

Geisinger Medical Center
Geisinger Shamokin Area Community Hospital
Geisinger Encompass Health Rehabilitation Hospital
Community Health Needs Assessment

January 1, 2021 – December 31, 2023

Adopted December 2020

Geisinger



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Our Commitment to Our Communities

Founded over a century ago as a single hospital in Danville, Pa., today Geisinger provides superior healthcare services to communities throughout central and northeast Pennsylvania. The nonprofit mission of the professionals at our nine hospital campuses and other locations is not only to meet the immediate healthcare needs of their region's residents, but to anticipate, identify and address future health issues and trends.

Our integrated healthcare system has become a nationally recognized model of care delivery. Together with our communities, we have a shared goal to help people stay well, not just through clinical treatment and positive patient experiences, but also through education and programs that help them prevent or manage disease and live healthier lives.

The community health needs assessment (CHNA) report is exactly what the name describes. Every three years we conduct a formal survey to identify the specific needs of the communities and regions we serve — and then we develop meaningful, measurable responses to those needs in conjunction with our communities.

Geisinger's well-being is closely tied to the health of our communities, and we remain committed to understanding and responding to identified community health needs. We have taken major steps toward constant improvement and more focused responsiveness to community needs at each of our campuses as demonstrated by this report.

We are firmly committed to staying on the forefront of innovation, quality and value; finding the most efficient and effective ways to deliver care; and collaborating with other organizations to best serve the communities where we live, work and play.

A Collaborative Approach to Community Health Improvement

CHNA Collaborating Health Systems

The 2021 Geisinger Community Health Needs Assessment (CHNA) was conducted in partnership with Geisinger, Allied Services Integrated Health System, and Evangelical Community Hospital. The study area included 15 counties across central and northeastern Pennsylvania, which represented the health systems' collective service areas. Collaboration in this way conserves vital community resources while fostering a platform for “collective impact” that aligns community efforts toward a common goal or action. To distinguish unique service areas among hospitals, regional research and reporting was developed.

2021 CHNA Geographic Regions and Primary Service Counties

Region	Primary Service Counties	Hospitals
Central	Columbia County Montour County Northumberland County Schuylkill County Snyder County Union County	Geisinger Bloomsburg Hospital Geisinger Medical Center Geisinger Shamokin Area Community Hospital Geisinger Encompass Health Rehabilitation Hospital Evangelical Community Hospital
North Central	Clinton County Lycoming County	Geisinger Jersey Shore Hospital Geisinger Medical Center Muncy (new)
Northeast Region	Lackawanna County Luzerne County Wayne County Wyoming County	Allied Services Rehab Hospital Geisinger Community Medical Center Geisinger South Wilkes-Barre Geisinger Wyoming Valley Medical Center Heinz Rehab Hospital
Western Region	Centre County Juniata County Mifflin County	Geisinger Lewistown Hospital

Geisinger Systemwide CHNA Approach

The 2021 CHNA focused on the primary service areas of each of Geisinger’s nine hospital campuses. Understanding overlapping geographic boundaries, socioeconomic, and related community indicators, Geisinger hospitals were grouped into regions to allow for localized data comparisons.

Systemwide priorities were determined to address common needs across the whole service area, while individual hospital Implementation Plans outlined specific strategies to guide local efforts and collaboration with community partners.

The following pages describe the process, research methods, and findings of the 2021 CHNA.

2021 CHNA Executive Summary

CHNA Leadership

The 2021 CHNA was overseen by a Planning Committee of representatives from each health system, as well as a Regional Advisory Committee of hospital and health system representatives. Community health consultants assisted in all phases of the CHNA, including project management, data collection and analysis, and report writing.

CHNA Planning Committee

Rachel Manotti, Vice President Strategy and Market Advancement, Geisinger
Allison Clark, Community Benefit Coordinator, Geisinger
John Grabusky, Senior Director Community Relations, Geisinger
Barb Norton, Director Corporate & Foundation Relations, Allied Services Integrated Health System
Sheila Packer, Director Community Health and Wellness, Evangelical Community Hospital

CHNA Regional Advisory Committee

David Argust, Vice President, Allied Services Integrated Health System
Jordan Barbour, Operations Director, Geisinger Marworth Treatment Center
Renee Blakiewicz, Administrative Director, Geisinger Community Medical Center
Julie Bordo, Vice Presidents, Geisinger Wyoming Valley Medical Center/Geisinger South Wilkes-Barre
Jim Brogna, Vice President, Allied Services Integrated Health System
Lissa Bryan-Smith, Vice President, Geisinger Bloomsburg Hospital
Sherry Dean, Operations Manager, Geisinger Community Medical Center
Stephanie Derk, Specialist Community Engagement, Geisinger
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Kristin Dobransky, Administrative Fellow, Geisinger Holy Spirit*
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Brock Trunzo, Communications Specialist, Geisinger Jersey Shore Hospital
Tina Westover, Senior Tax Accountant, Geisinger
Amy Wright, Business Development Director, Geisinger Encompass Health Rehabilitation Hospital
Randy Zickgraf, Director, Geisinger
Amy Zumkhawala-Cook, Administrative Director, Operations, Geisinger Holy Spirit*

*Geisinger Holy Spirit representatives served on the RAC through November 1, 2020, the effective date for the hospital's transfer of ownership to Penn State Health.

Consulting Team

Catherine Birdsey, MPH, CHES, Baker Tilly
Colleen Milligan, MBA, Community Research Consulting

CHNA Methodology

The 2021 CHNA was conducted from July to December 2020. Quantitative and qualitative methods, representing both primary and secondary research, were used to illustrate and compare health and social trends and disparities across each region and hospital service area. The following research methods were used to determine community health needs:

- > Statistical analysis of health and socioeconomic data indicators; a full listing of data references is included in Appendix A, and a summary of data findings is included in Appendix B
- > Electronic survey of key stakeholders, including experts in public health and individuals representing medically underserved, low-income and minority populations; a list of key informants and their respective organizations is included in Appendix C
- > Discussion and prioritization of community health needs to determine the most pressing health issues on which to focus community health improvement efforts

Community Engagement

Community engagement was an integral part of the 2021 CHNA. A Virtual Town Hall was held in August 2020 to announce the onset of the CHNA and encourage broad stakeholder participation. A Key Informant Survey was sent to nearly 1,000 community stakeholders to solicit input on health disparities, opportunities for collaboration, COVID-19 response, community health priorities, among other insights. Continued community engagement activities are planned to ensure ongoing dialogue and a forum for addressing community health needs.

Prioritized Community Health Needs

To work toward health equity, it is imperative to prioritize resources and activities toward the most pressing and cross-cutting health needs within the community. Priorities were jointly determined by the CHNA collaborating health systems using feedback from community stakeholders. Through this process, CHNA partners affirmed the following priority health needs:

- > **Access to Care**
- > **Behavioral Health**
- > **Chronic Disease Prevention and Management**

These priorities are consistent with those determined in the previous FY2019 CHNA and reflect complex needs requiring sustained commitment and resources.

Maternal and child health needs are also prevalent across the service area. While CHNA partners did not identify maternal and child health as a priority issue due to the need to focus available resources, many of the hospitals support maternal and child health strategies as part of their Implementation Plan. These strategies include free or low-cost classes and support groups for pregnant and new mothers, lactation consultation, treatment and support services for mothers in recovery, social assistance, and postpartum depression screening, among others.

CHNA Implementation Plan

To direct community benefit and health improvement activities, CHNA partners created individual hospital Implementation Plans to detail the resources and services that will be used to address health priorities. The Implementation Plans build upon previous health improvement activities and take into consideration new health needs and the changing health care delivery environment as detailed in the 2021 CHNA.

Board Approval

The 2021 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.

The CHNA report was presented to the Geisinger Board of Directors and approved in December 2020. Geisinger is committed to advancing initiatives and community collaboration to support the issues identified through the CHNA.

Following the Board's approval, all CHNA reports were made available to the public via the Geisinger website at <https://www.geisinger.org/about-geisinger/in-our-community/chna>.

Geisinger's prior CHNA was adopted in June 2018, consistent with their fiscal tax year beginning July 1 and ending the following June 30. Starting in 2021, Geisinger will transition its year-end to a calendar year. Due to the change in year-end, the 2021 CHNA and Implementation Plan adopted for Geisinger Medical Center, Geisinger Shamokin Area Community Hospital, and Geisinger Encompass Health Rehabilitation Hospital will be in effect from January 1, 2021 through December 31, 2023.

For questions regarding the CHNA or Geisinger's commitment to community health, please contact Allison Clark, Community Benefit Coordinator, Strategy & Market Advancement, Geisinger at aclark1@geisinger.edu.

Central Region Summary of Findings

Population Trends

The Central Region is predominantly rural with small population centers scattered across the 6-county geography. The largest population center is Bloomsburg (Columbia County) with 14,290 residents, and home to Bloomsburg University of Pennsylvania. Other population hubs are centered around these cities and boroughs: Pottsville (Schuylkill County), with 13,965 residents; Berwick (Columbia County) with 10,118 residents; Sunbury (Northumberland County), with 9,487 residents; Shamokin (Northumberland County), with 7,092 residents; Tamaqua (Schuylkill County), with 6,784 residents; Selinsgrove (Snyder County), with 5,861 residents; Lewisburg (Union County), with 5,600 residents; and Danville (Montour County), with 4,656 residents.

Total population of the Central Region is approximately 400,000 and is projected to decline at a rate of 1.5% by 2025. Consistent with much of PA's rural geography, the population of most counties in the Central Region is declining, with the exception of Snyder County and Union County, projected to grow 1.8% and 1.1%, respectively, by 2025. The largest population decline is expected in Northumberland County (-3%), which also experienced a 3% population decline since 2017. Schuylkill County is projected to decline at 2.7%; Columbia County at 0.8%; and Montour County at 0.7%.

The Northumberland County population declined 3% from 2017, and is projected to decline an additional 3% by 2025

More than 20% of residents in Columbia (20.2%), Montour (23%), Northumberland (22.5%), and Schuylkill (21.8%) counties are age 65 or older compared to the state (19.3%) and national (16.6%) averages. Montour (45.6), Schuylkill (45.4), and Northumberland (45.2) counties have the highest median ages, compared to the state (41.5) and nation (38.5).

As a whole, the Central Region is significantly less diverse than state and national benchmarks. Approximately 90% or more of the counties' populations are White, compared to state (78.5%) and national (69%) averages. Union County is the most diverse: 6.5% of the population is Black; 6.3% is Latinx (of any race); and approximately 2% is Asian.

The federal prison in Union County significantly impacts community demographic data

Federal prisons within the Central Region significantly impact demographics in Schuylkill and Union counties with disproportionate incarceration rates among Black and Brown males that are reflected in census and socioeconomic data. Simultaneously, in line with

statewide and national trends, minority populations are growing in all communities across the Central Region. With respect to these coinciding trends, demographic data for these counties must be carefully considered to acknowledge the impact of incarcerated populations on broader community demographics. Union County data are particularly impacted by prison populations, which comprise 3% of the total county population.

There are five Amish settlements across the Central Region totaling approximately 2,000 residents. The estimated Amish population for the region increased more than 8% from 1,912 to 2,072 from 2017 to 2020.

Pennsylvania residents overall are slightly more likely to report a disability when compared to the nation. Residents of Schuylkill (18%) and Northumberland (17%) counties are more likely to have a disability compared to the state (14%) and national (13%) averages.

Socioeconomic Trends

The Central Region has a history of coal mining, agriculture, and manufacturing. While these industries have predominantly been replaced by healthcare and education industries as economic drivers, natural gas mining has brought new income sources, and new challenges, to communities in the Central Region.

Consistent with other rural communities across Pennsylvania, the Central Region reflects a predominantly blue-collar workforce; lower median income levels; rural poverty; increased food insecurity; average high school graduation rates with less higher education attainment; and more home ownership with lower housing cost burden. Despite common factors across the Central Region, distinct differences exist across the counties.

Montour County is home to Geisinger Medical Center, which employs thousands of clinical and non-clinical white-collar workers. This workforce trend is reflected in socioeconomic indicators. Montour County has one of the highest median household incomes and lowest poverty rates, and is the only county to have a higher percentage of residents attaining a bachelor's degree than the state and nation.

Montour and Union counties are home to prominent health and education industries and reflect more positive socioeconomic measures

Union County, home to Evangelical Community Hospital and Bucknell University, has similar income and poverty indicators as Montour County and the second highest percentage of residents attaining a bachelor's degree. Snyder County also has strong economic indicators, although the county's top employers, Wood-Mode, recently faced economic uncertainty, which may impact future socioeconomic standing.

About 33% of Key Informant Survey respondents named poverty among the top three contributing factors to health concerns, ranking it as the #3 contributor in the region. Related socioeconomic factors, including ability to afford healthcare and lack of transportation, were also identified as top contributors.

Overall Central Region poverty rates are generally consistent with state and national averages, but significant disparities exist between people of color and White populations

Overall Central Region poverty rates are generally consistent with state and national averages, but there is a wider disparity between people of color and White residents, and most counties

exceed state and national benchmarks on this measure. Schuylkill and Union counties reflect the highest disparities among Black and Latinx residents, with poverty rates up to five times more than Whites. This significant difference likely reflects the impact from the federal prison populations in these counties, but notable disparities in neighboring counties reinforce the gap in poverty rates between people of color and their White neighbors. In Snyder County, 33% of Black residents versus 10% of White residents live in poverty. In Northumberland County, 44% of Latinx residents live in poverty compared to 13% of White residents. In Montour County, 41% of Blacks versus 11% of Whites live in poverty.

Northumberland County has a higher percentage of children living in poverty (19.5%) relative to other counties. The county also has a higher percentage of food insecure children (18%). Food insecurity among children declined in all counties since the FY2019 CHNA.

Food insecurity among children declined in all counties since the FY2019 CHNA

Central Region residents are more likely to own their home, and are generally less cost burdened compared to statewide and national averages. Housing cost burden is defined as spending 30% or more of household income on rent or mortgage expenses. Residents of Schuylkill, Snyder, and Union counties have the highest home ownership rates, exceeding the state average. Central Region housing stock is older, particularly in Northumberland and Schuylkill counties, where 77%-79% of homes were built before 1980. Union County has the newest housing stock, followed by Montour County.

Fracking or hydrofracking has been a controversial industry across PA and the Central Region. It has brought economic benefit to the Central Region, but it has also generated concerns about health, increased housing rental costs, decreased property values, and long term environment impact. Continued monitoring of health, socioeconomic, and environmental factors are essential to better understand the full impact of this industry on the Central Region.

Unemployment more than doubled in all Central Region counties except Snyder due to COVID-19

As a result of the COVID-19 pandemic, Central Region unemployment rates more than doubled in all counties except Snyder from May 2019 to May 2020. Of interest, as of May 2020, current unemployment is lower for all counties than the state and nation.

Health Trends

Access to Healthcare

All Central Region counties except Montour and Union have fewer primary care providers than the state and nation, and all counties except Montour have fewer dentists and mental health providers. (Note that provider rates are calculated by the primary address of the office, and do not reflect satellite locations). Northumberland County has the lowest provider rates in the region. All counties except Union are dental Health Professional Shortage Areas (HPSAs); within Union County, Mifflinburg is a dental HPSA.

Key Informant Survey respondents affirmed the need for additional behavioral health services, particularly mental health services. Mental health services were the top ranked missing resource in the region, identified by 67.5% of respondents. Substance use disorder services were the third ranked missing resource, identified by 40% of respondents.

