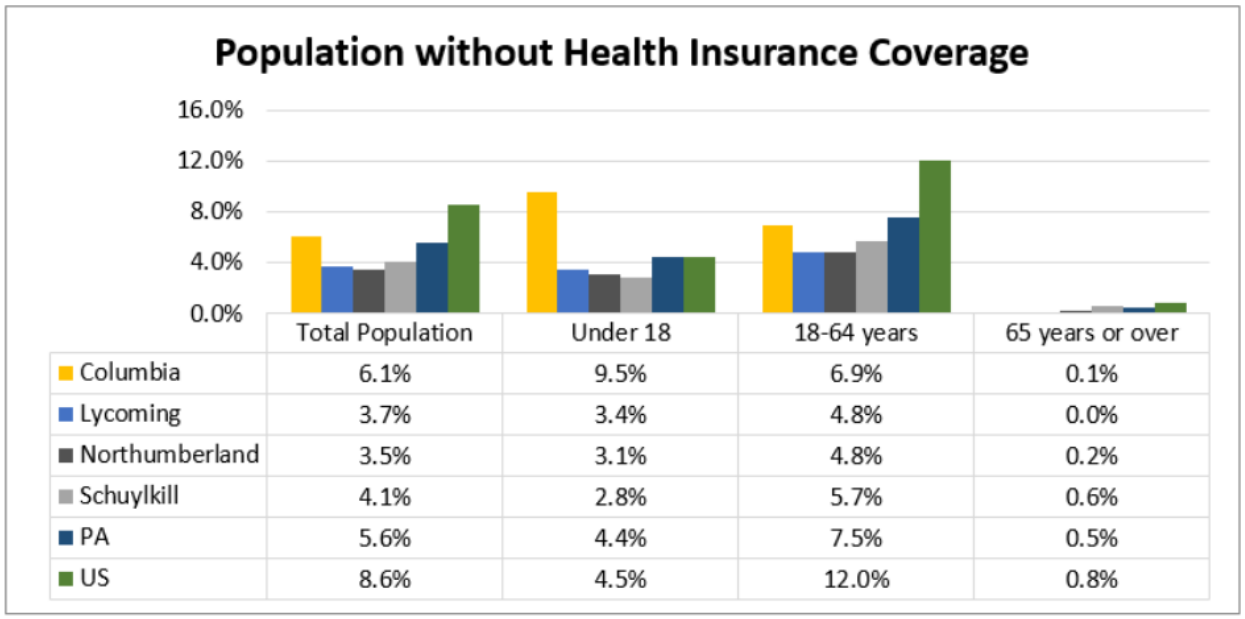
All Central Region counties except Snyder have a lower uninsured rate when compared to the nation; Lycoming, Montour, Northumberland, and Schuylkill Counties also have a lower uninsured rate when compared to the state. The uninsured rate for Snyder County increased 2 points over the past seven years and is the highest in the region. However, none of the counties meet the Healthy People 2020 goal of having 100% of all residents insured.

Residents in all Central Region counties except Snyder are more likely to have health insurance when compared to the nation

Uninsured rates for Clinton, Montour, Snyder, Sullivan, and Union are reported as five-year aggregates due to secondary data limitations. Aggregate rates include data years prior to the implementation of the Affordable Care Act individual mandate, which may contribute to a higher reported percentage of uninsured residents. The uninsured rate declined or remained stable in all counties except Snyder over the past seven years. Clinton, Snyder, and Union Counties have a higher uninsured rate among children.

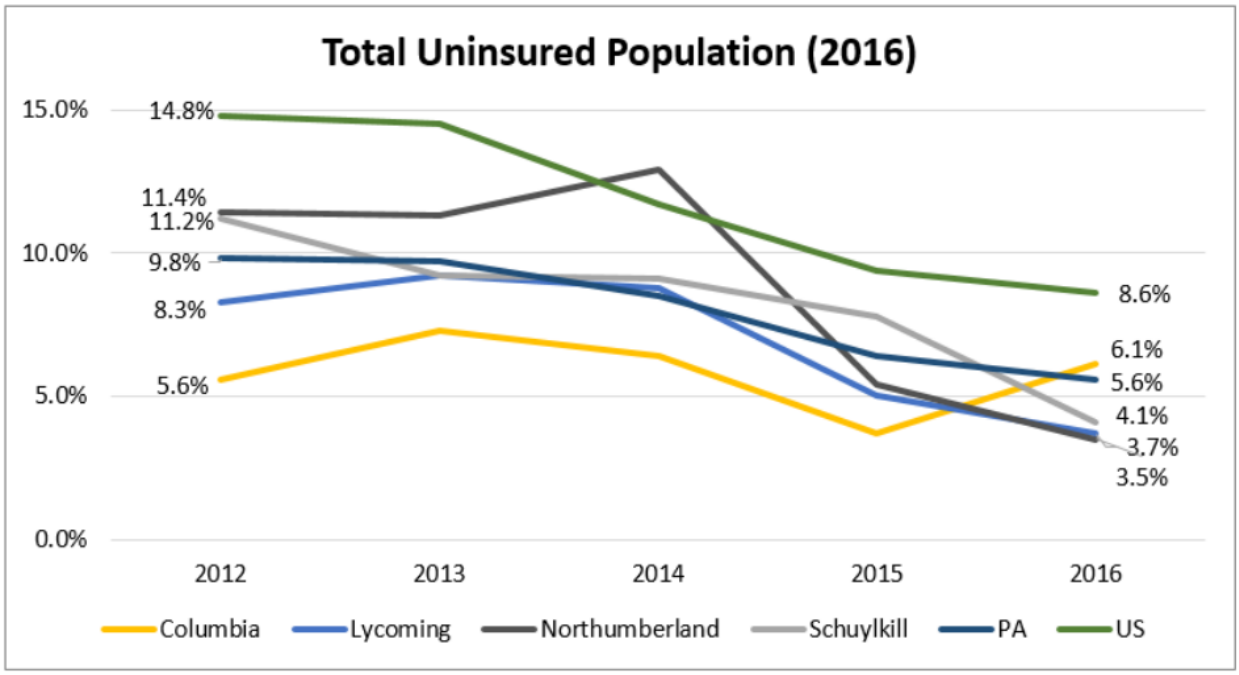
Clinton, Columbia, Snyder, and Union Counties have higher uninsured rates among children

Uninsured rates for Columbia, Lycoming, Northumberland, and Schuylkill are reported annually. The percentage of uninsured residents declined in all counties except Columbia from 2012 to 2016. Northumberland County had the greatest rate decline of 8 points. The Columbia County uninsured rate increased 2 points from 2015 to 2016. The county has a higher uninsured rate among children when compared to the state and the nation.

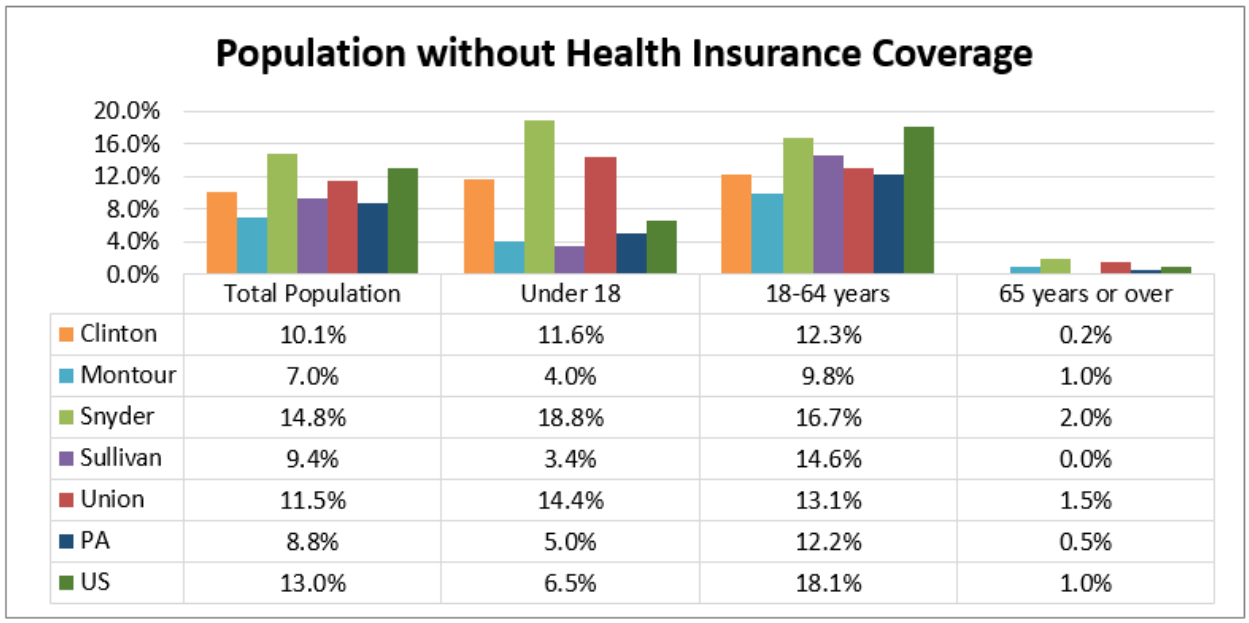


	Total Population	Under 18	18-64 years	65 years or over
Columbia	6.1%	9.5%	6.9%	0.1%
Lycoming	3.7%	3.4%	4.8%	0.0%
Northumberland	3.5%	3.1%	4.8%	0.2%
Schuylkill	4.1%	2.8%	5.7%	0.6%
PA	5.6%	4.4%	7.5%	0.5%
US	8.6%	4.5%	12.0%	0.8%

Source: American Community Survey, 2016

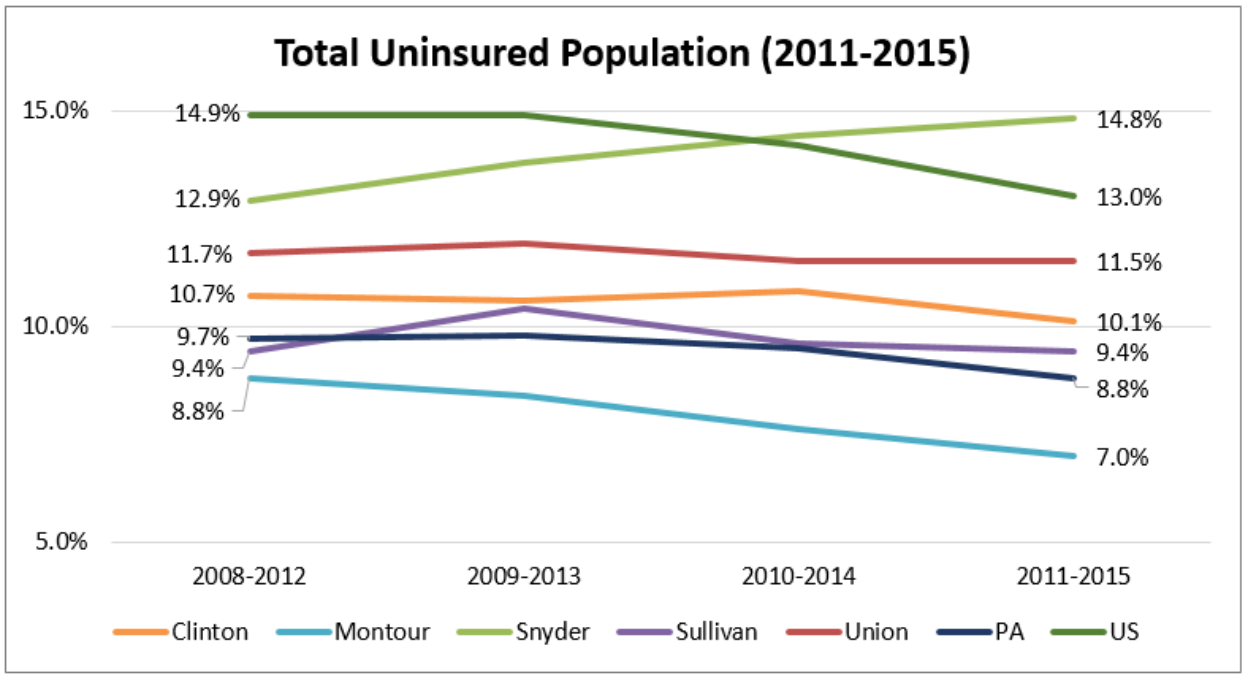


Source: American Community Survey, 2012-2016



	Total Population	Under 18	18-64 years	65 years or over
Clinton	10.1%	11.6%	12.3%	0.2%
Montour	7.0%	4.0%	9.8%	1.0%
Snyder	14.8%	18.8%	16.7%	2.0%
Sullivan	9.4%	3.4%	14.6%	0.0%
Union	11.5%	14.4%	13.1%	1.5%
PA	8.8%	5.0%	12.2%	0.5%
US	13.0%	6.5%	18.1%	1.0%

Source: American Community Survey, 2011-2015



Source: American Community Survey, 2008-2012 – 2011-2015

Across the state and the nation, uninsured rates are highest among Hispanics/Latinos. Montour, Northumberland, Schuylkill, and Union Counties mirror state and national trends. Columbia, Lycoming, and Sullivan Counties have higher uninsured rates among Black/African American residents.

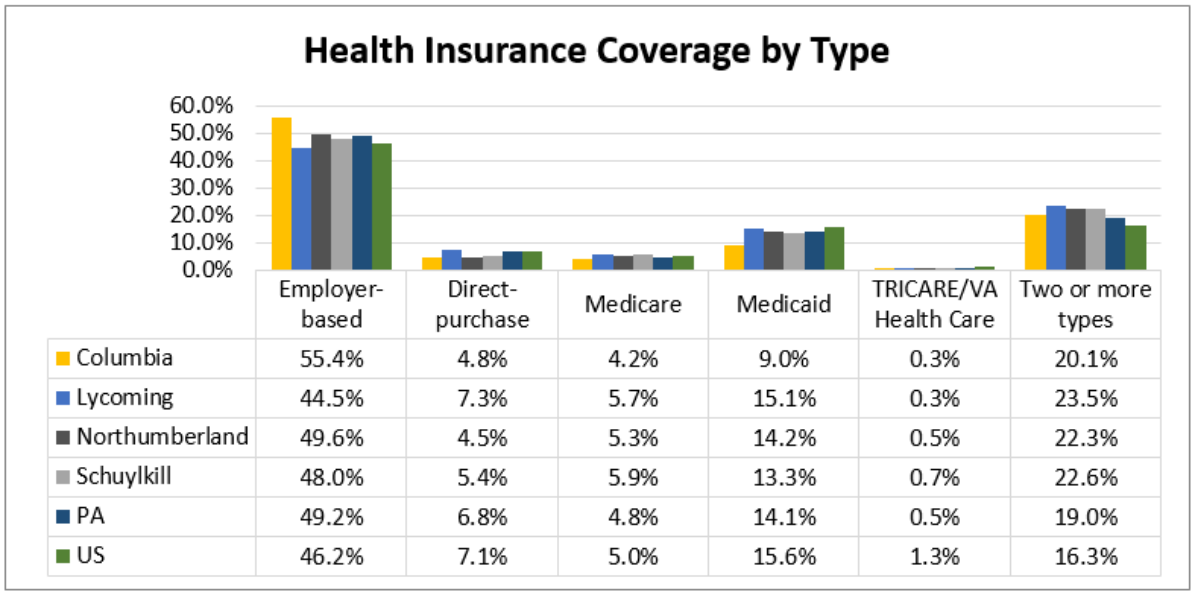
Across the state and the nation, uninsured rates are highest among Hispanics/Latinos; rates vary within the Central Region

Population without Health Insurance Coverage by Race/Ethnicity

	Uninsured Rate		
	White	Black/African American	Hispanic/Latino
Clinton County	10.2%	3.3%	9.9%
Columbia County	6.2%	8.7%	2.0%
Lycoming County	8.5%	14.0%	7.7%
Montour County	7.1%	11.9%	25.7%
Northumberland County	9.5%	16.7%	17.2%
Schuylkill County	9.1%	12.0%	17.1%
Snyder County	14.9%	3.5%	9.4%
Sullivan County	8.6%	47.1%	11.6%
Union County	11.8%	2.8%	17.5%
Pennsylvania	7.8%	12.8%	18.9%
United States	11.5%	15.3%	25.8%

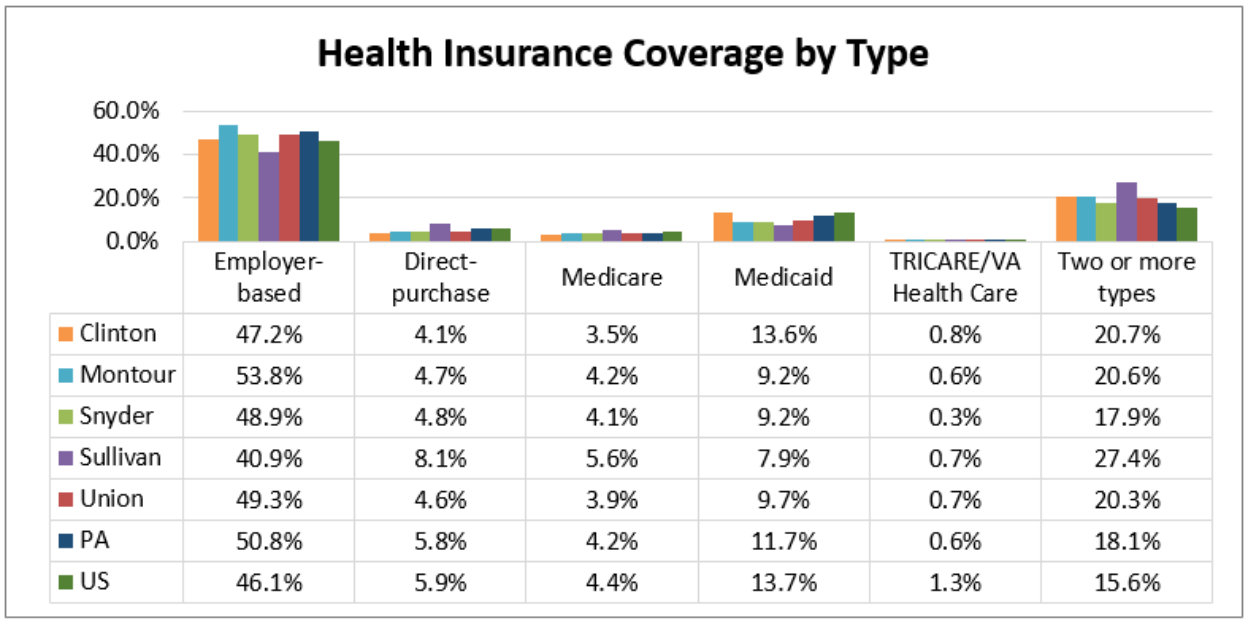
Source: American Community Survey, 2011-2015

The following graphs depict health insurance coverage by type of insurance. Residents in the Central Region are most likely to be covered by employer-based insurance, followed by a combination (private and/or public) of insurance types. A higher percentage of Columbia and Montour County residents have employer-based insurance compared to the state and the nation.



	Employer-based	Direct-purchase	Medicare	Medicaid	TRICARE/VA Health Care	Two or more types
Columbia	55.4%	4.8%	4.2%	9.0%	0.3%	20.1%
Lycoming	44.5%	7.3%	5.7%	15.1%	0.3%	23.5%
Northumberland	49.6%	4.5%	5.3%	14.2%	0.5%	22.3%
Schuylkill	48.0%	5.4%	5.9%	13.3%	0.7%	22.6%
PA	49.2%	6.8%	4.8%	14.1%	0.5%	19.0%
US	46.2%	7.1%	5.0%	15.6%	1.3%	16.3%

Source: American Community Survey, 2016



	Employer-based	Direct-purchase	Medicare	Medicaid	TRICARE/VA Health Care	Two or more types
Clinton	47.2%	4.1%	3.5%	13.6%	0.8%	20.7%
Montour	53.8%	4.7%	4.2%	9.2%	0.6%	20.6%
Snyder	48.9%	4.8%	4.1%	9.2%	0.3%	17.9%
Sullivan	40.9%	8.1%	5.6%	7.9%	0.7%	27.4%
Union	49.3%	4.6%	3.9%	9.7%	0.7%	20.3%
PA	50.8%	5.8%	4.2%	11.7%	0.6%	18.1%
US	46.1%	5.9%	4.4%	13.7%	1.3%	15.6%

Source: American Community Survey, 2011-2015

Provider Access

Provider rates are measured for primary, dental, and mental healthcare. In the following table, cells highlighted in green represent provider rates that increased from the previous reporting year. Cells highlighted in red represent provider rates that decreased from the previous reporting year. Provider rates are compared to rates reported in the 2014 County Health Rankings, a source for the 2015 CHNA.

All Central Region counties except Montour and Union have a lower primary care provider rate than the state and the nation

Across the region, all counties except Montour and Union have a lower primary care provider rate than the state and the nation. Several areas within Clinton, Columbia, Lycoming, Northumberland, and Sullivan Counties are designated by the Health Resources & Services Administration (HRSA) as Health Professional Shortage Areas (HPSAs) for primary care.

All Central Region counties except Union are HPSAs for dental care for low income populations

All counties except Montour have a lower dental care provider rate than the state and the nation. All counties except Union are HPSAs for dental care for low income populations. The Mifflinburg service area within Union County is a HPSA for dental care.

The mental healthcare provider rate increased in all counties except Montour from 2014 to 2016. However, Montour is the only county to have a higher provider rate when compared to the state and the nation. Clinton and Lycoming Counties are HPSAs for mental healthcare. Montour County is home to Geisinger Medical Center, one of the largest providers in the region.

Sullivan County is the most medically underserved area in the region. The county does not have a primary or mental healthcare provider, and has one dental care provider. The county is not served by a Federally Qualified Health Center.

Sullivan County does not have a primary or mental healthcare provider

Provider Rate Trends per 100,000*
(Green = Increase of More than 2 Points; Red = Decrease of More than 2 Points)

	Primary Care		Dental Care		Mental Healthcare	
	2011	2014	2012	2015	2014**	2016
Clinton County	51.0	55.4	48.1	40.6	72.6	98.9
Columbia County	68.2	52.1	44.9	46.5	44.9	51.0
Lycoming County	69.4	71.2	40.1	44.8	106.2	123.2
Montour County	508.3	466.7	87.2	86.2	377.5	371.8
Northumberland County	37.0	41.5	36.0	38.6	24.4	32.2
Schuylkill County	59.7	59.0	37.4	44.3	52.4	62.2
Snyder County	57.8	49.6	42.9	39.6	37.6	49.5
Sullivan County	0.0	0.0	15.5 (n=1)	15.8 (n=1)	0.0	0.0
Union County	80.3	80.2	53.4	53.4	113.7	115.7
Pennsylvania	80.4	81.4	60.6	65.4	146.6	167.3
United States	73.8	75.8	60.1	65.8	189.0	200.0

Source: Health Resources & Services Administration, 2011-2015; Centers for Medicare and Medicaid Services, 2013-2016

*Providers are identified based on the county in which their preferred professional/business mailing address is located. Provider rates do not take into account providers that serve multiple counties or satellite clinics.

**Data are reported by the County Health Rankings (CHR). An error occurred in the method for identifying mental health providers in the 2014 CHR report. Data are shown for the 2015 CHR report (data year 2014).

Health Professional Shortage Areas

Geographic Area/Population	Primary Care	Dental Care	Mental Healthcare
Clinton County (All)			X
Snow Shoe service area: Beech Creek and West Keating	X		
Renovo service area: Chapman, Colebrook, East Keating, Grugan, Leidy, Noyes, Renovo, South Renovo	X		
Lock Haven service area (low income population): Allison, Avis, Bald Eagle, Castanea, Crawford, Dunnstable, Flemington, Gallagher, Greene, Lamar, Lock Haven, Logan, Loganton, Mill Hall, Pine Creek, Porter, Wayne, Woodward	X		
Low income population		X	

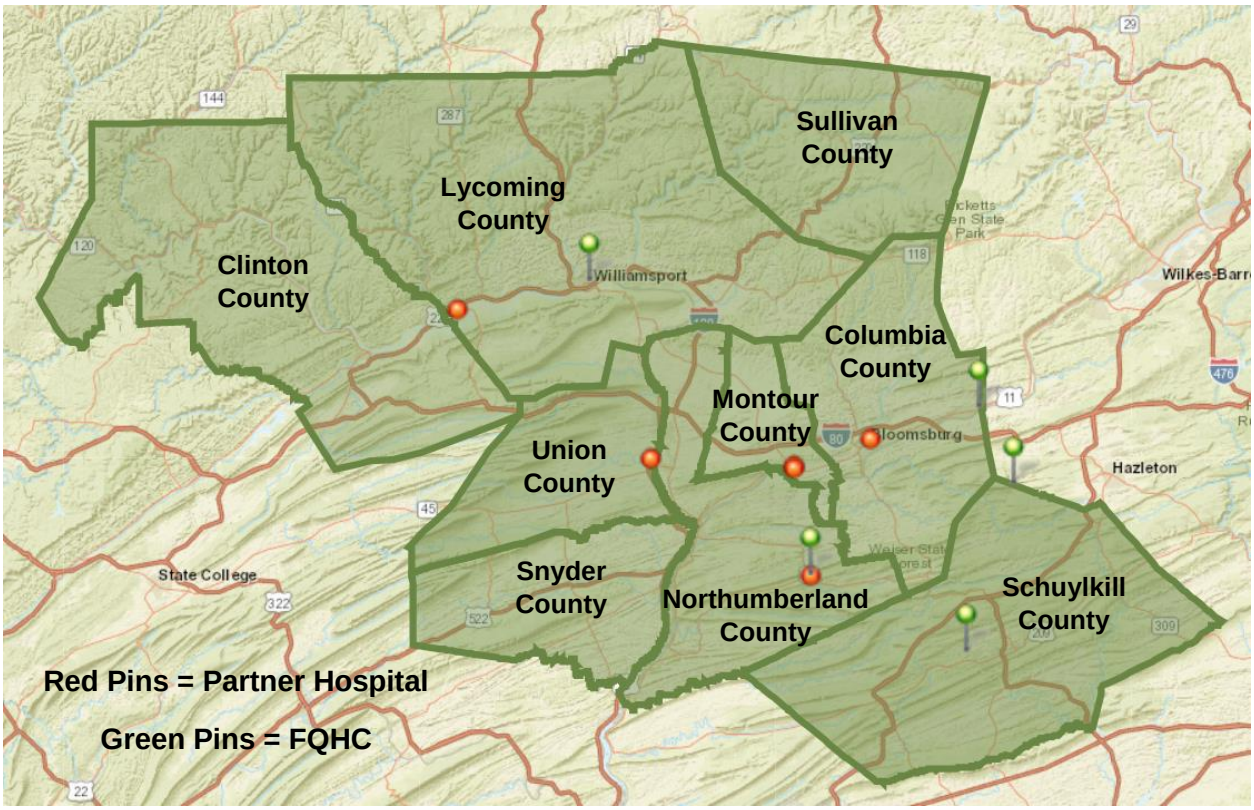
Health Professional Shortage Areas (cont'd)

	Primary Care	Dental Care	Mental Healthcare
Columbia County			
Eastern Lycoming service area: Benton, Jackson, Pine, Sugarloaf	X		
Low income population		X	
Lycoming County (All)			X
Eastern Lycoming service area: Franklin, Jordan, Moreland, Penitentiary, Picture Rocks, Shrewsbury	X		
Lock Haven service area (low income population): Cummings, Jersey Shore, Limestone, McHenry, Mifflin, Nippenose, Piatt, Porter, Salladasburg, Watson	X		
Canton service area (low income population): Cascade, Gamble, Lewis, McIntyre, McNett, Plunketts Creek	X		
Low income population		X	
Montour County			
Low income population		X	
Northumberland County			
Herndon service area (low income population): Herndon, Jackson, Jordan, Little Mahanoy, Lower Mahanoy, Upper Mahanoy, Washington	X		
Low income population		X	
Schuylkill County			
Low income population		X	
Snyder County			
Low income population		X	
Sullivan County			
Canton service area (low income population): Fox	X		
Low income population		X	X
Union County			
Mifflinburg service area (low income population): Buffalo, Gregg, Hartleton, Hartley, Kelly, Lewis, Lewisburg, Limestone, Mifflinburg, New Berlin, West Buffalo, White Deer		X	

Source: Health Resources & Services Administration, 2017

Federally Qualified Health Centers (FQHCs), as defined by HRSA, “are community-based healthcare providers that receive funds from the HRSA Health Center Program to provide primary care services in underserved areas.” They provide care services on a sliding fee scale based on patient ability to pay. The following map identifies the location of FQHCs within the region. There are no FQHCs within Clinton, Montour, Snyder, Sullivan, and Union Counties.

Federally Qualified Health Center Locations



FQHC	Address
Columbia County	
Keystone Farmworker Programs – Columbia	301 W. 3rd St., Berwick, 18603
Lycoming County	
River Valley Health & Dental Center	471 Hepburn St., Williamsport, 17701
Northumberland County	
Shamokin Community Health Center	4203 Hospital Rd., Coal Township, 17866
Schuylkill County	
Primary Health Network: Schuylkill Community Health Center	210 Sunbury St., Minersville, 17954
Rural Health Corporation of Northeastern Pennsylvania: Black Creek Health Center	75 Pineapple St., Nuremberg, 18241

Source: Pennsylvania Association of Community Health Centers & Health Resources & Services Administration

Routine Care

The percentage of adults receiving routine check-ups is increasing across the state

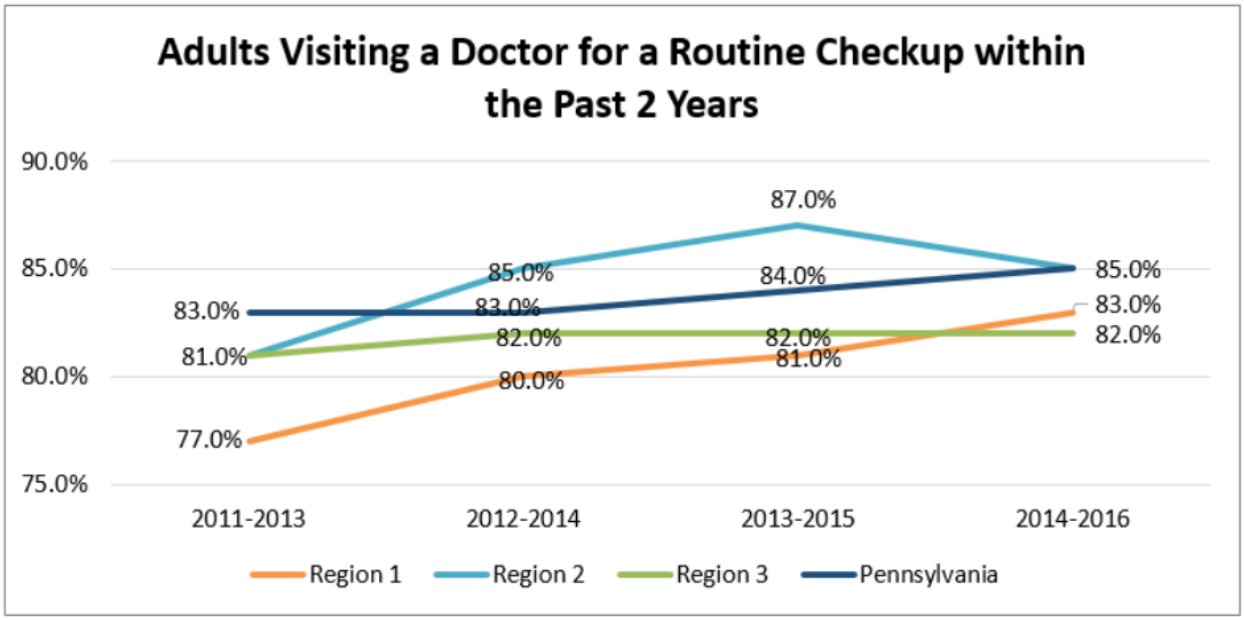
Health insurance coverage and provider rates impact the number of adults who have a primary care provider and receive routine care. The percentage of adults who receive routine checkups is increasing across the state and in Reporting Regions 1 and 2. The percentage of adults in Region 3 who receive routine checkups has been stable and consistently lower than the state percentage.

Adults in all reporting regions are just as likely or less likely to not have a personal doctor or to consider cost as a barrier to receiving care when compared to the state. Adults in Reporting Region 1, including Schuylkill County, are the least likely to have a personal doctor and the most likely to consider cost as a barrier to receiving care.

Adult Healthcare Access

	Does Not Have a Personal Doctor	Received a Routine Checkup within the Past 2 Years	Unable to See a Doctor within the Past Year due to Cost
Region 1: Berks/ Schuylkill	14%	83%	13%
Region 2: Bradford/Sullivan/ Tioga/Lycoming/Clinton/Potter	11%	85%	10%
Region 3: Centre/Columbia/ Montour/Northumberland/ Snyder/Union	13%	82%	11%
Pennsylvania	14%	85%	12%

Source: PA Department of Health BRFSS, 2014-2016



Source: PA Department of Health, 2011-2013 – 2014-2016

Overall Health Status

Central Region service counties received the following County Health Rankings for Health Outcomes out of 67 counties in Pennsylvania. Health outcomes are measured in relation to premature death (before age 75) and quality of life. All Central Region counties except Columbia and Montour have a higher (worse) ranking from the 2014 rankings reported as part of the 2015 CHNA. Schuylkill and Sullivan Counties are ranked in the bottom 5% of the state.

Schuylkill and Sullivan Counties rank in the bottom 5% of the state for Health Outcomes

2017 Health Outcomes County Health Rankings

#3 Union County (#1 in 2014)
#14 Snyder County (#6 in 2014)
#20 Montour County (#28 in 2014)
#30 Clinton County (#22 in 2014)
#33 Lycoming County (#20 in 2014)
#41 Columbia County (#42 in 2014)
#46 Northumberland County (#35 in 2014)
#64 Schuylkill County (#53 in 2014)
#66 Sullivan County (#63 in 2014)

Six counties within the Central Region have a higher premature death rate when compared to the state and the nation. Sullivan County has the highest premature death rate; the rate is 3,700 points higher than the state rate. However, adults in all counties are less likely to self-report having “poor” or “fair” health status. Adults also report a similar average of poor physical and mental health days compared to the state and the nation.

Health Outcomes Indicators
(Red = Higher Premature Death Rate than the State and the Nation)

	Premature Death Rate per 100,000	Adults with “Poor” or “Fair” Health Status	30-Day Average - Poor Physical Health Days	30-Day Average - Poor Mental Health Days
Clinton County	6,894	13.9%	3.6	3.9
Columbia County	6,415	14.6%	3.7	3.9
Lycoming County	6,993	13.5%	3.5	3.8
Montour County	7,382	12.7%	3.2	3.6
Northumberland County	7,327	14.0%	3.5	3.8
Schuylkill County	9,351	13.8%	3.5	3.7
Snyder County	6,264	13.4%	3.3	3.8
Sullivan County	10,559	13.9%	3.6	3.8
Union County	4,613	14.1%	3.3	3.6
Pennsylvania	6,843	15.3%	3.5	3.9
United States	6,600	15.0%	3.6	3.7

Source: National Center for Health Statistics, 2012-2014; CDC BRFSS, 2015

Health Behaviors

Individual health behaviors include risk behaviors like smoking, excessive drinking, and obesity, or positive behaviors like exercise, good nutrition, and stress management. Health behaviors may increase or reduce the chance of disease. The prevalence of these health behaviors is provided below, with benchmark comparisons, as available.

Risk Behaviors

Adults in the Central Region counties have similar or lower smoking rates when compared to the state and the nation, but do not meet the Healthy People 2020 goal. Lycoming County has the highest rate of adult smokers, exceeding the Healthy People 2020 goal by 7 points, but the rate declined 3 points from 2006-2012 (2014 County Health Rankings report).

Adults in the Central Region have similar or lower smoking rates when compared to the state and the nation, but do not meet the HP 2020 goal

Excessive drinking includes heavy drinking (two or more drinks per day for men and one or more drinks per day for women) and binge drinking (five or more drinks on one occasion for men and four or more drinks on one occasion for women). Adults in the Central Region counties have similar excessive drinking rates when compared to the state and the nation However, the percentage of excessive drinkers increased in four counties. Adults in Lycoming County are the most likely to drink excessively, but adults in Montour County had the largest percentage point increase from 2006-2012 (7 points).