The total uninsured population continued to decline across the Central Region. All counties except Snyder and Union have a lower uninsured population than the state and nation. Snyder and Union county uninsured percentages are particularly high among youth, exceeding the statewide average by triple or more. Montour County also has an elevated uninsured rate among youth under six years.

The percentage of uninsured youth in Snyder and Union counties is more than triple state averages

Uninsured rates among Black and Latinx residents declined statewide and nationally, but continue to be disproportionately higher compared to Whites. Similar racial and ethnic disparities exist across the Central Region, although results should be interpreted with caution due to low population counts.

Chronic Disease Prevention and Management

All Central Region counties except Union have a higher prevalence of adult obesity than the state (31%) and nation (31%). Obesity in Northumberland (39%), Schuylkill (37%), Columbia (36%), and Snyder (35%) counties is increasing. Obesity trends in Montour (32.5%) and Union (30%) counties have been variable. About 43% of Key Informant Survey respondents named overweight/obesity among the top three health concerns, ranking it as the #3 concern for the region. Key informants saw health habits, including diet and exercise, as a top contributing factor to obesity.

Youth obesity is also higher in the Central Region. As of the 2017-2018 school year, 20% (Union) to 26% (Columbia, Northumberland) of students in grades 7-12 were obese compared to 19.5% of their peers statewide. Consistent with adult obesity trends, Columbia (26%), Northumberland (26%), Schuylkill (24%), and Snyder (24%) counties saw the largest increases.

Youth obesity is higher in all Central Region counties compared to the state

In contrast to national trends, tobacco use is increasing among adults in PA and the Central Region. Adult smoking trends began to rise in 2016 after steady declines since 2014. Union County saw the greatest increase in adult smoking (2 points), but Northumberland (19.5%) and Schuylkill (19%) counties continue to have the highest percentage of smokers compared to state (19%) and national (17%) averages. Vaping and e-cigarette use likely contributed to this trend reversal. Across PA, approximately 19% of youth report vaping/e-cigarette use. Within the Central Region, youth vaping prevalence is higher in Columbia, Northumberland, and Schuylkill counties, but all counties with reportable data saw significant increases from 2015 to 2019.

These risk factors may contribute to higher death rates from chronic disease. Columbia, Northumberland, and Schuylkill counties have among the highest chronic disease death rates, and a higher prevalence of obesity and tobacco use. Schuylkill County has consistently had the highest chronic disease death rates (excepting diabetes) in the region; significantly higher than the state and national rates.

Schuylkill County has consistently had the highest chronic disease death rates (excepting diabetes) in the region; significantly higher than the state and national rates

Montour and Union County have lower heart disease death rates than other Central Region counties, the state, and the nation, and rates are decreasing. Cancer death rates per 100,000 are increasing in Schuylkill (192.2), Columbia (177.7), Montour (177.1), and Northumberland (167.9) counties and are higher than the state (156.6) and national rates (149.1), which are decreasing. Consistent with higher smoking rates, Northumberland and Schuylkill Counties have the highest death rates due to lung cancers and chronic lower respiratory disease.

Higher poverty rates, lower educational attainment, and rural geographies consistent with most of the Central Region contribute to health disparities and reduce residents' ability to access needed health and social services. People of color historically and frequently experience a higher incidence of poor health and socioeconomic status than White people. While the Central Region is significantly less diverse compared to the state and nation, communities that benefit from more diversity must be monitored to appreciate the nature and extent of disparities among racial and ethnic subpopulations.

Behavioral Health

Mental health and substance use disorder were seen as top community health needs by Key Informant Survey respondents, ranked as the #1 and #2 health concerns respectively. All Central Region counties except Snyder and Union have a higher rate of mental disorders hospitalizations than the state. Northumberland County has the highest rate, followed by Schuylkill County. Both Columbia (17.5) and Schuylkill (25) counties have a high suicide death rate per 100,000; Schuylkill County exceeds the state and national benchmarks by more than 10 points.

Schuylkill County continued to have a higher number of deaths due to overdose than other Central Region counties. While the number of deaths generally declined from 2018 to 2019 across the full 15-county CHNA service region, they remained consistent in Schuylkill County, with 77 deaths reported in 2018 and 78 deaths reported in 2019. Northumberland County has the second highest number of overdose deaths in the region at 24 reported in 2018. Northumberland County also has an opioid overdose hospitalization rate per 100,000 (28.8) that exceeds the state rate (25.1).

Overdose deaths in Schuylkill County remained relatively stable from 2018 to 2019, despite a significant drop in deaths across other counties in the overall CHNA study area

Adult excessive drinking and DUI-related deaths increased in Union County; current percentages exceed state and national averages

Adult excessive drinking increased in all Central Region counties since the FY2019 CHNA. Increases were marginal in all counties except Union, which saw a nearly 3-point increase, and leads the region at 22% of adults. Driving deaths due to alcohol impairment also increased in Union County from 38% to 44%, and is higher than the statewide average of 27%. Snyder and Northumberland counties also saw 10-point increases in alcohol-impaired driving deaths from the FY2019 CHNA.

Approximately 35% to 43% of youth in the Central Region report consistent feelings of depression compared with 38% of their peers statewide. About 10%-11.5% of youth have attempted suicide, compared to 9.7% statewide. Youth across the region report less substance use, with the exception of alcohol use among Schuylkill County youth. Of note, Columbia, Schuylkill, and Union county youth saw increases in mental distress and/or substance use.

Maternal & Child Health

All Central Region counties except Montour and Snyder have a lower birth rate than the state overall. Columbia and Schuylkill counties have historically had the lowest birth rates in the region. Birth rates are generally declining across the region, consistent with statewide trends, but teen births are higher than the state average (4%) in all reporting counties.

Teen births are higher than the state average in all reporting counties

Fewer pregnant women receive first trimester prenatal care in Central Region counties compared to the state (74%) and nation (77.5%). This measure has been declining for most counties in contrast to increasing trends across the state and nation.

In contrast to increasing trends across the state and nation, fewer women are receiving first trimester prenatal care in the Central Region

Despite lower prenatal care access, all Central Region counties except Columbia (9%) have a lower percentage of low birth weight babies compared to the state (8%) and nation (8%). Columbia County also has a higher percentage of preterm births (12%) than state (9.5%) and national (10%) averages, along with Montour (13%) and Schuylkill (10%) counties.

Women in Columbia (77%), Northumberland (76%), and Schuylkill (67%) counties are less likely to exclusively breastfeed their infants at hospital discharge; while Montour (88.5%), Snyder (88%) and Union (88%) counties are more likely to breastfeed their infants, compared to the state (82%) and national (83.5%) averages.

More women smoke during pregnancy in all Central Region counties, except Union (9%), when compared to state (10%) and national (6.5%) averages. Northumberland County (21%) has the highest

1 in 5 women smoke during pregnancy in Northumberland and Schuylkill counties, twice as many as the state average

percentage, followed by Schuylkill (20%), Columbia (17%), Snyder (13%), and Montour (11%) counties.

Columbia, Northumberland, and Schuylkill counties experience notable maternal and child health disparities related to prenatal care access, low birth weight, breastfeeding, and/or smoking. Consistent with this finding, the infant death rate for these counties increased and/or exceeds state and national rates.

Senior Health

Central Region counties are aging faster than the state and national averages. Compounding an increasing aging population, seniors in these counties are more likely to have multiple chronic conditions than their peers statewide or nationally. Seniors in Columbia, Montour, and Union counties generally have fewer chronic conditions compared to seniors in Northumberland, Schuylkill, and Snyder counties.

In all Central Region counties, a higher proportion of seniors have multiple chronic conditions and live alone compared to national averages

Complicating the challenge of chronic disease management, more seniors live alone in PA (13%) and throughout the Central Region than the national average (11%). Union County has the highest percentage of seniors living alone (15%), followed by Northumberland (14.5%) and Schuylkill (14%) counties. Living alone is a key driver for social

isolation, which is associated with poor mental and physical health among seniors.

Despite having an increased number of conditions, annual Medicare spending among Central Region senior Medicare beneficiaries is lower than state and national spending, which may reflect an overall lower cost of living.

The Alzheimer's disease death rate (calculated per 100,000 people) is highest among seniors in Montour County (395.2) compared to 233.2 statewide. This difference may be attributed to more seniors receiving end of life care in Montour County.

COVID-19 Statistics

Coronaviruses are a large family of viruses which may cause illness in animals or humans. COVID-19, named as a novel coronavirus discovered in Wuhan China in December 2019, caused a worldwide pandemic, resulting in nearly one million deaths worldwide (as of the printing of this report) and global economic impact. New insights are derived daily during this dynamic situation and we will continue to learn from data collected throughout the pandemic. As of October 2020, Schuylkill County had 1,495 cases and 69 deaths; Northumberland County had 1,302 cases and 92 deaths; Columbia County had 1,013 cases and 39 deaths; Union County had 637 cases and 7 deaths; Snyder County had 434 cases and 12 deaths; and Montour County had 254 cases and 5 deaths due to COVID-19.

Responses from the Key Informant Survey indicated that community representatives were “somewhat” to “moderately” worried about the long-term impact of COVID-19 on communities and residents. They were most concerned about the impact on the mental and emotional health of residents, the well-being of the elderly, and community financial health. Most agencies had effectively transitioned to using technology and social media to provide virtual learning and services, although key informants acknowledged an increased need for safety net services. They encouraged increased cross-sector collaboration to disseminate services and consistent communication.

Racial and Ethnic Disparities

Historical public policies and systematic inequities have perpetuated stark and persistent racial disparities in wealth, education attainment, health, power distribution, and nearly every measure of well-being for people of color. While efforts to reconcile these disparities are being made, people of color in the Central Region continue to experience these inequities, as demonstrated by disproportionate poverty levels, lower education attainment, and related socioeconomic measures. These social determinants of health directly drive decreased access to healthcare, higher death rates, and overall lower life expectancy. About 45.5% of key informants indicated that social and community context, including perceptions of discrimination and equity, declined in the past 3-5 years.

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Across the state and nation, and demonstrated where data is available for the Central Region, Black and Latinx residents historically experience disproportionately high death rates due to chronic conditions. Women of color and their babies also experience poorer maternal and birth outcomes.

Because the Central Region is less racially and ethnically diverse, these disparities can be difficult to demonstrate due to low numbers for data collection. To ensure disparities are quantified and reconciled, it is imperative that patient outcome data is carefully tracked and regularly reviewed for patients of color to ensure equitable healthcare access and outcomes.

Rural Health Factors

Approximately 52% of key informants perceived that economic stability had declined across the region. Rural communities have been particularly impacted due to decreased availability of services, as well as increased travel time and distance to health and social services. These factors can delay or deter residents’ ability to receive care when they need it.

Generally, more healthcare providers and social services are available in Montour and Union counties. Data demonstrate increased health and social need in Columbia, Schuylkill, and Northumberland counties, which is consistent with a more rural geography and the reduced availability of services.

Telehealth and other virtual services are increasing and can be a successful way to mitigate rural health disparities. Internet service and smart devices are essential tools for successful utilization of these services. In the Central Region, residents are less likely to own a computer or smart phone compared to the state and national averages. These percentages are lowest in Northumberland County. Less than 77% of households in the Central Region have an internet subscription, compared to about 80% statewide and nationally.

Community Engagement and Collaboration

Among questions on the Key Informant Survey, respondents were asked about their partnerships with health providers and community engagement of diverse stakeholders and residents. Approximately 69% of respondents indicated that they regularly partnered with hospitals on health improvement initiatives. About 65% of respondents thought that these types of partnerships were effective at addressing health needs, while 20% of informants thought there was room for improvement. Similarly, 18% of informants thought that healthcare providers could do better to garner resident feedback or engage residents when developing health improvement initiatives.

Using shared data or measurement tools; aligning service areas; and getting local leaders to work together by overcoming competition or varying agendas were seen as the top ways that healthcare and social service providers could improve effective collaboration. Multiple respondents referenced “silos” that keep community-based organizations from effectively collaborating on community initiatives. Respondents referenced the need for formal structure and organizational commitment to long-term change to foster accountable leadership and advance discussion and planning.

A full summary of CHNA research findings and comparisons to state and national benchmarks follows.



Full Report of CHNA Research Findings

Secondary Data Profile

Background

Secondary data, including demographic, socioeconomic, and public health indicators, were analyzed for the Central Region and the hospitals' collective service area to measure key data trends and priority health issues identified in the FY2019 CHNA, and to assess emerging health needs. Data were compared to Pennsylvania (PA) and United States (US) benchmarks and Healthy People 2020 (HP2020) goals, as available, to assess areas of strength and opportunity for the region. Healthy People 2020 is a US Department of Health and Human Services health promotion and disease prevention initiative that sets science-based, 10-year national objectives for improving the health of all Americans.

All reported demographic and socioeconomic data were provided by ESRI Business Analyst, 2020 and the US Census Bureau, American Community Survey, unless otherwise noted. 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 use disorder, and maternal and child 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.

Age-adjusted rates are referenced throughout the report to depict a comparable 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 of residents age 18 or over conducted nationally by states as required by the CDC. A consistent survey tool is used across the US to assess health risk behaviors, prevalence of chronic health conditions, access to care, preventive health measures, among other health indicators. BRFSS data indicators are referenced throughout the public health data analysis.

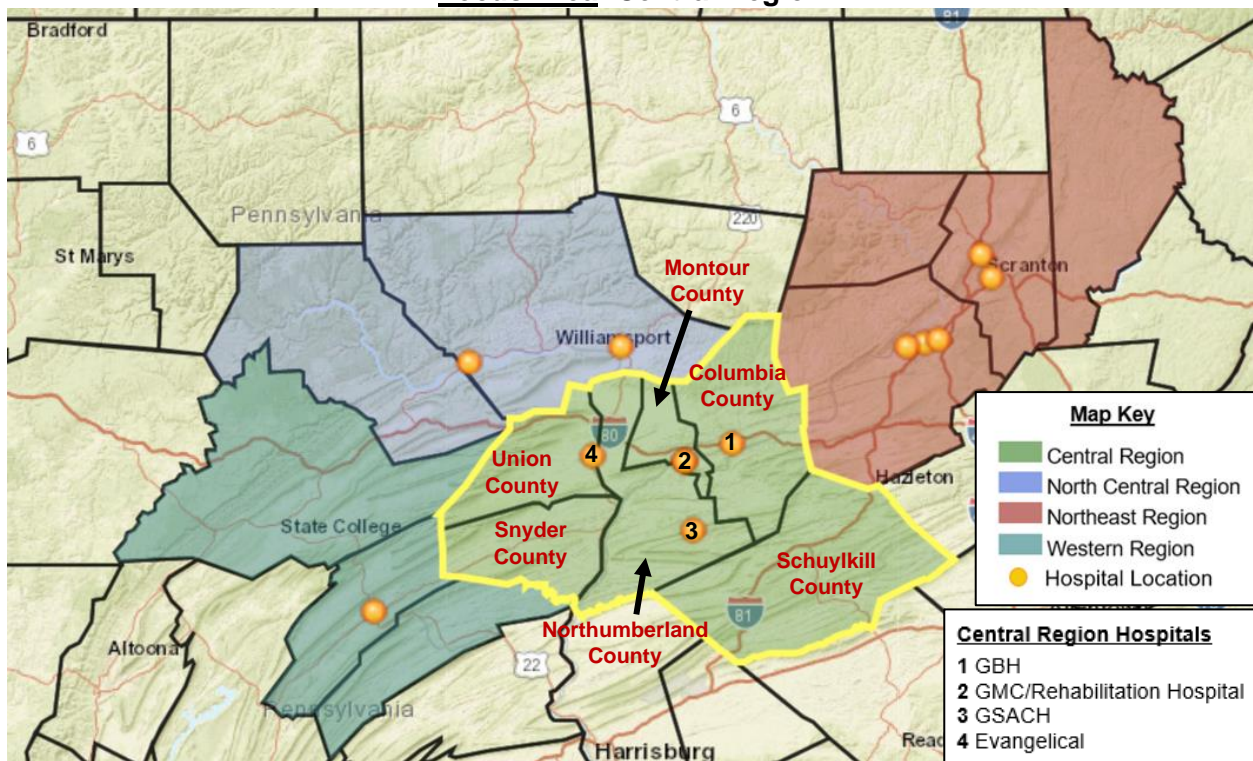
A summary of public health data findings is included in Appendix B. The summary provides a snapshot of areas of strength and opportunity for the region in comparison to state and national benchmarks.

Central Region Service Area

For purposes of the CHNA, Geisinger and its CHNA partners, Allied Services Integrated Health System and Evangelical Community Hospital, focused on their collective primary service areas comprising 15 counties across Pennsylvania. To better understand the strengths and challenges of unique communities across this wide geography, CHNA partners grouped communities into four regional service areas based on common political jurisdictions, geographical considerations, population trends, and related factors.

The Central Region is comprised of 6 counties and is primarily served by the following hospitals: Geisinger Bloomsburg Hospital (GBH), Geisinger Medical Center (GMC), Geisinger Encompass Health Rehabilitation Hospital (Rehabilitation Hospital), Geisinger Shamokin Area Community Hospital (GSACH), and Evangelical Community Hospital (Evangelical), as shown on the map below.

2021 CHNA 15-County Service Area Focus Area: Central Region



Central Region Population Trends

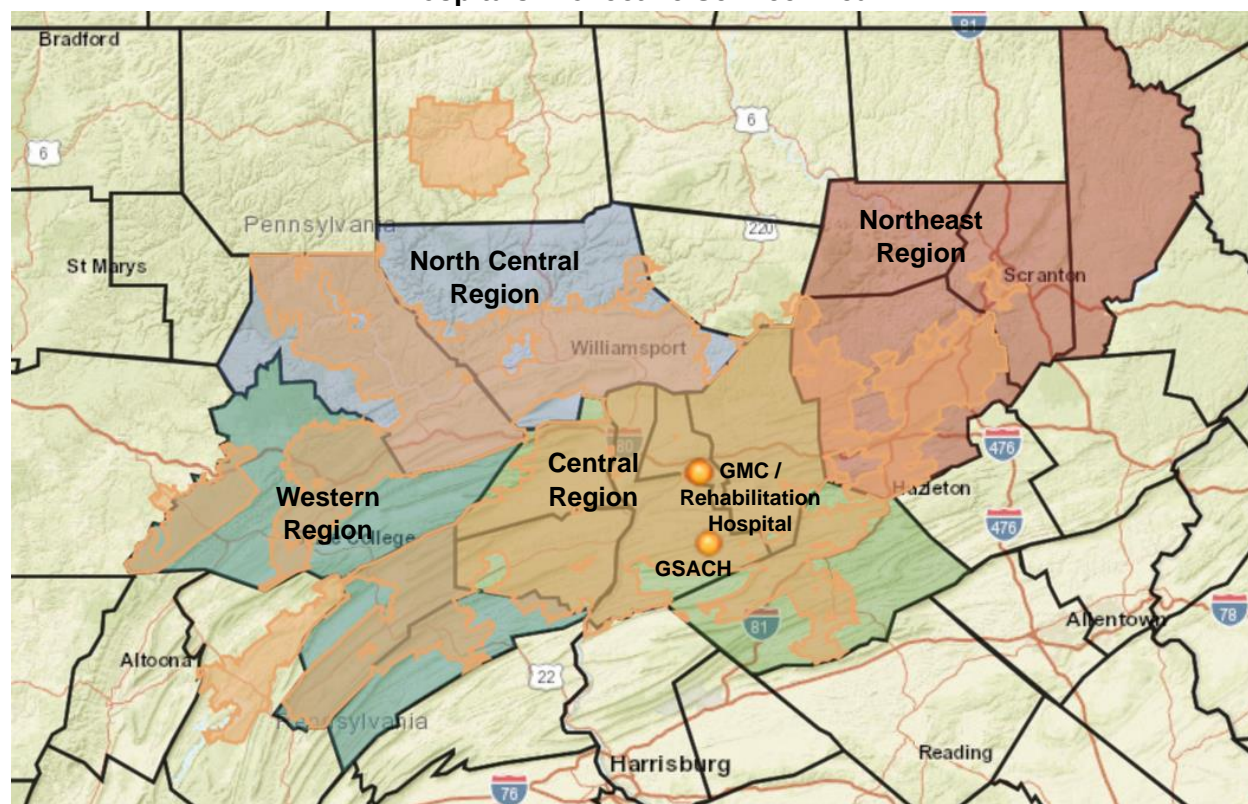
	2017 Population*	2020 Population	Growth 2017-2020	Growth by 2025
Columbia County	67,293	66,324	-1.4%	-0.8%
Montour County	19,011	18,414	-3.1%	-0.7%
Northumberland County	94,060	91,329	-2.9%	-3.0%
Schuylkill County	146,871	143,461	-2.3%	-2.7%
Snyder County	41,142	41,401	0.6%	1.8%
Union County	45,358	44,331	-2.3%	1.1%
Total Population	413,735	405,260	-2.0%	-1.5%

*Population as measured at the time of the FY2019 CHNA.

Geisinger Medical Center, Geisinger Shamokin Area Community Hospital, and Geisinger Encompass Health Rehabilitation Hospital Service Area Description

Geisinger Medical Center and Geisinger Shamokin Area Community Hospital operate under the same license, and as such are considered a single entity for purposes of the CHNA. Geisinger Encompass Health Rehabilitation Hospital is located on the campus of Geisinger Medical Center and is operated as a partnership between Geisinger Medical Center and Encompass Health Corporation. Collectively, the three facilities primarily serve residents in 81 zip codes spanning 15 counties in Pennsylvania, as shown in the map below. The primary service area, identified based on the patient zip codes of origin comprising 80% of hospital discharges in fiscal year 2019, is largely within the CHNA Central Region.

Hospitals' Collective Service Area



Primary Service Area Zip Codes by County

County	Number of Zip Codes	County	Number of Zip Codes
Centre County	5	Mifflin County	4
Clinton County	4	Montour County	1
Columbia County	7	Northumberland County	14
Huntingdon County	1	Schuylkill County	10
Juniata County	2	Snyder County	6
Lackawanna County	2	Tioga County	1
Luzerne County	11	Union County	5
Lycoming County	8		

Population Overview

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 data indicators for five socioeconomic barriers:

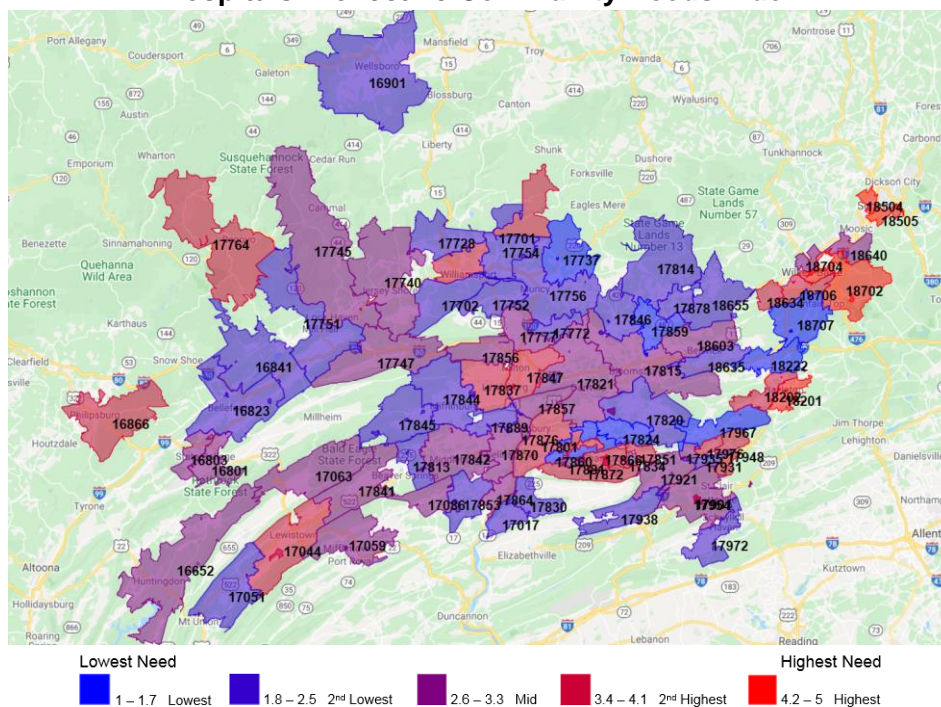
- > Income: Poverty among elderly households, families with children, and single female-headed families with children
- > Culture/Language: Minority populations and English language barriers
- > Education: Population over 25 years without a high school diploma
- > Insurance coverage: Unemployment rate among population 16 years or over and population without health insurance
- > Housing status: Householders renting their home

The weighted average CNI score for the collective service area is 3.0, indicating moderate overall community need. CNI scores by service area zip code are shown in the map below.

More than half of the service area zip codes with a CNI score of 3.0 or higher are located in Luzerne, Northumberland, and Schuylkill counties

Of the 81 total service area zip codes, 31 have a CNI score of 3.0 or higher. More than half of the zip codes with a CNI score of 3.0 or higher are located in Luzerne (7 zip codes), Northumberland (6 zip codes), and Schuylkill (4 zip codes) counties. Zip codes with the highest CNI scores of 4.0 or higher include 18504 and 18505 in Scranton, Lackawanna County; 18201, Hazleton and 18702, Wilkes-Barre in Luzerne County; and 17948, Mahanoy City and 17976, Shenandoah in Schuylkill County.

Hospitals' Collective Community Needs Index



The following tables analyze demographic characteristics and select social determinants of health for the entire service area and zip codes with a CNI score of 3.0 or higher. Cells highlighted in **yellow** are at least 3 percentage points *higher* than the state and nation.

The service area comprises a majority White population; 87% of residents identify as White compared to 69% nationwide. Consistent with historical racial and ethnic disparities, zip codes with high CNI scores of at least 4.0 are generally home to more diverse populations, particularly Black and/or Latinx (any race). The service area population is older than the state overall with 20% of residents age 65 or over. Consistent with an older population, the total population will decline marginally by 2025.

2020 Population (pop.) Demographics for Zip Codes with CNI Score of 3.0 or Higher

	Total Pop.	Pop. Growth by 2025	Asian	Black	White	Latinx (any race)	Under Age 18	Age 65 or Over
16652, Huntingdon	18,248	-1.2%	1.5%	12.5%	81.9%	3.7%	13.9%	18.6%
16801, State College	46,017	3.6%	10.9%	3.2%	82.6%	3.8%	10.6%	12.1%
16803, State College	25,025	4.0%	14.6%	7.1%	74.2%	4.5%	12.9%	12.1%
16866, Philipsburg	10,935	1.3%	1.2%	3.4%	88.8%	12.4%	16.0%	19.1%
17044, Lewistown	21,324	-0.7%	0.9%	1.3%	95.1%	2.5%	18.9%	23.4%
17059, Mifflintown	8,072	2.0%	1.0%	0.6%	93.3%	7.9%	22.3%	21.0%
17701, Williamsport	43,486	-1.4%	1.0%	10.3%	83.1%	3.6%	18.7%	18.9%
17745, Lock Haven	18,620	-1.7%	1.0%	2.8%	93.6%	2.2%	16.2%	18.8%
17764, Renovo	2,447	-0.6%	0.1%	0.1%	98.1%	0.9%	18.8%	25.5%
17801, Sunbury	5,729	0.5%	2.0%	29.8%	56.0%	21.9%	8.6%	8.4%
17834, Kulpmont	3,385	-3.2%	0.6%	0.5%	96.6%	2.2%	17.8%	26.6%
17837, Lewisburg	19,142	1.1%	3.4%	5.0%	86.8%	6.2%	16.1%	19.0%
17847, Milton	11,668	-2.9%	0.5%	2.6%	91.3%	6.7%	20.5%	22.5%
17851, Mount Carmel	7,406	-4.3%	0.5%	1.0%	96.5%	2.4%	17.6%	24.5%
17866, Coal Township	10,240	-2.3%	0.3%	13.1%	82.8%	4.2%	14.3%	20.3%
17870, Selinsgrove	15,243	0.9%	1.5%	2.6%	92.6%	5.0%	16.1%	18.9%
17872, Shamokin	9,704	-3.2%	0.5%	0.8%	95.7%	3.6%	21.5%	20.2%
17935, Girardville	1,517	-5.2%	0.0%	1.7%	95.6%	3.3%	17.7%	22.3%
17948, Mahanoy City	6,890	-2.9%	0.3%	20.0%	69.5%	13.3%	12.8%	15.4%
17954, Minersville	4,664	-1.5%	0.6%	1.9%	93.1%	5.0%	22.3%	18.7%
17976, Shenandoah	6,647	-4.2%	0.3%	2.1%	80.5%	24.3%	19.1%	23.6%
18201, Hazleton	27,950	0.4%	0.8%	6.2%	49.8%	61.9%	22.2%	18.3%
18202, Hazleton	14,560	1.7%	1.0%	3.9%	70.9%	35.5%	18.9%	22.9%
18504, Scranton	21,278	-0.4%	2.0%	5.3%	82.7%	14.1%	20.0%	20.2%
18505, Scranton	20,806	0.2%	4.9%	8.4%	70.9%	24.4%	21.4%	20.1%
18603, Berwick	19,132	-0.9%	1.0%	1.2%	93.8%	4.8%	18.4%	22.5%
18634, Nanticoke	13,710	-0.3%	0.6%	3.0%	92.3%	7.1%	16.8%	23.5%
18640, Pittston	17,278	-0.3%	0.7%	2.9%	92.8%	5.8%	17.4%	24.2%
18702, Wilkes-Barre	40,250	-0.1%	2.5%	15.1%	67.0%	23.6%	18.7%	20.0%
18704, Kingston	30,792	-0.5%	2.0%	4.7%	88.1%	8.0%	18.1%	23.0%
18706, Wilkes-Barre	15,793	-1.0%	0.8%	5.1%	88.6%	8.0%	18.1%	22.5%
Total Service Area	889,055	-0.3%	2.1%	4.4%	87.4%	8.1%	18.1%	20.1%
PA	--	0.9%	3.8%	11.4%	78.5%	8.2%	19.9%	19.3%
US	--	3.6%	5.9%	13.0%	69.4%	18.8%	22.0%	16.6%

Source: Esri

More households in the service area live in poverty than the state and nation overall, and poverty is more prevalent in zip codes with high CNI scores, averaging 18.6% of households. Across the service area, a similar percentage of individuals graduate from high school and/or own their home compared to the state and nation, but notable disparities, particularly related to home ownership, exist among zip codes with high CNI scores. The uninsured percentage is generally low across the service area with few exceptions.