Adults in Lycoming County are the most likely to smoke and drink excessively

Health Risk Behavior Changes among Adults from the 2015 CHNA to Present (Green = Decrease of More than 2 Points; Red = Increase of More than 2 Points)

	Smoking		Excessive Drinking	
	2006-2012	2015	2006-2012	2015
Clinton County	24.9%	17.7%	25.3%	19.4%
Columbia County	23.1%	17.9%	16.5%	18.5%
Lycoming County	22.3%	19.2%	16.7%	19.6%
Montour County	13.5%	15.6%	11.0%	18.3%
Northumberland County	22.6%	17.7%	16.4%	18.2%
Schuylkill County	24.6%	18.0%	18.7%	18.0%
Snyder County	18.0%	17.9%	15.4%	19.4%
Sullivan County	23.7%	16.8%	NA	17.3%
Union County	22.6%	18.0%	13.2%	19.4%
Pennsylvania	19.9%	18.1%	17.3%	18.1%
United States	18.1%	18.0%	15.0%	18.0%
Healthy People 2020	12.0%	12.0%	NA	NA

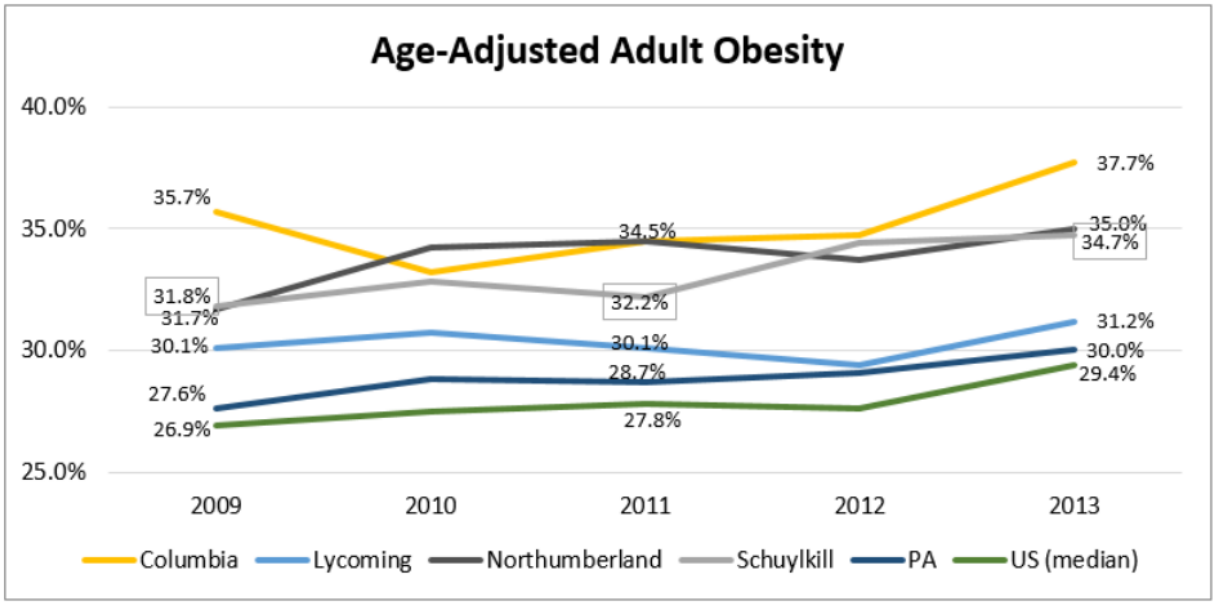
Source: CDC BRFSS*, 2006-2012 & 2015 & Healthy People 2020

*A change in methods occurred in 2011 that may affect the validity of comparisons to past years.

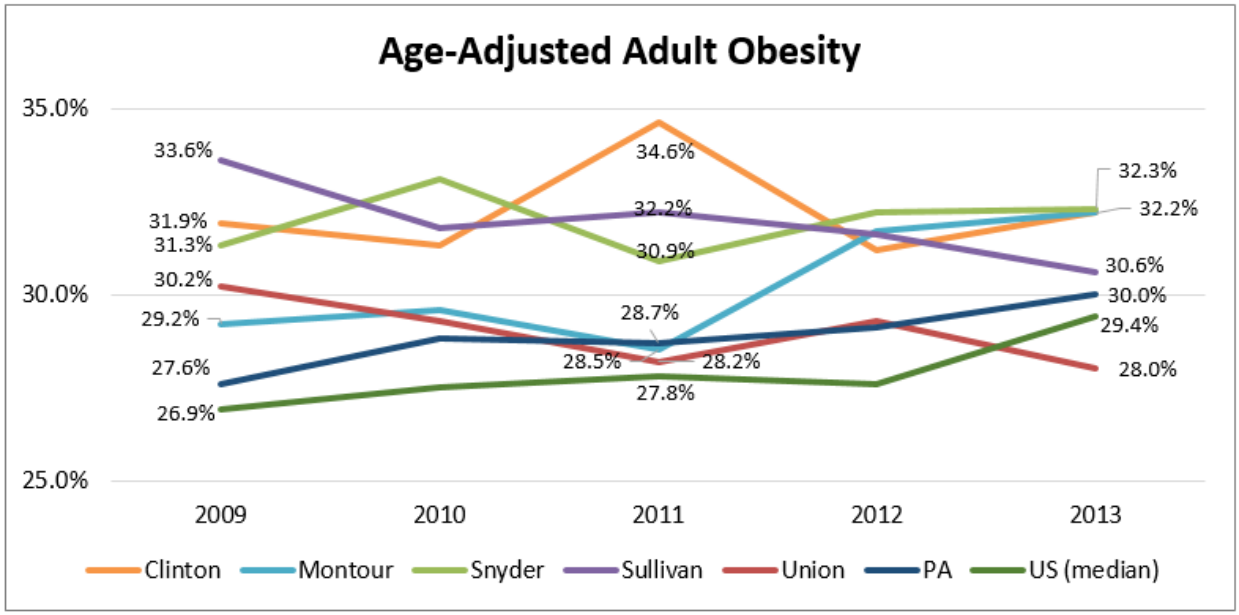
Obesity

Adults in all Central Region counties except Union are more likely to be obese when compared to the state and the nation

The percentage of obese adults and youth is a national epidemic. Across Pennsylvania and the nation, approximately 30% of adults are obese. Adults in all Central Region counties except Union are more likely to be obese when compared to the state and the nation. Sullivan and Union Counties meet the Healthy People 2020 goal of 30.5% and are the only counties that experienced a decline in adult obesity from 2009 to 2013. Obesity trends are reported by high and low density population counties.



Source: CDC BRFSS, 2009-2013*



Source: CDC BRFSS, 2009-2013*
*A change in methods occurred in 2011 that may affect the validity of comparisons to past years.

Pennsylvania youth are screened for BMI as part of school health assessments. Data are reported for students in grades K-6 and 7-12. As of the 2012-2013 school year, 7-12 grade students in all counties are more likely to be obese when compared to the state. Union County has the highest obesity percentage among 7-12 grade students; Clinton and Sullivan Counties have the highest obesity percentages among K-6 grade students.

All counties have a higher percentage of obese 7-12 grade students; all counties except Montour, Snyder and Union have a higher rate of child food insecurity

Overweight and Obesity among Students
(Red = Higher Overweight/Obesity Rate than the State by More than 2 Points)

	Overweight		Obese	
	K-6 Grade	7-12 Grade	K-6 Grade	7-12 Grade
Clinton County	17.4%	17.7%	23.3%	24.5%
Columbia County	19.8%	19.3%	19.7%	22.1%
Lycoming County	26.9%	24.9%	19.4%	22.2%
Montour County	16.4%	17.8%	14.9%	20.2%
Northumberland County	14.3%	23.3%	19.7%	24.1%
Schuylkill County	28.7%	30.1%	20.2%	21.1%
Snyder County	14.8%	16.6%	17.6%	22.5%
Sullivan County	13.1%	11.7%	23.4%	20.3%
Union County	22.2%	30.4%	16.8%	29.7%
Pennsylvania	22.0%	22.1%	16.4%	18.0%

Source: PA Department of Health, 2012-2013

Food insecurity, defined as being without a consistent source of sufficient and affordable nutritious food, contributes to obesity rates. Residents in all counties have a similar or lower percentage of food insecure residents when compared to the state and the nation. Food insecurity among children is higher in nearly all counties; Clinton County has the highest rate.

Food Insecure Residents

	All Residents	Children
Clinton County	13.9%	21.8%
Columbia County	13.0%	18.7%
Lycoming County	13.5%	19.7%
Montour County	10.5%	15.7%
Northumberland County	12.7%	19.8%
Schuylkill County	12.2%	19.2%
Snyder County	10.8%	17.9%
Sullivan County	11.5%	19.4%
Union County	11.5%	17.6%
Pennsylvania	13.1%	17.9%
United States	13.4%	17.9%

Source: Feeding America, 2015

Children in the Central Region are more likely to be food insecure, but are less likely or just as likely to be eligible for free or reduced price lunches at school. Children in Northumberland County have the highest eligibility percentage and the second highest food insecurity rate in the region.

Children Eligible for Free or Reduced Price Lunch

	Percent
Clinton County	48.2%
Columbia County	37.8%
Lycoming County	43.1%
Montour County	30.4%
Northumberland County	52.2%
Schuylkill County	48.6%
Snyder County	40.4%
Sullivan County	37.0%
Union County	31.8%
Pennsylvania	45.6%
United States	52.0%

Source: National Center for Education Statistics, 2014-2015

Access to physical activity includes access to parks, gyms, pools, etc. Residents in all Central Region counties have fewer options for physical activity when compared to the state and the nation. Adults in six counties are also more likely to be physically inactive when compared to the state and the nation.

Residents in all Central Region counties have fewer options for physical activity

Physical Activity
(Red = Lower Access and Higher Inactivity than the State and Nation by More than 2 Points)

	Access to Physical Activity	Physically Inactive Adults
Clinton County	82.0%	26.8%
Columbia County	71.6%	24.5%
Lycoming County	75.2%	25.1%
Montour County	69.6%	22.6%
Northumberland County	70.2%	28.1%
Schuylkill County	70.3%	27.9%
Snyder County	65.4%	21.9%
Sullivan County	38.8%	25.4%
Union County	73.6%	23.3%
Pennsylvania	85.2%	23.1%
United States	84.0%	22.0%

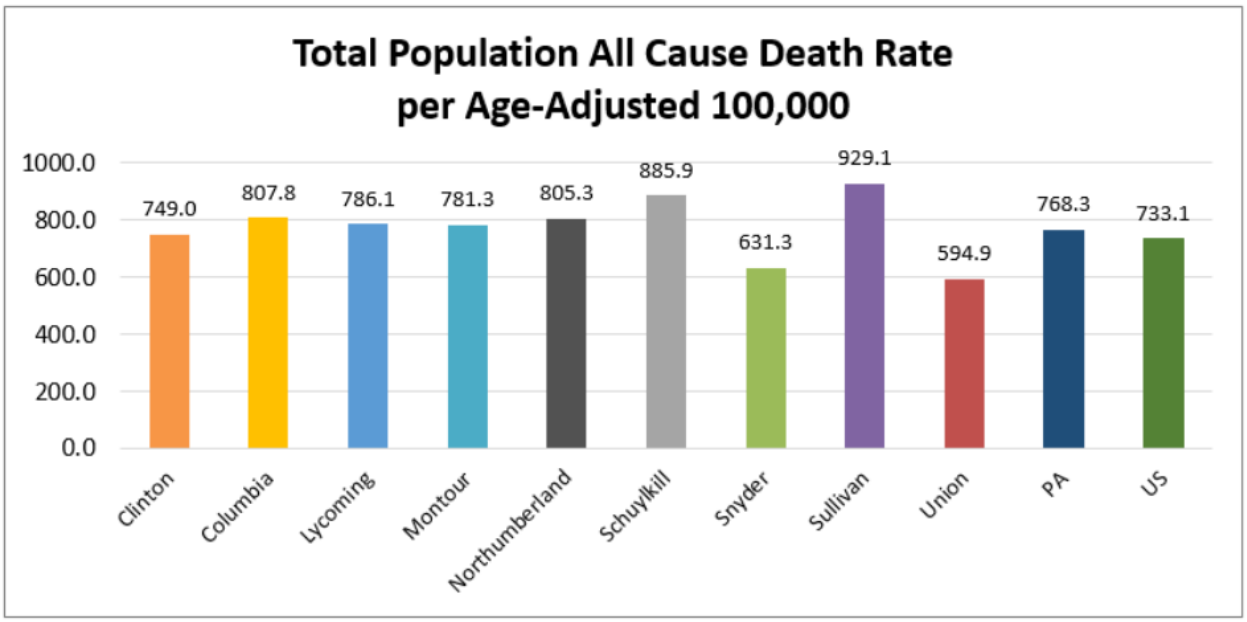
Source: Business Analyst, Delorme Map Data, ESRI, & US Census Tigerline Files, 2010 & 2014; CDC BRFSS, 2013

Mortality

The 2015 all cause age-adjusted death rate varies across Central Region counties. Snyder and Union Counties have a lower death rate than the state and the nation. All other counties except Clinton have a higher death rate than the state and the nation.

Snyder and Union Counties have a lower overall death rate than the state and the nation

Across the state and the nation, the death rate is highest among Blacks/African Americans. Race and ethnicity data are only reported for Lycoming and Schuylkill Counties due to low death counts. Both counties mirror state and national trends.



Source: CDC WONDER, 2015

All Cause Death Rate by Race and Ethnicity

	White Death Rate	Black/African American Death Rate	Hispanic/Latino Death Rate
Lycoming County	773.3	977.8	NA
Schuylkill County	886.7	1,815.2	NA
Pennsylvania	760.3	920.4	550.4
United States	753.2	876.1	525.3

Source: CDC WONDER, 2015

*Data are only reported for Lycoming and Schuylkill Counties due to low death counts.

The top five causes of death in the nation, in rank order, are heart disease, cancer, accidents, chronic lower respiratory disease (CLRD), and stroke. The following chart profiles death rates for the top five causes by service county.

The heart disease death rate for Montour, Snyder, Sullivan, and Union Counties is lower than the rate across the state and the nation. The death rate for Lycoming County is similar to the

national rate. The death rate for all other counties exceeds the state rate by 19 points (Clinton County) to 73 points (Schuylkill County).

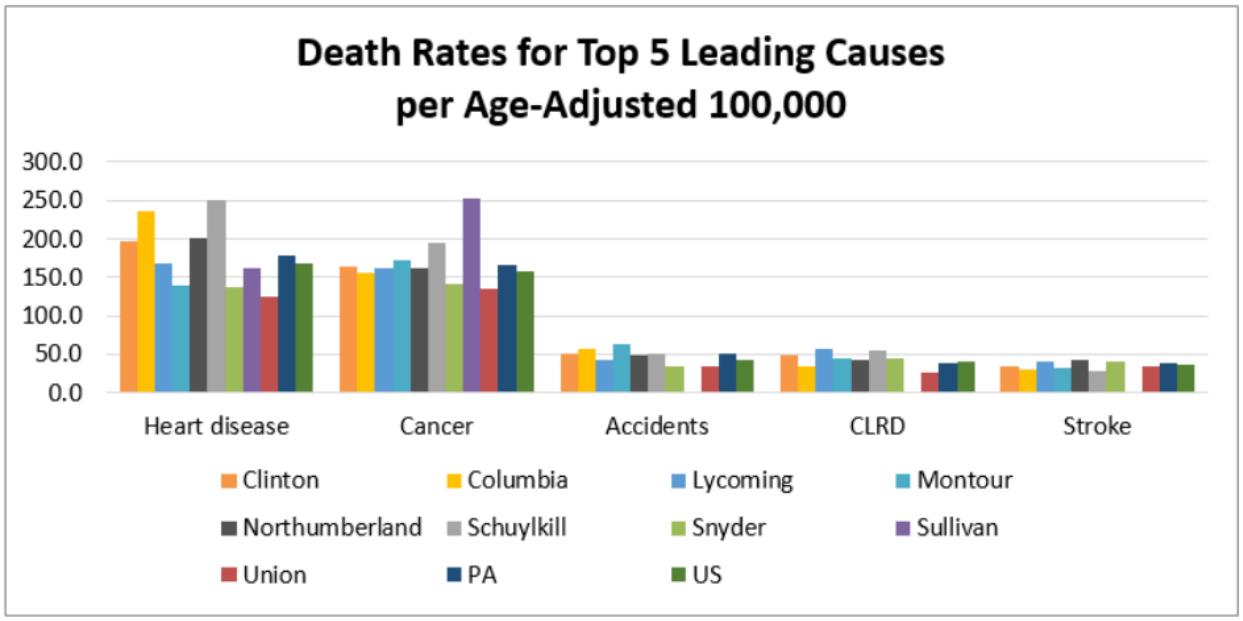
The cancer death rate for all counties except Montour, Schuylkill, and Sullivan Counties meets or nearly meets the Healthy People 2020 goal. The death rate is highest in Sullivan County, exceeding the goal by 90 points.

All Central Region Counties except Montour, Schuylkill and Sullivan meet or nearly meet the HP 2020 goal for cancer death

Nearly all Central Region counties exceed state and national benchmarks for CLRD and accidental deaths

Death rates for CLRD and accidents are generally higher across the region. All counties except Columbia and Union have a higher CLRD death rate than the state and the nation. All counties except Snyder and Union also have a higher accidental death rate than the nation and/or the Healthy People 2020 goal. Note: Accidental deaths include transport accidents, falls, accidental discharge of firearms, drowning, exposure to fire or smoke, and poisoning.

The stroke death rate for Clinton, Columbia, Montour, and Schuylkill Counties meets the Healthy People 2020 goal. The death rate for Union County nearly meets the Healthy People 2020 goal. The death rate for all other counties exceeds the goal by 5 points (Snyder County) to 9 points (Northumberland County).



Source: CDC WONDER, 2015; Healthy People 2020
*Death rates for Sullivan County are not reported for CLRD, accidents, or stroke due to low death counts.
**CLRD death rates for Montour, Snyder, and Union Counties, accidental death rates for Clinton, Montour, Snyder, and Union Counties, and stroke death rates for Clinton and Montour represent 2013-2015 rates due to a low death count.

Chronic Diseases

Chronic disease rates are increasing across the nation and are the leading causes of death and disability. Chronic diseases are often preventable through reduced health risk behaviors like smoking and alcohol use, increased physical activity and good nutrition, and early detection of risk factors and disease.

Heart Disease and Stroke

Heart disease is the leading cause of death in the nation. Approximately 5% to 9% of adults in the Central Region have been diagnosed with a form of heart disease. Adults in Region 1, including Schuylkill County, are more likely to have a heart disease diagnosis. Adults in Region 1 and Region 2 are more likely to have a heart attack diagnosis. Adults in all regions are less likely to have a stroke diagnosis.

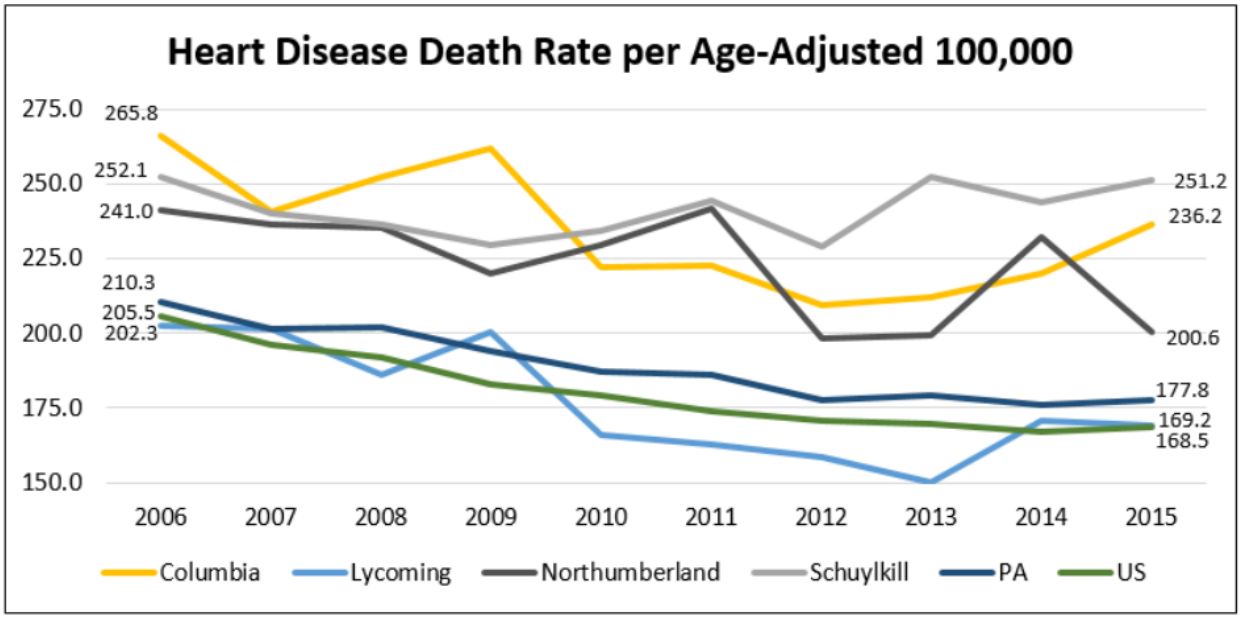
The heart disease death rate decreased in all counties except Schuylkill; Montour County had the greatest rate decline of 64 points

The heart disease death rate decreased for all Central Region counties except Schuylkill from 2006 to 2015. Montour County had the greatest decline in the death rate, falling 64 points. The Schuylkill County death rate increased between 2012 and 2015; the current rate is similar to the rate at the beginning of the decade. Schuylkill, Clinton, Columbia, and Northumberland Counties have the highest rates of death, exceeding state and national rates. Heart disease death rate trends are reported by high and low density population counties.

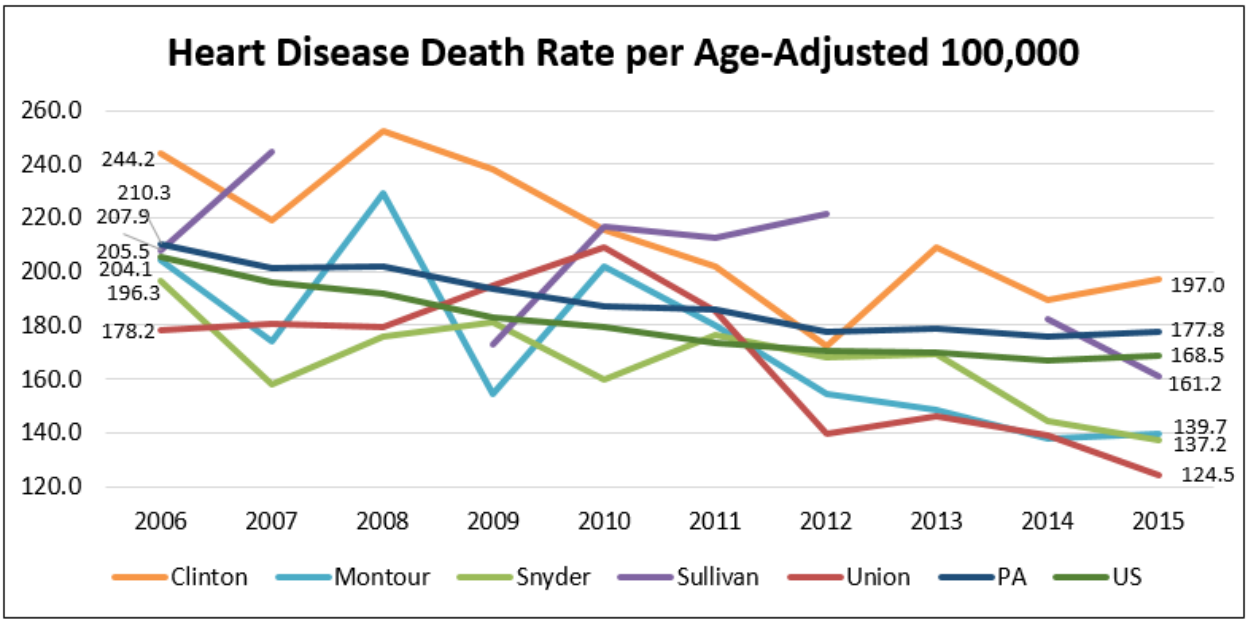
Heart Disease Prevalence among Adults

	Heart Disease	Heart Attack	Stroke
Region 1: Berks/Schuylkill	9%	10%	4%
Region 2: Bradford/ Sullivan/Tioga/Lycoming/ Clinton/Potter	5%	9%	4%
Region 3: Centre/Columbia/ Montour/Northumberland/ Snyder/Union	7%	6%	4%
Pennsylvania	7%	7%	5%

Source: PA Department of Health, 2014-2016



Source: CDC WONDER, 2006-2015



Source: CDC WONDER, 2006-2015

*Data for Sullivan County are not reported for 2008 and 2013 due to low death counts.

Across the state and the nation, Blacks/African Americans have a higher heart disease death rate than Whites. Race and ethnicity data are not reported for the Central Region due to low death counts.

State and National Heart Disease Death Rates by Race and Ethnicity

	White Death Rate	Black/African American Death Rate	Hispanic/Latino Death Rate
Pennsylvania	175.0	213.8	117.4
United States	171.2	212.1	117.9

Source: CDC WONDER, 2013-2015

Coronary heart disease (CHD) is characterized by the buildup of plaque inside the coronary arteries. Pennsylvania and the nation meet the Healthy People 2020 goal for CHD death. In the Central Region, five counties meet the Healthy People 2020 goal.

Five counties meet the HP 2020 goal for CHD death; four counties meet the goal for stroke death

Several types of heart disease, including coronary heart disease, are risk factors for stroke. Four counties meet the Healthy People 2020 goal for stroke death. Death rates for Lycoming, Northumberland, and Snyder Counties exceed state and national benchmarks.

Coronary Heart Disease and Stroke Death Rates
(Green = Meets Healthy People 2020 Goal; Red = Higher than the State and the Nation)

	Coronary Heart Disease Death per Age-Adjusted 100,000	Stroke Death per Age-Adjusted 100,000
Clinton County	138.9	33.9
Columbia County	151.8	29.9
Lycoming County	91.8	41.2
Montour County	90.5	32.6
Northumberland County	126.2	43.8
Schuylkill County	185.6	28.6
Snyder County	60.7	39.9
Sullivan County	78.0	NA
Union County	76.9	35.5
Pennsylvania	99.7	38.8
United States	97.2	37.6
HP 2020	103.4	34.8

Source: CDC WONDER, 2015

*Stroke death data for Sullivan County is not reported due to a low death count.

**The coronary heart disease death rate for Sullivan County and stroke death rates for Clinton and Montour Counties represent 2013-2015 rates due to low death counts.

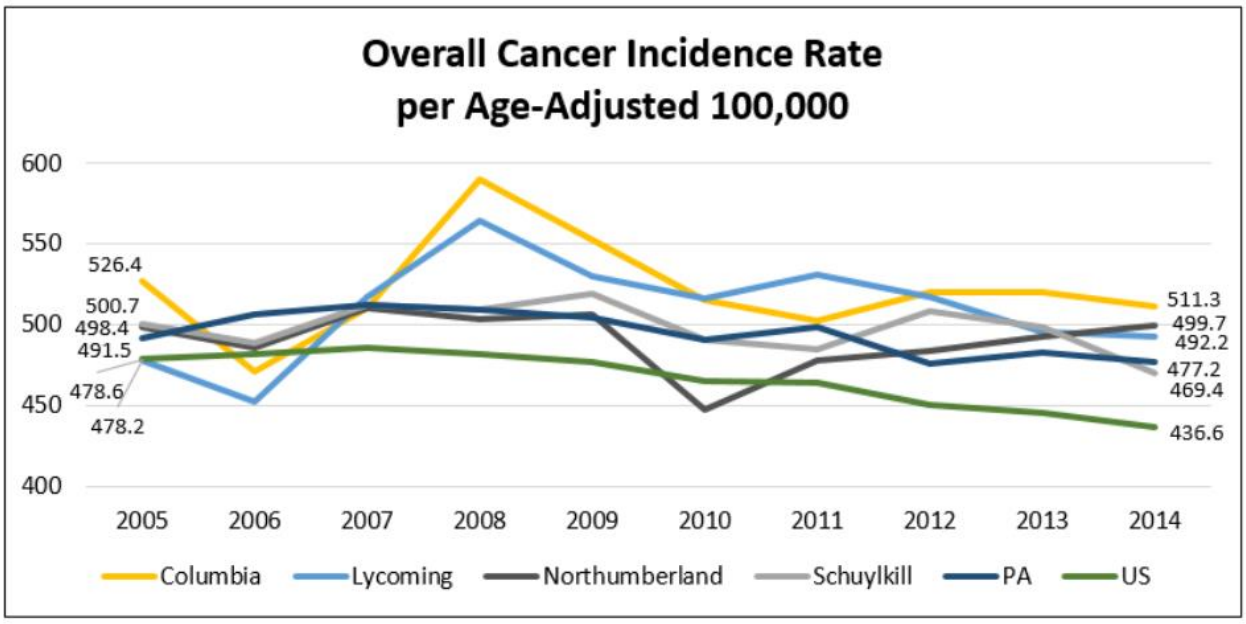
Cancer

The cancer incidence rate for Pennsylvania is declining, but the current rate exceeds the national rate by 41 points. In the Central Region, Columbia, Lycoming, Montour,

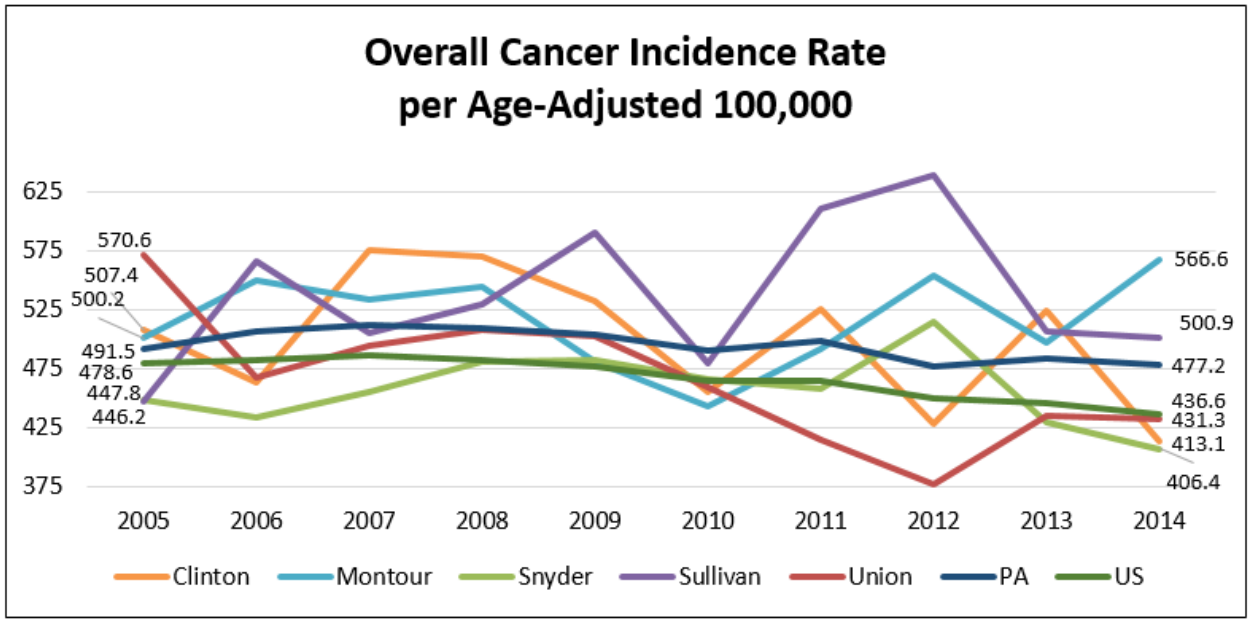
Northumberland, and Sullivan Counties have a higher cancer incidence rate than the state. Current rates for Lycoming, Montour, Northumberland, and Sullivan Counties are higher than at the beginning of the decade.

Clinton, Snyder, and Union Counties have a lower cancer incidence rate than the state and the nation

Clinton, Snyder, and Union Counties have a lower cancer incidence rate than the state and the nation. Union County had the greatest decline in the death rate, falling 139 points. Cancer incidence trends are reported by high and low density population counties.



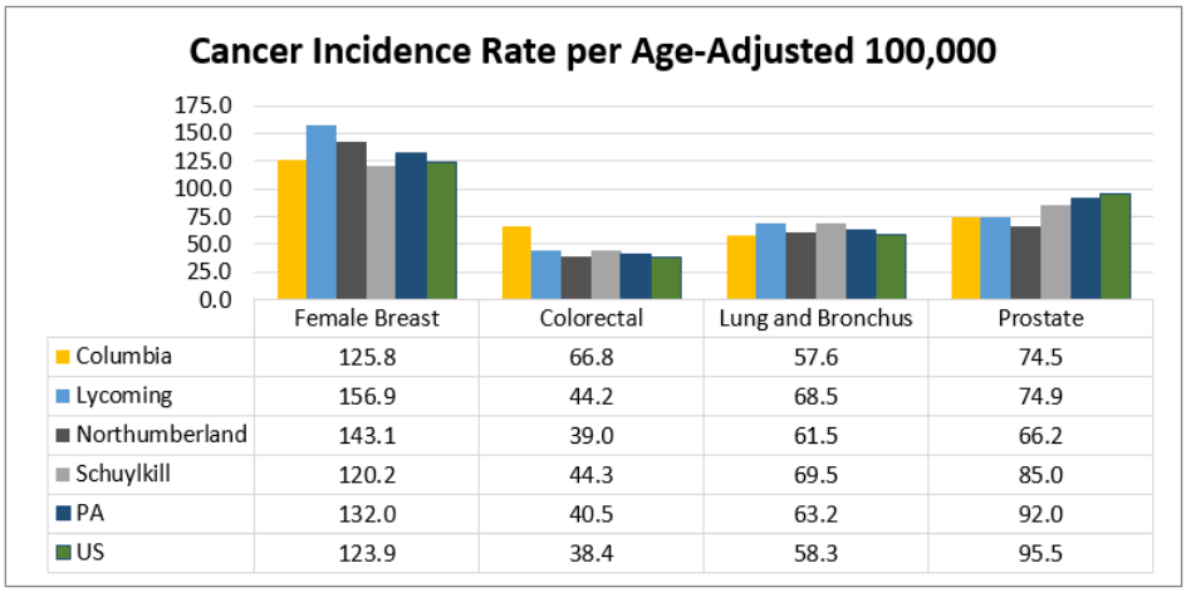
Source: CDC National Program of Cancer Registries, 2005-2014; PA Department of Health, 2005-2014



Source: CDC National Program of Cancer Registries, 2005-2014; PA Department of Health, 2005-2014

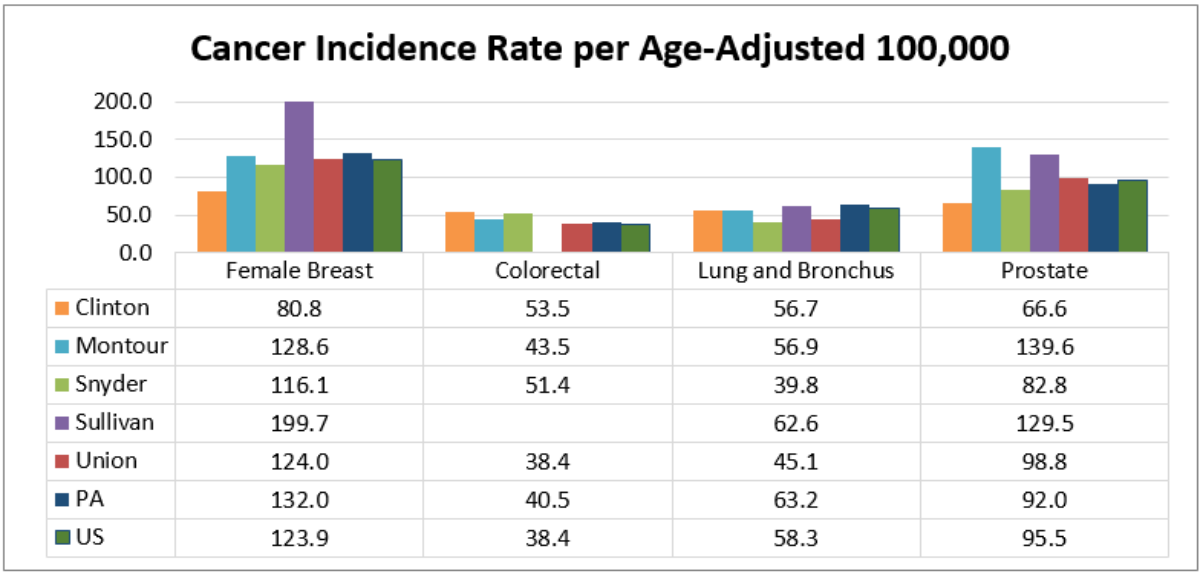
Lycoming County has higher incidence rates for female breast, colorectal, and lung cancer

Presented below are the incidence rates for the most commonly diagnosed cancers: breast (female), colorectal, lung, and prostate (male). Across the region, the colorectal cancer incidence rate is higher in six counties compared to the state and the nation. Rates for other cancer types are generally on par with the state or the nation, two to three counties have a higher rate for each cancer type. Lycoming County has consistently higher incidence rates, exceeding state and national benchmarks for female breast, colorectal, and lung cancer.