Social Determinants of Health Indicators for Zip Codes with CNI Score of 3.0 or Higher

	2014-2018 Households in Poverty	2020 No High School Diploma	2014-2018 No Health Insurance	2014-2018 Renter Households	2020 CNI	2017 CNI*
16652, Huntingdon	15.3%	10.1%	4.2%	31.4%	3.2	NA
16801, State College**	28.3%	2.3%	3.7%	56.3%	3.2	2.8
16803, State College**	22.8%	1.5%	6.7%	52.7%	3.0	3.0
16866, Philipsburg	17.5%	13.9%	6.2%	24.0%	3.6	3.6
17044, Lewistown	15.2%	9.2%	5.1%	39.4%	3.4	3.4
17059, Mifflintown	12.0%	13.7%	10.5%	29.6%	3.0	2.8
17701, Williamsport	20.0%	10.0%	6.3%	45.9%	3.6	3.8
17745, Lock Haven	20.2%	8.4%	4.2%	43.2%	3.2	3.4
17764, Renovo	25.5%	13.3%	6.6%	31.6%	3.4	3.4
17801, Sunbury	15.6%	12.4%	4.9%	40.7%	3.6	3.4
17834, Kulpmont	21.7%	10.4%	3.6%	27.7%	3.0	2.6
17837, Lewisburg	11.8%	11.6%	4.3%	40.7%	3.6	3.4
17847, Milton	12.5%	11.2%	5.9%	34.8%	3.6	3.2
17851, Mount Carmel	17.1%	12.8%	5.3%	30.5%	3.4	2.6
17866, Coal Township	16.7%	18.0%	6.6%	24.2%	3.6	3.2
17870, Selinsgrove	8.5%	8.4%	7.5%	34.9%	3.0	2.8
17872, Shamokin	24.6%	11.0%	5.7%	37.2%	3.6	3.4
17935, Girardville	18.9%	14.1%	5.2%	25.7%	3.0	2.8
17948, Mahanoy City	22.1%	15.2%	7.3%	31.2%	4.0	4.2
17954, Minersville	19.0%	12.7%	6.1%	41.5%	3.4	3.4
17976, Shenandoah	34.1%	14.1%	8.9%	33.3%	4.0	4.0
18201, Hazleton	21.8%	21.9%	12.8%	43.2%	4.2	4.4
18202, Hazleton	17.3%	15.0%	9.3%	29.8%	3.6	3.8
18504, Scranton	19.3%	12.0%	6.5%	46.0%	4.2	3.2
18505, Scranton	19.8%	14.7%	8.0%	48.2%	4.2	3.8
18603, Berwick	13.8%	11.6%	4.9%	31.6%	3.0	3.0
18634, Nanticoke	17.9%	10.5%	4.8%	35.4%	3.6	3.2
18640, Pittston	13.9%	8.6%	3.1%	30.9%	3.0	2.8
18702, Wilkes-Barre	23.2%	13.5%	7.5%	43.7%	4.2	4.2
18704, Kingston	12.9%	5.5%	4.2%	39.2%	3.0	3.2
18706, Wilkes-Barre	17.8%	7.0%	5.0%	31.3%	3.4	3.2
Total Service Area	15.4%	10.0%	6.5%	34.3%	--	--
PA	12.3%	8.7%	6.2%	31.0%	--	--
US	13.4%	11.3%	9.4%	36.2%	--	--

Source: Esri & Dignity Health

*CNI score reported at the time of the FY2019 CHNA. Zip codes without a reportable CNI score were not included in the FY2019 CHNA service area.

**Data for State College zip codes are impacted by Pennsylvania State University (PSU) students and should be interpreted with caution.

Regional Demographics and Socioeconomics

Analyses of demographic and socioeconomic data are essential in understanding health trends and determining key drivers of health status. Socioeconomic indicators play a significant role in community and individual health. Known as **social determinants of health**, they are defined as factors within the environment in which people live, work, and play that can affect health and quality of life. Social determinants of health are often the root causes of **health disparities**.

Demographic Key Findings

- > The Pennsylvania population as a whole is less diverse than the population nationwide; the Central Region population is less diverse than the state. More than 90% of residents in all counties except Union identify as White compared to 78.5% statewide. Union County has a slightly more diverse population, particularly Black and Latinx, but diversity is skewed by the US Penitentiary located within the county. Research studies have shown that Blacks and Latinxs are incarcerated at a rate 2-5 times higher than Whites.
- > Consistent with the FY2019 CHNA, population diversity within the Central Region is increasing, although at a slower pace than the state and nation. The White population as a percentage of the total population will continue to decline through 2025, with the greatest decline projected in Montour County (2 percentage points), followed by Northumberland and Schuylkill counties (1.4 percentage points).
- > Pennsylvania and Central Region counties have a higher median age than the US, primarily due to a senior population that is growing at a faster rate than the nation overall. Montour, Northumberland, and Schuylkill counties have the highest median ages; nearly 1 in 4 residents in these counties are age 65 or over. Columbia, Snyder, and Union counties have a lower median age in comparison due in part to local universities and a higher proportion of college-age adults.
- > Pennsylvania residents overall are slightly more likely to report a disability when compared to the nation. Residents of Northumberland and Schuylkill counties are more likely to report a disability when compared to the state. Northumberland County has the highest prevalence of disabilities, impacting 7% of youth and 38% of seniors. Statewide averages are 5% and 34% respectively.
- > From 2017 to 2020, the estimated Amish population for the region grew from 1,912 to 2,072. Snyder County has a larger Amish population relative to total county population, which may also contribute to greater language diversity among residents.
- > Residents of all Central Region counties are less likely to have access to internet, including broadband, when compared to the state and nation. All counties except Montour are also less likely to have access to a computer device. Smartphone access is particularly low across the region at approximately 60%-65% compared to a national average of 76%. Within the region, residents of Northumberland County are among the least likely to have a computer device or internet access.

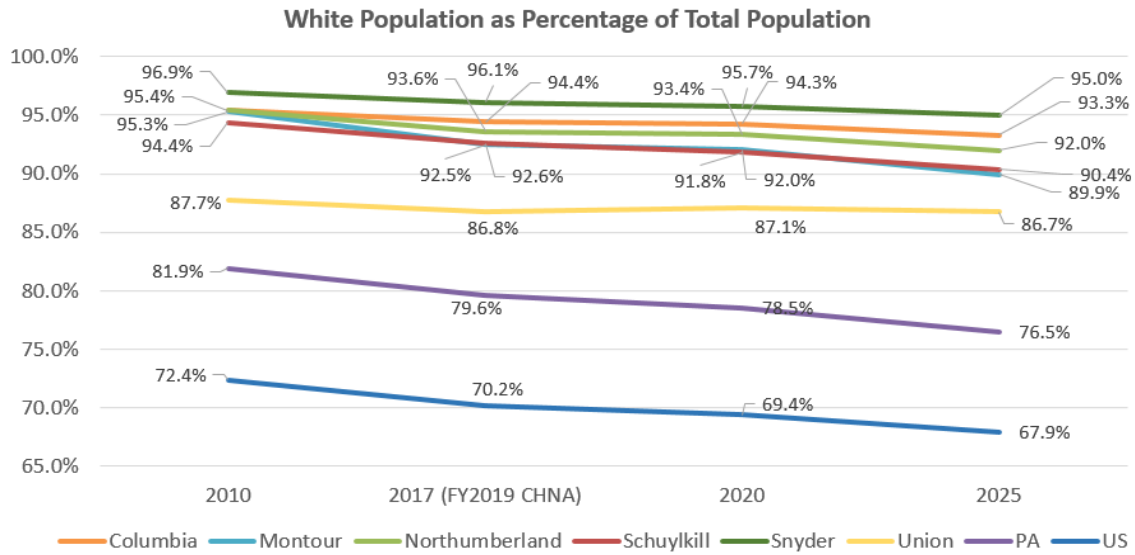
Demographic Data Summary

Yellow highlighting indicates a percentage that is at least 3 points *higher* than the state and nation.

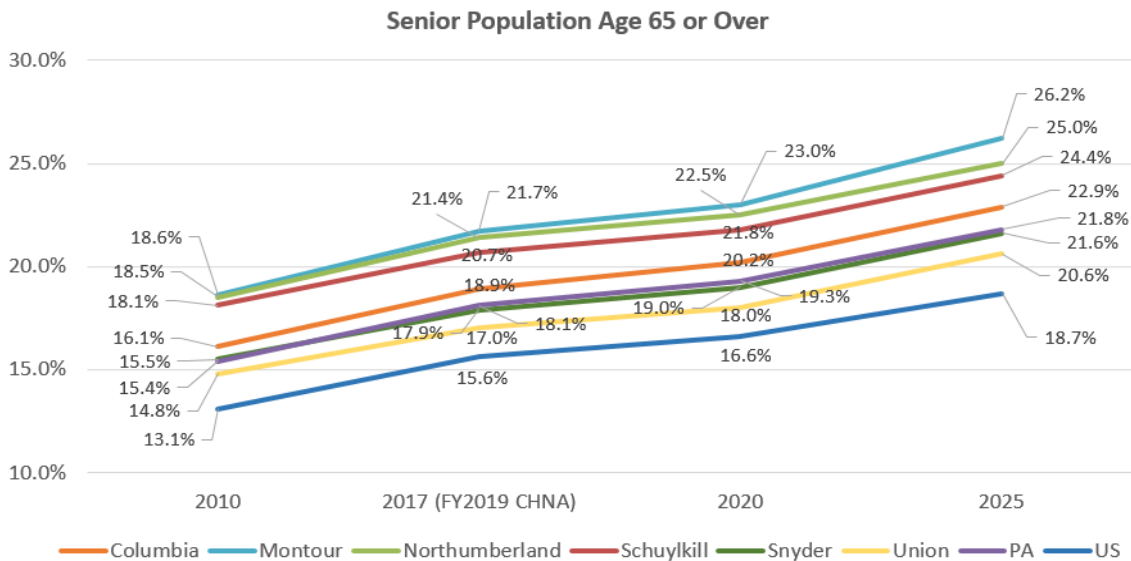
Grey highlighting indicates a percentage that is at least 3 points *lower* than the state and nation.

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA	US
Racial and Ethnic Diversity (ESRI)								
2020 Asian	1.2%	3.7%	0.4%	0.6%	0.8%	1.9%	3.8%	5.9%
2025 Projection	1.4%	5.0%	0.5%	0.6%	0.9%	2.4%	4.5%	6.5%
2020 Black	2.0%	1.8%	2.7%	3.3%	1.3%	6.5%	11.4%	13.0%
2025 Projection	2.2%	2.1%	3.2%	3.6%	1.5%	6.2%	11.8%	13.1%
2020 White	94.3%	92.0%	93.4%	91.8%	95.7%	87.1%	78.5%	69.4%
2025 Projection	93.3%	89.9%	92.0%	90.4%	95.0%	86.7%	76.5%	67.9%
2020 Latinx, any race	3.0%	3.2%	4.0%	5.4%	2.6%	6.3%	8.2%	18.8%
2025 Projection	3.8%	3.9%	5.2%	7.0%	3.2%	6.6%	9.8%	20.1%
Primary language other than English (2014-2018)	3.1%	6.3%	3.9%	4.8%	9.6%	10.5%	11.3%	21.5%
Age Distribution (ESRI, 2020)								
Under 15 years	14.0%	16.2%	15.6%	15.0%	17.2%	14.1%	16.5%	18.4%
15-24 years	17.8%	10.1%	10.2%	9.8%	15.1%	17.6%	12.7%	13.0%
25-34 years	11.4%	11.0%	12.3%	12.4%	11.6%	12.9%	12.8%	14.0%
35-54 years	22.5%	24.0%	24.5%	26.0%	23.3%	24.6%	24.6%	25.0%
55-64 years	14.1%	15.6%	14.8%	14.9%	13.8%	12.9%	14.2%	13.0%
65+ years	20.2%	23.0%	22.5%	21.8%	19.0%	18.0%	19.3%	16.6%
Median Age	41.6	45.6	45.2	45.4	40.4	39.1	41.6	38.5
Disability Status (US Census Bureau, 2014-2018)								
Total population	13.3%	14.2%	16.7%	17.6%	11.9%	12.8%	13.9%	12.6%
Under 18 years	4.4%	3.5%	6.5%	7.3%	4.5%	3.2%	5.3%	4.2%
65+ years	30.6%	32.7%	36.0%	37.8%	30.7%	36.3%	34.1%	35.0%
Ambulatory	17.8%	17.6%	21.8%	23.2%	16.3%	23.1%	21.2%	22.2%
Independent Living	11.7%	13.9%	14.4%	12.6%	13.7%	11.2%	14.2%	14.5%
Hearing	13.1%	15.0%	15.0%	16.1%	14.4%	19.7%	14.1%	14.6%
Cognitive	6.3%	7.0%	7.9%	7.9%	8.0%	8.4%	8.0%	8.8%
Vision	4.4%	4.9%	7.2%	6.2%	3.9%	6.8%	5.7%	6.4%
Household Internet/Digital Access (US Census Bureau, 2014-2018)								
Computer device (1+)	83.5%	83.8%	78.5%	81.6%	81.4%	82.6%	86.5%	88.8%
Desktop/laptop	73.4%	74.4%	68.3%	72.0%	72.2%	74.1%	76.6%	77.9%
Smartphone	64.0%	66.2%	59.3%	63.5%	63.8%	62.2%	70.9%	75.9%
Other	48.0%	54.7%	45.5%	49.2%	51.8%	51.4%	57.9%	61.5%
Internet subscription	76.4%	76.6%	71.4%	74.8%	74.0%	74.6%	79.9%	80.9%
Dial-up only	0.8%	0.9%	1.0%	0.8%	0.9%	1.1%	0.7%	0.5%
Broadband	75.7%	75.6%	70.4%	74.0%	73.2%	73.5%	79.2%	80.4%

Notable Demographic Trends



Source: Esri Business Analyst



Source: Esri Business Analyst

Estimated Amish Population (pop.) by Settlement

County	Settlements	2017 Pop.	2020 Pop.	% Change
Columbia/Montour	Bloomsburg/Danville	662	763	15.3%
Montour/ Northumberland	Turbotville/Danville	328	286	-12.8%
Northumberland	Northumberland/Dornsife	452	496	9.7%
Snyder	McClure	320	373	16.6%
Union	Winfield	150	154	2.7%
Central Region		1,912	2,072	8.4%
Pennsylvania		74,251	81,499	9.8%

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

Socioeconomic Key Findings

- > All Central Region counties except Montour have a higher proportion of blue-collar workers than the state and nation. Montour County is home to Geisinger Medical Center, which employs thousands of clinical and non-clinical white-collar workers. Montour County also has one of the highest median household incomes and lowest poverty rates in the region, and is the only county to have a higher percentage of residents attaining a bachelor's degree compared to the state and nation.
- > Union County, home to Evangelical Community Hospital and Bucknell University, has similar income and poverty indicators to Montour County and the second highest percentage of residents attaining a bachelor's degree. Snyder County also has strong economic indicators, although they should continue to be monitored as one of the county's top employers, Wood-Mode, recently faced economic uncertainty.
- > A similar percentage of Central Region residents live in poverty with less than a 4-point difference between the counties with the highest (Columbia, 14.3%) and lowest (Snyder, 10.6%) rates. Poverty rates have been largely stable in all counties except Montour, which has seen annual increases despite a growing median household income. This finding is indicative of a widening wealth gap between top and bottom earners.
- > While all Central Region counties have a similar or lower percentage of children living in poverty as the state and nation, Northumberland County has a higher percentage relative to other counties. Northumberland County also has a higher rate of child food insecurity, although child food insecurity declined in all counties from the FY2019 CHNA.
- > COVID-19 has increased unemployment rates. Within the Central Region, unemployment more than doubled in all counties except Snyder from May 2019 to May 2020. Current unemployment is lower for all counties than the state and nation.
- > Pennsylvania and Central Region residents are more likely to own their home when compared to the nation. Residents of Schuylkill, Snyder, and Union counties have the highest home ownership rates, exceeding the state. Homes in the Central Region are generally more affordable with fewer homeowners considered housing cost burdened. Renters in the Central Region are also less likely to report housing cost burden, although rent burden is still significant, affecting nearly half of renters in all counties except Snyder (33%).
- > In general, occupants of older housing have higher rates of chronic disease and accidental injury. Pennsylvania's housing stock is older than the nation's with 70% of homes built before 1980. Central Region housing stock is also older, particularly in Northumberland and Schuylkill counties, where 77%-79% of homes were built before 1980. Union County has the newest housing stock, followed by Montour County.
- > Racial and ethnic socioeconomic disparities exist across the Central Region, although findings should be interpreted with caution due to low population counts. Most notably, poverty rates are as high as 53% among Black residents (Schuylkill County) and 65% among Latinx residents (Union County). In all counties except Montour, Black and Latinx residents are notably less likely to attain higher education.

Socioeconomic Data Summary¹

Red highlighting indicates potential *disparity* based on at least a 3-point difference from the state and nation.
Green highlighting indicates potential *strength* based on at least a 3-point difference from the state and nation.

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA	US
Income and Poverty (US Census Bureau, 2014-2018)								
Median household income	\$49,889	\$57,183	\$47,063	\$49,190	\$57,638	\$56,026	\$59,445	\$60,293
All people in poverty	14.3%	11.1%	13.9%	12.7%	10.6%	11.3%	12.8%	14.1%
Asian	21.9%	8.7%	23.4%	13.0%	0.0%	3.3%	14.3%	11.5%
Black	42.8%	16.3%	29.0%	53.3%	32.8%	41.2%	26.9%	24.2%
White	13.9%	11.1%	13.2%	11.7%	10.4%	9.6%	10.0%	11.6%
Latinx ²	37.5%	41.0%	44.4%	36.4%	19.4%	65.2%	29.4%	21.0%
Children	17.1%	16.7%	19.5%	17.3%	17.8%	13.6%	18.1%	19.5%
Seniors	8.0%	6.7%	9.4%	9.1%	10.0%	8.5%	8.1%	9.3%
Households with SNAP ³	11.2%	9.4%	13.5%	15.8%	9.8%	10.7%	13.2%	12.2%
Food Insecurity (Feeding America, 2018)								
All people	10.5%	10.0%	12.1%	11.7%	9.4%	9.5%	10.9%	11.5%
Children	15.9%	14.7%	18.2%	17.6%	14.8%	13.4%	15.1%	15.2%
Unemployment (US Bureau of Labor Statistics)								
May 2019	4.6%	3.3%	5.0%	4.8%	6.3%	4.1%	4.0%	3.4%
May 2020	11.8%	8.9%	12.8%	12.8%	10.1%	9.9%	13.2%	13.0%
Housing (US Census Bureau, 2014-2018)								
Renters	30.5%	31.2%	29.1%	24.6%	27.8%	28.0%	31.0%	36.2%
Cost burden ⁴	44.5%	46.4%	44.2%	47.6%	33.1%	44.8%	48.4%	50.2%
Owners	69.5%	68.8%	70.9%	75.4%	72.2%	72.0%	69.0%	63.8%
Median home value	\$149,100	\$181,500	\$115,200	\$97,400	\$161,400	\$180,200	\$174,100	\$204,900
Cost burden ⁴	24.6%	20.0%	24.5%	25.2%	20.9%	23.1%	26.0%	28.7%
Built before 1980	67.7%	60.6%	77.4%	78.5%	62.2%	58.4%	70.1%	54.2%
Education (ESRI, 2020; US Census Bureau, 2014-2018 race/ethnicity data)								
No high school diploma	8.9%	8.2%	11.5%	10.2%	12.9%	12.2%	8.7%	11.3%
Bachelor's degree+	23.9%	34.7%	17.2%	17.3%	19.7%	27.2%	32.3%	33.1%
Asian	60.1%	85.2%	60.6%	40.0%	67.1%	49.4%	55.4%	53.5%
Black	20.5%	37.4%	7.3%	2.4%	15.9%	5.3%	18.5%	21.1%
White	22.2%	29.9%	16.2%	16.6%	18.2%	27.5%	31.7%	32.9%
Latinx ²	13.2%	48.5%	12.3%	9.2%	17.9%	10.9%	15.8%	15.8%

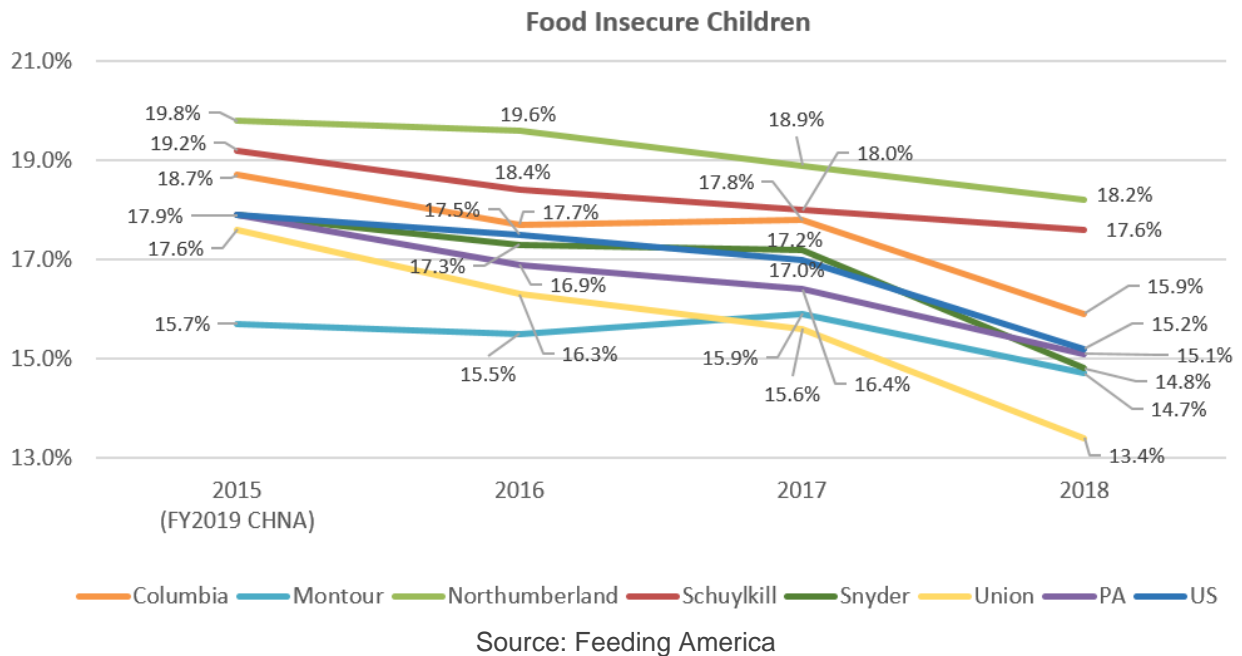
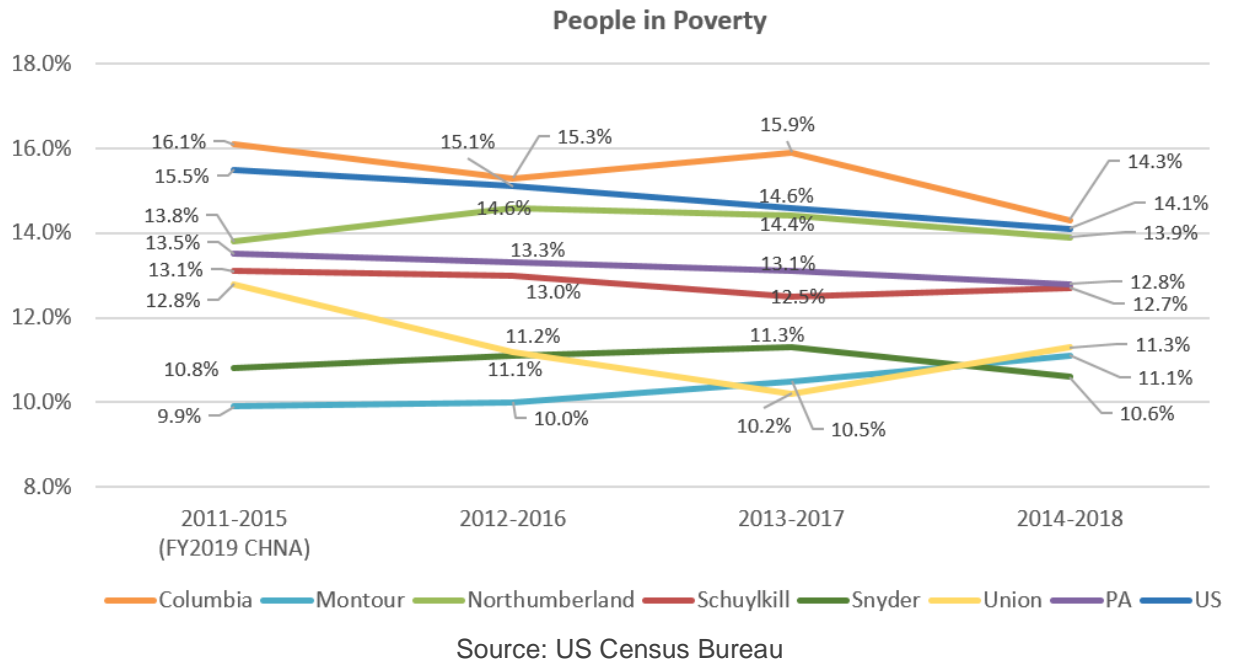
¹ Race/ethnicity data are based on small counts; interpret data findings with caution.

² Latinx, any race

³ Supplemental Nutrition Assistance Program.

⁴ Housing cost burden is defined as renters and owners spending 30% or more of household income on housing-related costs.

Notable Socioeconomic Trends



Public Health Data Analysis

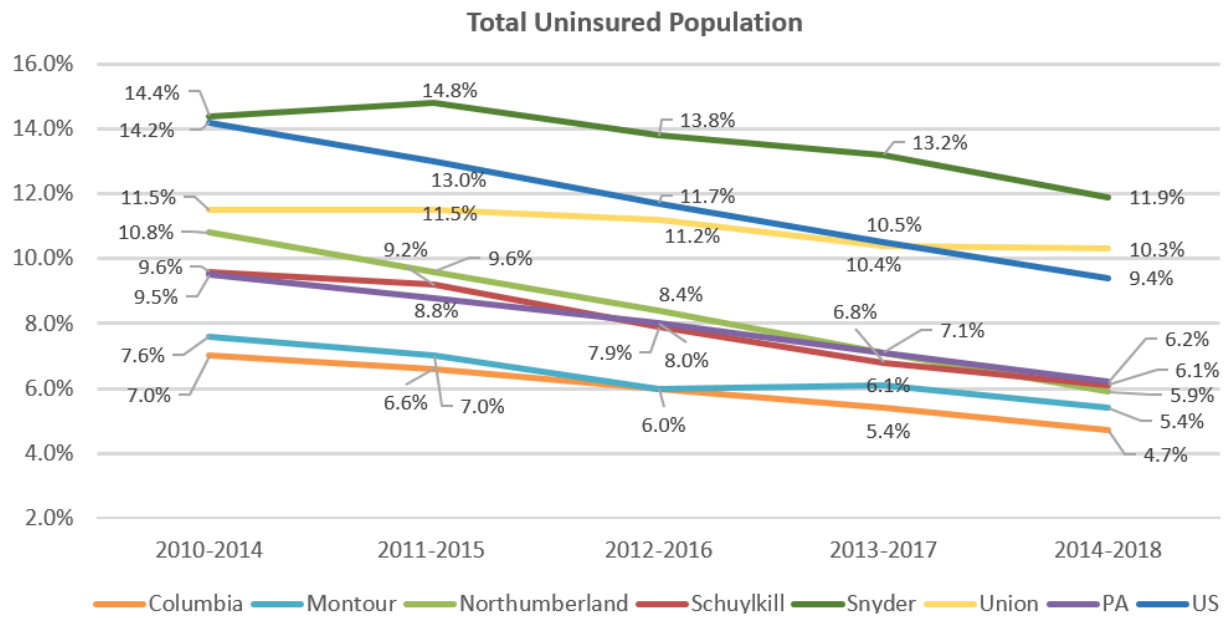
Public health data supports that the FY2019 CHNA priorities of Access to Care, Behavioral Health, and Chronic Disease Prevention and Management continue to be community health needs within the Central Region. These priorities reflect complex needs requiring sustained commitment and resources.

The following sections highlight key public health data findings by topic area, with a focus on priority health needs and vulnerable and high-risk populations.

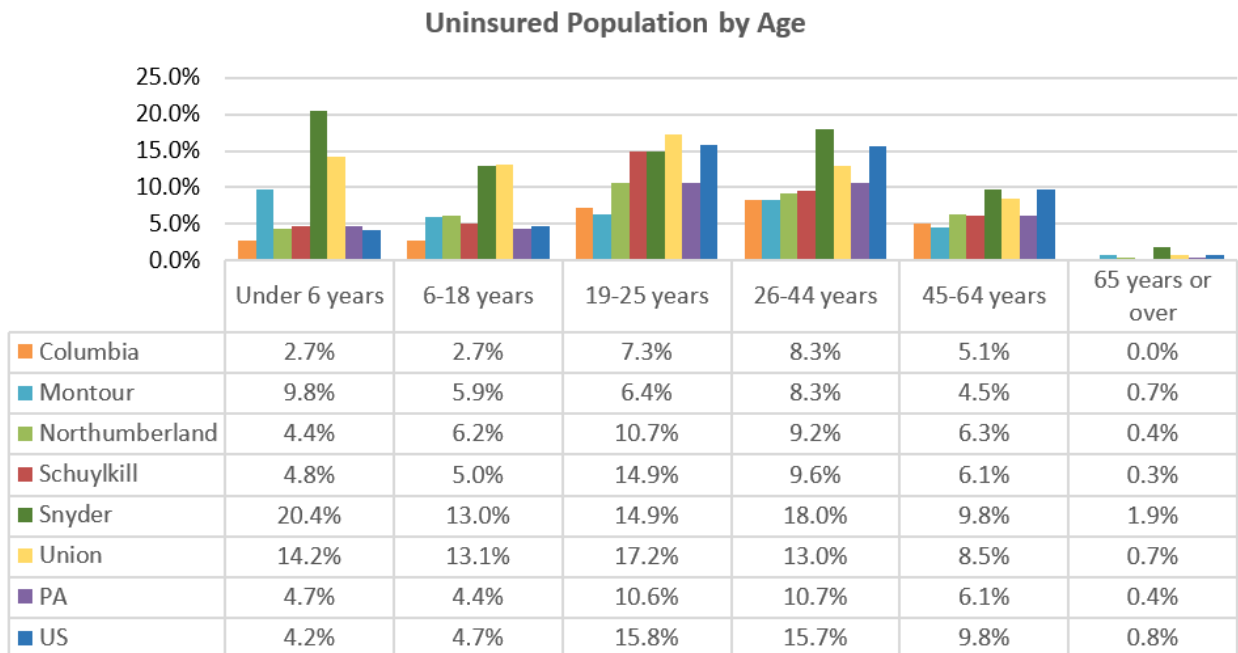
Healthcare Access Key Findings

- > The total uninsured population continued to decline across the region. All counties except Snyder and Union have a lower uninsured population than the state and nation. Snyder and Union county uninsured percentages are particularly high among youth, exceeding statewide averages by triple or more. Montour County also has an elevated uninsured rate among youth under six years.
- > Uninsured rates among Black and Latinx residents declined statewide and nationally, but continue to be disproportionately higher compared to Whites. Similar racial and ethnic disparities exist across the Central Region, although results should be interpreted with caution due to low population counts.
- > Employer-based insurance continues to be the majority coverage type within the Central Region, covering a similar or higher percentage of residents as the state. Consistent with the expansion of Medicaid in PA, the percentage of Medicaid covered residents increased from the FY2019 CHNA. Within the Central Region, Northumberland and Schuylkill counties have the highest Medicaid insured population at 21%.
- > Provider availability is a barrier to healthcare access within the Central Region, outside of Montour County. All counties except Montour and Union have fewer primary care providers (PCP) than the state and nation. Montour and Union, home to Geisinger Medical Center and Evangelical Community Hospital, were the only counties to see increases in PCP availability. All counties except Montour also have fewer dentists than the state and nation; all counties except Union are Health Professional Shortage Areas for low-income residents. The mental health provider rate increased across the region, but all counties except Montour have a lower provider rate than the state and nation.
- > Potentially preventable hospitalizations are inpatient stays that might have been avoided with effective primary or preventative care. Within the Central Region, Northumberland and Schuylkill counties have a higher rate of preventable hospitalizations than the state.
- > COVID-19 has highlighted long-standing, systemic health and socioeconomic disparities among minority populations, particularly Black residents. Across PA, the COVID-19 death rate is more than 3 times higher among Black residents as White residents. Within the Central Region, Columbia, Northumberland, and Schuylkill counties have a higher COVID-19 death rate and higher reported socioeconomic barriers, particularly for Black residents.