	Female Breast	Colorectal	Lung and Bronchus	Prostate
Columbia	125.8	66.8	57.6	74.5
Lycoming	156.9	44.2	68.5	74.9
Northumberland	143.1	39.0	61.5	66.2
Schuylkill	120.2	44.3	69.5	85.0
PA	132.0	40.5	63.2	92.0
US	123.9	38.4	58.3	95.5

Source: CDC National Program of Cancer Registries, 2014; PA Department of Health, 2014

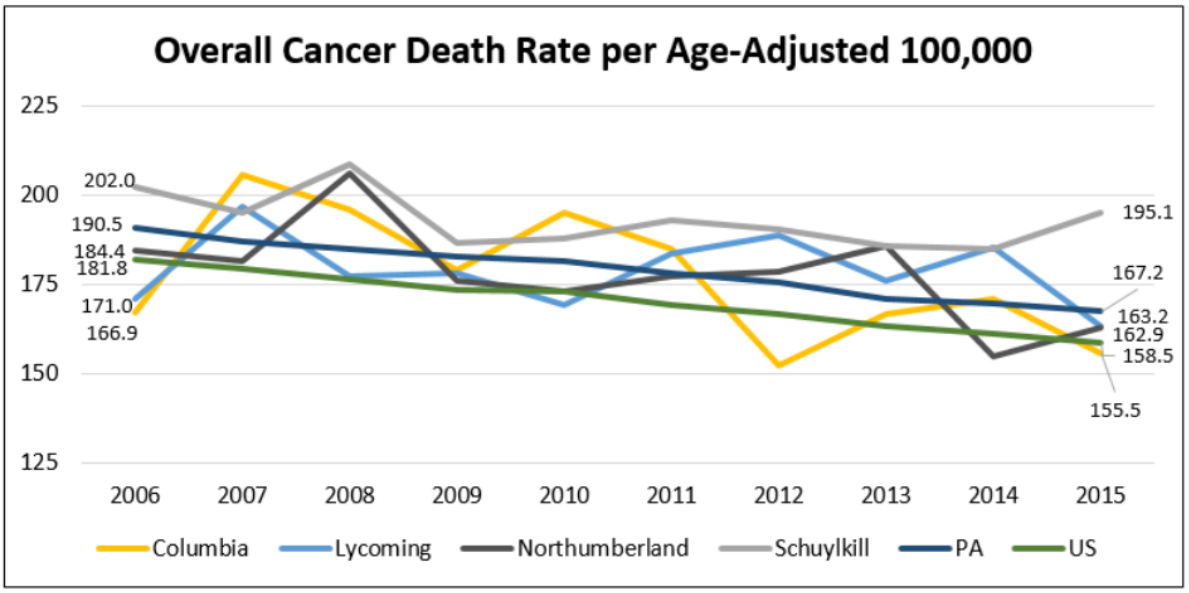


	Female Breast	Colorectal	Lung and Bronchus	Prostate
Clinton	80.8	53.5	56.7	66.6
Montour	128.6	43.5	56.9	139.6
Snyder	116.1	51.4	39.8	82.8
Sullivan	199.7		62.6	129.5
Union	124.0	38.4	45.1	98.8
PA	132.0	40.5	63.2	92.0
US	123.9	38.4	58.3	95.5

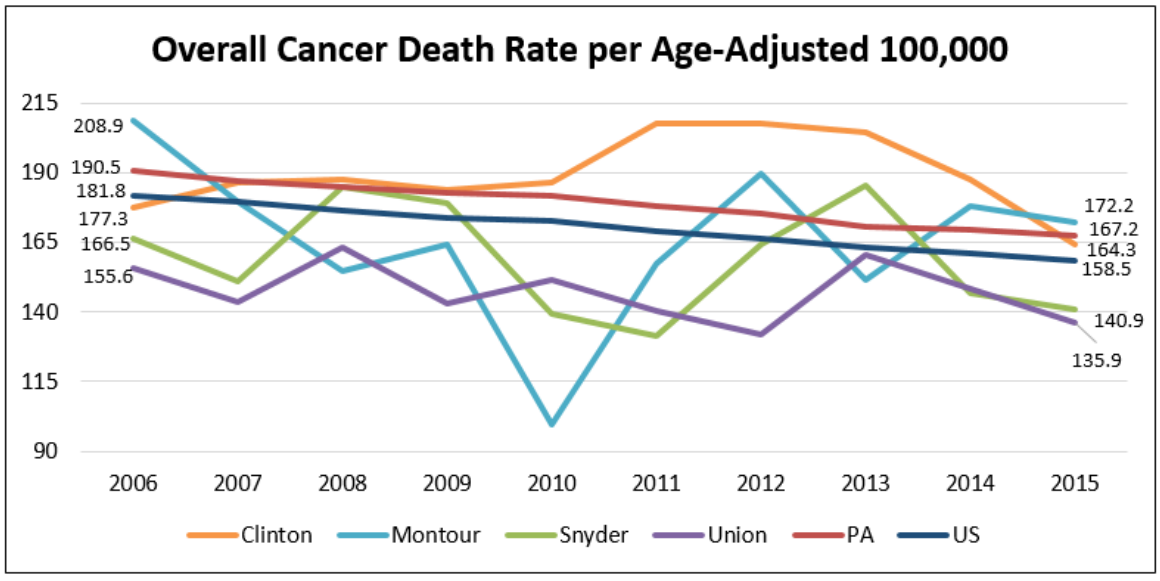
Source: CDC National Program of Cancer Registries, 2014; PA Department of Health, 2014
*Cancer data for Montour and Sullivan Counties are reported for 2012-2014 due to low counts. Colorectal cancer data for Sullivan County is not reported due to a low count.

Cancer death rates among Central Region service counties have been variable over the past decade, but current rates are lower than at the beginning of the decade. Death rates for all counties except Montour, Schuylkill, and Sullivan Counties meet or nearly meet the Healthy People 2020 goal (161.4). Annual death rates for Sullivan County are not consistently reported due to low death counts, and a death rate trending line is not provided in the following graphs. However, the 2015 death rate for the county is reported. The 2015 death rate (251.7 per 100,000) is based on 30 deaths and represents an increase from the last reported year of 2013 (188.8 per 100,000; 23 deaths).

Cancer death rates for all counties with reportable annual trends declined from 2006 to 2015



Source: CDC Wonder, 2006-2015



Source: CDC Wonder, 2006-2015

*Cancer death rates are not trended for Sullivan County due to low annual death counts.

Across the state and the nation, Blacks/African Americans have a higher cancer death rate than Whites. Blacks/African Americans in Lycoming also have a higher rate of death. Race and ethnicity data are not reported for other Central Region counties due to low death counts.

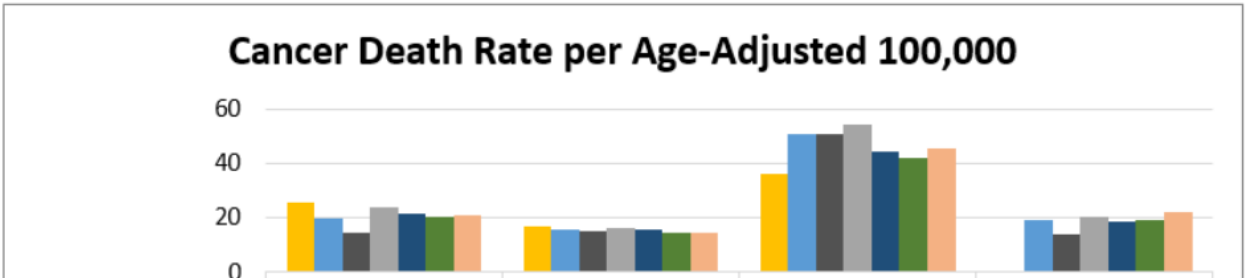
State and National Cancer Death Rates by Race and Ethnicity

	White Death Rate	Black/African American Death Rate	Hispanic/Latino Death Rate
Lycoming County	174.2	228.8	NA
Pennsylvania	167.4	210.5	104.6
United States	165.9	189.8	112.3

Source: CDC WONDER, 2013-2015

Presented below are the death rates for the most commonly diagnosed cancers. Across the region, death rates are highest for lung cancer. Among higher population counties, all counties except Columbia have a higher rate of lung cancer death than state and national benchmarks. Columbia County also has a higher death rate due to female breast and colorectal cancer; Schuylkill County also has a higher death rate due to female breast cancer.

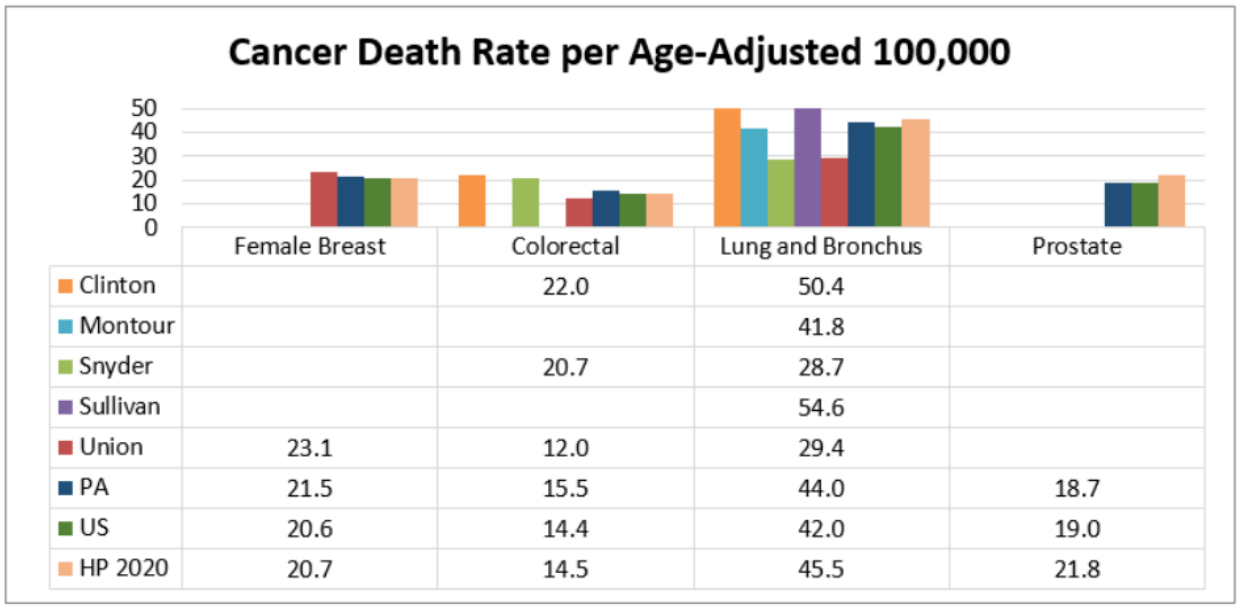
Five Central Region counties exceed state and national benchmarks for lung cancer death



	Female Breast	Colorectal	Lung and Bronchus	Prostate
Columbia	25.7	17.0	35.8	
Lycoming	19.7	15.9	50.4	19.4
Northumberland	14.7	14.9	50.7	13.8
Schuylkill	23.9	16.1	53.9	20.1
PA	21.5	15.5	44.0	18.7
US	20.6	14.4	42.0	19.0
HP 2020	20.7	14.5	45.5	21.8

Source: CDC Wonder, 2013-2015
*Death rates are reported as a 2013-2015 aggregate. Data for Columbia County are limited.

Cancer death rate data for lower population counties is limited due to low death counts. However, data are consistently reported for lung cancer death. Clinton and Sullivan Counties have a higher rate of lung cancer death than state and national benchmarks. The female breast cancer death rate for Union County and the colorectal cancer death rate for Clinton and Snyder Counties also exceed state and national benchmarks.



	Female Breast	Colorectal	Lung and Bronchus	Prostate
Clinton		22.0	50.4	
Montour			41.8	
Snyder		20.7	28.7	
Sullivan			54.6	
Union	23.1	12.0	29.4	
PA	21.5	15.5	44.0	18.7
US	20.6	14.4	42.0	19.0
HP 2020	20.7	14.5	45.5	21.8

Source: CDC Wonder, 2013-2015
*Death rates are reported as a 2013-2015 aggregate. Data for Clinton, Montour, Snyder, Sullivan, and Union Counties are limited.

Chronic Lower Respiratory Disease
Chronic lower respiratory disease (CLRD) is the third most common cause of death in the nation. CLRD encompasses diseases like chronic obstructive pulmonary disorder (COPD), emphysema, and asthma.

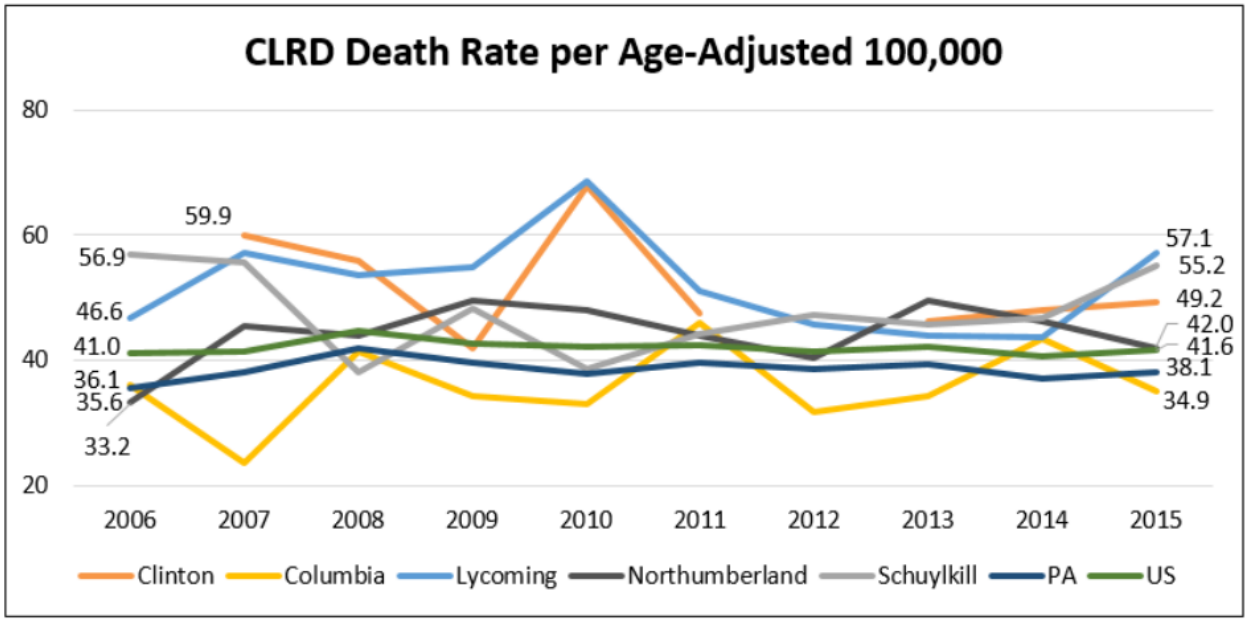
The following table profiles asthma and COPD diagnoses among adults. Reporting Region 3 has a higher incidence of adults with asthma. Reporting Region 2 has a higher incidence of adults with COPD.

Annual CLRD death rates are limited for the Central Region, three-year aggregate data are reported for Montour, Synder, Sullivan, and Union Counties. The CLRD death rate for all reported counties except Columbia and Union is higher than state and national benchmarks. Death rates have been variable over the past decade. Clinton County is the only county with a notably lower death rate than at the beginning of the decade.

CLRD Prevalence among Adults

	Asthma Diagnosis (Current)	COPD Diagnosis (Ever)
Region 1: Berks/Schuylkill	10%	7%
Region 2: Bradford/ Sullivan/Tioga/ Lycoming/Clinton/Potter	11%	9%
Region 3: Centre/Columbia/Montour/ Northumberland/Snyder/Union	13%	6%
Pennsylvania	10%	7%

Source: PA Department of Health, 2014-2016



Source: CDC Wonder, 2006-2015
*CLRD death rates are not trended for Montour, Snyder, Sullivan, and Union Counties due to low annual death counts. Death rates for 2007 and 2013 are not reported for Clinton County due to low death counts.

CLRD Death Rate per Age-Adjusted 100,000

	Rate
Montour County	44.4
Snyder County	45.4
Sullivan County	NA (n=15)
Union County	26.3
Pennsylvania	38.1
United States	41.4

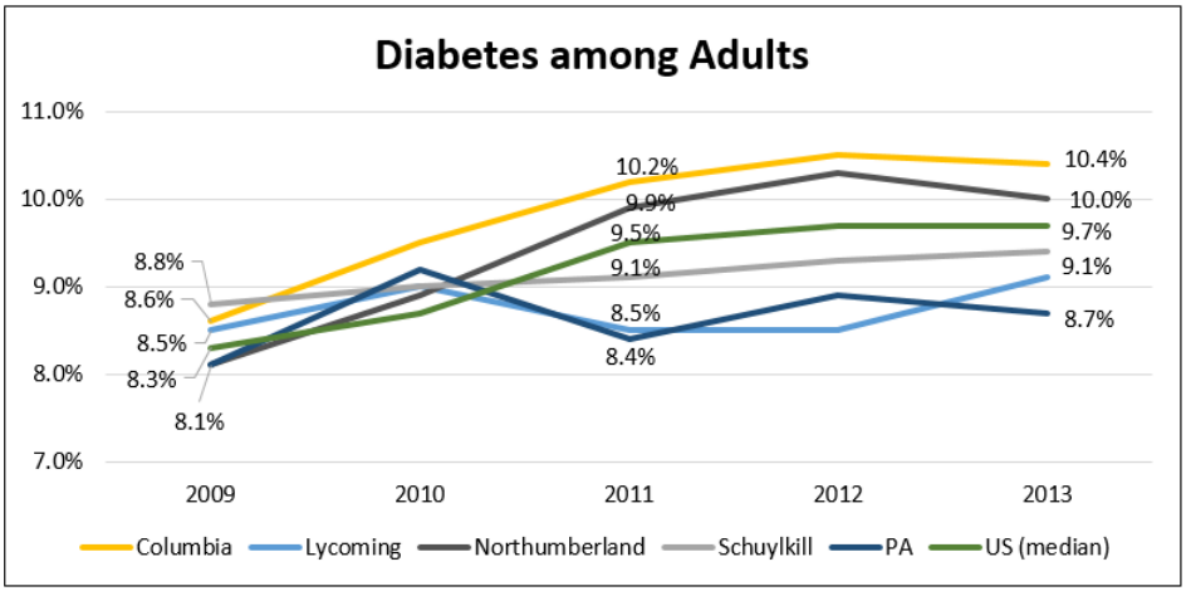
Source: CDC Wonder, 2013-2015

Diabetes

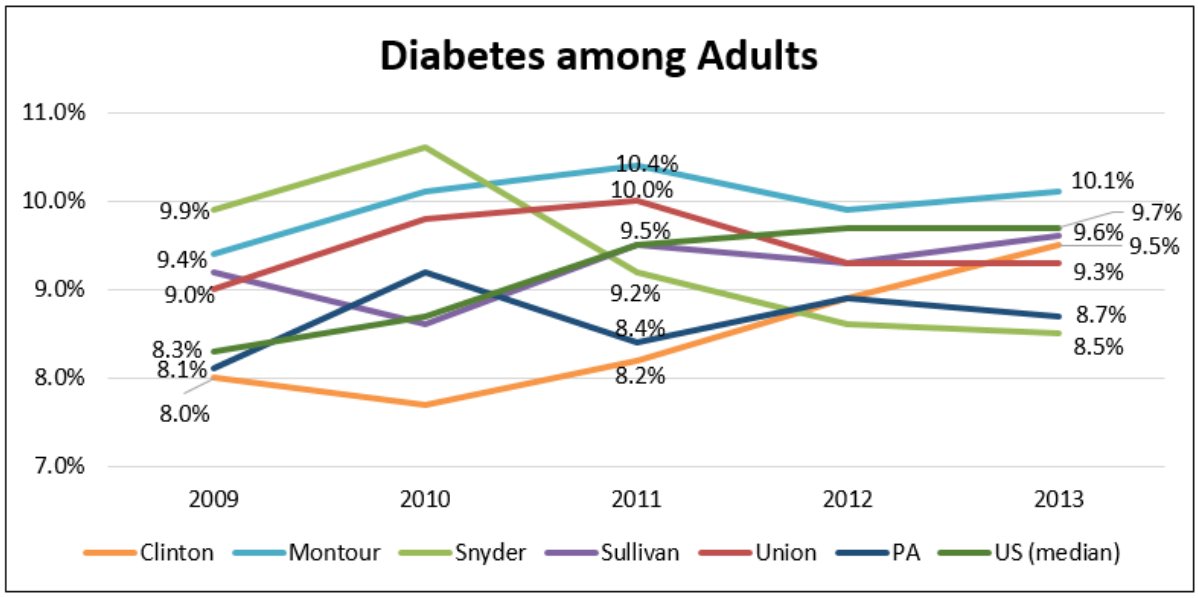
Diabetes is among the top 10 causes of death in the nation. According to the American Diabetes Association, diabetes and prediabetes affect more than 110 million Americans and cost $332 billion per year. Diabetes can cause a number of serious complications. Type II diabetes, the most common form, is largely preventable through diet and exercise.

All Central Region counties except Snyder have a higher diabetes prevalence rate than the state

Pennsylvania has a lower prevalence of adult diabetes than the nation. All Central Region counties except Snyder have a higher prevalence rate than the state. Columbia, Montour, and Northumberland Counties also have a higher prevalence rate than the nation. Prevalence rates increased in all counties except Snyder between 2009 and 2013. Northumberland County had the greatest rate increase of 2 points. The Snyder County prevalence rate decreased 1.4 points. Trends are reported by high and low density population counties.



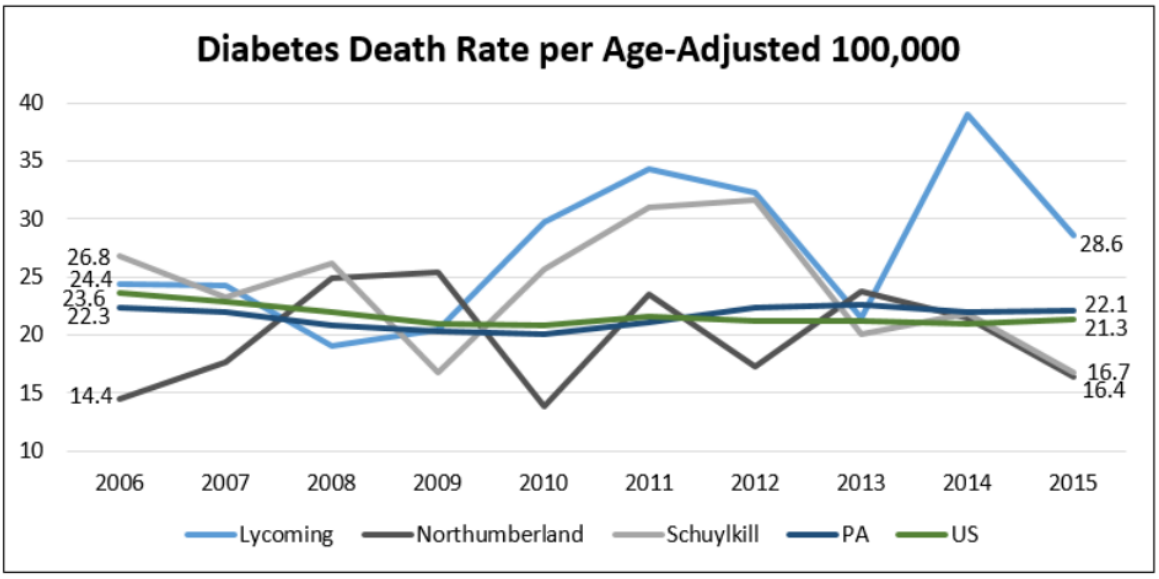
Source: CDC Diabetes Atlas & BRFSS, 2009-2013
*A change in methods occurred in 2011 that may affect the validity of comparisons to past years.



Source: CDC Diabetes Atlas & BRFSS, 2009-2013
*A change in methods occurred in 2011 that may affect the validity of comparisons to past years.

Annual death rates are limited for the Central Region, three-year aggregate data are reported for Clinton, Columbia, Montour, Snyder, Sullivan, and Union Counties. Annual trends for reportable counties have been variable over the past decade. Current rates for all counties except Clinton, Lycoming, and Sullivan are lower than the state and the nation. Sullivan County has the highest death rate, exceeding the state rate by 32 points. The death rate is based on 20 deaths.

The diabetes death rate for Sullivan County exceeds the state rate by 32 points



Source: CDC Wonder, 2006-2015

*Diabetes death rates are not trended for Clinton, Columbia, Montour, Snyder, Sullivan, and Union Counties due to low annual death counts.

Diabetes Death Rate per Age-Adjusted 100,000

	Rate
Clinton County	24.0
Columbia County	20.0
Montour County	NA (n=17)
Snyder County	17.8
Sullivan County	54.1
Union County	NA (n=19)
Pennsylvania	22.2
United States	21.1

Source: CDC Wonder, 2013-2015

Across Pennsylvania and the nation, the diabetes death rate is highest among Blacks/African Americans and Hispanics/Latinos. Race and ethnicity data are not reported for the Central Region due to low death counts.

State and National Diabetes Death Rates by Race and Ethnicity

	White Death Rate	Black/African American Death Rate	Hispanic/Latino Death Rate
Pennsylvania	21.0	34.6	26.5
United States	18.7	38.5	25.5

Source: CDC WONDER, 2013-2015

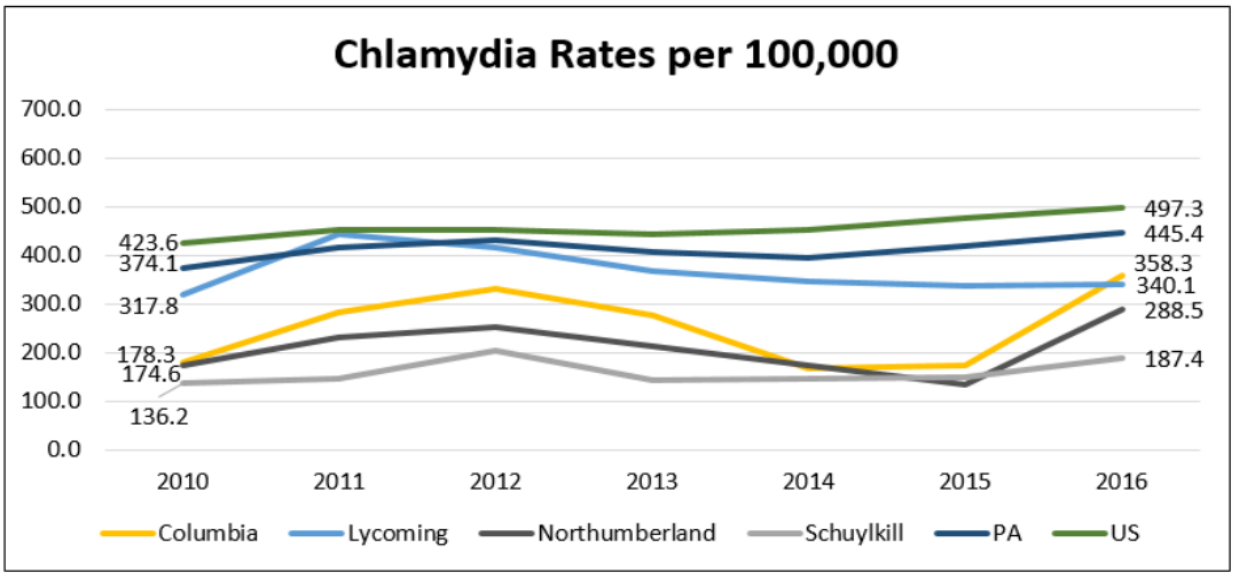
Notifiable Diseases

Sexually Transmitted Infections

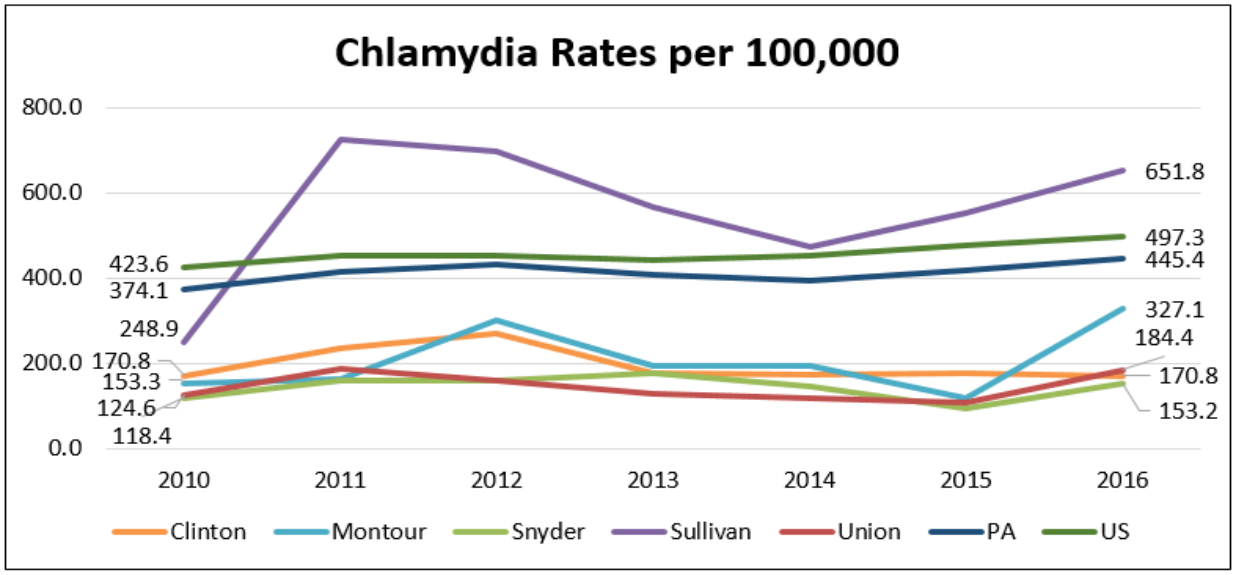
Sexually transmitted infections (STIs) include chlamydia, gonorrhea, and HIV. Chlamydia incidence rates for all counties except Sullivan are lower when compared to the state and the nation. The Sullivan County rate exceeds the state rate by 206 points and represents 40 cases.

Chlamydia incidence increased for all counties except Clinton. Sullivan County had the greatest rate increase of 403 points between 2010 and 2016. Columbia County had the second greatest rate increase of 180 points.

Sullivan County has a higher incidence of chlamydia and gonorrhea when compared to the state and the nation



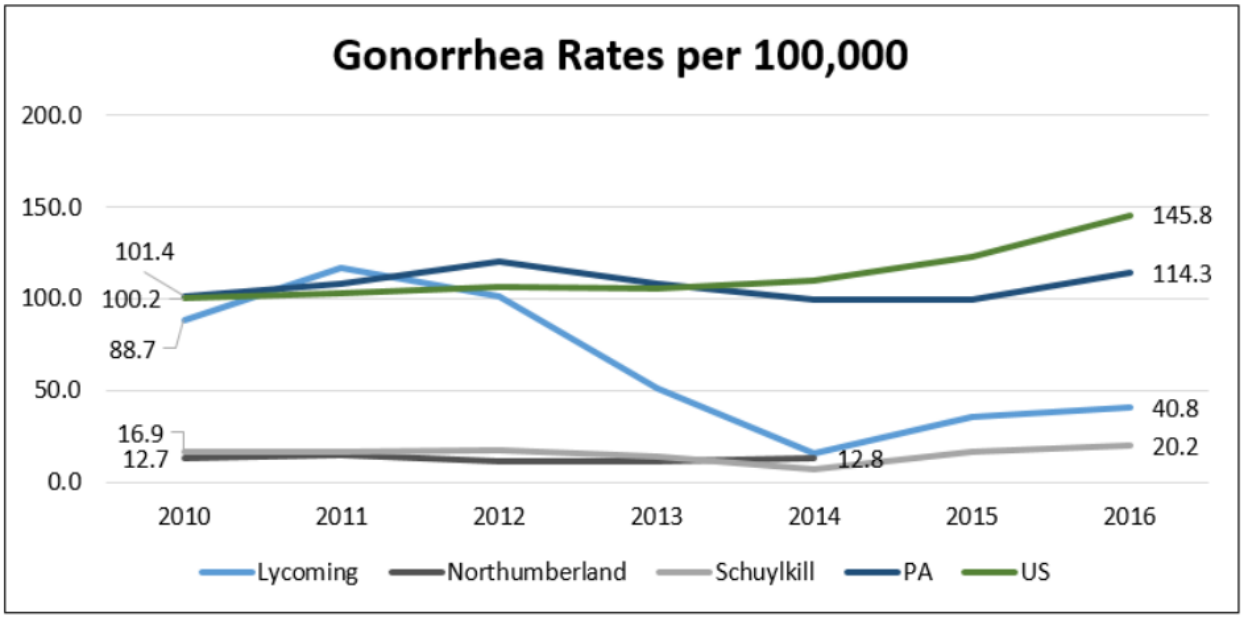
Source: CDC Sexually Transmitted Diseases, 2010-2016 & PA Department of Health, 2010-2016



Source: CDC Sexually Transmitted Diseases, 2010-2016 & PA Department of Health, 2010-2016

Annual gonorrhea incidence rates are limited for the Central Region; three-year aggregate data are reported for Clinton, Columbia, Montour, Snyder, Sullivan, and Union Counties. All counties except Sullivan have a lower gonorrhea incidence rate when compared to the state and the nation. The Sullivan County rate represents 23 cases.

Rates for Lycoming, Northumberland, and Schuylkill Counties decreased or remained stable over the past six years, while rates for the state and the nation increased. A 2015 incidence rate is not reported for Northumberland County due to a low count. The 2016 rate is 10.8 per 100,000.



Source: CDC Sexually Transmitted Diseases, 2010-2016 & PA Department of Health, 2010-2016
*Gonorrhea rates are not trended for Clinton, Columbia, Montour, Snyder, Sullivan, and Union Counties due to low annual counts.
*Data for Northumberland County is not reported for 2015 and 2016 due to a low count.

Gonorrhea Rates per 100,000

	Rate
Clinton County	12.7
Columbia County	13.5
Montour County	18.0
Snyder County	12.4
Sullivan County	122.3
Union County	9.6
Pennsylvania	104.5

Source: PA Department of Health, 2014-2016

All service counties have a lower incidence of HIV compared to the state and the nation. A total of 68 cases of HIV occurred in all counties between 2013 and 2016.

HIV Incidence Rate

	2015 Crude Incidence Rate per 100,000	Cumulative 2013-2016 Incidence Count
Clinton County	0.0	2
Columbia County	3.0	8
Lycoming County	4.3	18
Montour County	5.4	3
Northumberland County	3.2	10
Schuylkill County	2.1	17
Snyder County	0.0	3
Sullivan County	0.0	2
Union County	4.5	5
Pennsylvania	9.1	4,705
United States	12.3	NA

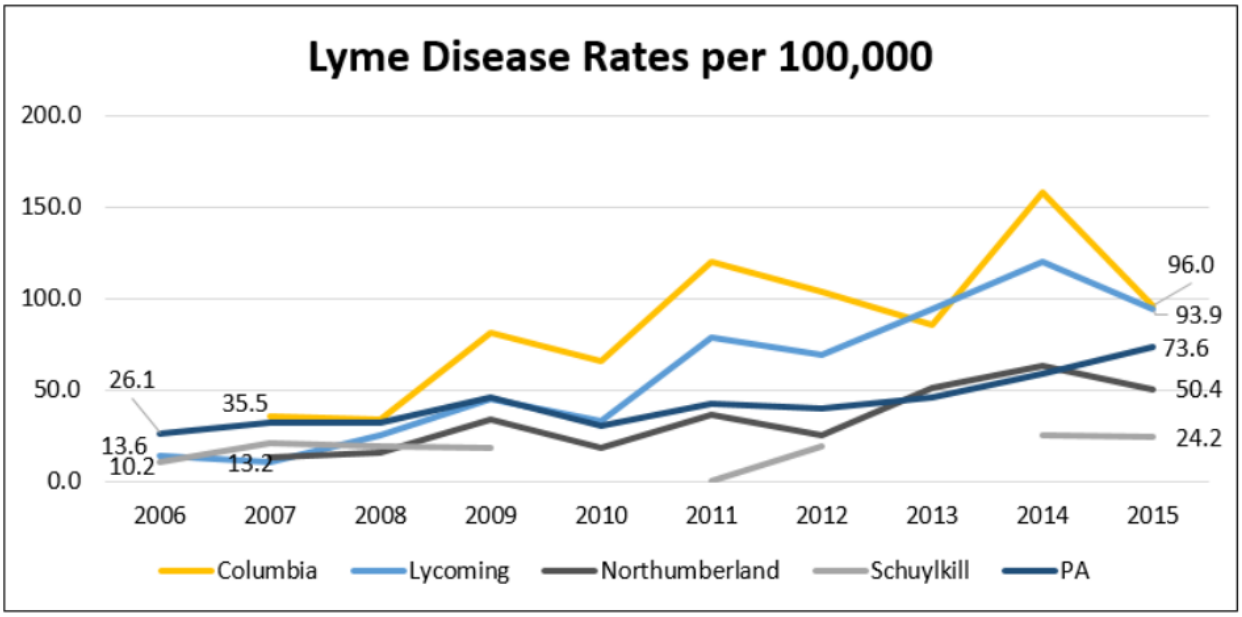
Source: CDC, 2015 & PA Department of Health, 2013-2016 & 2015

Lyme Disease

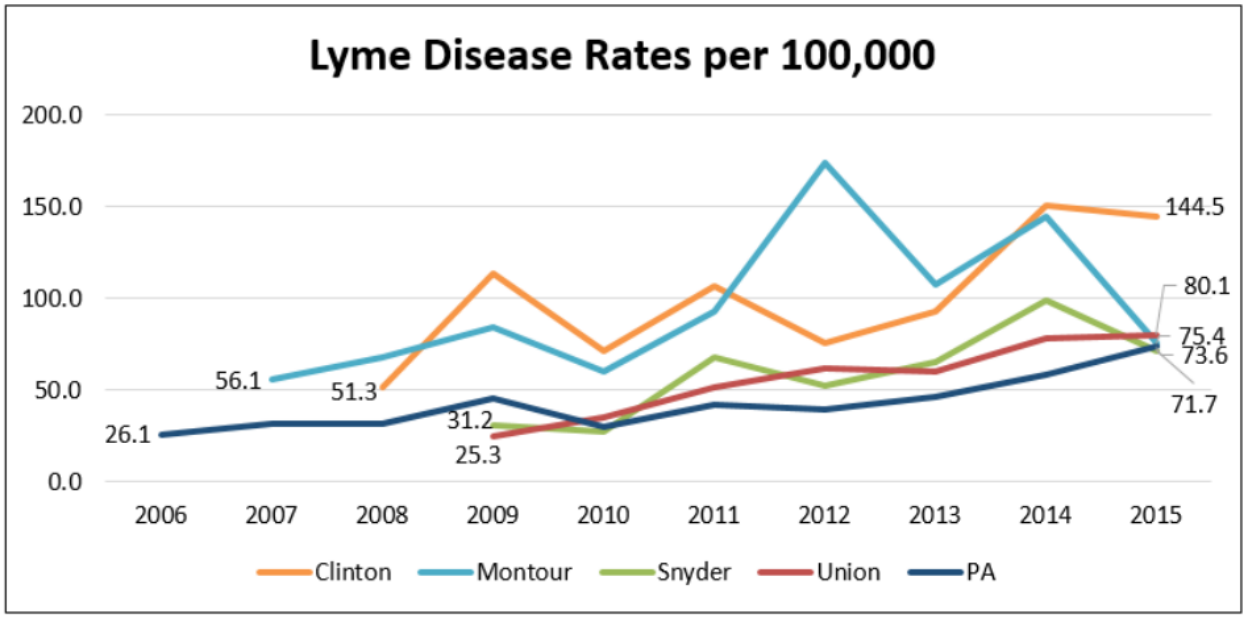
Lyme disease, according to the CDC, “is transmitted to humans through the bite of infected blacklegged ticks. Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans. If left untreated, infection can spread to joints, the heart, and the nervous system.” The northeast United States, from Virginia to Maine, is one of the primary geographic areas for infection.