Health Insurance Coverage Data



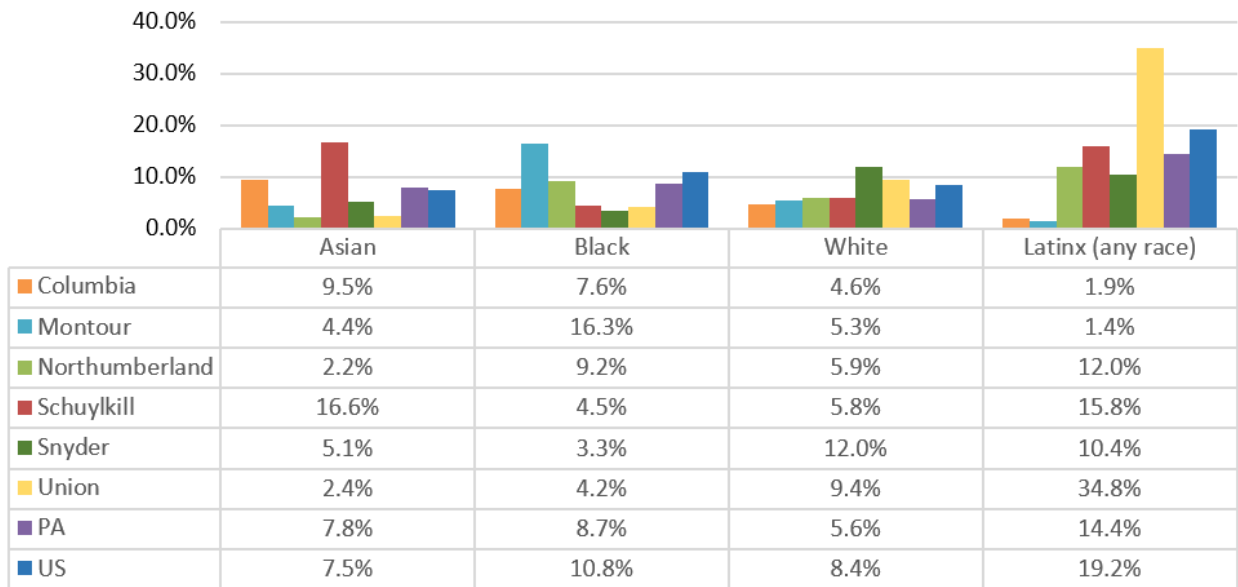
Source: US Census Bureau



Source: US Census Bureau, 2014-2018

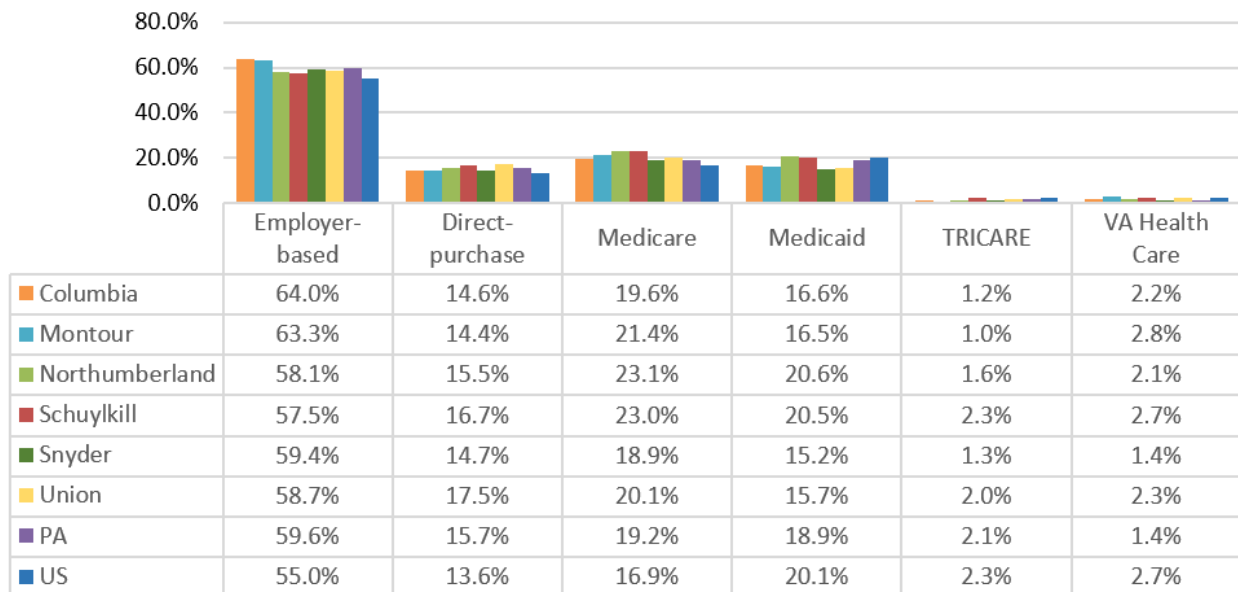
Health Insurance Coverage Data

Uninsured Population by Race & Ethnicity



Source: US Census Bureau, 2014-2018

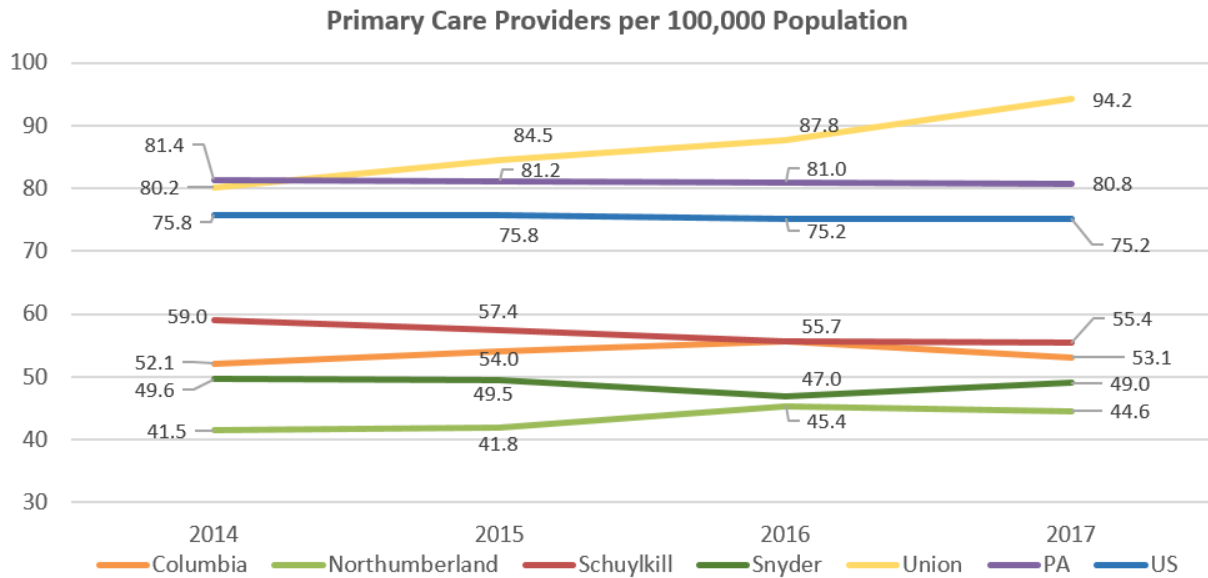
Insured Population by Coverage Types (alone or in combination)



Source: US Census Bureau, 2014-2018

Provider Availability Data

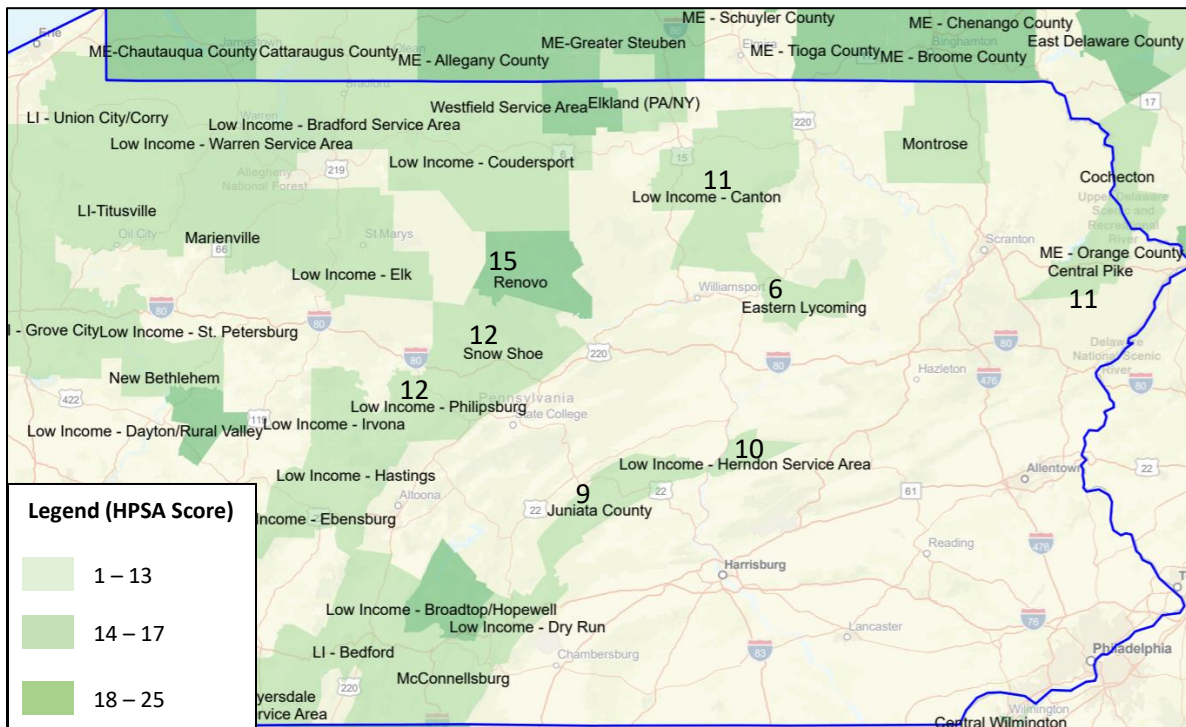
Note: Providers are identified based on their preferred business mailing address; provider rates do not take into account providers that serve multiple counties or satellite clinics.



Source: Health Resources & Services Administration

*Note: Geisinger Medical Center is located in Montour County; the county's 2017 provider rate was 514.4.

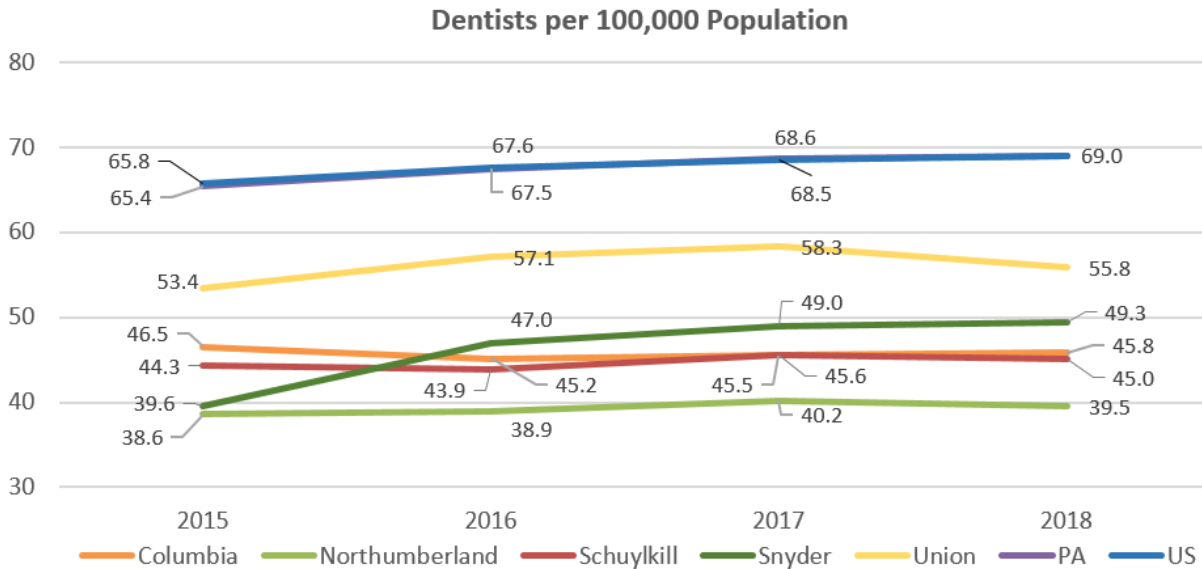
Primary Care Health Professional Shortage Areas (HPSA) HPSA Scores Noted within CHNA Service Counties



Source: Health Resources & Services Administration

*Primary care HPSAs can receive a score between 0-25 with 25 indicating the highest need.

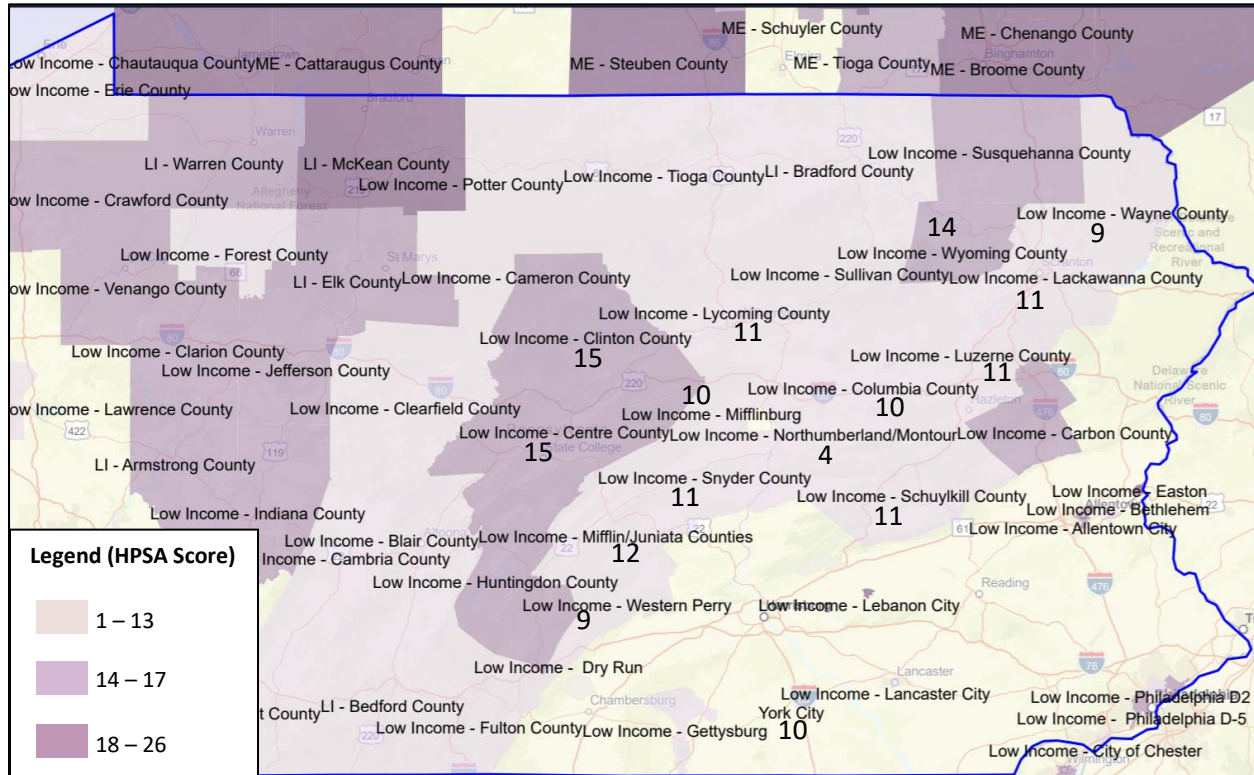
Provider Availability Data



Source: Health Resources & Services Administration

*Note: Geisinger Medical Center is located in Montour County; the county's 2018 provider rate was 115.1.

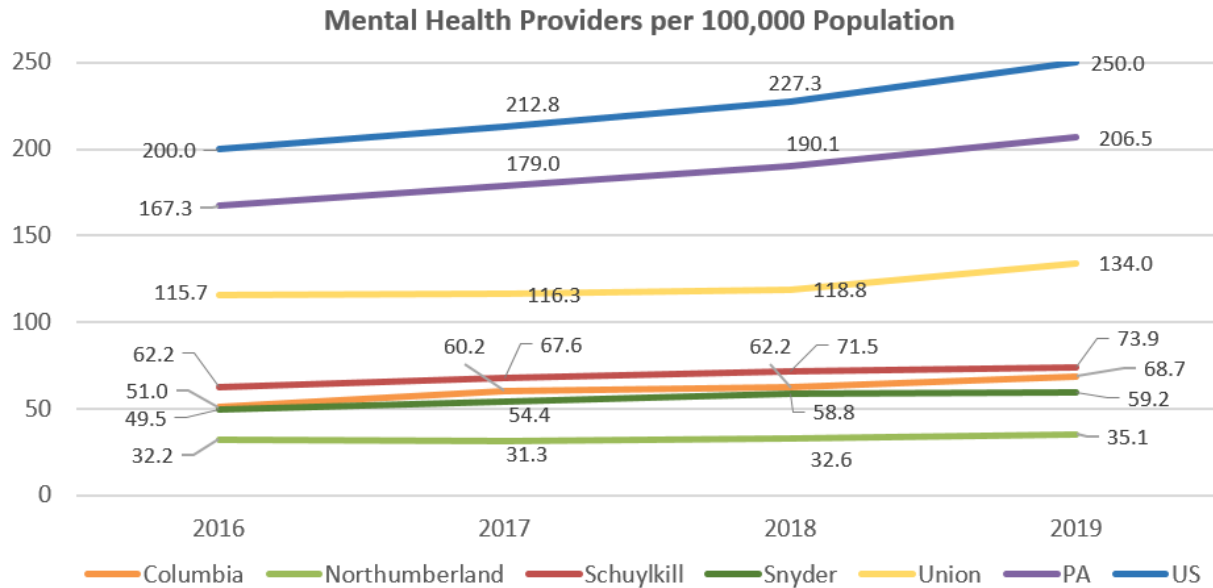
Dental Care Health Professional Shortage Areas (HPSA) HPSA Scores Noted within CHNA Service Counties



Source: Health Resources & Services Administration

*Dental care HPSAs can receive a score between 0-26 with 26 indicating the highest need.

Provider Availability Data

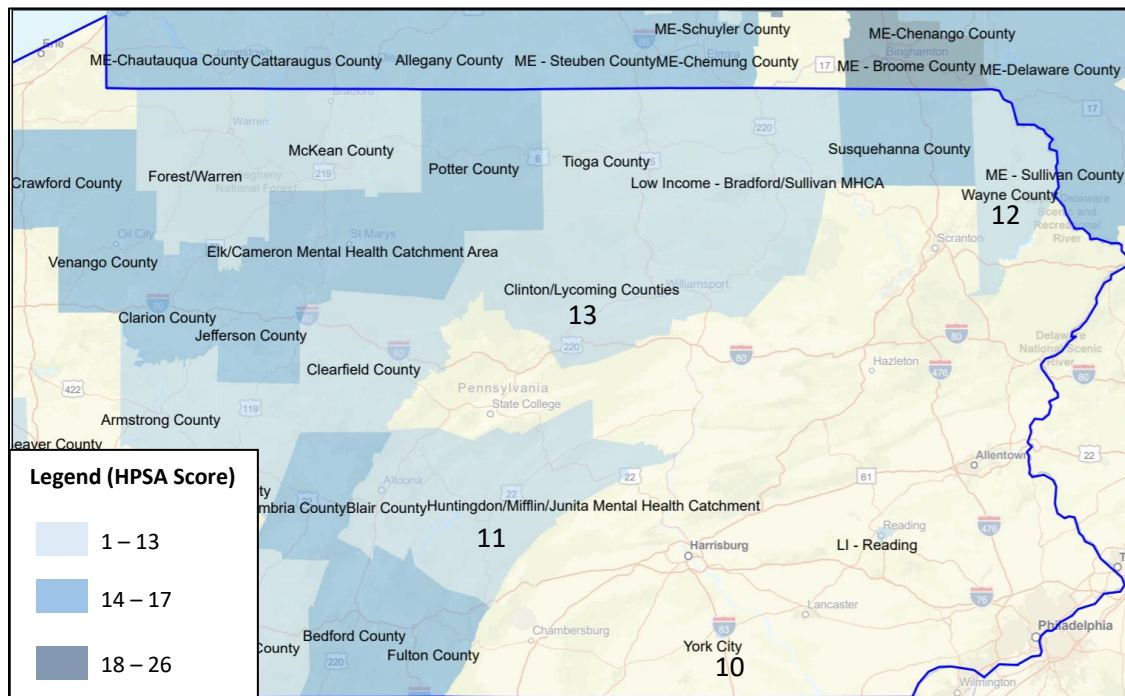


Source: Centers for Medicare and Medicaid Services

*Mental health providers include psychiatrists, psychologists, licensed clinical social workers, counselors, and mental health providers that treat alcohol and other drug abuse, among other providers.

**Note: Geisinger Medical Center is located in Montour County; the county's 2019 provider rate was 515.4.

Mental Health Professional Shortage Areas (HPSA) HPSA Scores Noted within CHNA Service Counties

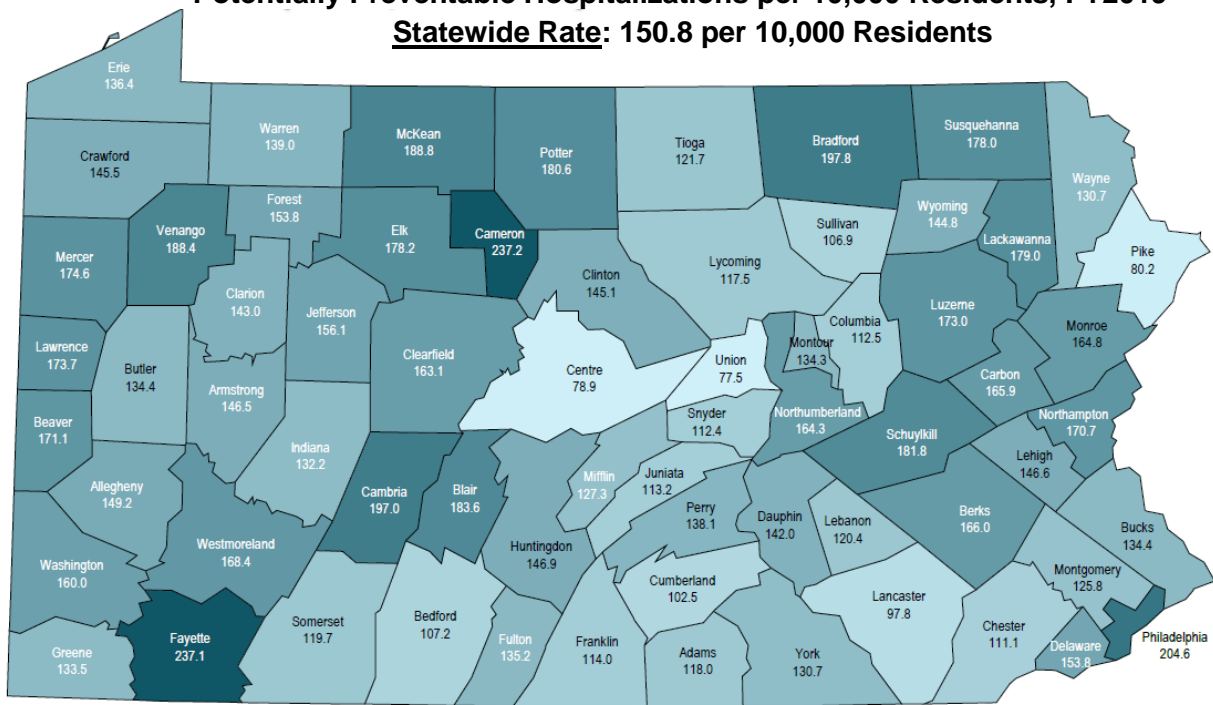


Source: Health Resources & Services Administration

*Mental health HPSAs can receive a score between 0-25 with 25 indicating the highest need.

Preventable Hospitalizations Data

Potentially Preventable Hospitalizations per 10,000 Residents, FY2019 Statewide Rate: 150.8 per 10,000 Residents



Potentially Preventable Hospitalization Rate Per 10,000

77.5 117.4 157.3 197.3 237.2

Source: Pennsylvania Health Care Cost Containment Council (PHC4), July 1, 2018-June 30, 2019

*PHC4 defines potentially preventable hospitalizations as, "Inpatient stays for select conditions that might have been avoided with effective primary or preventive care—thereby avoiding the need for a more expensive hospital admission."

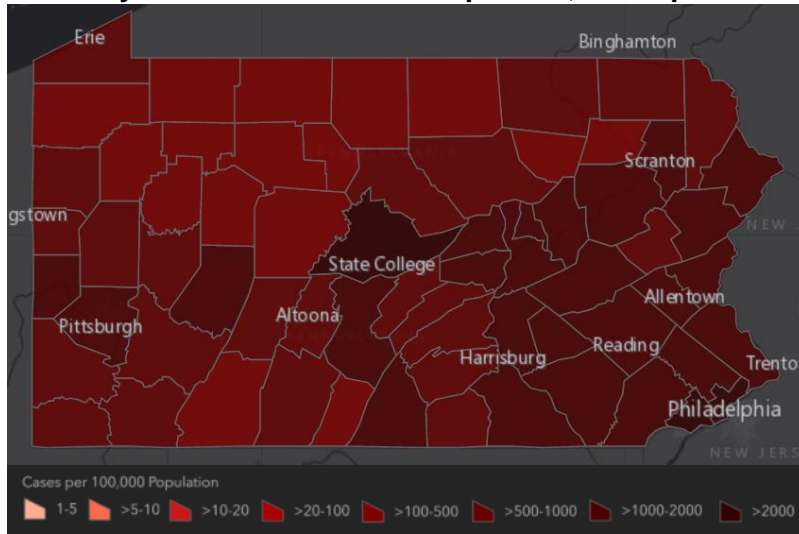
Statewide Potentially Preventable Hospitalizations by Condition, FY2019

Condition	Number of Cases	Percent of Cases	Total Number of Hospital Days
Heart Failure	54,676	35.7%	284,232
COPD or Asthma (adults age 40+)	28,742	18.8%	116,136
Pneumonia	20,472	13.4%	87,354
Urinary Tract Infection	13,974	9.1%	51,454
Diabetes – Long-term Complications	10,641	6.9%	61,254
Diabetes – Short-term Complications	8,387	5.5%	29,718
Hypertension	6,142	4.0%	19,430
Diabetes – Uncontrolled	4,824	3.1%	16,288
Lower Extremity Amputation	3,876	2.5%	41,393
Asthma (adults age 18-39)	1,502	1.0%	4,039
Total	153,236	100%	711,298

Source: Pennsylvania Health Care Cost Containment Council (PHC4), July 1, 2018-June 30, 2019

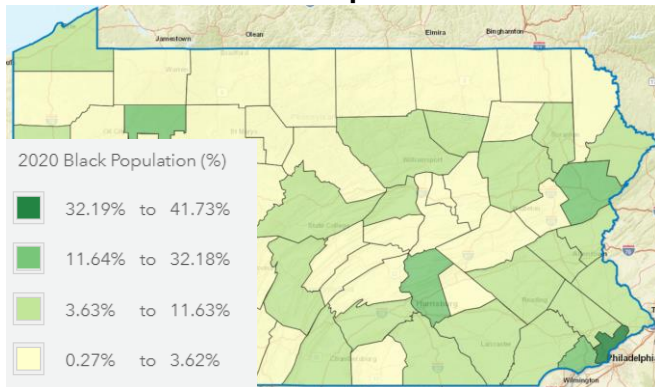
COVID-19 Data

Pennsylvania COVID-19 Cases per 100,000 Population

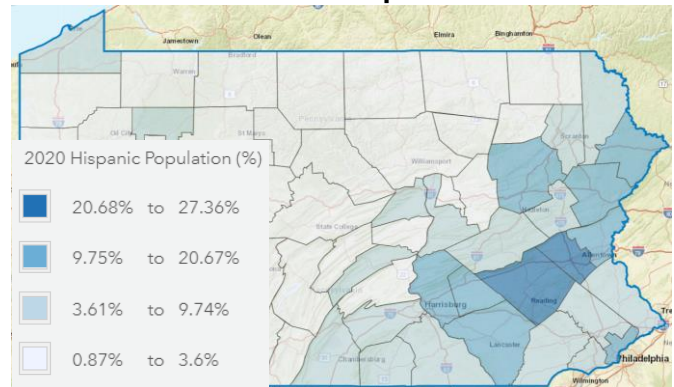


Source: Pennsylvania Department of Health, October 15, 2020

2020 Black Population



2020 Latinx Population



COVID-19 Age-Adjusted Death Rate per 100,000 by Race and Ethnicity

	Black	Latinx	White	Asian
PA	147.7	121.2	43.5	57.1
US	131.3	125.1	38.4	49.7

Source: American Public Media Research Lab, September 15, 2020

Central Region COVID-19 Cases

	Cases	Cases per 100,000	Deaths	Deaths per 100,000
Columbia County	1,013	1,547.6	39	59.6
Montour County	254	1,392.5	5	27.4
Northumberland County	1,302	1,429.5	92	101.0
Schuylkill County	1,495	1,052.3	69	48.6
Snyder County	434	1,070.5	12	29.6
Union County	637	1,422.4	7	15.6