All Central Region counties except Northumberland, Schuylkill, and Snyder have a higher rate of Lyme disease when compared to the state

The incidence of Lyme disease has increased steadily across the state and the region. All service counties except Northumberland, Schuylkill, and Snyder have a higher Lyme disease incidence rate than the state. Sullivan County has the highest incidence rate of 205.4 per 100,000, representing 13 cases. Incidence rates for the county are not reported for years prior to 2015 due to low counts. Clinton County has the second highest incidence rate and experienced the greatest rate increase of 93 points over the past decade.



Source: PA Department of Health, 2006-2015
*Lyme disease annual rates for Columbia and Schuylkill Counties are limited due to low counts.



Source: PA Department of Health, 2006-2015
*Lyme disease rates are not trended for Sullivan County due to low counts. Lyme disease annual rates for all trended counties are limited due to low counts.

Child Lead Screening and Poisoning

The CDC estimates that at least four million households have children living in them that are being exposed to high levels of lead. Lead exposure increases the risk for central nervous system damage, slowed growth and development, and hearing and speech problems.

The measure for high levels of lead exposure or lead poisoning was recently revised from 10 micrograms per decileter of blood (µg/dL) or higher to 5 µg/dL of blood or higher. The Pennsylvania Department of Health reports blood lead levels based on the original measure. The following table depicts children between 0 and 6 years who have been tested for blood lead levels and who have lead poisoning.

Children in the Central Region are less likely to be tested for lead poisoning with the exception of 3 to 6 year olds in Clinton, Montour, and Northumberland Counties and 0 to 2 year olds in Northumberland and Schuylkill Counties. Lycoming, Montour, Northumberland, Schuylkill, and Sullivan Counties have a higher percentage of children who test positive for lead poisoning.

Children in Central Region counties are generally less likely to be tested for lead poisoning

Lead Screening and Poisoning among Children 0 to 6 Years of Age

	Age Group	Percent Tested for Lead Poisoning	Percent with Blood Lead Levels ≥10 µg/dL
Clinton County	0-2 years	21.7%	1.0%
	3-6 years	4.5%	2.5%
Columbia County	0-2 years	19.0%	1.4%
	3-6 years	2.9%	2.7%
Lycoming County	0-2 years	23.3%	2.8%
	3-6 years	3.8%	4.1%
Montour County	0-2 years	20.2%	2.4%
	3-6 years	6.9%	0.0%
Northumberland County	0-2 years	26.8%	2.6%
	3-6 years	5.0%	4.3%
Schuylkill County	0-2 years	35.2%	3.1%
	3-6 years	1.3%	10.4%
Snyder County	0-2 years	20.0%	0.7%
	3-6 years	3.5%	1.6%
Sullivan County	0-2 years	22.5%	3.7%
	3-6 years	3.3%	0.0%
Union County	0-2 years	21.9%	1.9%
	3-6 years	2.9%	2.1%
Pennsylvania	0-2 years	26.0%	1.8%
	3-6 years	4.5%	2.4%

Source: PA Department of Health, 2014

Behavioral Health

Mental Health

The suicide rate is one measure of mental health status. The suicide rate for all reportable counties exceeds the Healthy People 2020 goal; rates for Lycoming, Northumberland, and Schuylkill Counties also exceed the state and the nation. Death rate trends are only reported for Schuylkill County; the rate increased 10 points between 2007 and 2015.

The suicide rate for all reported counties exceeds the HP 2020 goal

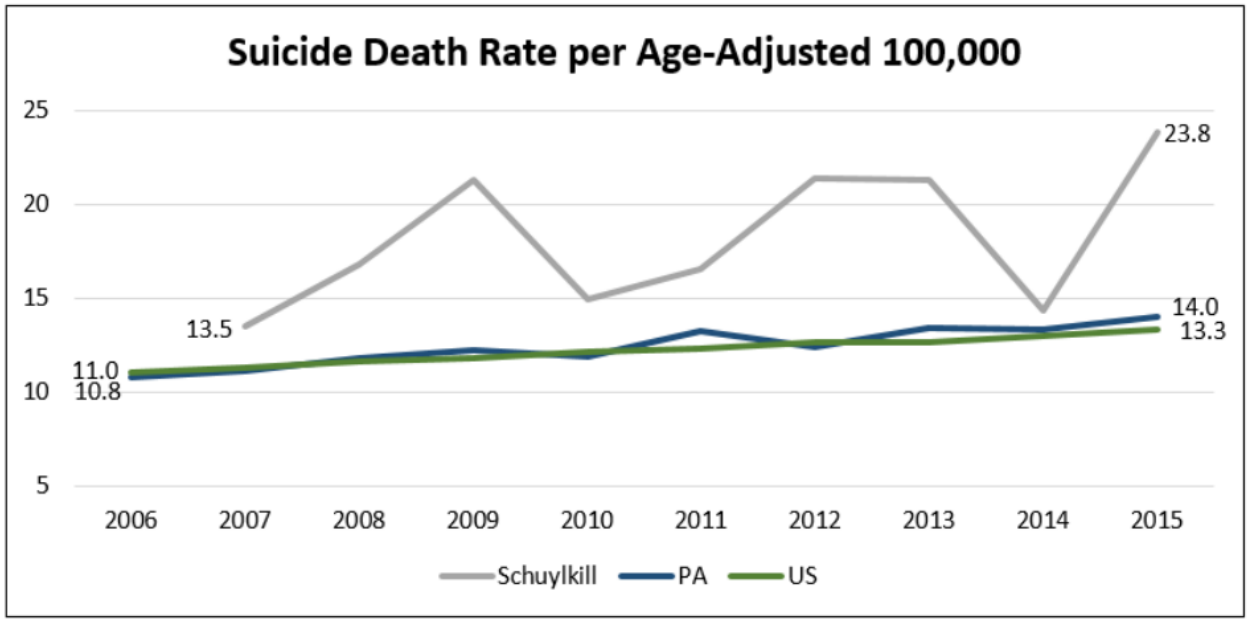
Mental and behavioral disorders span a wide range of disorders, including dementia, amnesia, Schizophrenia, phobias, and mood or personality disorders. The disorders are not induced by alcohol and other psychoactive substances, but they may result from substance abuse.

The mental and behavioral disorders death rate for all Central Region counties except Lycoming, Snyder, and Sullivan is similar to the state or national rate. Snyder County has a lower death rate, falling below the state rate by 17 points. Lycoming and Sullivan Counties have a higher death rate, exceeding the state rate by 16 points and 49 points respectively. The Sullivan County rate represents 35 deaths. Annual death rate trends are only reported for Columbia, Lycoming, Northumberland, Schuylkill, and Union Counties; the rate increased for all counties.

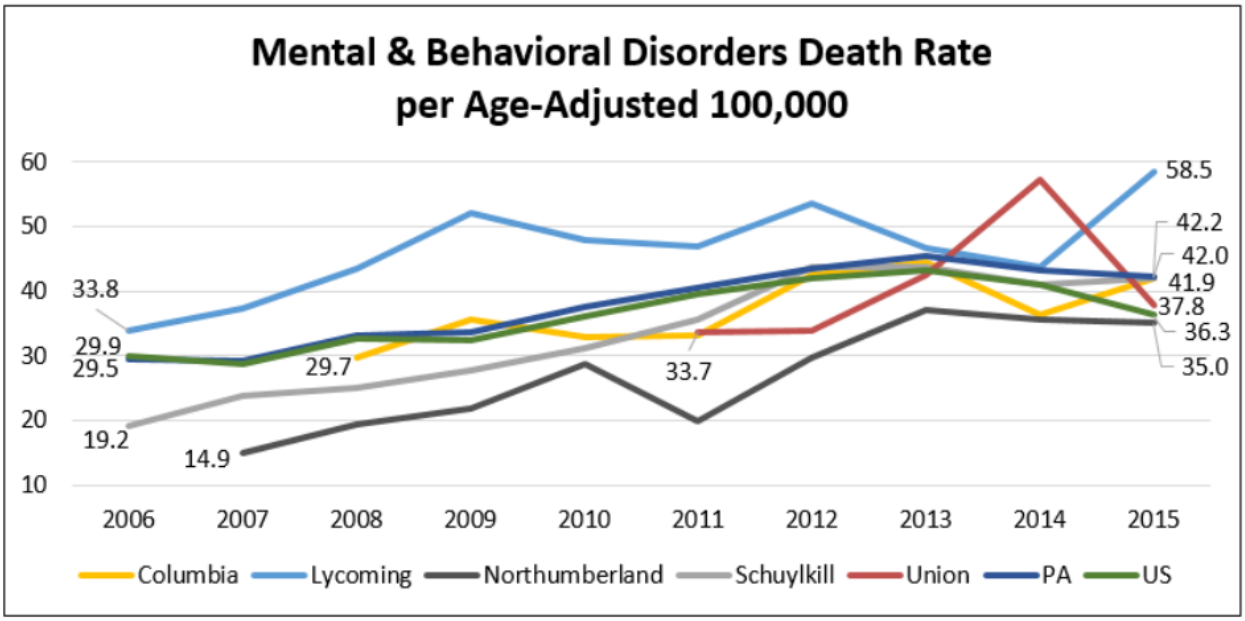
Mental Health Measures

	30-Day Average - Poor Mental Health Days (Adults)	Suicide Rate per Age-Adjusted 100,000	Mental & Behaviors Disorders Death Rate per Age-Adjusted 100,000
Clinton County	3.9	NA (n=16)	35.7
Columbia County	3.9	12.3	41.9
Lycoming County	3.8	15.7	58.5
Montour County	3.6	NA	35.6
Northumberland County	3.8	16.9	35.0
Schuylkill County	3.7	23.8	42.0
Snyder County	3.8	NA (n=15)	25.4
Sullivan County	3.8	NA	90.7
Union County	3.6	NA (n=14)	37.8
Pennsylvania	3.9	14.0	42.2
United States	3.7	13.3	36.3
HP 2020	NA	10.2	NA

Source: CDC BRFSS & WONDER, 2013-2015 & 2015 & Healthy People 2020
*Suicide data for all counties except Schuylkill are reported for 2013-2015 due to a low death count. Suicide counts are not reported for Montour and Sullivan Counties.
**Mental and behavioral disorders death data for Clinton, Montour, Snyder, and Sullivan Counties are reported for 2013-2015 due to a low death counts.



Source: CDC Wonder, 2006-2015
*Suicide death rates are not trended for Clinton, Columbia, Lycoming, Montour, Northumberland, Snyder, Sullivan, and Union Counties due to low annual death counts. Annual death rates for Schuylkill County are limited due to low counts.



Source: CDC Wonder, 2006-2015
*Mental and behavioral disorder death rates are not trended for Clinton, Montour, Snyder, and Sullivan Counties due to low annual death counts. Annual death rates for Columbia, Northumberland, and Union Counties are limited due to low counts.

Substance Abuse

Substance abuse includes both alcohol and drug abuse. Adults in the Central Region counties have similar excessive drinking rates when compared to the state and the nation. However, five counties have a higher percentage of driving deaths due to driving under the influence (DUI): Columbia, Lycoming, Montour, Sullivan, and Union.

Central Region adults have similar excessive drinking rates as the state and the nation

Drug-induced deaths include all deaths for which drugs are the underlying cause, including drug overdoses and deaths from medical conditions resulting from chronic drug use. Pennsylvania has a higher drug-induced death rate than the nation. All reported Central Region counties have a lower drug-induced death rate than the state, but Clinton, Northumberland, and Schuylkill Counties have a higher death rate than the nation. The Schuylkill County death rate increased 2 points between 2006 and 2015.

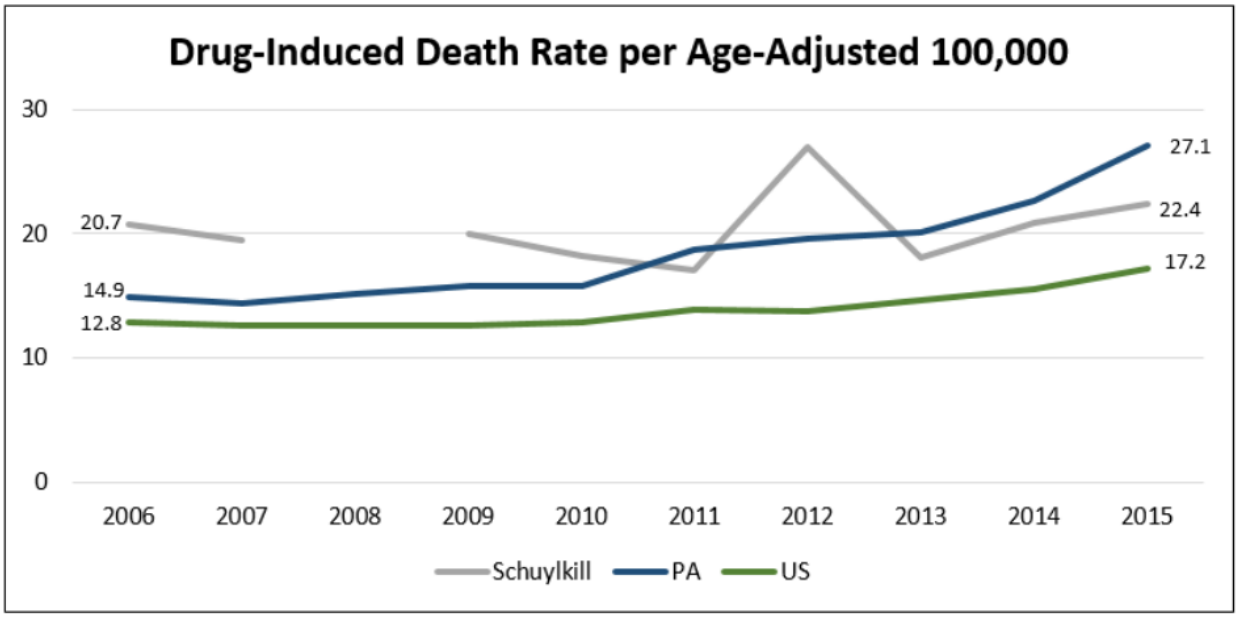
All reported Central Region counties have a lower drug-induced death rate than the state

Substance Abuse Measures
(Green = Decrease of More than 2 Points; Red = Increase of More than 2 Points)

	Excessive Drinking (Adults)	Percent of Driving Deaths due to DUI	Drug-Induced Death Rate per Age-Adjusted 100,000
Clinton County	19.4%	26.7%	17.7
Columbia County	18.5%	34.6%	16.1
Lycoming County	19.6%	38.8%	15.2
Montour County	18.3%	33.3%	NA (n=12)
Northumberland County	18.2%	9.6%	18.9
Schuylkill County	18.0%	22.7%	22.4
Snyder County	19.4%	21.2%	NA
Sullivan County	17.3%	66.7% (n=6)	NA
Union County	19.4%	37.9%	NA (n=10)
Pennsylvania	18.1%	32.0%	27.1
United States	18.0%	30.0%	17.2
HP 2020	NA	NA	NA

Source: CDC BRFSS & WONDER, 2013-2015 & 2015; National Highway Traffic Safety Administration, 2011-2015; Healthy People 2020

*Drug-induced death data for all counties except Schuylkill are reported for 2013-2015 due to a low death count. Drug-induced death counts are not reported for Snyder and Sullivan Counties.



Source: CDC Wonder, 2006-2015
*Drug-induced death rates are not trended for Clinton, Columbia, Lycoming, Montour, Northumberland, Snyder, Sullivan, and Union Counties due to low annual death counts.

Licensed drug and alcohol treatment providers in Pennsylvania that receive federal, state, or local funds from the Department of Drug and Alcohol Programs are required to report admission data to the Department. Providers that do not receive federal, state, or local funds are not required to report admission data, but may do so voluntarily. The following tables profile information from reporting providers.

Across the Central Region, there are 35 licensed drug and alcohol treatment facilities. The majority of facilities provide outpatient services and are located within Columbia, Lycoming, Northumberland, and Schuylkill Counties. Outpatient services typically focus on individuals with mild addiction, providing education, counseling, and support.

The number of drug and alcohol treatment admissions declined in all counties except Montour and Schuylkill from fiscal years 2013-2014 to 2014-2015. Montour County also had a higher percentage of individuals admitted for treatment more than once within fiscal year 2014-2015. Across all counties except Lycoming, the majority of admissions are due to drug abuse.

In all counties except Lycoming, the majority of treatment admissions are due to drug abuse

Licensed Drug and Alcohol Treatment Facilities

	Total Facilities	Inpatient Non-Hospital	Inpatient Hospital	Partial Hospitalization	Outpatient Facilities
Clinton County	2	0	0	0	2
Columbia County	5	0	0	0	5
Lycoming County	6	0	0	2	5
Montour County	1	0	0	0	1
Northumberland County	5	0	0	0	5
Schuylkill County	9	3	0	0	6
Snyder County	3	2	0	0	1
Sullivan County	1	0	0	0	1
Union County	3	1	0	0	3
Pennsylvania	721	177	14	125	575

Source: PA Department of Health, FY2014-2015

Admissions to State Supported Facilities by Fiscal Year (FY)

	Admissions		Number of Clients Admitted		Percent of Clients Admitted Once	
	FY 13-14	FY 14-15	FY 13-14	FY 14-15	FY 13-14	FY 14-15
Clinton County	139	64	104	45	76.0%	71.1%
Columbia County	174	110	97	70	43.3%	55.7%
Lycoming County	722	625	495	463	68.9%	74.9%
Montour County	21	24	16	16	68.8%	62.5%
Northumberland County	207	129	133	86	56.4%	61.6%
Schuylkill County	768	787	592	616	78.4%	78.7%
Snyder County	79	73	61	53	75.4%	71.7%
Sullivan County	6	2	4	1	50.0%	0.0%
Union County	110	81	71	54	54.9%	61.1%

Source: PA Department of Health, FY2013-2015

Primary Diagnosis on Admission to State Supported Facilities by Fiscal Year (FY)

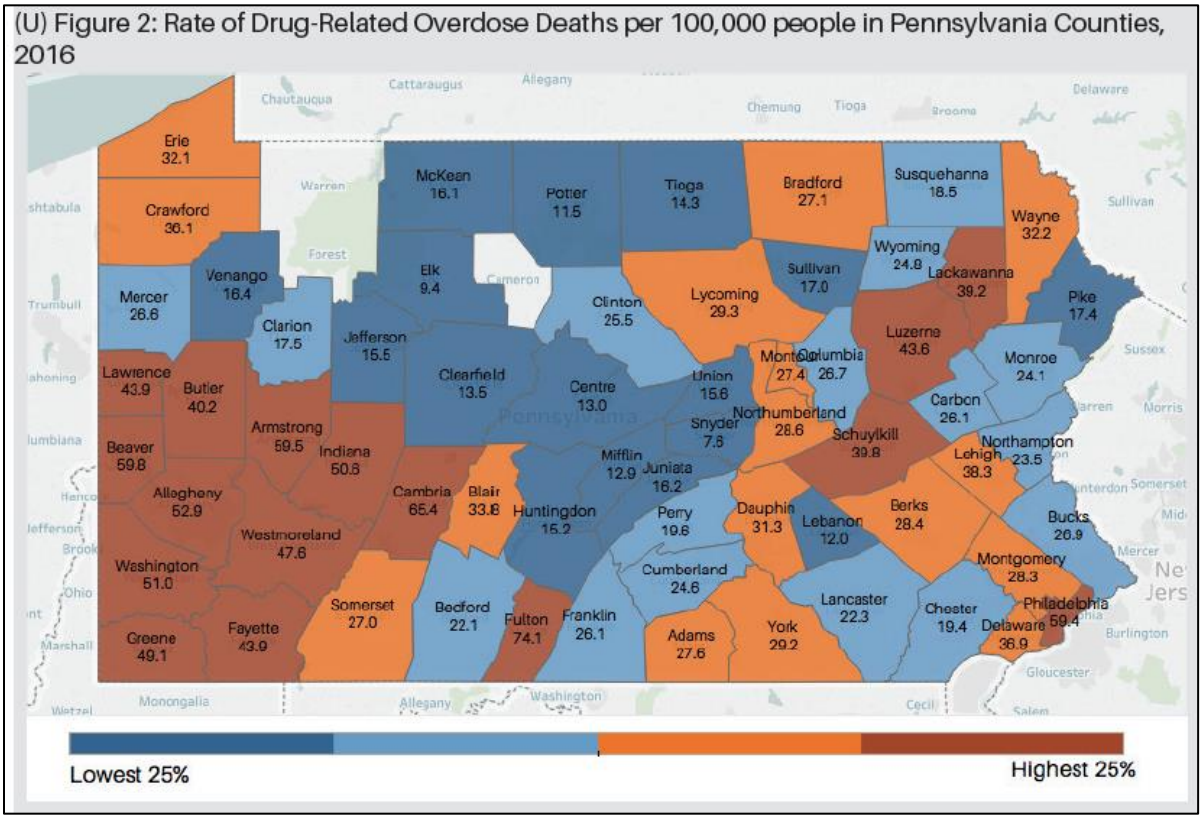
	Drug Abuse		Alcohol Abuse		Other*	
	FY 13-14	FY 14-15	FY 13-14	FY 14-15	FY 13-14	FY 14-15
Clinton County	65.4%	75.6%	32.7%	15.6%	1.9%	8.9%
Columbia County	83.5%	74.3%	15.5%	20.0%	1.0%	5.7%
Lycoming County	50.3%	38.0%	26.7%	23.3%	23.0%	38.7%
Montour County	75.0%	81.3%	18.8%	18.8%	6.3%	0.0%
Northumberland County	70.7%	82.6%	27.8%	12.8%	1.5%	4.7%
Schuylkill County	74.5%	76.6%	23.1%	19.3%	2.4%	4.1%
Snyder County	70.5%	77.4%	29.5%	22.6%	0.0%	0.0%
Sullivan County	50.0%	100.0%	25.0%	0.0%	25.0%	0.0%
Union County	77.5%	74.1%	22.5%	24.1%	0.0%	1.9%

Source: PA Department of Health, FY2013-2015

*Includes family members receiving counseling.

In 2016, the Drug Enforcement Administration, Philadelphia Division released a report analyzing overdose deaths in Pennsylvania. According to the report, 4,642 drug-related overdose deaths were recorded in the state for a rate of 36.5 per 100,000, and an increase of 37% from 2015. The following figure profiles the rate of drug-related overdose deaths in Pennsylvania counties. All counties except Montour and Sullivan experienced an increase in the number and rate of drug-related overdose deaths.

All counties except Montour and Sullivan experienced an increase in the number and rate of drug-related overdose deaths

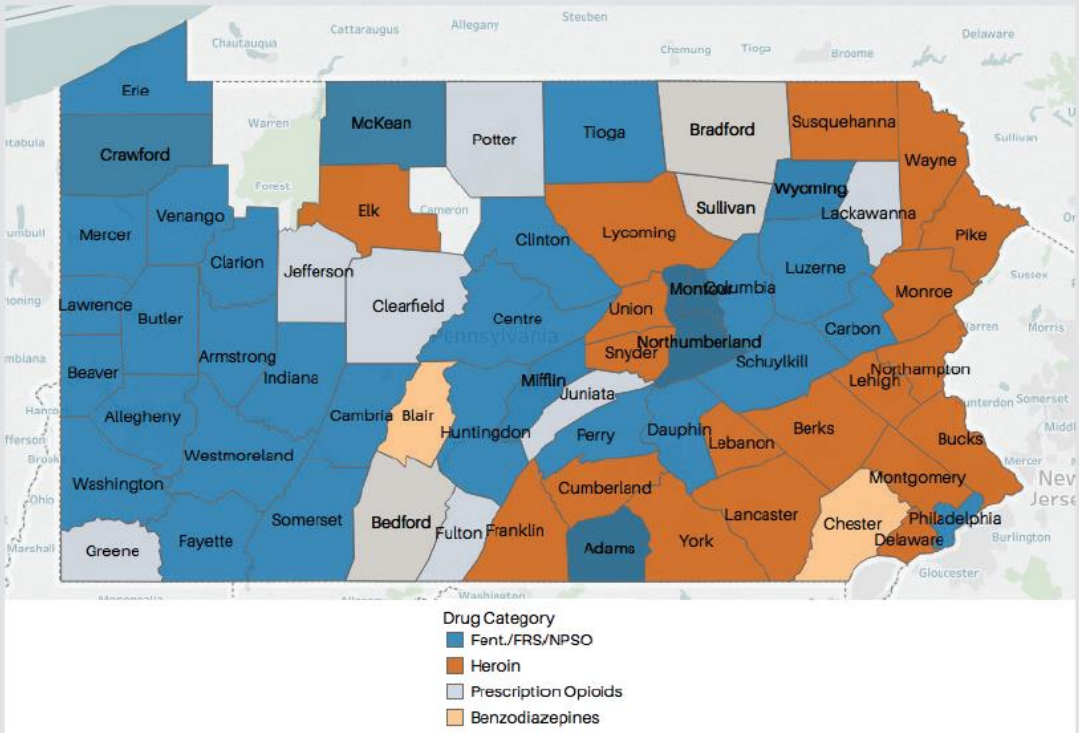


County Rankings by Rate of Drug-Related Overdose Deaths per 100,000 (2015 and 2016)

	2015			2016		
	Rank	Death Rate	Death Count	Rank	Death Rate	Death Count
Clinton County	55	10.1	4	38	25.5	10
Columbia County	27	24.0	16	34	26.7	18
Lycoming County	30	21.5	25	24	29.3	34
Montour County	2	32.3	8	30	27.4	5
Northumberland County	41	17.2	16	27	28.6	27
Schuylkill County	42	17.3	25	15	39.8	59
Snyder County	65	2.5	1	64	7.6	3
Sullivan County	45	15.8	1	54	15.6	1
Union County	63	4.5	2	53	15.6	7

Across Pennsylvania, fentanyl and heroin are the most commonly reported drug categories among drug-related overdose deaths. The most commonly reported drug categories for Central Region drug overdose deaths varied by county, as shown in the figure below.

(U) Figure 5: Most Frequently Reported Drug Category in Drug-Related Overdose Decedents by Pennsylvania County, 2016



Youth

Youth who consistently feel depressed or sad may be at risk for committing suicide. The following figures depict the percentage of students in grades sixth through twelfth who felt sad or depressed on most days during the past year. Across all counties and grades, approximately 30% to 52% of students consistently feel sad or depressed. Students in Lycoming and Northumberland Counties are the most likely to be sad or depressed. The percentage of students who feel sad or depressed increased in all reported counties from 2011 to 2015.

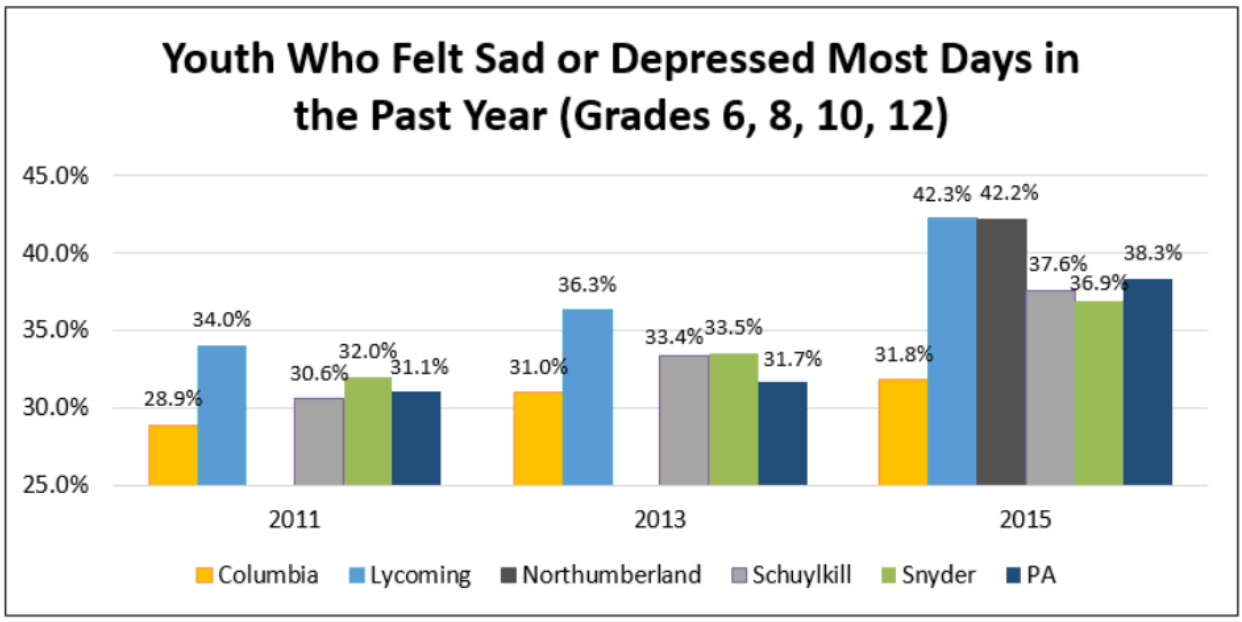
The percentage of students who consistently felt sad or depressed increased in all reported counties from 2011 to 2015

Note: Sullivan and Union Counties did not participate in the youth survey, and results for Clinton and Montour Counties are excluded due to low response counts.

Youth Who Felt Sad or Depressed on Most Days in the Past Year

	6th Grade	8th Grade	10th Grade	12th Grade
Columbia County	32.7%	29.5%	33.5%	32.0%
Lycoming County	34.9%	41.9%	45.7%	47.9%
Northumberland County	38.2%	42.3%	40.2%	52.2%
Schuylkill County	29.7%	36.7%	42.6%	40.5%
Snyder County	32.8%	33.8%	43.1%	41.2%
Pennsylvania	33.9%	37.7%	40.6%	40.7%

Source: Pennsylvania Commission on Crime and Delinquency, 2015



Source: Pennsylvania Commission on Crime and Delinquency, 2011-2015
*Data for 2011 and 2013 are not reported for Northumberland County.

Alcohol and marijuana use is highest among students in grades ten and twelve. Tenth grade students in Lycoming County exceed state benchmarks for both alcohol and marijuana use; twelfth grade students have the highest rate of marijuana use in the region. Tenth grade students in Columbia and Schuylkill Counties also exceed the state for alcohol use.

Tenth and twelfth grade students in Lycoming County have the highest rates of marijuana use

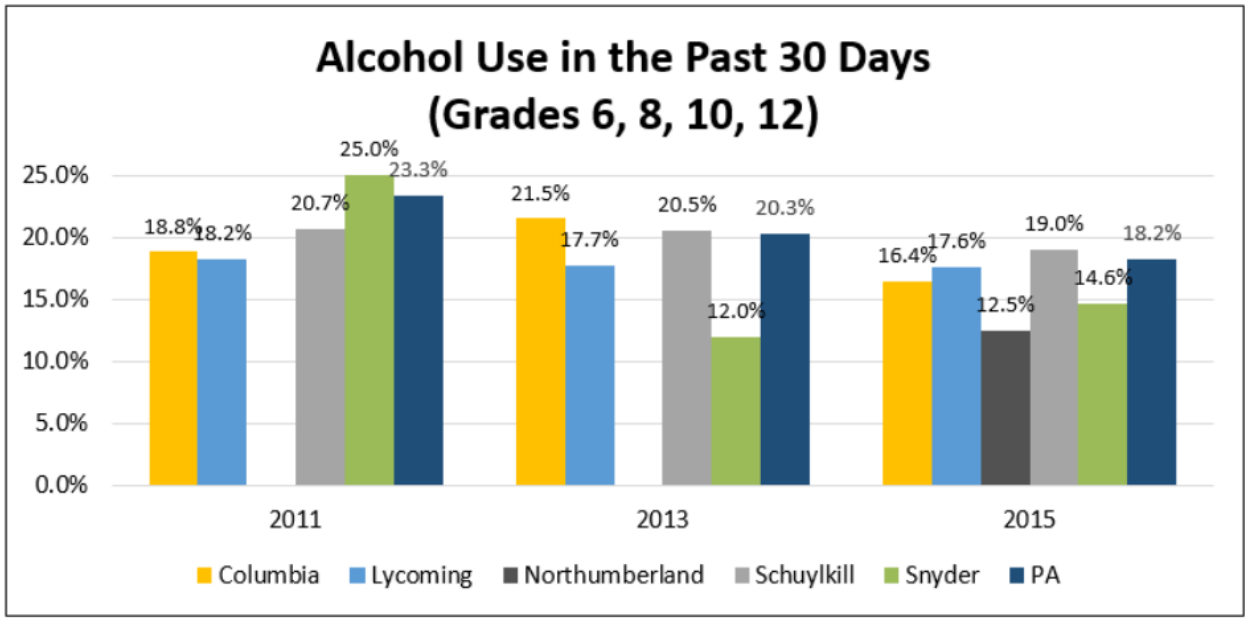
The collective percentage of students who report using alcohol decreased for all counties from 2011 to 2015. Schuylkill County is the only county to have a higher rate of alcohol use among students when compared to the state.

The collective percentage of students who report using marijuana decreased in all counties except Lycoming and Schuylkill from 2011 to 2015. Lycoming County exceeds the state benchmark for marijuana use.

Youth Substance Abuse Measures

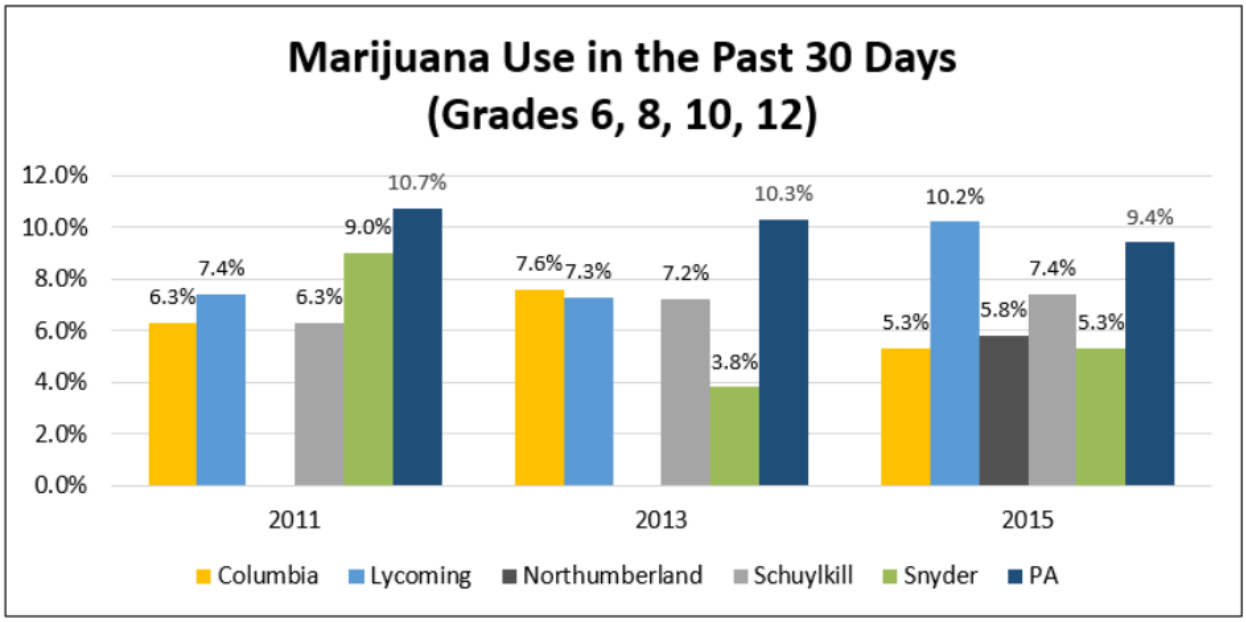
	6th Grade	8th Grade	10th Grade	12th Grade
Used Alcohol in the Past 30 Days				
Columbia County	3.2%	6.9%	30.5%	33.7%
Lycoming County	3.1%	8.4%	28.2%	36.2%
Northumberland County	4.7%	9.5%	16.6%	26.4%
Schuylkill County	3.2%	10.8%	24.9%	37.8%
Snyder County	3.3%	10.0%	22.5%	34.9%
Pennsylvania	3.3%	9.5%	22.3%	37.6%
Used Marijuana in the Past 30 Days				
Columbia County	0.7%	2.8%	9.5%	11.2%
Lycoming County	0.4%	3.7%	19.0%	20.8%
Northumberland County	0.7%	4.0%	11.1%	10.4%
Schuylkill County	0.5%	3.7%	10.8%	14.6%
Snyder County	0.0%	5.4%	8.8%	10.5%
Pennsylvania	0.6%	3.8%	12.0%	20.8%

Source: Pennsylvania Commission on Crime and Delinquency, 2015



Source: Pennsylvania Commission on Crime and Delinquency, 2011-2015

*Data for 2011 and 2013 are not reported for Northumberland County.



Source: Pennsylvania Commission on Crime and Delinquency, 2011-2015
*Data for 2011 and 2013 are not reported for Northumberland County.

Senior Health

Seniors face a number of challenges related to health and well-being as they age. They are more prone to chronic disease, social isolation, and disability. The following sections highlight key health indicators for the region's senior population.

Chronic Conditions

The following table notes the percentage of Medicare Beneficiaries 65 years or over who have been diagnosed with a chronic condition. Cells highlighted in red represent percentages that are above state and national benchmarks by more than 2 points.

The presence of chronic conditions among Medicare Beneficiaries varies by Central Region county. Medicare Beneficiaries in Northumberland and Schuylkill Counties are more likely to have a chronic condition diagnosis. Clinton, Snyder, and Union Counties also have higher chronic condition rates, particularly for high cholesterol.

Medicare Beneficiaries in Northumberland and Schuylkill Counties are more likely to have a chronic condition diagnosis

Chronic Conditions among Medicare Beneficiaries 65 Years or Over
(Red = Higher than the State and the Nation by More than 2 Points)

	Columbia County	Lycoming County	Northumberland County	Schuylkill County	PA	US
Alzheimer's Disease	9.3%	12.7%	11.0%	11.4%	11.8%	11.3%
Arthritis	31.9%	31.3%	33.9%	36.6%	33.5%	31.3%
Asthma	8.9%	7.7%	9.8%	7.8%	7.8%	7.6%
Cancer	8.2%	9.5%	9.1%	8.7%	9.8%	8.9%
COPD	11.6%	11.5%	13.8%	13.0%	11.0%	11.2%
Depression	14.7%	16.7%	18.0%	13.4%	14.9%	14.1%
Diabetes	24.8%	27.8%	30.3%	29.0%	26.5%	26.8%
Heart Failure	14.2%	14.5%	18.5%	19.1%	14.7%	14.3%
High Cholesterol	47.7%	52.3%	59.8%	55.9%	53.0%	47.8%
Hypertension	57.6%	60.7%	65.5%	64.8%	61.0%	58.1%
Ischemic Heart Disease	29.0%	25.7%	31.1%	32.4%	30.2%	28.6%
Stroke	4.3%	3.8%	4.8%	4.8%	4.9%	4.2%

Source: Centers for Medicare & Medicaid Services, 2015

Chronic Conditions among Medicare Beneficiaries 65 Years or Over
(Red = Higher than the State and the Nation by More than 2 Points)

	Clinton County	Montour County	Snyder County	Sullivan County	Union County	PA	US
Alzheimer's Disease	11.1%	NA	8.8%	9.2%	8.5%	11.8%	11.3%
Arthritis	35.9%	29.2%	32.2%	28.1%	31.5%	33.5%	31.3%
Asthma	7.7%	9.2%	9.1%	6.0%	7.5%	7.8%	7.6%
Cancer	8.2%	9.4%	8.2%	NA	8.9%	9.8%	8.9%
COPD	12.3%	10.9%	12.3%	8.6%	9.9%	11.0%	11.2%
Depression	15.4%	15.6%	17.3%	14.7%	16.1%	14.9%	14.1%
Diabetes	26.4%	25.3%	28.3%	25.9%	25.1%	26.5%	26.8%
Heart Failure	16.8%	13.6%	14.3%	16.1%	12.5%	14.7%	14.3%
High Cholesterol	55.6%	46.8%	67.0%	45.2%	59.9%	53.0%	47.8%
Hypertension	62.8%	55.2%	63.2%	58.8%	59.5%	61.0%	58.1%
Ischemic Heart Disease	26.8%	26.8%	27.2%	26.8%	25.0%	30.2%	28.6%
Stroke	4.1%	4.0%	4.2%	NA	4.2%	4.9%	4.2%

Source: Centers for Medicare & Medicaid Services, 2015

According to the CDC, "Among Medicare fee-for-service beneficiaries, people with multiple chronic conditions account for 93% of total Medicare spending." The tables below note the percentage of Central Region Medicare Beneficiaries by number of chronic conditions. Medicare Beneficiaries in all Central Region counties are more likely to have two or more comorbid chronic conditions when compared to the nation. Northumberland County Beneficiaries are more likely to have four or more comorbid chronic conditions.

Medicare Beneficiaries in Northumberland County are more likely to have 4 or more comorbid chronic conditions

Number of Chronic Conditions among Medicare Beneficiaries 65 Years or Over (Red = Higher than the State and the Nation by More than 2 Points)

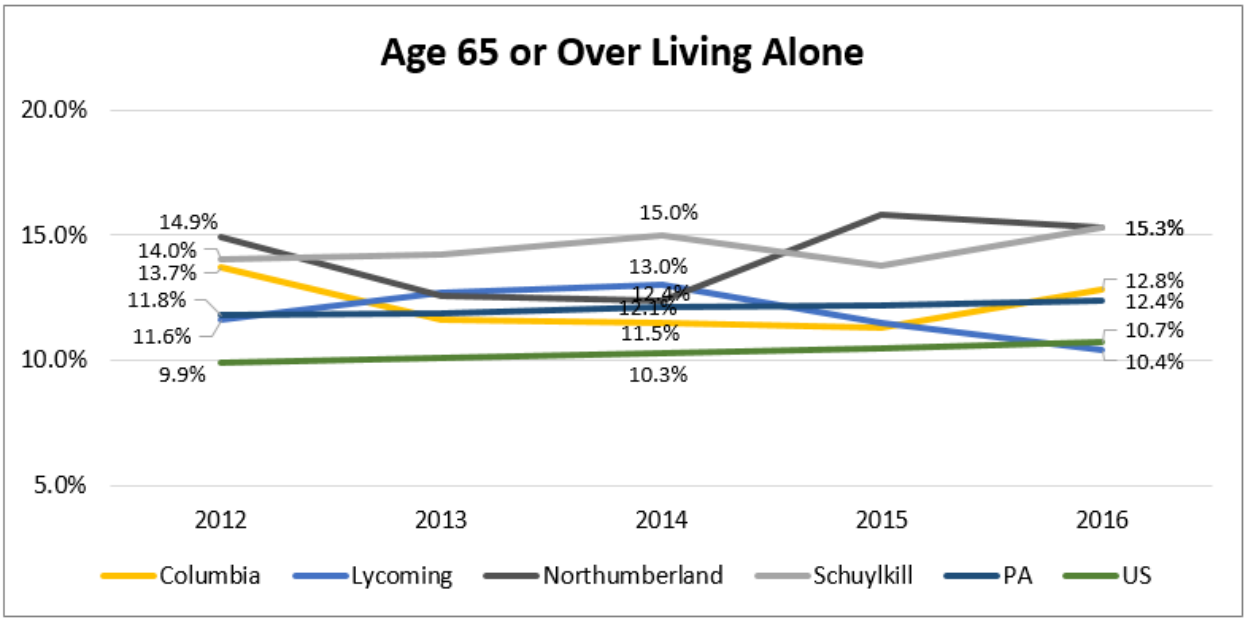
	Columbia County	Lycoming County	Northumberland County	Schuylkill County	PA	US
0 to 1 condition	31.2%	26.1%	21.9%	23.9%	28.5%	32.3%
2 to 3 conditions	30.5%	34.4%	31.3%	32.6%	31.1%	30.0%
4 to 5 conditions	22.0%	23.2%	25.1%	24.8%	22.9%	21.6%
6 or more conditions	16.3%	16.3%	21.7%	18.7%	17.6%	16.2%

Source: Centers for Medicare & Medicaid Services, 2015

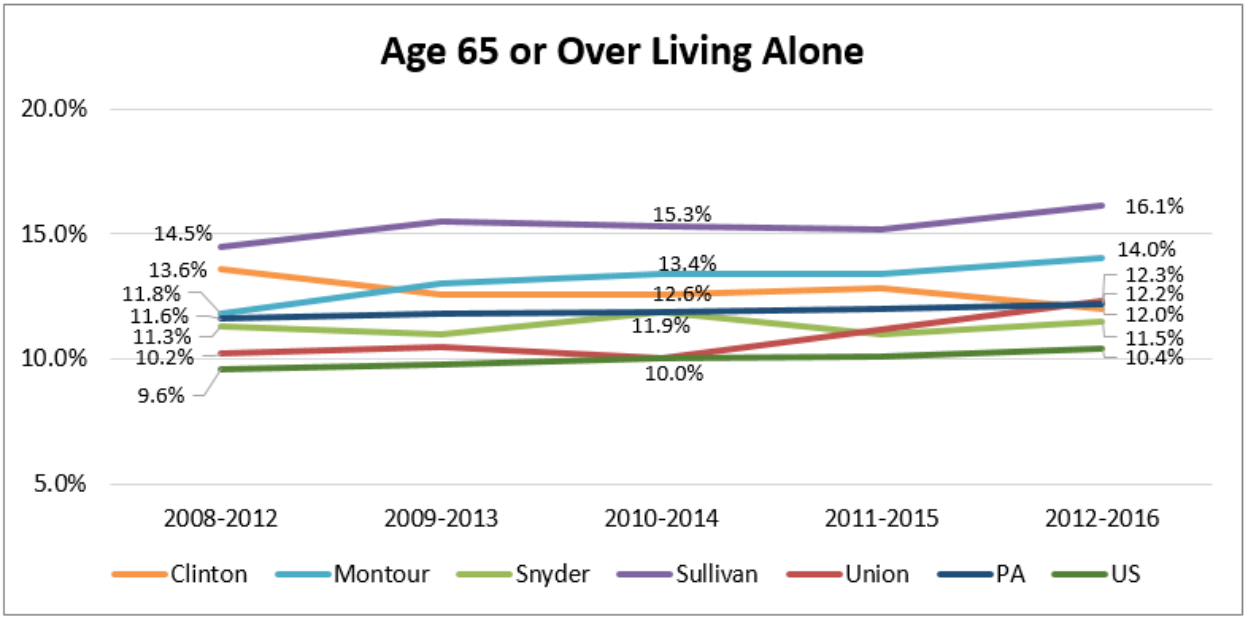
Number of Chronic Conditions among Medicare Beneficiaries 65 Years or Over (Red = Higher than the State and the Nation by More than 2 Points)

	Clinton County	Montour County	Snyder County	Sullivan County	Union County	PA	US
0 to 1 condition	25.7%	31.3%	22.3%	30.4%	26.6%	28.5%	32.3%
2 to 3 conditions	34.1%	30.4%	33.7%	34.1%	35.9%	31.1%	30.0%
4 to 5 conditions	23.6%	21.5%	26.0%	22.0%	22.5%	22.9%	21.6%
6 or more conditions	16.7%	16.9%	18.0%	13.6%	15.0%	17.6%	16.2%

As seniors age, they are at risk for isolation due to physical limitations and decreasing social circles. One indicator of isolation is the percentage of seniors age 65 or over who live alone. More than half of Central Region counties have a higher percentage of seniors who live alone when compared to the state and the nation. The percentage of seniors who live alone increased in all counties except Clinton, Columbia and Lycoming Counties.



Source: American Community Survey, 2012-2016



Source: American Community Survey, 2008-2012 – 2011-2015

Regular screenings are essential for the early detection and management of chronic conditions. The following table analyzes diabetes and mammogram screenings among Medicare enrollees. All Central Region counties except Columbia exceed state and national benchmarks for diabetes screenings; all counties except Schuylkill exceed benchmarks for mammograms.

Chronic Disease Screenings among Medicare Enrollees

	Annual hA1c Test from a Provider (65-75 Years)	Mammogram in Past Two Years (67-69 Years)
Clinton County	86.4%	66.4%
Columbia County	85.7%	73.8%
Lycoming County	88.5%	74.6%
Montour County	86.8%	68.5%
Northumberland County	91.3%	74.0%
Schuylkill County	88.1%	59.9%
Snyder County	94.2%	78.5%
Sullivan County	91.4%	69.4%
Union County	91.8%	72.4%
Pennsylvania	86.3%	64.8%
United States	85.0%	63.0%

Source: Dartmouth Atlas of Healthcare, 2014

Assistance with Activities of Daily Living (ADLs)

Chronic conditions and related disabilities can lead to limitations in activities of daily living. Approximately 5% of older adults in Pennsylvania have difficulty dressing or bathing, 25% have difficulty walking or climbing steps, and 5% have difficulty with vision. Percentages for these indicators within the three reporting regions are similar to or lower than state benchmarks.

Adults 65 Years or Over Requiring Assistance with ADLs

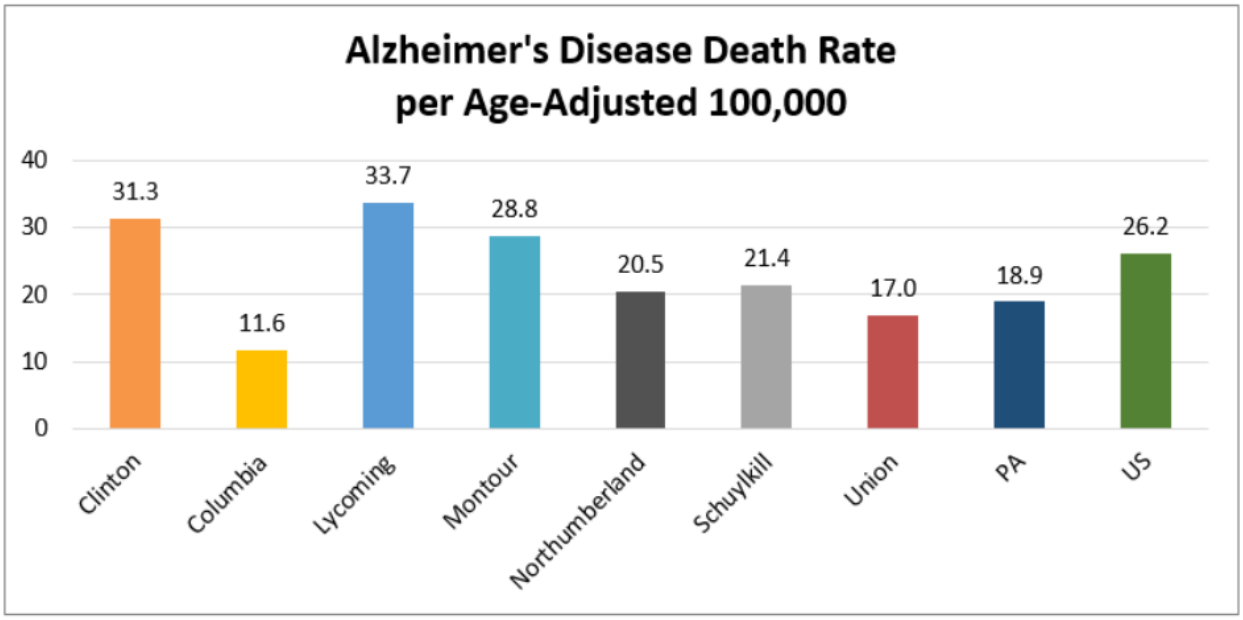
	Have Difficulty Dressing or Bathing	Have Serious Difficulty Walking or Climbing Stairs	Blind or Serious Difficulty Seeing, Even with Glasses
Region 1: Berks/Schuylkill	4%	18%	2%
Region 2: Bradford/Sullivan/ Tioga/Lycoming/Clinton/Potter	4%	27%	6%
Region 3: Centre/Columbia/ Montour/Northumberland/Snyder/Union	3%	22%	4%
Pennsylvania	5%	25%	5%

Source: PA Department of Health BRFSS, 2014-2016

Alzheimer's Disease

According to the National Institute on Aging, "Although one does not die of Alzheimer's disease, during the course of the disease, the body's defense mechanisms ultimately weaken, increasing susceptibility to catastrophic infection and other causes of death related to frailty."

In the Central Region, all counties except Columbia and Union counties have a higher rate of death due to Alzheimer's disease than the state and/or nation.



Source: CDC Wonder, 2013-2015

*Alzheimer's disease death data are not reported for Snyder and Sullivan Counties due to low death counts (19 and 10 respectively).

Immunizations

Pneumococcal disease continues to be a leading cause of serious illness among older adults. According to the CDC, approximately 13,500 cases of invasive pneumococcal disease occurred among adults age 65 years or over in 2013. Approximately 20%–25% of the cases are potentially preventable with proper vaccination. Adults in Region 2, including Clinton, Lycoming and Sullivan counties, are less likely to receive a pneumonia vaccine when compared to the state.

Adults 65 Years or Over Who Received a Pneumonia Vaccination

	Ever Received a Pneumonia Vaccination
Region 1: Berks/Schuylkill	71%
Region 2: Bradford/ Sullivan/Tioga/ Lycoming/Clinton/Potter	64%
Region 3: Centre/Columbia/Montour/ Northumberland/Snyder/Union	78%
Pennsylvania	72%

Source: PA Department of Health BRFSS, 2014-2016

Maternal and Infant Health

Total Births

The overall birth rate is highest in Snyder and Montour Counties. Births in all counties were primarily to White mothers. Lycoming and Schuylkill Counties had the most births to non-White and Hispanic/Latino mothers.

2015 Births by Race and Ethnicity

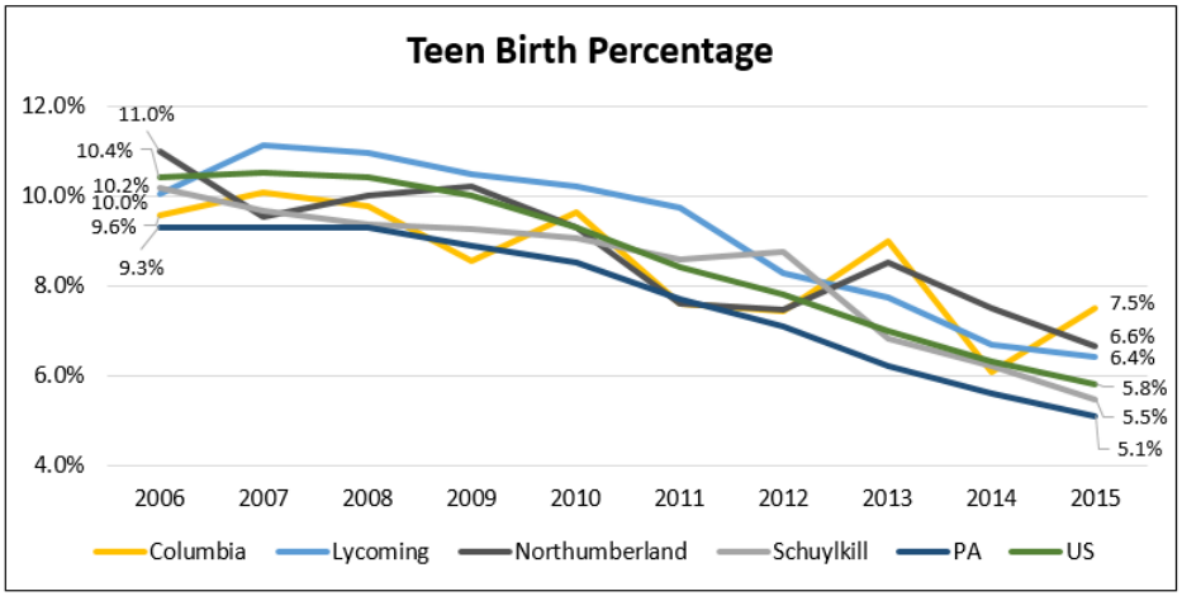
	Total Births	Birth Rate per 1,000	White Birth Count	Black/African American Birth Count	Hispanic/ Latino Birth Count
Clinton County	423	21.0	412	3	3
Columbia County	573	16.6	535	5	23
Lycoming County	1,201	20.4	1,062	67	25
Montour County	216	22.3	198	2	4
Northumberland County	948	20.4	898	9	34
Schuylkill County	1,315	18.6	1,193	24	92
Snyder County	465	22.7	448	5	6
Sullivan County	41	13.7	41	0	0
Union County	400	19.8	371	10	9

Source: PA Department of Health, 2015

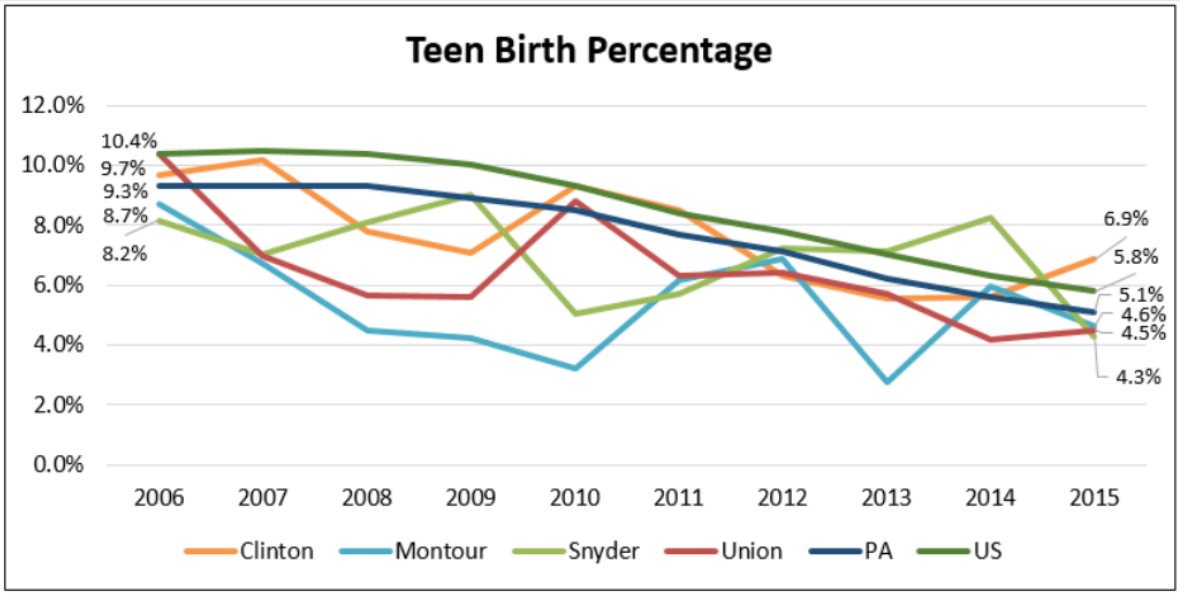
Teen Births

The percentage of births to teenagers is declining in all counties. Union County had the greatest decline in teen births over the past decade. However, the teen birth percentage for Clinton, Columbia, Lycoming, and Northumberland exceeds state and nation benchmarks.

The percentage of births to teenage mothers is declining in all counties



Source: CDC National Vital Statistics System, 2006-2015 & PA Department of Health, 2006-2015



Source: CDC National Vital Statistics System, 2006-2015 & PA Department of Health, 2006-2015
*Data for Sullivan County are not reported. The county had 44 teen births between 2006 and 2015.

Prenatal care should begin during the first trimester to ensure a healthy pregnancy and birth. Columbia, Lycoming, and Montour Counties meet the Healthy People 2020 goal for first trimester care. The percentage of Lycoming County mothers receiving care increased 10 points from 2006 to 2015. Schuylkill County mothers are among the least likely to receive first trimester care; the percentage fell 12 points from 2013 to 2015. Northumberland and Snyder Counties also saw decreases in the percentage of mothers receiving care.

Columbia, Lycoming, and Montour Counties meet the HP 2020 goal for prenatal care

Low birth weight is defined as a birth weight of less than 5 pounds, 8 ounces. It is often a result of premature birth, fetal growth restrictions, or birth defects. Clinton, Northumberland, Schuylkill, and Union Counties meet the Healthy People 2020 goal for low birth weight. Low birth weight percentages for all Central Region counties have been variable over the past decade.

Mothers in the Central Region do not meet the Healthy People 2020 goal for smoking during pregnancy, and all counties except Montour and Union exceed the state benchmark. However, the percentage of mothers who smoke during pregnancy is decreasing in all counties except Lycoming and Snyder. Union County had the greatest percentage point decline (10 points) between 2006 and 2015.

Central Region mothers are more likely to smoke during pregnancy, but the percentage is decreasing for nearly all counties

Mothers in all Central Region counties meet or nearly meet the Healthy People 2020 goal for preterm birth. The preterm birth rate has been variable in nearly all counties over the past decade, but it improved in Columbia, Lycoming, Northumberland, and Schuylkill Counties from 2006 to 2015.

All Central Region counties meet or nearly meet the HP 2020 goal for preterm birth

The percentage of mothers who breastfeed improved for all counties from 2006 to 2015. Montour, Snyder, and Union Counties meet the Healthy People 2020 goal. Mothers in Schuylkill and Sullivan Counties are the least likely to breastfeed, but both counties saw improvement in the indicator, increasing 20 points and 17 points respectively.

The percentage of mothers who breastfeed increased in all counties

Maternal and child health indicators by race and ethnicity are reported for Columbia, Lycoming, Northumberland, and Schuylkill Counties. In all four counties, Black/African American and/or Hispanic/Latina mothers are less likely to receive early prenatal care. Black/African American mothers in Lycoming County are also more likely to have low birth weight and premature infants. Hispanic/Latina mothers are generally less likely to smoke during pregnancy and more likely to breastfeed.

Black/African American and Hispanic/Latina women have worse maternal and child health outcomes than White women

Maternal and Child Health Indicators by Race and Ethnicity

	Columbia County	Lycoming County	Northumberland County	Schuylkill County	Healthy People 2020 Goal
Mothers with First Trimester Care					
Total Population	81.8%	78.0%	73.3%	68.7%	77.9%
White	82.2%	80.3%	74.2%	70.4%	
Black/African American	NA	60.0%	NA	70.8%	
Hispanic/Latina	63.6%	66.7%	62.5%	48.9%	
Low Birth Weight Infants					
Total Population	8.7%	9.2%	7.2%	7.5%	7.8%
White	8.6%	8.2%	7.2%	7.5%	
Black/African American	NA	17.9%	NA	NA (n=2)	
Hispanic/Latina	NA (n=4)	NA (n=4)	NA (n=3)	NA (n=7)	
Non-Smoking Mothers during Pregnancy					
Total Population	79.4%	79.5%	76.5%	77.1%	98.6%
White	78.5%	80.3%	76.6%	76.6%	
Black/African American	NA	77.6%	NA	70.8%	
Hispanic/Latina	82.6%	52.0%	82.4%	88.0%	
Breastfeeding					
Total Population	75.8%	79.7%	79.2%	66.0%	81.9%
White	75.9%	81.5%	79.1%	65.9%	
Black/African American	NA	55.0%	NA	54.2%	
Hispanic/Latina	78.3%	88.0%	77.4%	67.4%	
Preterm Births					
Total Population	8.6%	9.7%	9.0%	8.8%	9.4%*
White	8.4%	8.7%	8.9%	8.9%	
Black/African American	NA	17.9%	NA	NA (n=1)	
Hispanic/Latina	NA (n=3)	NA (n=6)	NA (n=6)	NA (n=6)	

Source: PA Department of Health, 2015 & Healthy People 2020

*The Healthy People 2020 goal for preterm birth was revised in 2017 from 11.4% to 9.4%.

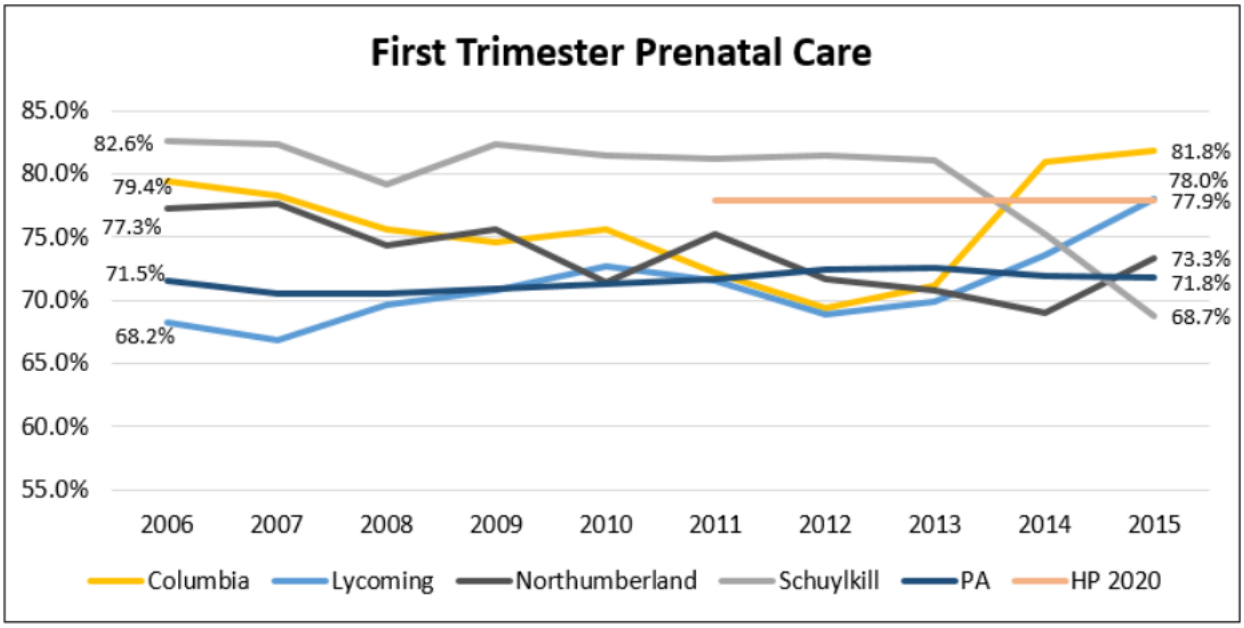
**Indicators by race and ethnicity are only reported for counties with more than 20 births among minority populations.

Maternal and Child Health Indicators by Race and Ethnicity

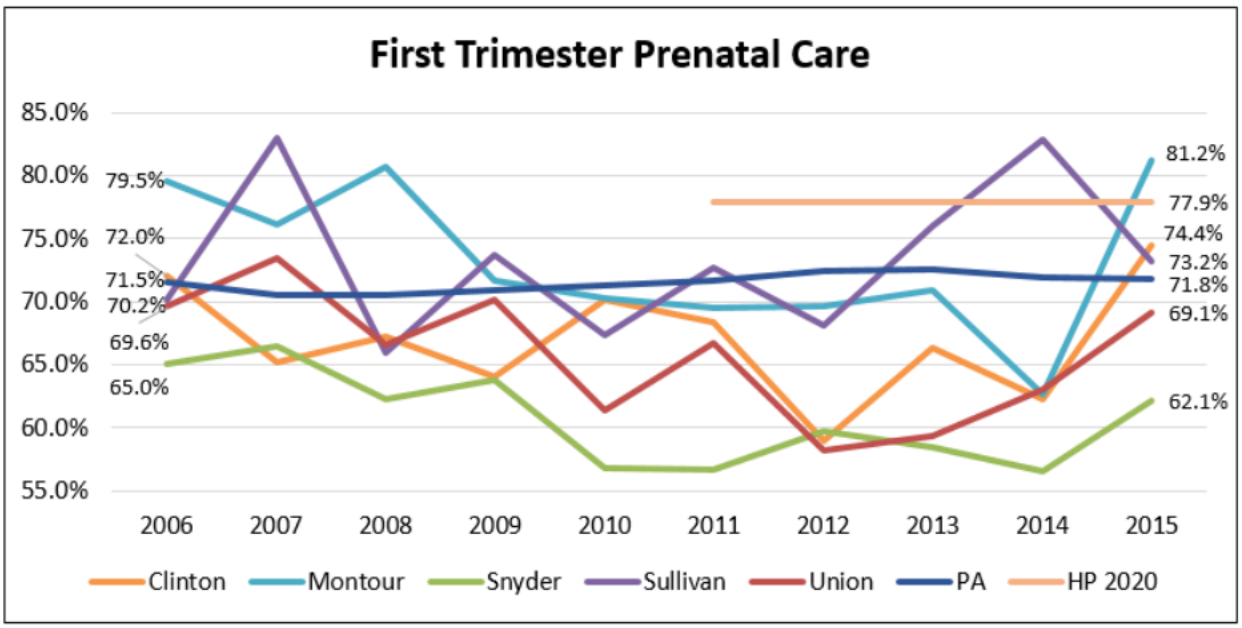
	Mothers with First Trimester Care	Low Birth Weight Infants	Non-Smoking Mothers during Pregnancy	Breast-feeding	Preterm Births
Clinton County	74.4%	6.9%	79.9%	79.2%	7.6%
Montour County	81.2%	9.3%	90.7%	87.8%	10.2%
Snyder County	62.1%	9.5%	85.7%	85.3%	10.4%
Sullivan County	73.2%	NA (n=4)	65.9%	70.0%	NA (n=2)
Union County	69.1%	6.0%	90.5%	92.7%	8.3%
HP 2020	77.9%	7.8%	98.6%	81.9%	11.4%

Source: PA Department of Health, 2015 & Healthy People 2020

*Indicators by race and ethnicity are not reported for the counties due to low birth counts.



Source: PA Department of Health, 2006-2015 & Healthy People 2020



Source: PA Department of Health, 2006-2015 & Healthy People 2020

The following municipalities within each county do not meet the Healthy People 2020 goal for mothers receiving first trimester prenatal care (77.9%) by more than 3 points. Municipalities are presented in ascending order by percentage of mothers receiving first trimester prenatal care.

Municipalities That Do Not Meet the Healthy People 2020 Goal (77.9%) for Mothers Receiving First Trimester Prenatal Care by More Than 3 Points

Clinton County		Columbia County		Lycoming County		Montour County	
Municipality	%	Municipality	%	Municipality	%	Municipality	%
Logan Twp.	29.2%	Madison Twp.	60.2%	Washington Twp.	33.3%	Limestone Twp.	35.1%
Greene Twp.	30.9%	Conyngham Twp.	64.5%	Cascade Twp.	50.0%	Anthony Twp.	44.4%
Crawford Twp.	50.9%	Berwick Boro	66.0%	Clinton Twp.	57.8%	Derry Twp.	47.6%
Loganton Boro	51.1%	Greenwood Twp.	67.3%	Bastress Twp.	58.3%		
Lamar Twp.	51.4%	Briar Creek Boro	67.9%	Watson Twp.	58.3%		
Renovo Boro	53.1%	Jackson Twp.	69.6%	Lewis Twp.	61.1%		
Porter Twp.	59.3%	Benton Twp.	70.0%	Limestone Twp.	62.2%		
Bald Eagle Twp.	63.6%	Orangeville Boro	70.6%	Gamble Twp.	63.6%		
Castanea Twp.	66.7%	North Centre Twp.	71.4%	Armstrong Twp.	65.0%		
Lock Haven City	67.6%	Benton Boro	72.0%	Franklin Twp.	65.7%		
Mill Hall Boro	69.4%	Sugarloaf Twp.	72.5%	Lycoming Twp.	66.1%		
Dunnstable Twp.	72.2%	Montour Twp.	74.0%	Woodward Twp.	66.7%		
Wayne Twp.	73.7%	Pine Twp.	74.0%	Williamsport City	66.7%		
				Moreland Twp.	67.6%		
				McIntyre Twp.	68.2%		
				Porter Twp.	68.6%		

Source: PA Department of Health, 2011-2015
*Only municipalities with more than 20 reported births are included.

Municipalities That Do Not Meet the Healthy People 2020 Goal (77.9%) for Mothers Receiving First Trimester Prenatal Care by More Than 3 Points (cont'd)

Lycoming County	
Municipality	%
Jersey Shore Boro	70.6%
Piatt Twp.	70.8%
Penn Twp.	72.2%
Montgomery Boro	72.4%
Nippenose Twp.	72.7%
Muncy Boro	73.0%
Old Lycoming Twp.	73.1%
Picture Rocks Boro	73.3%
Loyalsock Twp.	73.6%
Mifflin Twp.	74.2%

Source: PA Department of Health, 2011-2015
*Only municipalities with more than 20 reported births are included.

Municipalities That Do Not Meet the Healthy People 2020 Goal (77.9%) for Mothers Receiving First Trimester Prenatal Care by More Than 3 Points (cont'd)

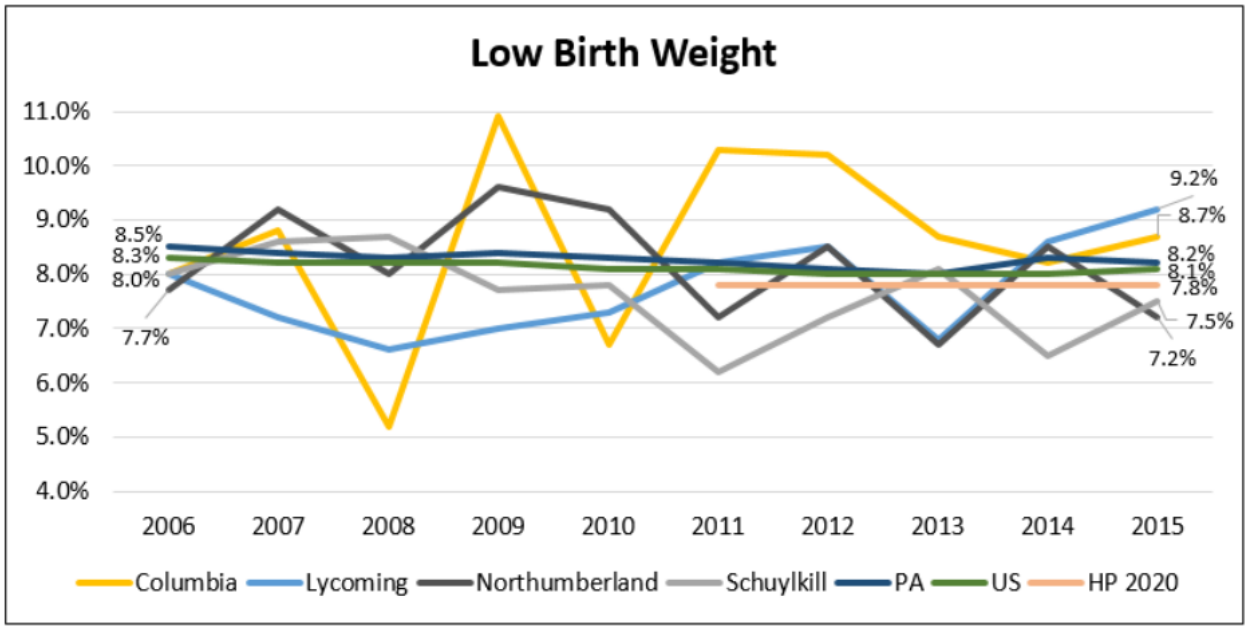
Northumberland County		Schuylkill County		Snyder County		Sullivan County		Union County	
Municipality	%	Municipality	%	Municipality	%	Municipality	%	Municipality	%
Lewis Twp.	37.4%	Hubley Twp.	40.5%	Chapman Twp.	23.3%	Davidson Twp.	62.5%	Limestone Twp.	40.8%
Washington Twp.	52.7%	Shenandoah Boro	64.8%	Union Twp.	40.0%	Cherry Twp.	66.1%	Lewis Twp.	49.5%
Jackson Twp.	53.8%	Eldred Twp.	65.9%	West Beaver Twp.	42.0%			Buffalo Twp.	54.8%
Delaware Twp.	57.3%	Walker Twp.	66.7%	Spring Twp.	48.6%			West Buffalo Twp.	55.2%
Rush Twp.	57.6%	Mahanoy City Boro	67.7%	Perry Twp.	49.1%			Gregg Twp.	55.9%
East Chillisquaque Twp.	60.0%	Mahanoy Twp.	68.0%	Washington Twp.	50.9%			Union Twp.	62.3%
Lower Mahanoy Twp.	60.6%	Coaldale Boro	68.8%	Jackson Twp.	52.0%			Hartley Twp.	62.4%
Sunbury city	66.9%	West Mahanoy Twp.	69.2%	Center Twp.	52.7%			Mifflinburg Boro	64.0%
Kulpmont Boro	67.5%	New Castle Twp.	69.6%	Beaver Twp.	54.5%			New Berlin Boro	66.1%
Rockefeller Twp.	69.0%	Blythe Twp.	69.8%	Adams Twp.	58.8%			Kelly Twp.	68.4%
Milton Boro	69.5%	Ashland Boro	70.4%	West Perry Twp.	59.3%			Lewisburg Boro	68.8%

Source: PA Department of Health, 2011-2015
*Only municipalities with more than 20 reported births are included.

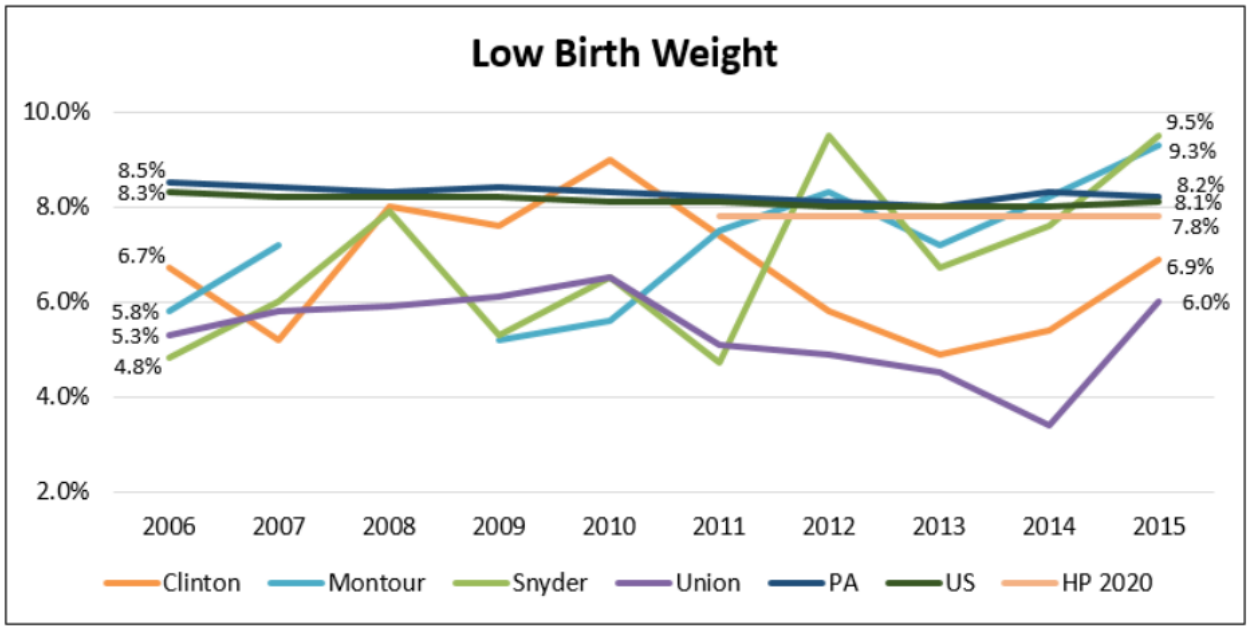
Municipalities That Do Not Meet the Healthy People 2020 Goal (77.9%) for Mothers Receiving First Trimester Prenatal Care by More Than 3 Points (cont'd)

Northumberland County		Schuylkill County		Snyder County		Union County	
Municipality	%	Municipality	%	Municipality	%	Municipality	%
Zerbe Twp.	69.6%	Washington Twp.	70.9%	Selinsgrove Boro	63.3%	East Buffalo Twp.	70.2%
Upper Mahanoy Twp.	70.0%	Frailey Twp.	71.4%	Beavertown Boro	65.2%	White Deer Twp.	73.5%
Shamokin city	70.9%	Kline Twp.	71.4%	McClure Boro	65.9%		
Lower Augusta Twp.	71.7%	Tamaqua Boro	71.5%	Middlecreek Twp.	67.1%		
West Chillisquaque Twp.	71.8%	Pine Grove Twp.	72.5%	Monroe Twp.	68.1%		
Herndon Boro	71.9%	McAdoo Boro	72.6%	Freeburg Boro	70.6%		
Mount Carmel Twp.	72.3%	Delano Twp.	72.7%	Penn Twp.	70.8%		
Watsontown Boro	74.4%	New Philadelphia Boro	73.0%	Franklin Twp.	70.9%		
Turbotville Boro	74.4%	Frackville Boro	73.2%	Middleburg Boro	72.6%		
Mount Carmel Boro	74.4%	Pottsville city	74.0%	Shamokin Dam Boro	73.3%		
		Minersville Boro	74.8%				

Source: PA Department of Health, 2011-2015
*Only municipalities with more than 20 reported births are included.



Source: PA Department of Health, 2006-2015 & Healthy People 2020



Source: PA Department of Health, 2006-2015 & Healthy People 2020
*Data for Sullivan County are not reported. The county had 39 low birth weight infants between 2006 and 2015.

The following municipalities within each county do not meet the Healthy People 2020 goal for low birth weight babies (7.8%) by more than 3 points. Municipalities are presented in descending order by percentage of low birth weight babies.

Municipalities that Do Not Meet the Healthy People 2020 Goal (7.8%) for Low Birth Weight Babies by More Than 3 Points

Columbia County		Lycoming County		Montour County		Northumberland County	
Municipality	%	Municipality	%	Municipality	%	Municipality	%
Roaring Creek Twp.	31.3%	Jackson Twp.	12.5%	Liberty Twp.	18.8%	Lower Augusta Twp.	15.2%
Briar Creek Twp.	16.7%	Armstrong Twp.	11.7%			Jordan Twp.	14.8%
Mount Pleasant Twp.	15.0%	Lycoming Twp.	11.3%				
Orangeville Boro	14.7%	Wolf Twp.	11.2%				
Jackson Twp.	13.0%	Muncy Boro	10.9%				
Catawissa Twp.	11.8%						
Berwick Boro	11.6%						

Source: PA Department of Health, 2011-2015
*Only municipalities with more than 20 reported births are included.

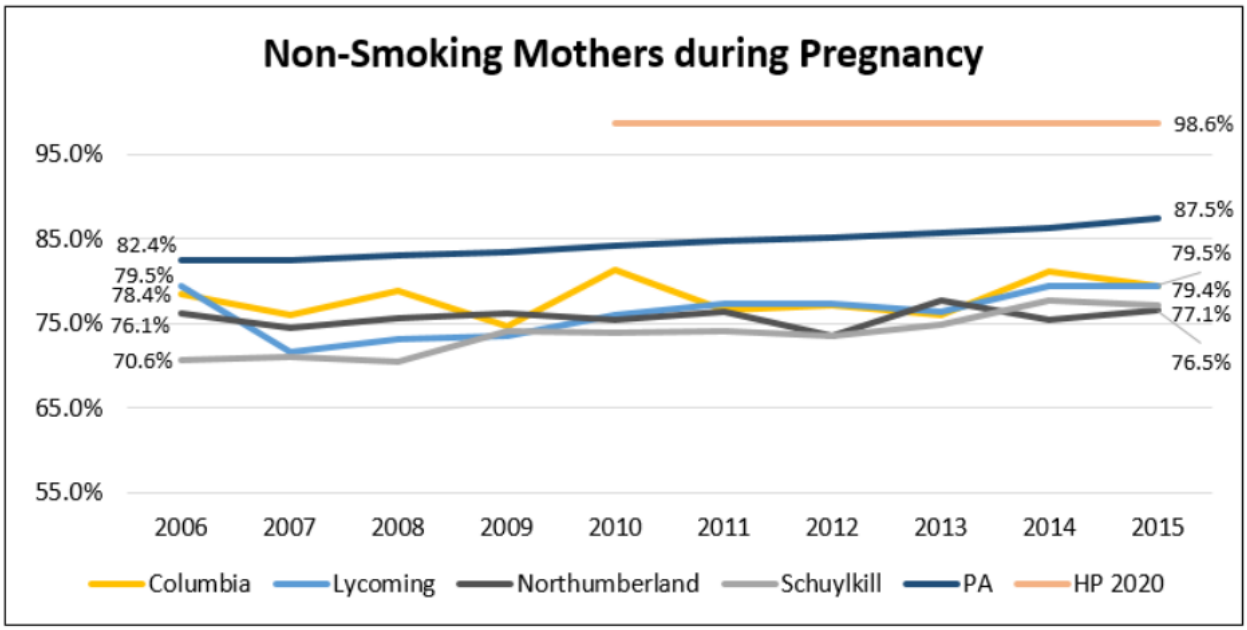
Municipalities that Do Not Meet the Healthy People 2020 Goal (7.8%) for Low Birth Weight Babies by More Than 3 Points (cont'd)

Schuylkill County		Snyder County		Sullivan County	
Municipality	%	Municipality	%	Municipality	%
Gliberton Boro	23.1%	Beaver Twp.	13.6%	Colley Twp.	17.6%
Auburn Boro	17.4%	Washington Twp.	12.1%		
Palo Alto Boro	12.5%	Middleburg Boro	11.1%		
Gordon Boro	11.4%	Spring Twp.	11.0%		
McAdoo Boro	11.3%	McClure Boro	11.0%		
North Union Twp.	11.3%				
Walker Twp.	11.1%				
Minersville Boro	11.0%				

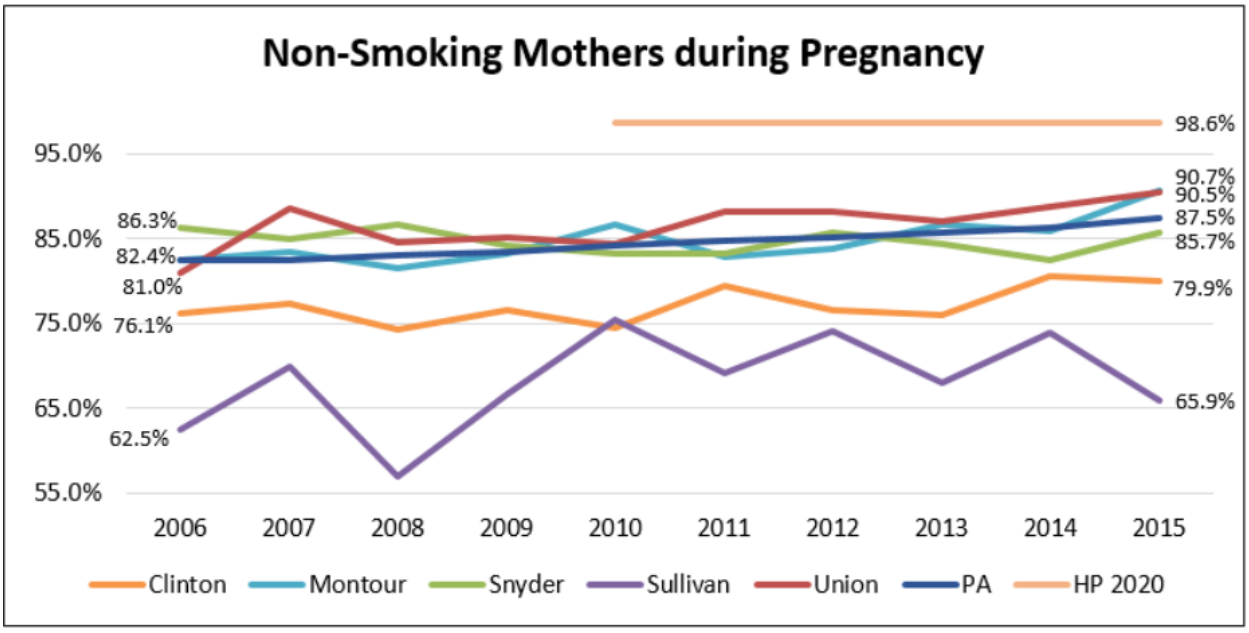
Source: PA Department of Health, 2011-2015

*Only municipalities with more than 20 reported births are included.

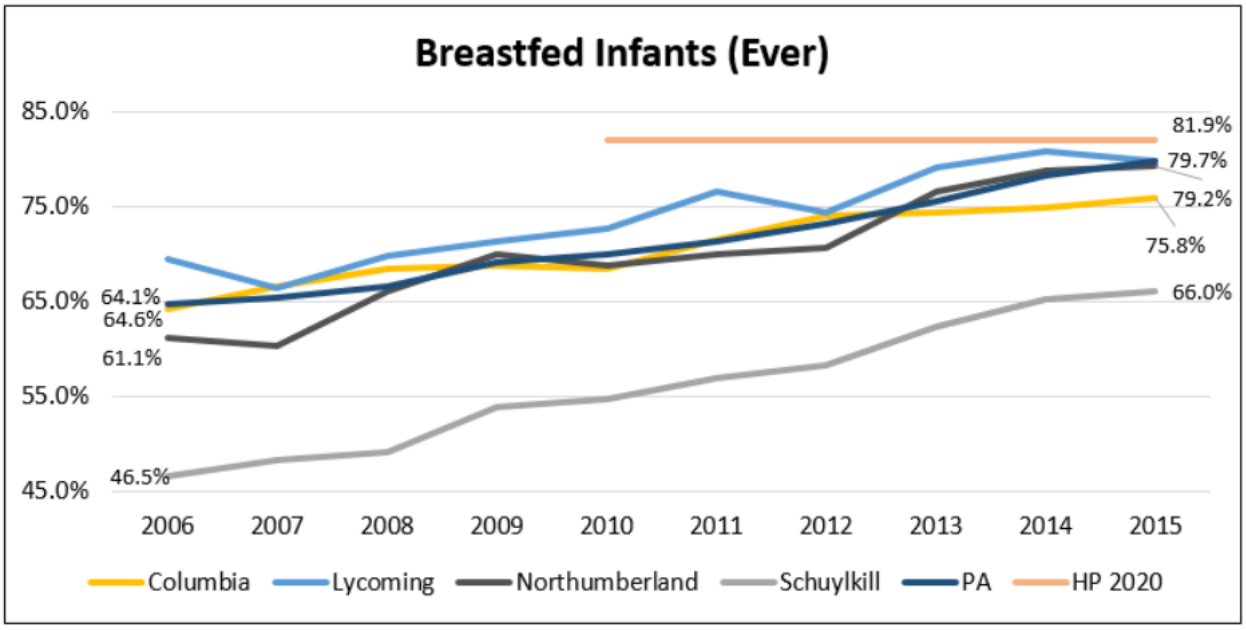
** All Union County municipalities meet the Healthy People 2020 Goal for low birth weight or were within the 3 point range.



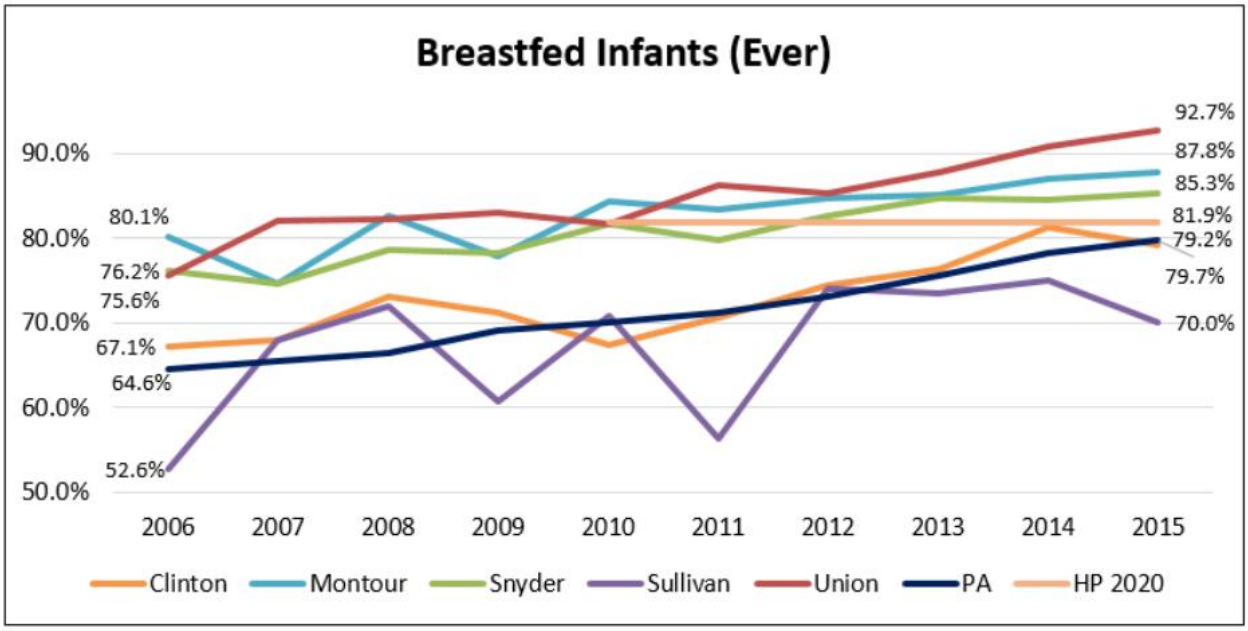
Source: PA Department of Health, 2006-2015 & Healthy People 2020



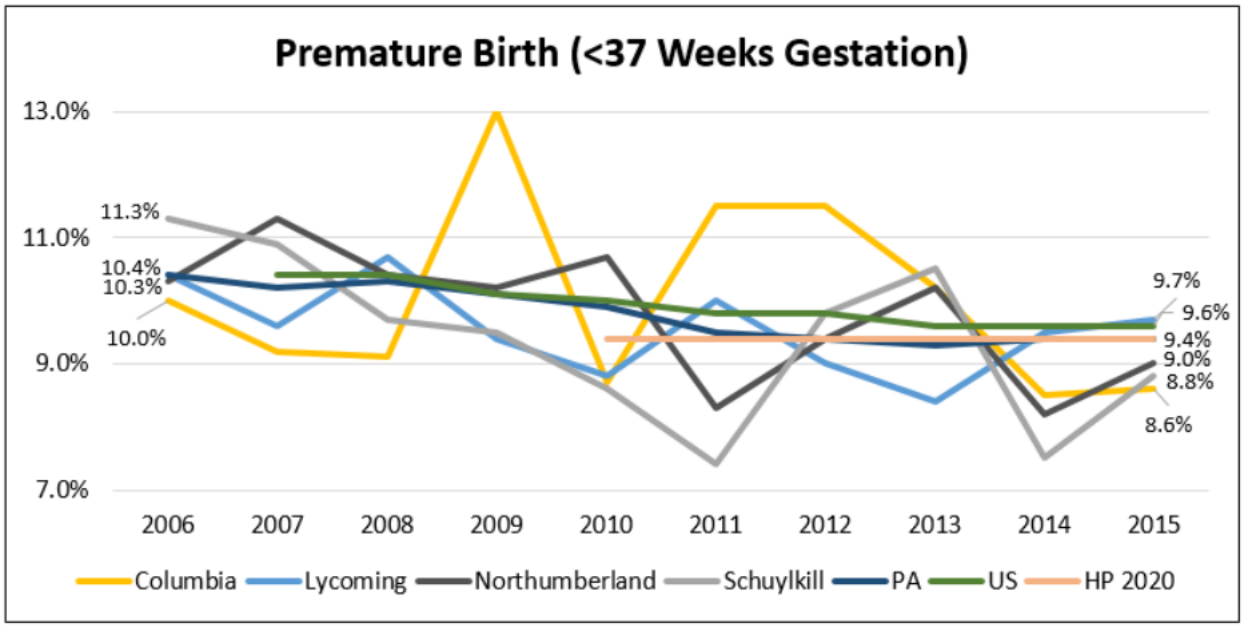
Source: PA Department of Health, 2006-2015 & Healthy People 2020



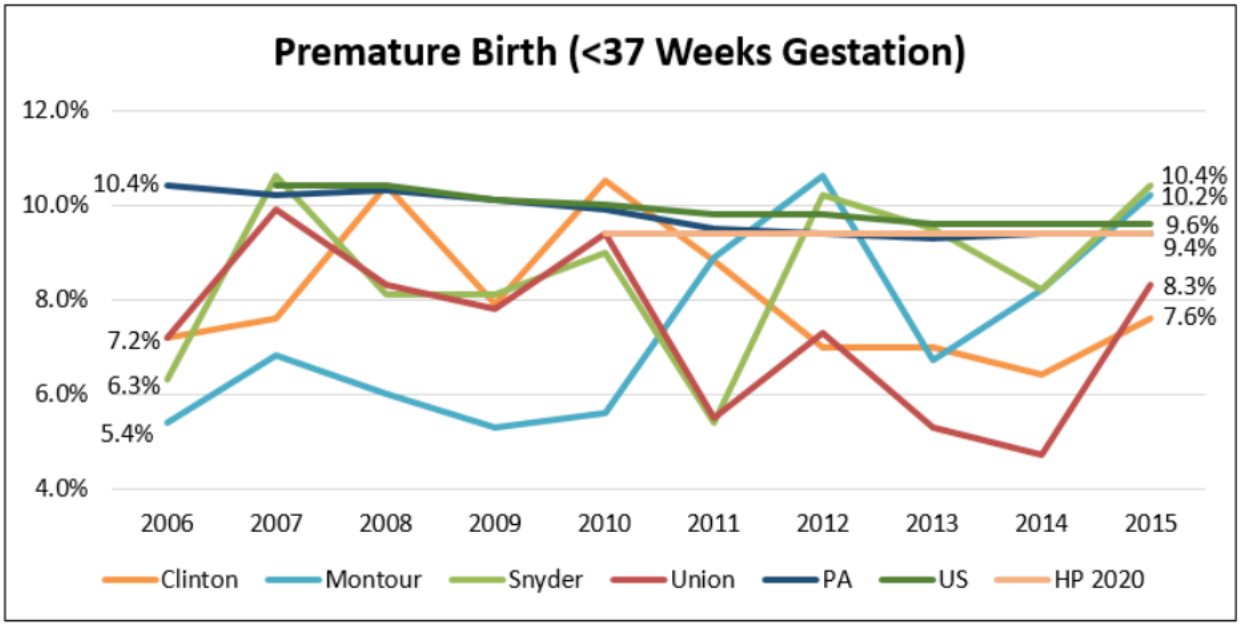
Source: PA Department of Health, 2006-2015 & Healthy People 2020



Source: PA Department of Health, 2006-2015 & Healthy People 2020

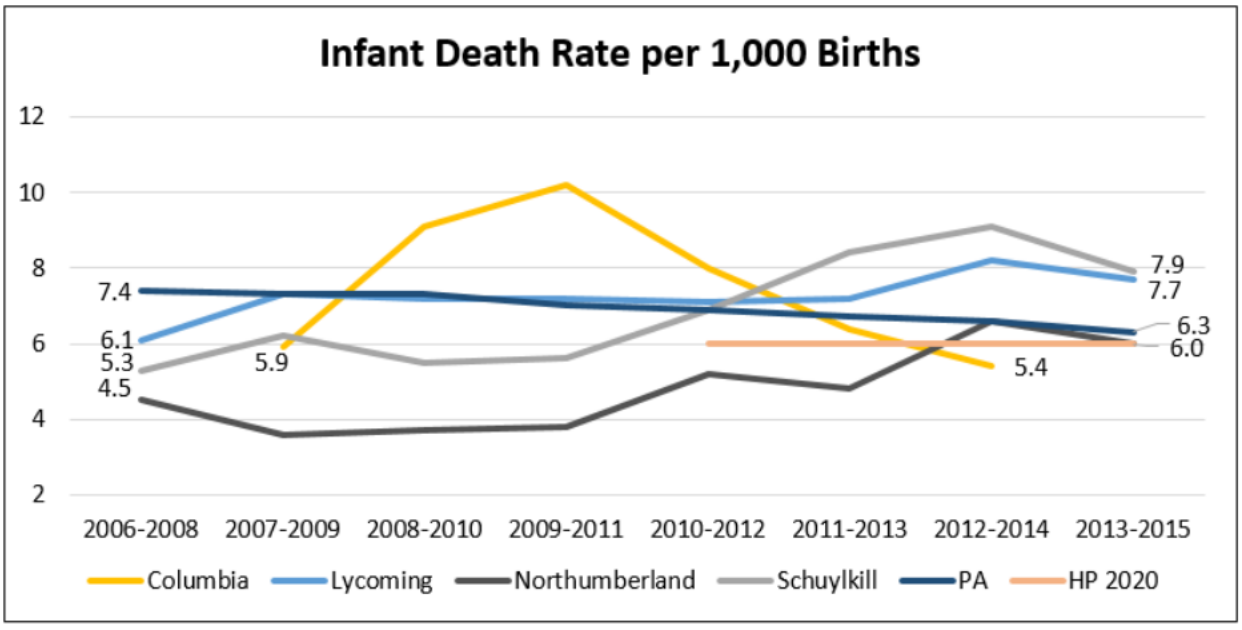


Source: PA Department of Health, 2006-2015 & Healthy People 2020



Source: PA Department of Health, 2006-2015 & Healthy People 2020

Maternal and child health indicators and disparities impact infant death rates. Death rates for Columbia and Northumberland Counties meet the Healthy People 2020 goal. Death rates for Lycoming and Schuylkill Counties are increasing. Data by race and ethnicity are not reported.



Source: PA Department of Health, 2006-2015 & Healthy People 2020
*Data for other Central Region counties are not reported due to low death counts. Columbia County is excluded for 2006-2008 and 2013-2015 due to low death counts.

Key Informant Survey Summary

The Key Informant Survey was conducted with 59 community leaders representing diverse populations across the Central Region. The most commonly served populations by key informants are shown in the table below.

Populations Served by Key Informants

	Percent of Informants*	Number of Informants
Not Applicable (Serve All Populations)	40.7%	24
Families	37.3%	22
Low Income/Poor	37.3%	22
Seniors/Elderly	32.2%	19
Children/Youth	27.1%	16
Uninsured/Underinsured	25.4%	15
Disabled	22.0%	13
Men	20.3%	12
Women	20.3%	12
Homeless	18.6%	11

*Key informants were able to select multiple counties. Percentages may not add up to 100%.

Approximately 46% of key informants “disagree” or “strongly disagree” that the community is healthy. When asked what health conditions and factors contribute to poor health among residents, informants identified the following top needs:

Top Health Conditions

- Substance abuse
- Overweight/Obesity
- Diabetes

Top Contributing Factors

- Health habits
- Ability to afford healthcare
- Drug/Alcohol use

Informants acknowledged compliance with recommended diet and exercise habits as key contributors to wellbeing, as well as the need for more community health education and programs. Related to healthcare costs, informants identified high copays and deductibles and a depressed job market as barriers to accessing care. “This is a rural area where coal was a big factor and has now moved out. There are not a lot of opportunities for well-paying jobs.”

Behavioral health providers were identified as the most needed resource in the community; 72% of key informants disagree that there is a sufficient number. A lack of providers, as well as economic depression and stigma, contribute to mental health and substance abuse conditions among residents. “Poverty has made several of the surrounding communities prime targets for substance abuse.” “With the area being a small, close community, people feel like they can't be anonymous. People will talk if they do seek out drug, alcohol, or mental health services.”

Approximately 20% to 30% of informants disagree that residents have a regular primary care provider and can access a medical specialist when they need care. The top barriers to

accessing healthcare services are a lack of bilingual providers, providers that accept Medicaid/ Medical Assistance, and transportation for appointments. Informants also noted that residents may not seek regular care because they "feel healthy" and/or cannot afford out-of-pocket costs (copays, deductibles, prescriptions, etc.). Potentially related to residents not feeling like they need to go to the doctor is lack of awareness or emphasis of preventive health measures.

Social determinants of health impact the ability of individuals to access healthcare and maintain healthy lifestyles. The majority of key informants rated social determinants within the community as "average" or "poor." Health and healthcare, including access to care, health literacy, etc., was rated the highest by informants (2.83 out of 5). Economic stability, including poverty, employment, food security, etc., was rated the lowest by informants (2.53 out of 5). "We have a poor social and economic community with a need for an improved educational system. Education is key to a healthy community."

Key informants were asked to share what resources are missing in the community that would help residents optimize their health. The top identified missing resources were mental health and substance abuse services and transportation options. "We have limited resources to provide mental health services but a large population who would benefit from services." "There is a huge gap in behavioral health services for all ages." "Lack of transportation is a big problem in this area."

Health and wellness education and programs were also identified as top missing resources within the community. "Individuals are not aware of the care they should be receiving, or have little access to receiving it for an affordable price." "Rural areas need trained Community Health Workers who are people of the community and trusted by the community."

When asked how local and regional healthcare providers can better engage community members to achieve optimal health outcomes, informants made recommendations focused on prevention; service awareness; improved healthcare access; and community partnerships to address needs. The following are select recommendations by informants:

- Emphasize prevention through health promotion education and outreach both in the clinical and community setting
- Expand communication channels to advertise available programs and services
- Improve access to behavioral health providers
- Improve transportation options for medical appointments
- Integrate free and fee-based health services into community settings
- Promote and support cross-agency partnerships to improve community health and offer community-based services
- Utilize Community Health Workers to bridge the gap between healthcare providers and community members

Key Informant Survey Analysis

Background

A Key Informant Survey was conducted with community representatives to solicit information about health needs and disparities among residents. Key informants were asked a series of questions about their perceptions of health needs in the community, health drivers, barriers to care, and recommendations for community health improvement.

The survey was conducted with 113 key informants across the 19-county service area; 59 informants serve the Central Region. Approximately 41% of informants serve all population groups. The most commonly served special population groups are families, low income/poor, and seniors/elderly. A list of community organizations represented by key informants, and their respective role/title, is included in Appendix B.

Central Region Counties Served by Key Informants

	Percent of Informants*	Number of Informants
Snyder County	54.2%	32
Union County	54.2%	32
Northumberland County	47.5%	28
Columbia County	45.8%	27
Lycoming County	44.1%	26
Montour County	42.4%	25
Clinton County	32.2%	19
Schuylkill County	28.8%	17
Sullivan County	22.0%	13

*Key informants were able to select multiple counties. Percentages may not add up to 100%.

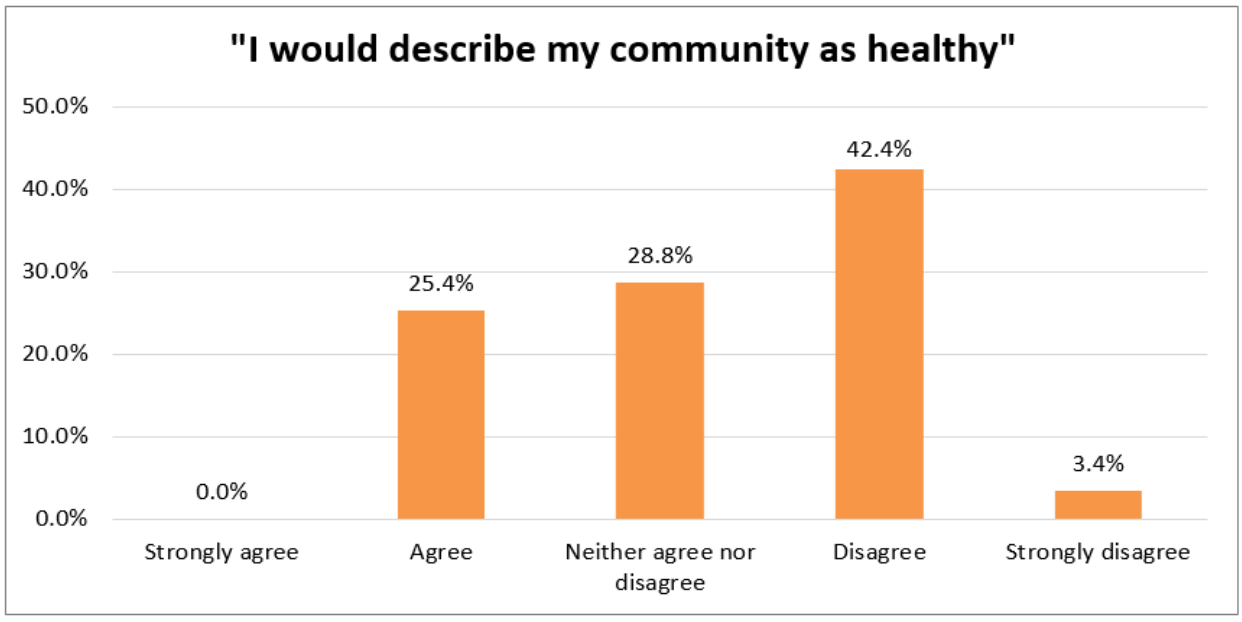
Populations Served by Key Informants

	Percent of Informants*	Number of Informants
Not Applicable (Serve All Populations)	40.7%	24
Families	37.3%	22
Low Income/Poor	37.3%	22
Seniors/Elderly	32.2%	19
Children/Youth	27.1%	16
Uninsured/Underinsured	25.4%	15
Disabled	22.0%	13
Men	20.3%	12
Women	20.3%	12
Homeless	18.6%	11
Black/African American	8.5%	5
Other**	6.8%	4
Hispanic/Latino	6.8%	4
LGBTQ+ Community	5.1%	3
American Indian/Alaska Native	1.7%	1
Asian/Pacific Islander	1.7%	1
Immigrant/Refugee	1.7%	1

*Key informants were able to select multiple counties. Percentages may not add up to 100%.
**Other response: Diabetics and/or food insecure residents, Plain community, veterans.

Community Health Needs

Approximately 46% of informants “disagree” that the community is healthy, while 25% of informants “agree” that their community is healthy. When asked what health conditions are affecting residents, informants stated that substance abuse is the top concern for the region, followed by overweight/obesity and diabetes.



Health Conditions Affecting Residents

Ranking	Condition	Informants Selecting as the Top (#1) Health Concern	Informants Selecting as a Top 3 Health Concern	
			Percent	Count
1	Substance abuse	24.1%	14.0%	24
2	Overweight/Obesity	20.7%	19.8%	34
3	Diabetes	12.1%	8.1%	14
4	Cancers	10.3%	11.6%	20
5	Alzheimer's disease/Dementia	8.6%	4.1%	7
6	Mental health conditions	8.6%	15.1%	26
7	Heart disease and stroke	3.4%	8.7%	15
8	Tobacco Use	3.4%	5.2%	9
9	Disability	1.7%	2.9%	5
10	Infectious disease	1.7%	0.6%	1
11	Respiratory disease	1.7%	2.3%	4
12	None	1.7%	0.6%	1
13	Other*	1.7%	1.7%	3
14	Dental problems	0.0%	1.7%	3
15	Autism	0.0%	1.2%	2
16	Domestic violence	0.0%	0.6%	1
17	Motor vehicle crash injuries	0.0%	0.6%	1
18	Suicide	0.0%	0.6%	1
19	Teenage pregnancy	0.0%	0.6%	1

*Other responses: Chronic conditions, drug use, physical rehabilitation.

Key informants identified the top contributing factor to health conditions as health habits, such as diet and physical activity.

> *"Heart Disease, diabetes and stroke are very prevalent across the nation. Compliance with diet, exercise and medications are vital to promote wellbeing. Education on these topics is important to raise awareness."*

> *"Education and health programs are lacking in this community." "Patients comment on not being able to afford meat and eating pasta instead."*

The second top contributor to health conditions is ability to afford healthcare.

> *"High copays and deductibles are preventing patients from seeking care in a timely manner."*

> *"Healthcare costs are too high."*

> *"This is a rural area where coal was a big factor and has now moved out. There are not a lot of opportunities for well-paying jobs."*

> *"We are a community with an aging, poor population."*

A lack of behavioral health providers and economic depression contribute to both mental health and substance abuse conditions in the community. Specific comments from respondents highlight the issues:

> *"Poverty has made several of the surrounding communities prime targets for substance abuse."*

> *"[A] lack of mental health providers is also a contributing factor in the community for mental health conditions. With the area being a small, close community, people feel like they can't be anonymous. People will talk if they do seek out drug, alcohol, or mental health services."*

Top Contributing Factors to Conditions Affecting Residents

Ranking	Contributing Factor	Informants Selecting as the Top (#1) Contributor	Informants Selecting as a Top 3 Contributor	
			Percent	Count
1	Health habits	28.1%	18.1%	31
2	Ability to afford healthcare	15.8%	12.3%	21
3	Drug/Alcohol use	12.3%	8.8%	15
4	Availability of healthy food options	7.0%	2.3%	4
5	Health literacy	5.3%	8.2%	14
6	Poverty	5.3%	8.2%	14
7	Education attainment	3.5%	5.3%	9
8	Environmental quality	3.5%	2.9%	5
9	Health insurance	3.5%	2.3%	4
10	Number of healthcare providers available in the community	3.5%	4.1%	7
11	Other*	3.5%	3.5%	6
12	Availability of health and wellness programs	1.8%	2.9%	5
13	Lack of preventive healthcare	1.8%	6.4%	11
14	Quality of housing	1.8%	0.6%	1
15	Social support	1.8%	4.7%	8
16	Unemployment	1.8%	1.8%	3
17	Stress	0.0%	4.7%	8
18	Transportation	0.0%	2.3%	4
19	Availability of parks and recreation outlets	0.0%	0.6%	1

*Other responses: Marketing of unhealthy foods, lack of exercise, parental choices/role modeling, traumatic experience.

Healthcare Access

Key informants were asked to rate the availability of health services within the region. The following table depicts their responses on a scale of (1) "strongly disagree" to (5) "strongly agree."

Informants were most likely to "agree" or "strongly agree" that residents have a regular primary care provider and can access a medical specialist when they need care. However, the services are still considered limited within the community. Approximately 22% of informants "disagree"

that residents have a regular primary care provider and approximately 29% of informants "disagree" or "strongly disagree" that residents can access a medical specialist.

Informants were least likely to agree that there is a sufficient number of mental health/behavioral health and bilingual providers. Transportation to medical appointments and the number of providers accepting Medicaid/Medical Assistance are also top concerns for the region.

Access to Healthcare Services

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	**Mean Score**
Residents have a regular primary care provider/doctor/practitioner that they go to for healthcare.	0.0%	22.0%	25.4%	49.2%	3.4%	**3.34**
Residents can access a medical specialist (i.e., Cancer, Cardiovascular, Neuroscience, Orthopedics, Women's and Children's, etc.) when they need care.	6.8%	22.0%	20.3%	47.5%	3.4%	**3.19**
Residents can receive vision care when they need it.	5.1%	20.3%	27.1%	45.8%	1.7%	**3.19**
Providers in the community are culturally sensitive to race, ethnicity, cultural preferences, etc. of patients.	6.8%	27.1%	42.4%	18.6%	5.1%	**2.88**
Residents can receive dental care when they need it.	10.2%	30.5%	27.1%	30.5%	1.7%	**2.83**
There are a sufficient number of providers that accept Medicaid/Medical Assistance in this community.	8.5%	44.1%	22.0%	25.4%	0.0%	**2.64**
Residents have available transportation (public, personal, or other service) for medical appointments and other services.	18.6%	42.4%	18.6%	20.3%	0.0%	**2.41**
There are a sufficient number of bilingual providers in this community.	16.9%	62.7%	18.6%	1.7%	0.0%	**2.05**
There are a sufficient number of mental/behavioral health providers in the community.	33.9%	47.5%	6.8%	10.2%	1.7%	**1.98**

Key informants were then asked to identify the primary reasons that individuals who have health insurance do not receive regular care to maintain their health. Approximately 30% of informants stated that the top reason is that individuals feel healthy and don't need to go to a doctor. The inability to afford care is the second most common reason for not seeking services. Potentially related to residents not feeling like they need to go the doctor is respondents' acknowledgement that individuals lack an awareness or emphasis of preventive health measures.

Primary Reason Individuals with Insurance Do Not Receive Regular Care

Ranking	Reason	Informants Selecting as the Top (#1) Reason	Informants Selecting as a Top 3 Reason	
			Percent	Count
1	Feel healthy ("Don't need to go to the doctor")	29.8%	21.6%	37
2	Unable to afford care (copays, deductibles, prescriptions, etc.)	28.1%	24.6%	42
3	Awareness/Emphasis of preventive health measures	14.0%	12.9%	22
4	Lack of transportation to access healthcare services	8.8%	8.2%	14
5	Fear of diagnosis, treatment	7.0%	11.1%	19
6	Limited office hours of providers (no weeknight/weekend office hours)	7.0%	9.4%	16
7	Lack of providers available in the community	3.5%	5.3%	9
8	Providers not accepting insurance/new patients	1.8%	4.1%	7
9	Other*	0.0%	1.8%	3
10	Personal beliefs or community biases related to religion, spirituality, culture, gender/sexual orientation, etc.	0.0%	0.6%	1
11	Providers do not speak their language	0.0%	0.6%	1

*Other responses include: Lack of understanding of the importance of well checkups and vaccines among young parents, unable to afford insurance premiums, lack of primary care and specialty physicians.

Social determinants of health impact the ability of individuals to access healthcare and maintain healthy lifestyles. Key informants were asked to rate social determinants of health in the community, including economic stability, education, health and healthcare, neighborhood and built environment, and social and community context, on a scale of (1) "very poor" to (5) "excellent."

The majority of key informants rated social determinants as "average" or "poor." Health and healthcare was rated the highest with an average rating of 2.83. However, 33% of informants stated it is "poor" or "very poor." Specific comments on this issue included the following:

"Transportation for healthcare is still an issue for our communities."

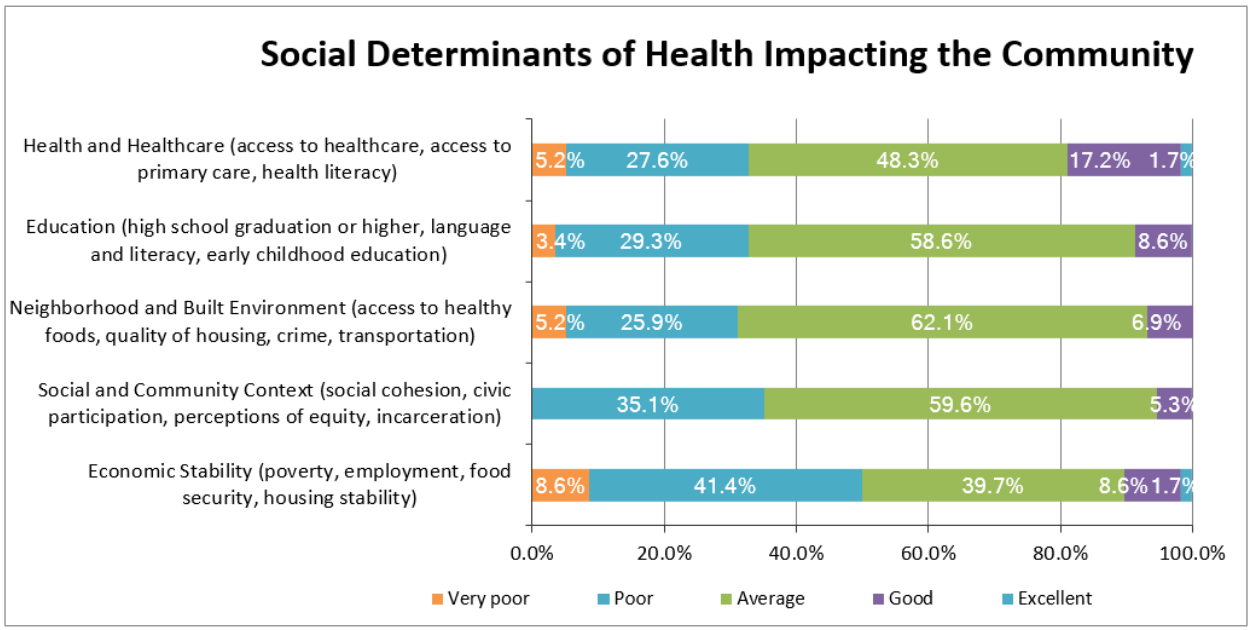
"The lack of mental health providers in this area is very serious!"

"In most of the communities I serve it appears that there is a lower value placed on health and residents are reactive to health concerns instead of proactive with preventive measures and care."

"I think people in the community have better access to healthcare and are used to seeking it out since Geisinger has been here so long, but I think many of them still suffer from poor health literacy."

Economic stability was rated the lowest by key informants with an average rating of 2.53.

"We have a poor social and economic community with a need for an improved educational system. Education is key to a healthy community."



Ranking	Social Determinant of Health	Mean Score
1	Health and Healthcare	2.83
2	Education	2.72
3	Neighborhood and Built Environment	2.71
4	Social and Community Context	2.70
5	Economic Stability	2.53

Other Comments to Support Perceptions of Social Determinants of Health

- *"Lack of public transportation is why I rated Neighborhood and built environment low. The others are fine."*
- *"Overall for many folks, access to healthcare may not seem like an issue, but when you work within the trenches, I hear on a regular basis that folks can't get appointments with their PCP's."*
- *"There is a very significant lack of understanding and training as it relates to dementia in the local provider and healthcare community. While our constituents may have access to care, they have limited access to quality care capable of responding to their needs."*

Community Resources

Key informants were asked to share what resources are missing in the community that would help residents optimize their health. Nearly three-quarters of informants identified the need for mental health services. Specific comments related to this issue were:

"There is a lack of inpatient substance abuse beds and a lack of facilities who will admit mental health patients with a criminal record."

"We have limited resources to provide mental health services but a large population who would benefit from services."

More than half of the informants identified the need for substance abuse services, transportation options, and health and wellness education and programs.

"There is a huge gap in behavioral health services for all ages."
"Substance abuse is on the rise in our area, while our pediatric and adolescent psychiatric support is very low."

"Lack of transportation is a big problem in this area."
"Individuals are not aware of the care they should be receiving, or have little access to receiving it for an affordable price."

"Rural areas need trained Community Health Workers who are people of the community and trusted by the community."

Missing Resources within the Community to Optimize Health

Ranking	Resource	Percent of Informants	Number of Informants
1	Mental health services	73.2%	41
2	Substance abuse services	55.4%	31
3	Transportation options	55.4%	31
4	Health and wellness education and programs	51.8%	29
5	Community Clinics/Federally Qualified Health Centers (FQHC)	39.3%	22
6	Healthy food options	33.9%	19
7	Multi-cultural or bilingual healthcare providers	33.9%	19
8	Child care providers	32.1%	18
9	Dental care	32.1%	18
10	Housing	26.8%	15
11	Outlets for physical activity (parks, rec centers, gyms, walking trails, etc.)	23.2%	13
12	Specialty care services	23.2%	13
13	Home healthcare services	16.1%	9
14	Primary care services	16.1%	9
15	Other	12.5%	7
16	Vision care	8.9%	5
17	Emergency care	3.6%	2

"Other" Missing Resources

- *"Affordable options."*
- *"Affordable rec centers/gyms."*
- *"Child care providers in Union County are vital to wellbeing for mothers and infants/children."*
- *"Community Health Workers."*
- *"Mental Health issues are high and the number of group homes are limited."*
- *"More community outreach to those who lack transportation resources, health insurance, education; meet people where they are."*
- *"More parenting skill training and communication/negotiation skills trainings."*

Other Comments to Support Selection of Top Missing Community Resources

- *"There is not enough access available to these services."*
- *"Decent safe and affordable housing is very much needed and will reduce other issues."*
- *"Dental care that is affordable and available to those with no or sub-par insurance is lacking.*
- *"Some communities that I serve have little to no relevant health education programming."*
- *"Elderly care options are not good in the area. Families may prefer to keep loved ones at home, but have few affordable options."*
- *"There are few [dentists] that will even consider accepting MA to cover costs. Lack of proper dental care leads to other threatening health problems."*
- *"I have a list of over 50 folks who have contacted me to tell me that they cannot access their PCP and getting into a specialty appointment is taking months. Local PCP offices are sending many folks to urgent care since their offices do not have enough medical staff."*
- *"There are a lot of healthcare providers in the area but the long wait lists for visits, especially to specialists, can deter people from seeking care."*
- *"There are few childcare options for children under a year old. Many dentists do not accept the ACCESS card. Healthy food options can be more expensive for families."*
- *"Transportation for the physically disabled can be a challenge to schedule."*
- *"Transportation services are lacking in this area. Since Rabbit transit & K-cab are the only choices, they are unable to keep up with the demand. Perhaps GMC could provide transportation to low income residents and those that are unable to drive!"*
- *"We have to travel for any type of specialty like endocrinologist, cancer treatments, infusion therapy, urology and ENT. Our community has a high rate of diabetes but there is no endocrinologist available in the area.*
- *Patients need education done in person with time to really help them understand how diabetes will affect their life and how to manage it. Our community of COPD patients need care and education."*
- *"We need more and better ways to reach all parents to improve family communication skills and support, as well as overall nutrition, health and wellbeing education. We also need more support for families dealing with disabled and ill seniors or other family members, especially if they don't qualify for Medicare or Medicaid."*
- *"While resources can be provided, people will still need to be convinced to take advantage of the resources and the resources must be affordable."*

Key informants were asked for open-ended feedback regarding how local and regional healthcare providers can better engage community members to achieve optimal health outcomes. Informants made the following recommendations:

- Emphasize prevention through health promotion education and outreach both in the clinical and community setting
- Expand communication channels to advertise available programs and services (community meetings, township meetings, partnerships with social service agencies)
- Improve access to affordable self-pay healthcare services
- Improve access to behavioral health providers
- Improve access to group homes for individuals with complex health needs
- Improve transportation options for medical appointments
- Increase affordable options for physical activity (e.g., gym memberships)
- Integrate free and fee-based health services into community settings (stores, schools, churches, community centers)
- Promote and support cross-agency partnerships to improve community health and offer community-based services
- Publish clinic locations and hours to improve access to appointments
- Utilize Community Health Workers to bridge the gap between healthcare providers and community members
- Utilize trusted healthcare professionals as health promoters and advocates

To determine existing resources within the community and opportunities for collaboration, key informants were asked to share information about health and wellness programs or initiatives that their organization offers now or plans to provide in the future:

- Advantage Home Health Services: Advantage designed a specialized chronic care/caregiver model of care Striving Together Achieving Results (STAR) as well as health and wellness programs for independent living and assisted living facilities to improve caregiver training and patient engagement.

- Alzheimer's Association: Each chapter offers five core services to support individuals with Alzheimer's and their families: information and referral, care consultation, support groups, safety services, and education. Some chapters offer special programs for people living with early-onset Alzheimer's, rural and/or multicultural outreach, care coordination services, and training programs for families and professionals.

- Columbia/Montour Aging Office, Inc.: The agency has available funding to provide diabetes education, falls prevention programming, and chronic disease management services.

- Community Strategies Group: Offers new affordable housing production, auto loan programs, rental assistance, housing and services for homeless, support services to improve sustainability.

- Greater Susquehanna Valley YMCA: Offer a wide variety of health and wellness options with financial assistance available to residents.

- Northumberland County Behavioral Health/Intellectual & Developmental Services: The Northumberland County D&A Office partnered with all local school districts to provide the "Too Good for Drugs" Curriculum for grades K-12.

- Penn State Extension: Offer multiple programs for youth and families: https://extension.psu.edu/.

- Union-Snyder Community Action Agency: Offer a health and wellness committee providing education and programming to staff.

Central Region Partner Forums Summary

As part of the 2018 CHNA, six Partner Forums were conducted across the 19-county service area, one each within the South Central and Western Regions and two within the Central and Northeast Regions. The objective of the forums was to share research to date and solicit feedback from community representatives. Participants were asked to share insight on priority health needs, underserved populations, existing community resources to address health needs, and gaps in services. The forum also served as a platform to identify opportunities for collaboration to address health needs.

Central Region Partner Forum Logistics

January 10, 2018, 8:30-11:00am
Saint Pauline Center, Kulpmont, Northumberland County
15 Attendees

January 16, 2018, 8:30-11:00am
Buffalo Valley Lutheran Village, Lewisburg, Union County
26 Attendees

Participants from the following counties were invited to the Central Region Partner Forums.

- Clinton County
- Columbia County
- Lycoming County
- Montour County
- Northumberland County
- Schuylkill County
- Snyder County
- Sullivan County
- Union County

A list of forum attendees and their respective organizations is included in Appendix C.

Central Region Partner Forum Findings

A total of 41 people representing a diverse mix of community organizations attended the Central Region Partner Forums. According to these participants, the cumulative ranking of health concerns in the Central Region are 1) substance abuse, 2) mental healthcare, 3) healthy lifestyles, 4) chronic disease management, 5) access to care, and 6) maternal and child health. It is worthwhile to note that in rating the health issues, the criterion of “scope” and “severity” tended to be rated higher while “ability to impact” was ranked lowest. The voting and follow-up discussion illuminated the complexities of these issues and the myriad factors that influence our efforts to improve outcome measures for health needs.

The prevalence of substance abuse and mental health conditions is increasing across the region, underscoring the shortage of resources to meet community need. Populations that are most likely to be at risk or underserved include children and young adults, homeless individuals, residents experiencing trauma, chronic pain patients, individuals experiencing comorbidities of mental health conditions and substance abuse disease, and those in substance abuse recovery. Specialty services are especially limited, and many residents are unaware of existing services.

Partner Forum participants made a number of recommendations to address substance abuse and mental health needs. Several recommendations focused on preventive efforts for substance abuse including safe prescribing guidance for providers, addiction education for patients using pain medications, funding for community coalitions, and NARCAN training. Recommendations to improve delivery of mental health services included addressing stigma, reducing wait times for appointments, and seeking additional provider levels. Increased care coordination between primary care and behavioral health providers is needed, as well as increased access to wrap-around social services, and engaging Student Assistance Counselors to provide early intervention services in schools.

Healthy lifestyles and chronic disease management were addressed by partners as related issues. Partners emphasized the need to increase awareness of existing resources, support health-minded community infrastructure, and improve social determinants to promote overall community health. Specific recommendations included engaging county and township leaders to incorporate health and wellness into community planning, enlisting Community Health Workers as case managers for high-risk patients, and promoting interagency referrals among health and social service providers. Services to support healthy lifestyles and chronic disease management are particularly lacking in rural areas. Transportation is among the biggest barrier to accessing services given the limited public transportation and shared ride services.

Related to maternal and child health, the region has poorer health outcomes among children, including higher obesity rates. Nearly all counties are Health Professional Shortage Areas (HPSAs) for dental care among low income populations and have a lower mental healthcare provider rate when compared to the state and the nation. Participants recommended increased partnership with school mobile health programs, the Primary Health Network, dental clinics and food banks to increase education and access to services. Many families are eligible for existing services, but are unaware of services or unable to access them due to barriers related to child care, transportation and cost. Partners recommended providing community resource booklets to parents, initiating sliding fee scales for services and providing affordable childcare that is available during all work shifts.

Prioritization Process

The CHNA research findings to date, which included secondary data analysis and Key Informant Survey results, were provided to participants in advance of the forum and formally presented to attendees. Questions about the data were encouraged and clarified. At the conclusion of the data presentation, a list of six health topics were presented to the group to consider as the top health needs in the community. Participants were asked to offer suggestions for additional health needs not captured on the list. Discussion ensued about factors that impact health and subcategories within each of the health categories. Ultimately, the participants agreed that the following health issues accurately represent the top health concerns for the community:

Identified Community Health Needs (in alphabetical order)

- Access to Care
- Chronic Disease Management
- Healthy Lifestyles
- Maternal and Child Health
- Mental Healthcare
- Substance Abuse

To prioritize these health issues, participants were asked to rank the health issues by rating each need on a scale of 1 (low) to 4 (very high) for the following criteria.

- **Scope (How many people are affected?)**
- **Severity (How critical is the issue?)**
- **Ability to Impact (Can we achieve the desired outcome?)**

Participants used their smart phones or paper ballots to rate each health issue. Voting results were compiled and shared with the participants as depicted in the following tables.

Priority Health Need Rankings – Northumberland County Partner Forum
Rankings are based on a score of 1 (low) to 4 (very high)

Overall Ranking	Identified Health Need	Scope of the Issue	Severity of the Issue	Ability to Impact the Issue	Overall Score
1	Substance Abuse	3.6	3.7	2.8	10.1
2	Healthy Lifestyles	3.6	3.3	2.6	9.4
3	Maternal and Child Health	3.5	3.1	2.7	9.3
4	Access to Care	3.1	3.3	2.6	8.9
5	Mental Healthcare	2.8	3.1	2.9	8.8
6	Chronic Disease Management	2.8	2.9	2.9	8.6

Priority Health Need Rankings – Union County Partner Forum
(Rankings are based on a score of 1 (low) to 4 (very high))

Overall Ranking	Identified Health Need	Scope of the Issue	Severity of the Issue	Ability to Impact the Issue	Overall Score
1	Substance Abuse	3.5	3.7	2.2	9.3
2	Mental Healthcare	3.5	3.2	2.3	8.9
3	Chronic Disease Management	3.0	3.0	2.8	8.8
4	Access to Care	2.9	3.0	2.7	8.5
5	Healthy Lifestyles	3.0	2.8	2.5	8.3
6	Maternal and Child Health	2.3	2.2	2.6	7.1

Small Group Discussion

Participants were divided into small groups based on their areas of expertise, knowledge, or interest in each of the health issues. The facilitators and table leaders led the small group dialogue, and worksheets were provided to guide and capture discussion.

Participants were asked to consider the following questions to identify community assets, missing resources, underserved populations, and recommendations for hospitals to address these health issues.

Existing Community Resources

- What organizations are working on these issues?
- What resources exist in the community that can help impact this issue?
- Are there models of success or innovative partnerships around this issue?

Underserved Populations

- What populations are most at risk or underserved related to these issues?
- What barriers exist that keep people from accessing services?

Missing Resources

- What do residents need to help them address this issue?
- What additional services could help improve health around this issue?
- What community inputs will be required?
- What partners could help?

The following section summarizes key findings from the small group discussion focusing on the top three identified health needs. The issues of substance abuse and mental healthcare and healthy lifestyles and chronic disease management were discussed collectively. A list of assets as identified by the participants is included in Appendix D.

Substance Abuse and Mental Healthcare

Substance abuse was ranked as the top health concern in both Central Region Partner Forums and the Key Informant Survey. Mental healthcare was also ranked among the top identified health needs, both as a standalone issue and as a coexisting condition with substance abuse. The prevalence of substance abuse and mental health conditions is increasing across the region, underscoring the shortage of resources to meet community need.

Partner Forum participants identified the following populations as being at risk or underserved related to behavioral health services:

- **Children of addicted parents:** According to American Addiction Centers, “In homes where one or more adults abuse alcohol or drugs, children are approximately twice as likely to develop addictive disorders themselves.”

- **Children with mental health conditions:** Participants identified a lack of consistent funding for school and community-based programs for children with mental health

conditions. There is also a lack of providers specializing in child mental health. Psychiatrists and psychologists are needed for counseling, therapy, and medication management.

- **Homeless individuals:** Participants identified a lack of services to reduce (e.g., shelters and social assistance) and treat behavioral health needs in the population.
- **Individuals who have experienced mental or physical abuse:** Affected individuals are particularly vulnerable to substance abuse as a coping mechanism.
- **Patients being treated for chronic pain:** Patients are at risk for addiction to pain medications and other substances.
- **Patients with mental health and substance abuse comorbidities:** Comorbidities can worsen or exacerbate symptoms and outcomes. Participants identified a lack of services to diagnose and treat both mental health and substance abuse conditions.
- **Recovery community:** Individuals in recovery from a substance addiction are often isolated due to community stigma, which contributes to lack of treatment and relapse.
- **Students/Young adults:** There is a need for after school activities and meaningful employment opportunities for these age groups to reduce initiation of substance use.

Several community organizations and programs are available to address behavioral health issues, but barriers exist for residents to access services. Community awareness is one of the top problems identified by participants. Residents are unaware of available community services, and lack knowledge of the available resource directories to assist in finding services. *PA 211* and *PA Get Help Now* are free, 24-hour phone directories available to all residents. According to Partner Forum participants, the directories are under-utilized by the community.
Participants identified these additional challenges for residents to access behavioral health services when they need them:

- **Ability to afford healthcare:** Fees including insurance and out-of-pocket costs (deductibles, copays, premiums, etc.) can keep people from accessing care when they need it and allow health issues to become critical or compound.
- **Cultural beliefs:** Lack of culturally appropriate services impacts treatment utilization by religious and minority populations.
- **System navigation:** Patients struggle to access behavioral healthcare before crisis occurs, which is often their first entry into the behavioral healthcare system. Care coordination between providers is often lacking with regard to behavioral health due to HIPAA regulations and patients disclosing behavioral health issues to providers.
- **Stigma:** People may not access behavioral health services when they need them for fear of others finding out and a negative association with behavioral health conditions.

- **Transportation to medical appointments:** Patients often need to travel further for behavioral health services due to limited community resources, compounding existing transportation challenges. Public transportation options are more limited in rural settings.

- **Waiting lists:** increasing demand for limited services create long lag times between request for appointment and when an individual can be seen. The wait times can be discouraging to those seeking care and may result in increased emergency care, escalated crisis, self-medication with illegal substances, or reduced motivation to seek treatment.

Partner Forum participants made the following recommendations for improving outcomes and access for behavioral health services:

- Educate physicians, including dentists and veterinarians, on safe prescribing guidelines, alternative pain management options, and patient drug-seeking behaviors.

- Engage Student Assistance Counselors within middle and high school settings to provide substance abuse prevention and early intervention services. The model is currently used in New York school districts.

- Improve care coordination and medication management for patients by increasing communication channels between primary care providers and behavioral health specialists.

- Improve outcomes for substance abuse patients through wrap-around services (e.g., initiate referrals to social service providers and provide additional treatment options between medical appointments).

- Increase options for Medication Assisted Treatment (MAT) by training primary care providers to administer it to patients.

- Provide addiction education for patients who are refused pain medication refills, and offer alternative pain management techniques.

- Provide funding for prevention programs (e.g., NARCAN training for first responders and family members of addicts) and community coalitions/task forces.

Healthy Lifestyles and Chronic Disease Management

Chronic conditions are the leading cause of death and disability across the nation. Overweight and obesity were identified by Partner Forum and Key Informant Survey participants as leading drivers of chronic conditions in the Central Region. Partner Forum participants further identified the need to promote healthy lifestyle behaviors to reduce overweight and obesity and chronic condition rates.

Partners made the following recommendations for programs and services to increase awareness of existing resources, support health-minded community infrastructure, and improve social determinants of health.

- Build trusted relationships with diverse community leaders to bring services directly to the populations that need them. Participants recommended collaborating with community organizations to implement a “no wrong door” policy for receiving services.
- Engage county and township leaders to incorporate health and wellness into community planning initiatives. Participants specified the need for physical activity venues and programs for young adults.
- Enlist Community Health Workers as case managers for high-risk/complex patients in need of diverse services.
- Improve communication channels between health and social service providers to promote interagency referrals for existing services.
- Partner with early childhood health and social service providers to identify families in need of basic need assistance (e.g., housing, food insecurity), and provide families with resources as well as healthy lifestyle education.
- Promote and fund health improvement programs that demonstrate positive outcomes.

Partners identified several populations that are potentially at risk for unhealthy lifestyles and resulting chronic conditions and may be underserved by current services.

- **Amish populations:** Many in the Amish community may not seek traditional preventative healthcare services; and may use emergency care services for health issues. However, according to some participants, Amish residents attend Evangelical Community Hospital’s annual screening event and are starting to enlist the help of certified midwives more frequently. A new clinic to serve the population is being developed at the site of the CPO2 Medical Supply Store in Mifflinburg. There is an opportunity to conduct more health outreach to the Amish population at these events and locations.
- **Residents with limited health literacy:** Residents may have difficulty identifying and accessing available health programs due to literacy barriers. Participants encouraged health providers to communicate in plain language and offer enrollment assistance.
- **Housing insecure/homeless populations:** Increased services are needed to assist residents in meeting basic needs (housing, food insecurity, healthcare, etc.). Participants recommended partnering with community shelters and soup kitchens to provide case management resources to coordinate services for individuals.
- **Minority populations:** African American and Latino residents and seasonal/migrant workers were seen as underserved by the healthcare system. Participants suggested using churches as a venue to promote health education and prevention programs. The following churches serve these populations: Congregación Menonita Shalom in New Columbia, Revival Tabernacle in Watsontown, and Christ Wesleyan Church in Milton.
- **Rural county populations including those in Clinton, Sullivan, and parts of Snyder, Lycoming and Union:** Rural populations lack access to primary and specialty care

providers, physical activity options, and healthy food venues. They are also underserved by technology, including cellular and broadband internet service. Technology restrictions limit the potential for telehealth services to address provider shortages.

- **Seniors:** Seniors are at risk of isolation due to physical limitations, medical conditions, and decreasing social circles. Partners also identified the increased use of technology for online registration and information as a barrier for seniors. Participants recommended expanding the Geisinger Community Health Assistant program to focus on in-home services for seniors. They also recommended partnering with pharmacies to provide more medication management services and connect seniors with community resources.

Partner Forum participants named transportation as one of the top barriers for residents to access available services. Public transportation options within the Central Region are limited, particularly in rural areas. Limited shared-ride services are available to residents, but they require advance scheduling, long advance pickup times (e.g., pickup at 6 a.m. for a 9 a.m. appointment), and are only available during limited hours.

Maternal and Child Health

Partners defined maternal and child health to include pre- and postnatal care and childhood, recognizing the impact of early health behaviors on lifelong health outcomes. Particular issues that were highlighted by Partner Forum participants are obesity among youth and a lack of healthcare providers that specialize in children's health. Partners listed community resources to address these and other health concerns, but acknowledged that there are barriers to accessing services and additional resources are needed.

Partner Forum participants named the following populations as at risk for poorer outcomes or as underserved by the current healthcare system:

- **New parents:** Participants suggested increased parenting classes to help new parents prepare for each child development stage. Participants recommended developing and distributing a resource list with contact information and online links to community maternal and child health services. Resource books could be distributed during classes and at the time of birth, as well as made available in the community.

- **New residents:** New residents to the area are unfamiliar with available services and often lack a social support system. Participants noted the need to provide information to these individuals, and to other services including PA 211.

- **Single parents:** Many community services provide assistance to single parents and their children, however, people are either unaware of the services due to lack of advertising or unable to access the services due to lack of child care. Participants suggested that childcare be available to residents during programs, and all work shifts (first, second, third) be considered.

- **Special needs and chronically ill children:** There is a lack of services to meet the medical, educational, and social needs of special needs and chronically ill children. Participants noted a need for social support among parents and affordable, specialized child care services.

- **Working poor families:** These families have a household income that is slightly above income-based program guidelines. They do not qualify for free or reduced cost services, but often they cannot afford full price services. Participants recommended that health and social service providers collaborate to offer sliding fee scale rates for families based on income.

Partner Forum participants saw dental and mental healthcare services as the top missing resources for children, particularly for low income children. The participants' insights align with statistical research. As presented in the research overview, all Central Region counties except Union are HPSAs for dental care among low income populations. All counties except Montour have a lower mental healthcare provider rate when compared to the state and the nation; Clinton and Lycoming Counties are HPSAs. Participants recommended that healthcare providers could increase access to services by partnering with existing services, including school mobile health programs, the Primary Health Network (FQHC), and dental clinics that offer free or low cost care.

Partners saw obesity prevention as the top health concern among children. Per the statistical research, all Central Region counties have a higher rate of obesity among 7th-12th grade students when compared to the state; six counties have a higher rate of obesity among K-6th grade students. Partners commented that more nutrition education outreach programs were needed in schools, the community, and during medical and social service appointments. Participants also recommended that healthier food options be provided at food banks.

Participants saw the primary barrier to accessing maternal and child health services as transportation. Public transportation and shared ride services are limited across the region. Providers need to reach people where they are already receiving services or offer services directly within communities of need.

Focus Group Research Summary

Background

As part of the 2018 CHNA, 12 Focus Groups were conducted in March and April 2018 within the CHNA hospitals' primary service areas. Focus Groups were conducted with seniors age 55 or older at local subsidized senior housing and senior centers. The objectives of the Focus Groups were to collect perspectives on individual and community-wide health issues, barriers and assets to accessing healthcare, preferences for healthcare delivery, and existing or needed community resources. A total of 137 people participated in the Focus Groups across the 19-county region. The following is a breakdown of the focus group locations and participants per region.

Central Region Focus Groups
Jersey Shore Senior Community Center, Jersey Shore, Lycoming County
10 Attendees

Lincoln Towers, Shamokin, Northumberland County
35 Attendees

Danville Area Community Center, Danville, Montour County
7 Attendees

Heritage House, Lewisburg, Union County
10 Attendees

Westminster Place at Bloomsburg, Bloomsburg, Columbia County
11 Attendees

Northeast Region Focus Groups
Daniel Flood Apartments, Kingston, Luzerne County
8 Attendees

Kingston Active Adult Center, Kingston, Luzerne County
13 Attendees

Linden Crest Apartments, Clarks Summit, Lackawanna County
4 Attendees

Abington Senior Community Center, Clarks Summit, Lackawanna County
8 Attendees

South Central Region Focus Groups
Susquehanna View Apartments, Camp Hill, Cumberland County
10 Attendees

Marysville-Rye Senior Center, Marysville, Perry County
13 Attendees

Western Region Focus Groups
Kish Apartments, Lewistown, Juniata County
8 Attendees

Unique Findings by Region

Central Region

- Outside of the Danville area, participants were less likely to agree that providers—particularly specialty providers—are available close to home. Most travel to Danville for specialty care.
- Seniors state they can generally get primary care appointments within one week if they are willing to see a Physician Assistant. The wait is upwards of two weeks if they want to see their physician.
- Two groups brought up that Geisinger is closing adult dentistry services in Danville. They were concerned that the decision was “all about the money” and asked “Where else can we go for dental care?”
- Participants at the Danville Area Community Center were most aware of the Silver Circle program. A few had signed up for the program, but none were actively using services. They thought other health education programs were provided by Geisinger, but were not aware of the programs or actively receiving information.

Northeast Region

- More likely (with South Central) to have access to primary and specialty care close to home.
- While transportation was seen as an issue in all groups, those in the Northeast groups seemed most impacted by transportation needs. “When you don’t drive, you are limited in everything.” On demand and reliable, advance reservation ride shares for seniors were recommended.
- Only those in the Northeast groups mentioned having a difficult time understanding their medical bills. They would prefer itemized bills that show exactly what they are being charged.

South Central Region

- These groups were more likely to say they had access to primary and specialty providers and multiple hospitals and health systems close to home.
- The Marysville group was aware of changes to the local healthcare system, including the emergence of UPMC. They have access to multiple hospitals and thought all were reputable. The biggest impact on their community has been the loss of provider practices.
- While seniors generally felt safe in their community, they were keenly aware of the increase of drug abuse and crime.
- These groups were most willing to talk about mental health issues and to be forthcoming with experiences. The Susquehanna View Apartments experienced multiple suicides in recent years, which prompted residents there to be more aware of issues.
- Participants in both groups were the least likely to consider transportation as a barrier to accessing services. Many still drove or used rabbittransit vans. Bus stops were nearby to the Susquehanna View Apartments and accessible.

Western Region

- Social isolation among seniors was prominently discussed among this group. Participants affirmed that there are few activities for seniors within the Kish Apartments and the larger community. Residents seek more community engagement and recommended that school groups, Boy/Girl Scouts, and other groups visit or provide special events at Kish Apartments.

Common Discussion Themes

Where Seniors Live

The majority of participants have lived in their respective communities for most of their lives. Many recounted the ways in which the community had changed during their lifetime. About 20% of seniors in the groups had recently moved to the area to be closer to family as they aged. Nearly all participants living in an apartment downsized from a single-family home.

About 65% of focus group participants reside in senior apartments; 35% live in single family homes. Those seniors who participated in the focus groups held at senior centers were more likely to still own their home. Those who lived in a single family home included single and married individuals. Among those single seniors living in a house, most had family or other local support that checked on them and helped with needs. Those who were married seemed more confident in their ability to take care of their home, but also had local support when they needed it. Many had family, particularly adult children, living nearby.

Most participants who lived in apartments lived alone. Some had family members in the area, but many did not have family members that regularly visited them. These residents said that they "looked after one another," although some residents are "loners." Housing managers and social support staff also check in on residents regularly. Most participants valued these relationships and saw them as an important factor to choosing to live on their own rather than in a nursing home or personal care community. Participants recognized that social isolation is prevalent among their peers. Factors that increased isolation for residents included a lack of activities to engage residents, disability, and depression, often brought on by chronic conditions or loss of friends and family members.

> *"Most people are independent, but they need some help. We watch out for them."*
>
> *"People are sick or have medical conditions; that's why you don't see them."*
>
> *"Some residents don't leave their apartments, not even for the fire alarm."*
>
> *"We have families, but they don't check in with us."*
>
> *"We have formed a welcoming committee to introduce new residents and make them aware of the activities available."*

The groups discussed the availability of senior housing and services to help seniors age in place within their communities. Participants thought that subsidized senior housing was more readily available, but affordable housing for middle-class seniors is lacking. Home care and home health services are prevalent in larger communities, but lacking in rural communities.

> *"It's hard to find help, even for someone to clean the house."*
>
> *"I've looked into home care agencies, but I don't trust the caregivers."*
>
> *"The Meadows (senior living community) is lovely, but it's expensive."*
>
> *"There is community in the low-income apartment complexes. The middle class doesn't have options. What's next?"*

Transportation Options

Approximately 75% of the focus group participants living in senior housing no longer drive, while the other 25% living in senior housing own a car and drive regularly. Driving prevalence was consistent with health status and activity level. Those who owned their home predominantly had cars and drove regularly.

Those that do not drive rely on public transportation and friends and family members to drive them. While some used the bus, reserved senior rideshares through rabbittransit, Mifflin Juniata Call-a-Ride Service (MJCARS), and County of Lackawanna Transit System (COLTS) were more commonly used. In communities where there was public transportation, there was typically a bus stop at the senior housing location, which residents found convenient. Seniors can ride the bus for free. Rabittransit provides reserved paratransit services in Adams, Columbia, Cumberland, Montour, Northumberland, Snyder, Union, Perry, and York Counties; MJCARS provides reserved services in Mifflin and Juniata Counties. Reservations for both services must be scheduled by noon on the previous day and can be made up to two weeks in advance. Rides can be scheduled for medical and non-medical appointments within the service area. Pick up windows can be from 1-3 hours depending on other riders and destinations.

Those who had used shared-ride options had differing opinions of the service. Some thought the service was inexpensive and helpful for disabled seniors. Others thought the services were inconvenient and unreliable due to the need for advanced scheduling, long wait-times for pick-ups or drop-offs, and missed stops. Some did not like that they were limited in how much groceries they could purchase by only what they could carry.

> *"The days I take rabbittransit, I call my 'county tour' days. I just leave enough time for the ride."*
>
> *"My mother is 96 years old. She can't wait 30 to 40 minutes for a bus. I just take her."*
>
> *"Rabbittransit is convenient as long as it's not an emergency."*
>
> *"Seniors can only carry a few bags at a time. Public transportation limits how much food you can buy."*
>
> *"Sometimes I am late to my appointments or miss them because the van is late."*
>
> *"Taxis are too expensive."*
>
> *"We need 'old age Uber.'"*
>
> *"We're lucky to have rabbittransit. I don't have another way to get around."*
>
> *"When I schedule transportation, they give me a three-hour window for a pick-up time. I have to sit in the lobby to make sure I don't miss them."*

Activities in the Community

Seniors in the focus groups were most likely to participate in activities within their housing complex or at the senior center. Likely, those that participated in the focus groups more frequently partook of these activities than seniors who did not participate in the focus groups, particularly within in the senior housing.

All of the senior apartments hosted onsite activities most days of the week. Activities ranged from bingo and games to exercise to health and wellness talks. While these activities occurred daily and many of the focus group attendees participated in these activities, there was still a sense of wanting more organized activities or things to do. Many said they wasted the day watching television, talking with friends, playing cards, or "just watching the cars go by."

The senior centers offered daily activities, although hours of operation were limited. Most close by early afternoon. Activities at the senior centers were similar to the senior apartments, including bingo and games, exercise, and health and wellness talks. Some senior centers also organized and helped prepare Meals on Wheels distribution. Others organized donations and provided free lunches for anyone in need to attend, including homeless.

Some focus group participants were active volunteers at their church, the local hospital, within the senior center, or at their senior housing. Those that are volunteers are very active in this capacity, listing dozens of activities they are involved with. Within all of the groups, fewer than 20% of participants were active at this level.

Participants were less likely to seek out other activities within the community, with the exception of those that participated in senior programs like Geisinger Silver Circle, Silver Sneakers, or other organized memberships. Awareness of these programs differed within the geographic locations of the focus groups with the Central and Northeast Regions being most aware of Silver Circle. Those individuals saw the program as being a good source of health information. Some took advantage of discounted exercise programs available to members.

At least half of participants in the sessions were familiar with the Silver Sneakers exercise and wellness program. Silver Sneaker members regularly went to a participating gym to exercise and for socialization. Silver Sneakers was highly regarded by members in the focus groups.

The participants thought Geisinger Silver Circle and Silver Sneakers were good examples of senior-oriented programs to encourage healthy eating and exercise. They encouraged more programs that focused on nutrition education, particularly for those with chronic conditions, and senior-friendly physical activity. Water aerobics was specifically requested and not available in all communities.

"We have Geisinger, which is a real asset."

"Evan (Evangelical Community Hospital) has a lot of great outreach programs."

"Exercise makes me feel healthy. Silver Sneakers helped me get back on my feet."

"I felt great when I went to the gym. My arthritis stops me now."

"If I don't have company, I sit and watch TV all day."

"We need resources to support healthy aging."

Community and Individual Health

Participants had opposing opinions when asked if they would describe their community as "healthy." Those that affirmed their community as healthy, cited community assets like good healthcare, local universities, and a clean environment.

> *"People live a long time here. I think it has to do with the hard work ethic we all had."*

Many remembered their communities as being healthier "when we were young." "You don't see as many children playing outside as you used to." Other participants noted that chronic conditions, particularly diabetes, are prevalent among local residents, as well as a lack of emphasis on healthy behaviors.

> *"The community is average. We have a lot of the same conditions as other communities: heart disease, diabetes, cancer."*
>
> *"You don't see children walking or playing on the sidewalks anymore. When we were young, we used to walk from one side of town to the other. We played all day at the playground or pool. You didn't come home until dinner. Now all the kids are on their screens inside and their parents are afraid to let them play alone."*
>
> *"We are right on the edge of coal country and there are a lot of health issues here."*

Asked about their own health, most described their health as "average" or in accordance with their age. "I'm as healthy as I can be at my age." Other participants said they struggled to maintain their health, primarily due to chronic conditions. "I have a lot of health issues. I take 31 pills per day." Participants attributed sedentary activity and poor diet as contributors to feeling unhealthy. Socialization and "activities that engage your mind" were seen by some as an important contributor to health.

> *"It's important to get outside and get around people, keep busy."*
>
> *"The most exercise I get is walking from my apartment to the elevator."*

Participants are knowledgeable of what constitutes a healthy diet, but the majority of individuals described their diet as unhealthy. The seniors named living alone or "only cooking for one or two" among the top barriers to eating healthy. Most primarily cook with a microwave or eat out. Other barriers to eating healthy were "discipline to not eat unhealthy foods" and the expense of "healthy" foods. Fruits and vegetables were considered "available but expensive." The region's agricultural heritage was noted by some as a cornerstone to the "good nutrition we had growing up." "I eat a lot more processed food now than I ever cooked for my family."

For some their earlier food culture continues to influence what they eat today. Others have changed their diet because of a chronic condition, particularly diabetes. "I can't just eat what I used to anymore; I need to watch my sugar." Many struggle with knowing what foods are "okay to eat." "It's hard to know what you're getting at a restaurant." Some meet with a nutritionist that provides education and recommendations. Nutrition education and recommendations "to stretch food dollars" were requested by numerous focus group participants.

"Healthy food is expensive. The nutritionist tells me what to eat, but I can't."

"I don't cook as much anymore, we eat out. If you want to eat healthy, you have to cook."

"I eat frozen vegetables. They're cheaper, last longer, and they're just as good as fresh."

"I know what a healthy meal looks like; it's eating it that is hard."

"I would like diabetes education. I just take my insulin. I would like to know what's new and how I can take better care of myself."

"My husband was diagnosed with diabetes. We eat healthier now."

"We need healthy recipes that are easy to make for a single person."

"We need help to stretch our Social Security dollars to be able to buy healthy foods."

Participants get health information from a wide variety of sources. The primary sources are healthcare providers and the internet. Other sources include newsletters from the local health system or their health insurance plans, newspaper, TV, AARP, and senior centers. Bulletin boards or newsletters were seen as the best way to communicate health information, but some preferred email or Facebook. "I like having a link I can click on for more information."

Participants most likely seek information about their health conditions, including signs and symptoms and how to better manage chronic conditions. "I want to know if there is new treatments or something else that could help me."

Many participants noted the increased communication they received lately from their doctor and hospital. "They call you after your appointment to check in. They asked if I got my prescription and if I had any questions." "After my recent hospital stay, I got calls from the hospital and my doctor's office." These follow up calls were generally appreciated and seen as good practice.

Access to Care

All of the focus group participants had Medicare and about 40% qualified for Medicaid. A few participants experienced being uninsured prior to turning 65 years old, typically when they were in-between jobs. Asked how being uninsured impacted their health, participants stated that they either did not go to the doctor or that they "just paid out-of-pocket." While many reflected on healthcare "costing a lot less back then," some still struggled to pay medical bills. A few participants had used free or reduced-cost clinics when they were uninsured and considered them to be an asset to the community.

"If you were uninsured, you just didn't go to the doctor."

"You just paid out-of-pocket if you were uninsured. You could afford to back then."

"I had a baby when I was uninsured. It was a long time ago, so it was only a couple of hundred dollars."

"When I finally got health insurance and was able to go to the doctor, he told me I had almost all of the risk factors for heart disease."

Despite all participants having health insurance, some still struggle to afford healthcare costs. “Prescriptions are the toughest.” Some ask their providers to prescribe cheaper, generic prescriptions when possible. Others skip pills or cut pills in half to make them last longer and reduce costs.

Provider Relationships

All of the participants had a regular healthcare provider that they see. About 70-80% have been with their doctor for a long time. Some have needed to change doctors when local practices closed or doctors left. Participants agreed that they want their provider to be close to their home. Most thought 10-20 minutes was acceptable. Negative perceptions increased as distance of providers (both primary care and specialists) increased.

Most chose their primary care provider (PCP) based on reputation and word of mouth from friends or family members. Referrals from another professional or conducting a phone or internet search were also commonly mentioned. Insurance is a key determinant in choosing a provider.

Participants had differing opinions on their preference for the level of their primary care provider. Most went to practices that employed both doctors and advanced practitioners. Fewer had practices with only doctors, which generally had one to three physicians.

About half of the participants prefer to see a physician rather than an advanced practitioner. Experience and education level were top reasons for their preference. Most of those who had seen an advanced practitioner had good experiences. Those that preferred to see advanced practitioners noted “they are more personable,” “more up-to-date on medical practices,” and “easier to reach for follow-up questions.” The majority of attendees that had experience with both physicians and advanced practitioners agreed that within the same practice, they could get an appointment with a nurse or advanced practitioner sooner than with a physician.

> *“I have a doctor, but I can’t get in to see him. If I want an appointment, it’s with a P.A.”*
>
> *“I prefer a doctor generally, but the physician assistant can be more on the ball.”*
>
> *“I would rather see a doctor and have everything taken care of at once.”*
>
> *“I would rather see a P.A. They explain things to me. The doctor doesn’t have time.”*
>
> *“If I’m paying for a doctor, I want to see a doctor.”*
>
> *“It doesn’t matter to me who I see, but I would like to see my PCP once in a while. I have to schedule with him one year in advance.”*

The majority of participants have a good relationship with their healthcare provider. Participants described positive attributes as “someone who listens to me,” “asks and answers questions,” and “looks at me while we’re talking.” Participants also named quick service and follow-through as positive characteristics of a PCP office.

> *“My doctor explains everything to me. I can ask questions.”*

"My doctor shakes my hand and smiles."

Negative perceptions of providers included "he looks at the computer instead of me," "I feel rushed during the appointment," and "my doctor is always behind schedule." Difficulty with scheduling appointments and understanding medical bills also negatively impacts participants' perceptions of their PCP practice.

"I ask a question, but they're writing and not listening."

"I would like to receive an itemized bill that easily shows the fees I am being charged."

"My doctor tells me he'll see me in three months, but the schedule isn't out yet at reception. I have to remember to call back when the schedule is out."

"The wait for my appointment is terrible. I sometimes wait hours to see my doctor."

"When I call for an appointment, I'm told nothing is available and to call back later. You have to be your own advocate and assertive."

All participants have seen or are currently seeing a specialist provider. Participants in the South Central and Northeast Regions generally agreed that specialists are available and there are multiple providers to choose from. Participants in the Western and Central Regions were more likely to disagree that specialists are readily available, stating they travel to State College or Danville for care. Some rural communities in the Western and Central Regions have clinics with specialists that are available one day per month, but appointments are difficult to obtain in a timely manner. Specialty practices that were identified as missing or lacking in the community include, cardiology, dermatology, dentistry, endocrinology, otolaryngology, psychiatry, rheumatology, and urology.

The majority of participants in the focus groups understand the written instructions provided by their doctor. "They are easy to read and in plain English. The prescriptions, too." Those that navigate the appointment on their own feel most comfortable asking questions if they do not understand something. Many take notes during the appointment or rely on the "after visit printout" for follow-up needs. This group of seniors is more likely to use online resources like myGeisinger for information and to communicate with their providers.

"I'm comfortable asking questions, but many people are not."

"I use myGeisinger a lot to ask questions."

"If I don't understand, I tell them, 'Please speak English.'"

"My doctor asks me if I understand his instructions. I appreciate it."

About one-third of participants take someone with them to their medical appointments. Within this group about half prefer to have support to make sure they heard and understand the conversation. Some of these individuals record the conversation and/or have their companion take notes. The other half require a high level of assistance to get to the appointment and need assistance communicating with their provider. Patient advocates were recommended as a way to assist more fragile or elderly patients.

"I take somebody with me. Once I hear bad news, I stop listening."

"My son takes me to the doctor. I don't know what they talk about."

"I take notes. It's helpful to have something to walk away with from the appointment."

"We go to the doctor as a couple, one for the appointment and one to listen."

"I take my dad. Otherwise he wouldn't tell me what the doctor said."

Health Behaviors

Nearly all participants have been advised at some point by their healthcare provider to change a health behavior related to diet, exercise, or smoking. "Every time I see my doctor, he tells me to lose weight." Participants generally feel comfortable talking to their provider about lifestyle changes and view their provider as a trusted source for information. While participants have frequently received pamphlets or printed information, they generally agree that information alone is not enough for many to make a change. "Changing your behavior takes motivation and willpower." Some participants more readily made changes, while others did not start to change their health behaviors until their daily activities were impacted. "People want to make changes on their terms." Support groups, follow up from their providers, and support of family and friends were named as ways that helped participants make a behavior change.

"Discipline is hard. I go to the nutritionist and she tries."

"I can't make a change overnight; I need to work at it a little at a time."

"If it's not broke, I don't fix it."

"I'm too old to change what I'm doing now."

"The doctor gives me instructions, but does anyone follow them?"

"I'm 98. The doctor said I should eat healthy. My son said I should eat anything I want!"

One area where the focus group participants were more likely to follow their providers' instructions was for health screenings. More than 90 percent of the participants followed their providers' guidance in receiving recommended health screenings. "The screenings are covered and it's better to catch it early." "I get my screening, whether I want to or not."

Pain and Depression

About 50% of participants have been prescribed pain medication within the past few years by a healthcare provider. Participants said they received instructions on how to properly take their pain medication, most often from their pharmacist. In some cases, participants declined to fill the prescription or stopped taking the medication due to side effects, which were primarily dizziness or drowsiness. These individuals opted for over-the-counter pain medications. Participants were aware of alternative pain therapies such as exercise, but few individuals had tried the therapies.

"I had to cut back on my pain meds, they were too much. I'd rather feel alert."

"Therapies can be helpful, but insurance only pays for so much and it is a lot of travel and driving."

When asked about proper disposal of unused medications, the majority of participants stated that they had not received any instructions from their provider or their pharmacist. Some who knew about medication drop boxes at pharmacies and police stations had used these resources, while others flushed leftover medication in the toilet or kept it.

"I had to sign a paper that I wouldn't sell or share my pain medication."

"I received a flyer from Geisinger on where to take my old medications."

Participants said that loneliness, sadness, and depression are common among seniors. Nearly all attendees admitted to having these feelings some times. While participants were generally forthcoming in the focus group about their experiences or observations with depression, groups varied on their comfort level to talk openly about their feelings with their provider, family, or friends. Some groups concurred that they were comfortable talking to their provider about their "state of mind."

"I tell my doctor everything. We talk about it if I'm feeling depressed."

"My doctor asks me if I've been feeling sad or depressed. She wants to know."

"You can tell when someone's feeling down. They stay in their room. We check in on each other."

In more than half of the groups, participants said they were uncomfortable broaching the subject with their healthcare provider or admitting to having issues when asked. Those that avoid talking about feeling depressed gave different reasons.

"I deal with depression myself. I go for a walk, talk to people, or smoke a cigarette."

"My doctor asks me about depression every time I see him, but I wouldn't confide in him. I have friends I will talk to."

"Shame on me if I don't say anything to my doctor, but I need an established relationship."

"We were taught not to talk about our feelings."

"What's the use in talking about it, it doesn't change the situation."

Participants acknowledged that depression and other mental health issues are often not talked about. There is concern over "what people might think" or that "you can't manage on your own" and will "have to go to a nursing home." Others thought that more resources were needed to help seniors with mental health needs.

"Things spread. You have to be careful who you tell."

"We need education to identify conditions and available resources. Our families should be able to recognize changes and approach us."

"We need programs to help with stress management."

"They should post crisis numbers in the elevator and in the newsletter."

Prioritization of Community Health Needs

On February 15, 2018, the CHNA Regional Advisory Committee met to review research findings and partner input from the 2018 CHNA. Common themes had emerged throughout the research that were consistent across the Central Service Area (listing in alphabetical order):

- Access to Care
- Aging Services
- Chronic Disease Management
- Healthy Lifestyles
- Maternal and Child Health
- Mental Healthcare
- Substance Abuse

In advance of the meeting, individual hospital representatives were asked to review data provided to them that outlined specific health issues and health disparities within their hospital service area related to these broad health priorities. Representatives were asked to rate the local hospital's ability to respond to each need based on:

1. Relevance: *How well does this need align with our core competencies or mission?*
2. Effectiveness: *Can we have a measureable impact on this issue?*
3. Feasibility: *Do we have resources, capacity, capabilities, support, etc. to address this need?*

At the meeting, hospital representatives shared their scoring based on the criteria provided and discussed contributing factors including ongoing or new initiatives, community partners, and concurrent strategic initiatives related to population health. Common ranking of issues began to emerge across the platforms pertaining to prioritization of substance abuse, access to care, and chronic disease while differences were identified in regard to maternal and child health, aging services, and mental health.

Each region was reviewed and platform representatives discussed their perspectives from the rating exercise. Each region and individual platform was discussed in depth to consider statistical research and community partner perspectives on the most pressing community health needs in each community.

At the conclusion of the prioritization meeting, the Regional Advisory Committee recommended the following priorities be adopted across the service area.

- **Access to Care**
- **Behavioral Health (to include substance abuse and mental health strategies)**
- **Chronic Disease Prevention and Management (with a focus on increasing healthy habits)**

This approach was approved by Evangelical leadership for development of Implementation Planning.

Evaluation of Impact from Prior CHNA Implementation Plan

Background

In FY2016, Evangelical Community Hospital completed a Community Health Needs Assessment and developed a supporting three year Community Health Implementation Plan (CHIP) for FY2017-2019 to address identified health priorities. The strategies implemented to address the health priorities reflect Evangelical's mission and commitment to improving the health and well-being of the community.

Guided by the findings from the FY2016 CHNA and input from key community stakeholders, Evangelical Community Hospital leadership identified the following priorities for FY2017-2019:

- Access to health care
- Behavioral health and substance abuse
- Health concerns related to lifestyle

FY2017-2019 Evaluation of Impact

Evangelical Community Hospital developed and implemented a plan to address community health needs that leverages resources across the hospital and the community. The following section highlights outcomes from the implemented action items.

Access to Health Care

Action Item 1: Continue to provide free or reduced-fee mammography and other cancer diagnostic imaging for the un-/underinsured population.

- Evangelical Community Hospital provided 173 free or reduced-fee mammograms to un-/under-insured residents during FY2017-2019 and 432 free diagnostic mammograms/ultrasound exams.
- The hospital provided 180 reduced-fee colorectal cancer screenings (iFOB) to residents. The hospital also expanded screening services within the region by acquiring Central Penn Gastroenterology Associates in January 2018.
- Hospital staff conducted outreach with area primary care offices regarding the availability of low-dose CT scans for lung cancers. The hospital scheduled 39 scans during FY2017-2019.

Action Item 2: Continue to offer a variety of health screening programs for the community at minimal or no cost, targeting under-/un-insured community members.

- Evangelical Community Hospital held two screenings events each year, one each for men and women. A total of 236 individuals participated in the events. Participants received the following comprehensive screenings (as applicable) for a reduced-cost fee of $75:
  - blood studies
  - blood pressure
  - body composition testing
  - cardiac and stroke risk counseling
  - clinical breast exam
  - pelvic exam and PAP test
  - prostate exam
  - skin screening
  - vision and hearing screening
- The hospital offered the following free or reduced-fee screenings at various times and locations throughout the community in FY2017-2019:
  - Comprehensive blood screening: 1,867 people screened
  - Blood pressure screening: 1,022 people screened
  - Blood sugar screening: 455 people screened
  - Heel scan/bone density clinic: 97 people screened
  - Healthy heart screening: 152 people screened
  - Hunter's health screening (specially designed for hunters to assess for risk of heart attack or stroke) : 108 people screened

Action Item 3: Expand the Hospital to Home program to reduce ED visits among at-risk populations.

- A full-time employee was hired to oversee the Hospital to Home program. The program provides follow-up health and social services to patients discharged from the ED for percutaneous coronary intervention, stroke, and chronic heart failure, who are at-risk of being readmitted. Hospital staff are also currently working on a program to identify and serve food insecure patients.

Action Item 4: Add a mobile medical unit to assist with providing care to individuals and communities in rural areas where transportation is a barrier to care.

- Funding was secured through business and community donations for a medical mobile unit. The unit was delivered in early 2018 and will be used for health and wellness screenings, primary care and specialty visits, and cardiac health visits in underserved communities. Some services will be provided free of charge. A full time coordinator was hired to operate and oversee the unit and its services.

Action Item 5: Continue primary and specialty provider recruitment efforts to maintain or improve provider to patient ratios.

- Twenty-four new physicians, including one psychologist, were recruited and retained by the hospital to improve provider to patient ratios.
- Eighteen new advanced practitioners (e.g., Physician Assistants, Nurse Practitioners, Mid-Wives) were also recruited to the area.

Behavioral Health and Substance Abuse

Action Item 1: Increase care coordination for patients with behavioral health and/or substance abuse needs through screening and referral to internal and/or external behavioral health and/or substance abuse service providers.

- Evangelical Medical Services Organization (EMSO) staff worked to establish a system for tracking behavioral health/substance abuse screenings. The system was implemented in the FY2018 electronic health record update. The two teams continue to explore opportunities for tracking behavioral health/substance abuse referrals.
- Starting in FY2017, the hospital started an initiative to screen patients over 12 years of age seen in an EMSO primary care office for depression and substance abuse. A total of 8,942 EMSO members screened positive for depression and were scheduled for a follow-up appointment.

Action Item 2: Evaluate the current tele-psychiatric program offered by the hospital, and research additional resources and vendors to expand services to meet the growing demand.

- The hospital secured a new tele-psych vendor and started offering additional services in February 2017. The tele-psych service was utilized approximately 15 times per quarter in the ED and approximately six times per quarter in the inpatient setting. Response times to services were within two hours.

Action Item 3: Support and participate in the efforts by Communities that Care (CTC) to improve awareness and quality of life for kids in our service area.

- Community health and wellness staff served as representatives on both the Shikellamy and Selinsgrove CTC boards.
- The hospital collaborated with CTC to offer the PROSPER program in spring 2018 to Shikellamy middle school students and families. PROSPER is a seven-week, evidence-based program designed to strengthen families. The program assists families to reduce aggressive behaviors and the likelihood of substance abuse, and increase stress management and conflict resolution skills.

Action Item 4: Develop a regional behavioral health action group to discuss ongoing issues and concerns, and collaboratively develop policies and procedures to better serve the behavioral health and substance abuse population.

- Hospital staff partnered with the United Way to participate in a regional interest group to address behavioral health and substance abuse issues.

Action Item 5: Work with local law enforcement to deliver the opioid overdose reversal project in our service area.

- The hospital disseminated 148 opioid overdose reversal kits to local law enforcement, colleges and universities; 22 kits were used in response to an overdose. The hospital continues to be the primary distributing agency for Naloxone through a PA Commission on Crime and Delinquency grant.

- The hospital provided opioid reversal kit (Naloxone) education courses within the community, targeting family/friends of at-risk persons, EMS, and fire and police members. Area businesses, including hotel staff, also participated in the sessions.

Health Concerns Related to Lifestyle

Action Item 1: Continue to offer a variety of educational programming for the youth in the community at no cost.

- The hospital offered educational programs geared toward healthy eating, stress management, staying active, and living tobacco free to youth in local school districts. In 2017, the programs reached more than 28,144 students throughout the region.

Action Item 2: Continue to offer and improve upon our worksite wellness program to improve the health and wellness of employees of the hospital and area businesses.

- The hospital offered a comprehensive worksite wellness program to hospital employees and area businesses. The program consisted of wellness seminars and workshops, challenges in the areas of activity, diet, or weight loss, lifestyle programs and wellness coaching, biometric screenings, flu shots, and CPR, first aid and blood borne pathogen courses. The total number of people served by the program included:
    - Biometic screenings: 1,498 people
    - Challenges, Seminars, Workshops, Health Fairs: 1,193 people
    - CPR/AED/First Aid/Blood Borne Pathogen Courses: 822
    - Total served for all programs: 3,525

- The program was initiated at three new area businesses during FY2017-2019.

Action Item 3: Serve on the North Central Tobacco Coalition and continue to support efforts and programs to decrease the number of smokers in our service area.

- Evangelical Community Hospital continues to be a partner in the North Central Tobacco Coalition. In support of the Coalition's mission, the hospital offered the American Lung Association's Freedom from Smoking program to the community. In 2017, five people successfully completed the program and quit smoking.
- The hospital received a mini-grant to assist a local worksite to implement tobacco-free policies and offer the Freedom from Smoking program. Two people at the worksite have registered for the program.

Action Item 4: Offer free or low-cost adult-based programming that will promote a healthy lifestyle and provide educational resources.

- The hospital offered a variety of health and wellness programs to adults to encourage wellness and disease prevention:
    - Live Your Best Life: The seven-week self-management program was offered to 53 individuals with chronic health issues. Participants learned how to manage conditions such as diabetes, arthritis, chronic pain, depression, COPD, and heart failure. Topics included nutrition, exercise, medications, communicating with your doctor, pain, fatigue, and action planning.

- Speakers Bureau: The hospital offered a Speakers Bureau to provide health-related information on a variety of topics to the members of the community.
- Staying Strong: The six-week program was offered for a low cost to women of all ages seeking a safe and challenging strength-training program. Sessions focused on improving bone density, muscle growth, flexibility, and balance and included the use of light weights and body resistance techniques to help shape and tone. Approximately 32 women attended each session.
- Why Weight: The six-week weight management program was offered for a low cost to 64 participants by a certified health coach and registered dietician. Topics included healthy meal planning, exercise, and behavior modification strategies. The average weight loss among participants was 5.1 pounds.
- Yoga: The six-week course was offered for a low cost to assist adults in building strength, flexibility, and balance while releasing stress. Approximately 48 adults attended each session.

> The hospital will offer the Ask Me 3 program to area senior living sites starting in April 2018. Ask Me 3 is an educational program that encourages patients and families to ask three specific questions of their providers to better understand their health conditions and what they need to do to stay healthy.

The hospital offered Senior Strong, a free program to assist adults 55 years or older to maintain an active, healthy lifestyle. The program provided screenings, exercise classes, medication reconciliation, AARP's Smart Driver course, the CarFit program, and educational seminars. A total of 332 seniors participated in the CarFIT and AARP programs and 386 seniors participated in educational seminars that addressed the topics of exercise, diabetes, osteoporosis, and nutrition.

Board Approvals and Next Steps

The CHNA Final Report was reviewed and adopted by the Evangelical Community Hospital Board of Directors on May 21, 2018. The Final Report is available on the hospital's website, www.evanhospital.com.

The report of the CHNA findings will be used by Evangelical for development of an implementation plan to address the healthcare needs of the community and assist in fulfilling the Hospital's mission of "building a healthy community." The report will be available to community stakeholders, service agencies and public health organizations who can also use this valuable information as a resource to improve or add to their current services.

Appendix A: Public Health Secondary Data References

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Appendix B: Key Informants

A key informant survey was conducted with 59 community representatives. The organizations represented by key informants, and their respective role/title, included:

Key Informant Organization	Key Informant Title/Role
Advantage Home Health Services, LLC	Chief Executive Officer
Allied Services	VP Home Care Services
Allied Services	Administration
Allied Services	Director, PFS
Allied Services	Director, Physician Relations
Alzheimer's Association	Vice President
AssuredPartners of Northeastern Pennsylvania	Executive Vice President/Principal
Community Action Agency	Community Services
Community Action Agency	Coordinator
Central Pennsylvania Food Bank	Health Innovations Coordinator
Centre Crest	Business Development Specialist / Admissions
Columbia Child Development	Health/Nutrition Manager
Columbia/Montour Aging Office, Inc.	Director
Community Action	Supervisor
Community Strategies Group	Executive Director
Community Action	Administrative Assistant/ Receptionist
Congregation Beth El	Rabbi
Central Susquehanna Intermediate Unit	WATCH Academic Specialist
Elmcroft Senior Living	Director of Business Development
Families United Network Inc.	Resource Family Specialist
Geisinger	Therapy supervisor
Geisinger	Manager
Geisinger	AVP, Informatics
Geisinger	Director, Patient Liaisons and Interpretive Services
Geisinger	Sr. Director Clinical Nutrition
Geisinger	Directory of Ambulatory Care Gaps & Best Practice
Geisinger	Systems Analyst
Geisinger	Director, Corporate Communications
Geisinger	Director
Geisinger	Operations Manager, Pediatrics
Geisinger	Research Project Manager II
Geisinger Bloomsburg Hospital	Radiology Manager
Geisinger Jersey Shore Hospital	Community Advisory Board
Geisinger Jersey Shore Hospital	RN, Employee Health, Cardiopulmonary, Infection Prevention and Control
Geisinger Jersey Shore Hospital	Supervisor Central Registration, Scheduling & Switchboard
Geisinger Jersey Shore Hospital	Director of Marketing and Public Relations

Key Informant Organization	Key Informant Title/Role
Geisinger Jersey Shore Hospital	ACO Care Coordinator
Geisinger Lewistown Hospital	Chief Administrative Officer
Geisinger Medical Center	Manager, Vascular Services
Geisinger Shamokin Area Community Hospital	AVP of Operations and Special Projects
Geisinger Community Medical Center	Operations Manager
Geisinger, CPIO	Research Project Manager/ Med Take Back
Greater Susquehanna Valley YMCA	Program Center Director
Grey Medical Advocate, LLC	Owner
Northumberland County BHIDS	System of Care Project Director
Penn State Extension	Senior Extension Educator/Registered Dietitian
Penn State Extension	Educator
Penn State Extension/Nutrition Links	Nutrition Education Adviser
Primary Health Network	Regional Director
Shelter Service, Inc.	Executive Director
SUM Child Development, Inc.	Enrollment and Outreach Manager
Union-Snyder Agency on Aging, Inc.	Health & Wellness Coordinator
Union-Snyder Community Action Agency	Adult Education / Parenting Instructor
Union-Snyder Community Action Agency	Executive Director
Union-Snyder Community Action Agency	MIS Coordinator
Union-Snyder Community Action Agency	AmeriCorps Member Coordinator
Union-Snyder Community Action Agency	Director of Education & Employment
West End Library	Librarian
West End Library	Library Director

Appendix C: Partner Forum Participants

Two partner forums were conducted with 41 community representatives. The participants and their respective organization, included:

Northumberland County Participants	Organization
Lisa Baumann	Geisinger Health Plan
Eileen Burke	Fresh Food Geisinger Health Plan
Eileen Evert	Geisinger Health Plan
Melissa Farrow	Central Susquehanna Opportunities
Lynn James	Penn State Extension
Kimberly Jones	Primary Health Network
Colleen Kocen	Transitions
Chantal Kropp	Geisinger Health Plan
Lisa Makara	Geisinger Bloomsburg Hospital
Sheila Packer	Evangelical Community Hospital
Victoria Rawa	SNU Women's Health
Susan Roth	Nurse Family Partnership
Kristy Sones	CSIU WATCH Project
Gale Zalar	Central Susquehanna Opportunities
Jennifer Zarko	Geisinger

Union County Participants	Organization
Marisa Burke	Geisinger
Katrina Conrad	Geisinger
Melody Danko-Holsomback	Geisinger
Matt Farrand	The Standard Journal
Joni Forman	Pennsylvania Department of Health
Rachel German	Geisinger Selinsgrove
Angela Haines	Greater Susquehanna Valley United Way
Olive Herb	Geisinger
Jessica Kinney	Geisinger
Courtney Matrey	Senior Helpers
Jacqueline Olivia	River Valley Health and Dental Center
Tamara Persing	Evangelical Community Hospital
Anthony Reed	Geisinger
Debbie Sanders	Union-Snyder Agency on Aging, Inc.
Donna Schuck	Evangelical Community Hospital
Faithe Soles	Elmcroft
Douglas Spotts, MD	Evangelical Community Hospital
Tiffani Stark	Geisinger
Joe Stender	Geisinger
Justin Strawser	The Daily Item
Joanne Troutman	Greater Susquehanna Valley United Way
Lorraine Tusing	Geisinger Med Take Back
Nicole Waughen	Guardian
H.W. Wieder	Geisinger Med Take Back
Cindy Yeager	Geisinger
James Yoxtheimer	River Valley Health and Dental Center

Appendix D: Existing Community Assets to Address Community Health Needs

The following community assets and potential partners in addressing priority health needs were identified during the CHNA.

- Advantage Home Health Services, LLC
- Aetna Special Needs Unit
- Agape
- Alcoholics Anonymous/Narcotics Anonymous
- Allied Services Integrated Health System
- Alzheimer's Association
- Area Agency on Aging
- Assured Partners of Northeastern Pennsylvania
- Black Creek Health Center
- Birthright of Sunbury
- CareerLink
- Central Pennsylvania Food Bank
- Central Susquehanna Intermediate Unit (CSIU)
- Central Susquehanna Opportunities (CSO)
- Centre Crest
- Child Care Information Services (CCIS)
- Churches
- Coal Region Love Inc.
- Columbia-Montour Aging Office, Inc.
- Columbia Montour Snyder Union (CMSU) Service System
- Community Action Agency
- Community Strategies Group
- Congregation Beth El
- County Assistance Offices
- Drug Courts
- Early Head Start/Head Start/Pre-K Counts
- Elmcroft Senior Living
- Evangelical Community Hospital
- Expectations
- Families United Network Inc.
- Federally Qualified Health Centers
- Geisinger Bloomsburg Hospital
- Geisinger Center for Pharmacy Innovations and Outcomes
- Geisinger Health Plan
- Geisinger HealthSouth
- Geisinger Jersey Shore Hospital
- Geisinger Lewistown Hospital
- Geisinger Medication Assisted Treatment (MAT) Clinic
- Geisinger Medical Center
- Geisinger Shamokin Area Community Hospital
- God's Chuckwagon

- Greater Susquehanna Valley United Way
- Greater Susquehanna Valley YMCA
- Grey Medical Advocate, LLC
- Guardian
- Haven Ministry
- Heritage House
- Jersey Shore Senior Community Center
- Keystone Farmworker Programs - Columbia
- Kiwanis
- Law Enforcement
- Lincoln Towers
- Medication Assisted Treatment (MAT) Clinics
- Medication Take Back Programs
- NARCAN Programs
- Northumberland County Behavioral Health/Intellectual and Developmental Services
- Northumberland County Opioid Coalition
- Nurse Family Partnership
- PA 211
- PA Get Help Now Statewide Hotline (1-800-662-HELP)
- Parks and Recreation Trails
- Penn State Extension/Nutrition Links
- Pennsylvania Department of Health
- Pennsylvania Department of Human Services
- Pennsylvania Department of Public Welfare
- Pennsylvania Early Intervention
- Pennsylvania Family Centers
- Pennsylvania Telephonic Psychiatric Consultation Services Program (TiPS)
- Pharmacies/Pharmacists
- Plain Community Clinic
- Pregnancy Care Center of Shamokin
- Primary Health Network
- Project Bald Eagle
- River Valley Health and Dental Center
- Schuylkill Community Health Center
- Senior Centers
- Senior Helpers
- Shamokin Community Health Center
- Shelter Service, Inc.
- Single County Authorities
- SNU Women's Health
- Snyder, Union, Mifflin (SUM) Child Development
- The Daily Item
- The Gate House
- The Standard Journal
- Transitions of PA
- Union-Snyder Community Action Agency
- Union-Snyder Agency on Aging, Inc.
- United Way

- UPMC
- WATCH Project
- West End Library
- Westminster Place at Bloomsburg
- White Deer Run
- WIC
- Women's Centers
- Women's Shelters
- YMCA