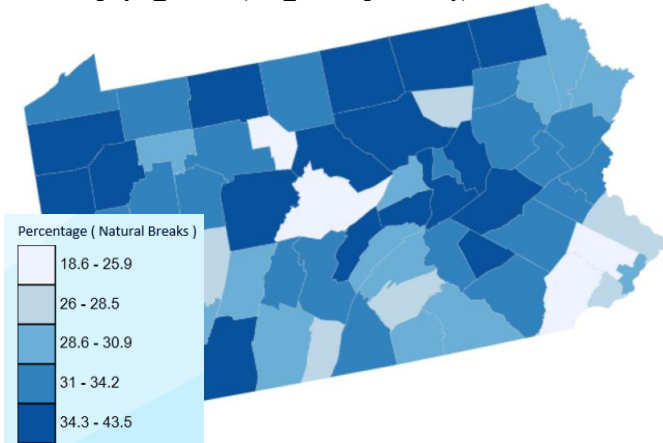
Source: Pennsylvania Department of Health, October 15, 2020

Chronic Disease and Health Risk Factors Key Findings

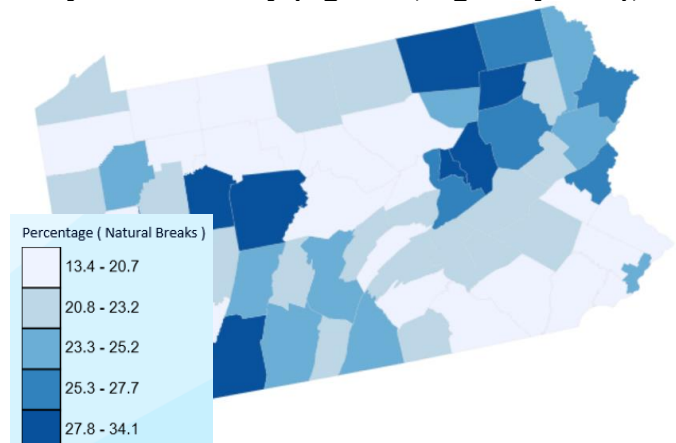
- > Socioeconomic barriers have a direct impact on health. Pennsylvania counties with a lower median income and fewer opportunities for physical activity generally have higher rates of obesity and conditions like diabetes and heart disease. This trend is reflected in the Central Region, particularly in Columbia, Northumberland, and Schuylkill counties.
- > All Central Region counties except Union have a higher prevalence of adult obesity than the state and nation. Columbia, Northumberland, Schuylkill, and Snyder counties have the highest prevalence of adult obesity, and a higher prevalence of adult diabetes. Adult obesity and diabetes are generally on the rise in all four counties. It is worth noting that while Union County has a lower prevalence of adult obesity and diabetes, the diabetes death rate increased 9 points in recent years and exceeds state and national averages.
- > Youth obesity is also higher in the Central Region. As of the 2017-2018 school year, 20% (Union) to 26% (Columbia, Northumberland) of students in grades 7-12 were obese compared to 19.5% of their peers statewide. Consistent with adult obesity trends, Columbia, Northumberland, Schuylkill, and Snyder counties saw the largest increase in youth obesity.
- > Adult smoking continued to decline across the nation, but increased in PA and the Central Region from 2016 to 2017. This trend may be due in part to vaping and e-cigarette use. Union County saw the greatest increase in adult smoking (2 points), but Northumberland and Schuylkill counties continue to have the highest percentage of adult smokers. Northumberland and Schuylkill counties also have higher death rates due to both CLRD and lung cancer compared to the state and nation. It is worth noting that Columbia and Montour counties also have higher rates of death due to CLRD.
- > Youth are particularly vulnerable to vaping/e-cigarette trends. Across PA, approximately 19% of youth report vaping/e-cigarette use. The percentage is higher in Columbia, Northumberland, and Schuylkill counties. However, all counties with reportable data saw significant increases in youth vaping/e-cigarette use from 2015 to 2019.
- > Heart disease and cancer continue to be the leading causes of death statewide and nationally. While heart disease death rates are generally declining, they remain higher in Columbia, Northumberland, and Schuylkill counties. Cancer death rates increased in nearly all counties and currently exceed state and national benchmarks in all counties except Snyder and Union. Schuylkill County has the highest overall cancer death rate. Across the state and nation, Black residents continue to have disproportionately higher death rates due to both heart disease and cancer, among other chronic conditions.
- > Asthma is the most prevalent chronic condition among youth. Snyder County is the only county with a higher prevalence of youth asthma than the state.
- > Union County overall has positive health outcomes, including lower obesity and tobacco use and lower rates of death due to most chronic conditions. In contrast, notable disparities exist within Columbia, Northumberland, and Schuylkill counties, where residents have the highest obesity and tobacco use in the region and among the highest death rates.

Health Risk Factors Data

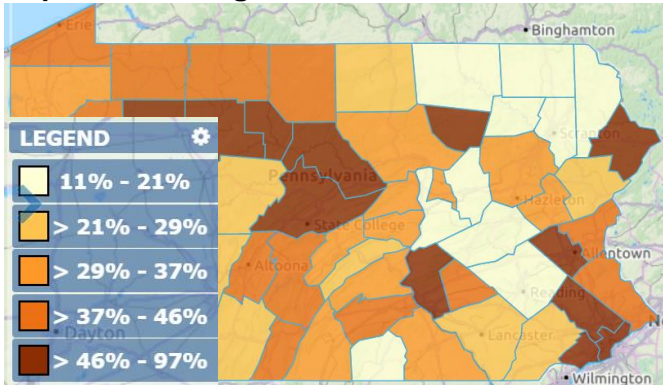
Obesity (Age 20+, Age-Adjusted), 2017



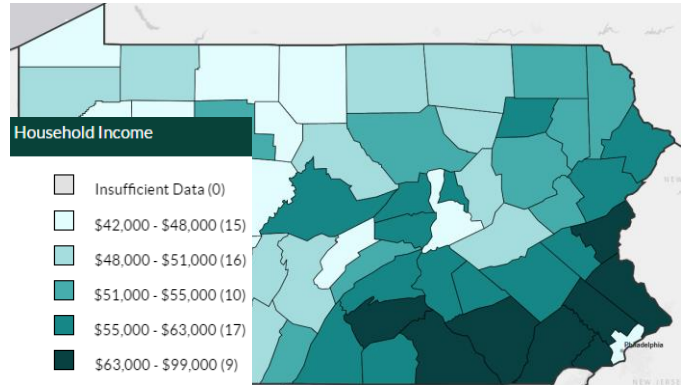
Physical Inactivity (Age 20+, Age-Adjusted), 2017



Population Living within 1/2 Mile of a Park, 2015



Median Household Income, 2014-2018



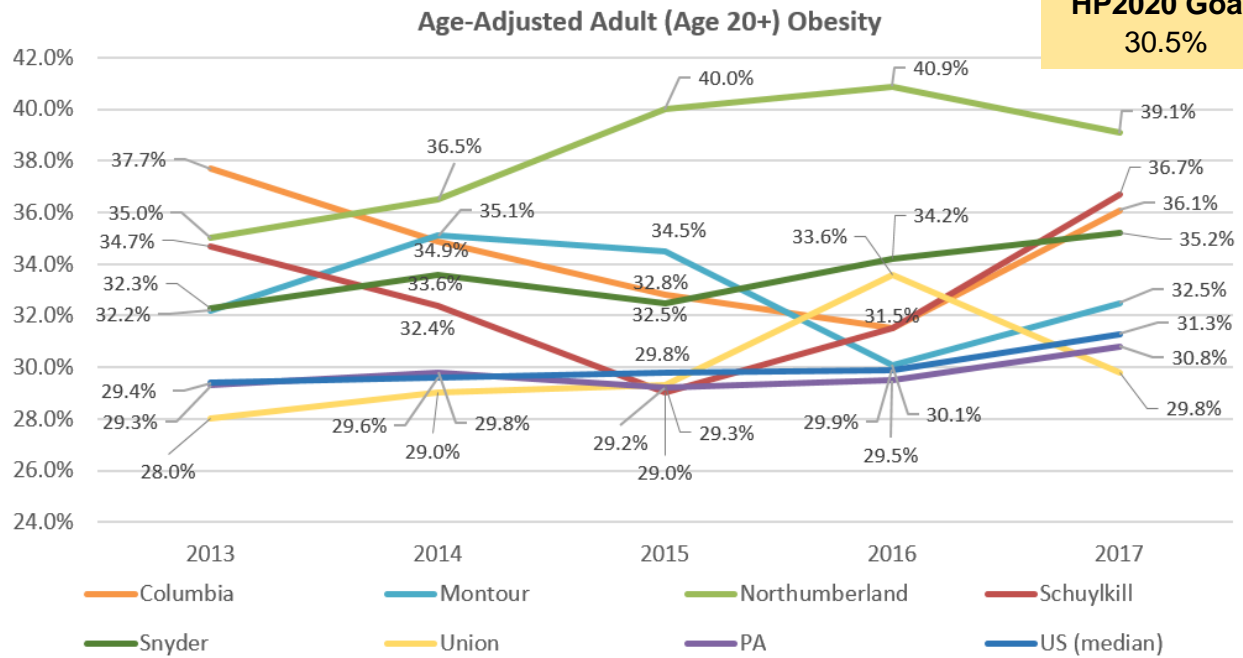
Age-Adjusted Adult (Age 20+) Health Risk Factors and Social Determinants of Health

	Obesity	Physical Inactivity	Population Living within a ½ Mile of a Park	Median Household Income
Columbia County	36.1%	32.7%	10%	\$49,889
Montour County	32.5%	30.5%	33%	\$57,183
Northumberland County	39.1%	26.4%	16%	\$47,063
Schuylkill County	36.7%	23.2%	6%	\$49,190
Snyder County	35.2%	22.2%	3%	\$57,638
Union County	29.8%	19.3%	13%	\$56,026
PA	30.8%	23.9%	47%	\$59,445
US (median)	31.3%	25.6%	NA	\$60,293

Source: Centers for Disease Control and Prevention

*Green highlighting indicates positive socioeconomic *and* health outcomes in comparison to the state and nation; red highlighting indicates negative outcomes.

Health Risk Factors Data



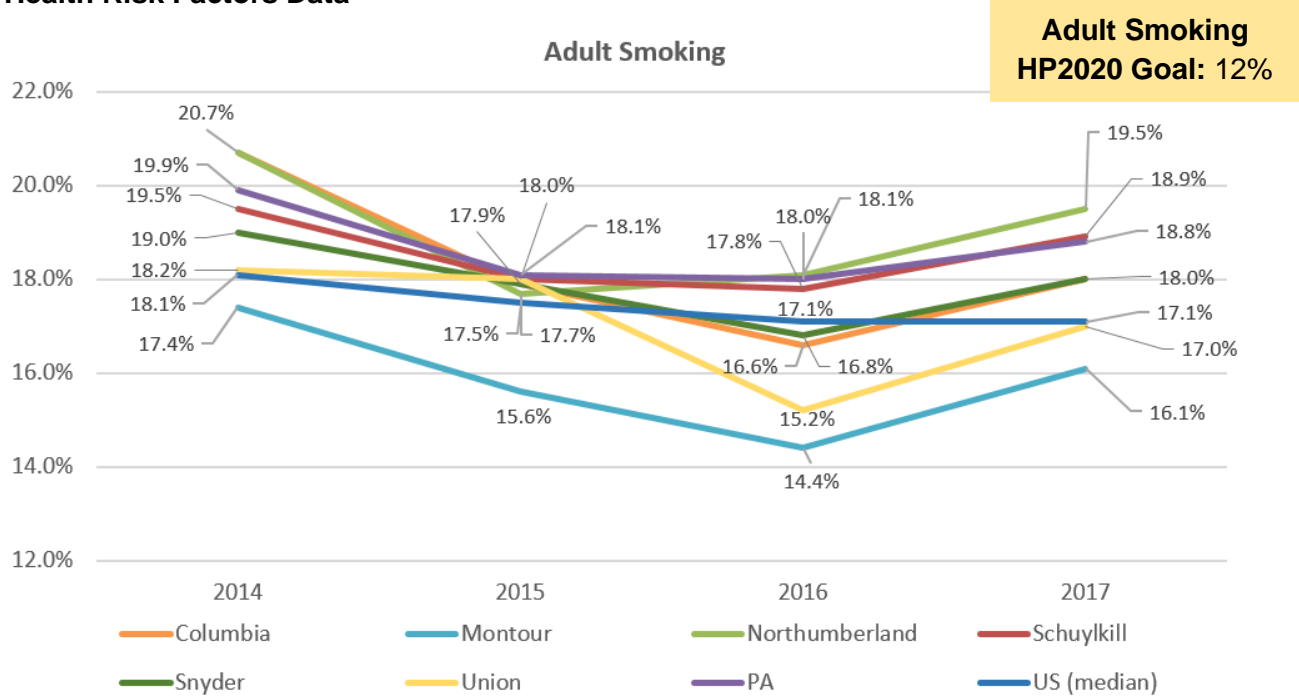
Youth Obesity by School Year

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA
Grades K-6							
2017-2018	20.8%	17.4%	21.0%	21.1%	20.2%	15.9%	16.8%
2016-2017	20.7%	17.2%	21.3%	20.6%	20.1%	16.9%	16.4%
2015-2016	20.4%	17.7%	21.0%	19.3%	19.4%	17.2%	16.7%
2014-2015	20.7%	18.3%	20.1%	19.8%	19.4%	15.3%	16.5%
2013-2014	19.7%	17.7%	21.1%	19.4%	19.1%	15.8%	16.3%
Grades 7-12							
2017-2018	26.3% ▲	22.3%	26.2%	24.3% ▲	24.4% ▲	20.2%	19.5%
2016-2017	25.0%	21.1%	23.8%	22.3%	26.6%	18.9%	18.9%
2015-2016	25.2%	22.0%	25.2%	23.5%	25.5%	19.1%	19.1%
2014-2015	24.4%	21.5%	23.8%	22.7%	22.6%	19.9%	18.6%
2013-2014	23.8%	21.0%	24.3%	21.3%	21.3%	19.2%	18.2%

Source: Pennsylvania Department of Health

*Green highlighting indicates a lower percentage than the state; red highlighting indicates a higher percentage. Trending denoted as increasing (▲) or decreasing (▼) by ≥2 percentage points since 2013-2014.

Health Risk Factors Data



Youth Tobacco Use (Grades 6, 8, 10, 12)

	Columbia County	Northumberland County	Schuylkill County	Snyder County	Union County	PA
Cigarette use within Past 30 Days						
2019	5.5%	4.5%	5.1% ▼	NA	3.0%	3.5%
2017	6.8%	6.8%	7.7%	5.4%	4.7%	5.6%
2015	4.5%	5.3%	7.7%	NA	NA	6.4%
Vaping/E-cigarette use within Past 30 Days						
2019	19.6% ▲	19.6% ▲	23.4% ▲	NA	15.2% ▲	19.0%
2017	14.1%	13.3%	19.1%	10.1%	12.6%	16.3%
2015	12.9%	14.1%	17.0%	NA	NA	15.5%

Source: Pennsylvania Commission on Crime and Delinquency

*Green highlighting indicates a lower percentage than the state; red highlighting indicates a higher percentage. Trending denoted as increasing (▲) or decreasing (▼) by ≥2 percentage points since 2015 or 2017 (Union).

**Montour and Snyder county data are not reported or limited due to low school district participation.

Chronic Disease Data

Leading Chronic Disease Causes of Death, Age-Adjusted Death Rates per 100,000

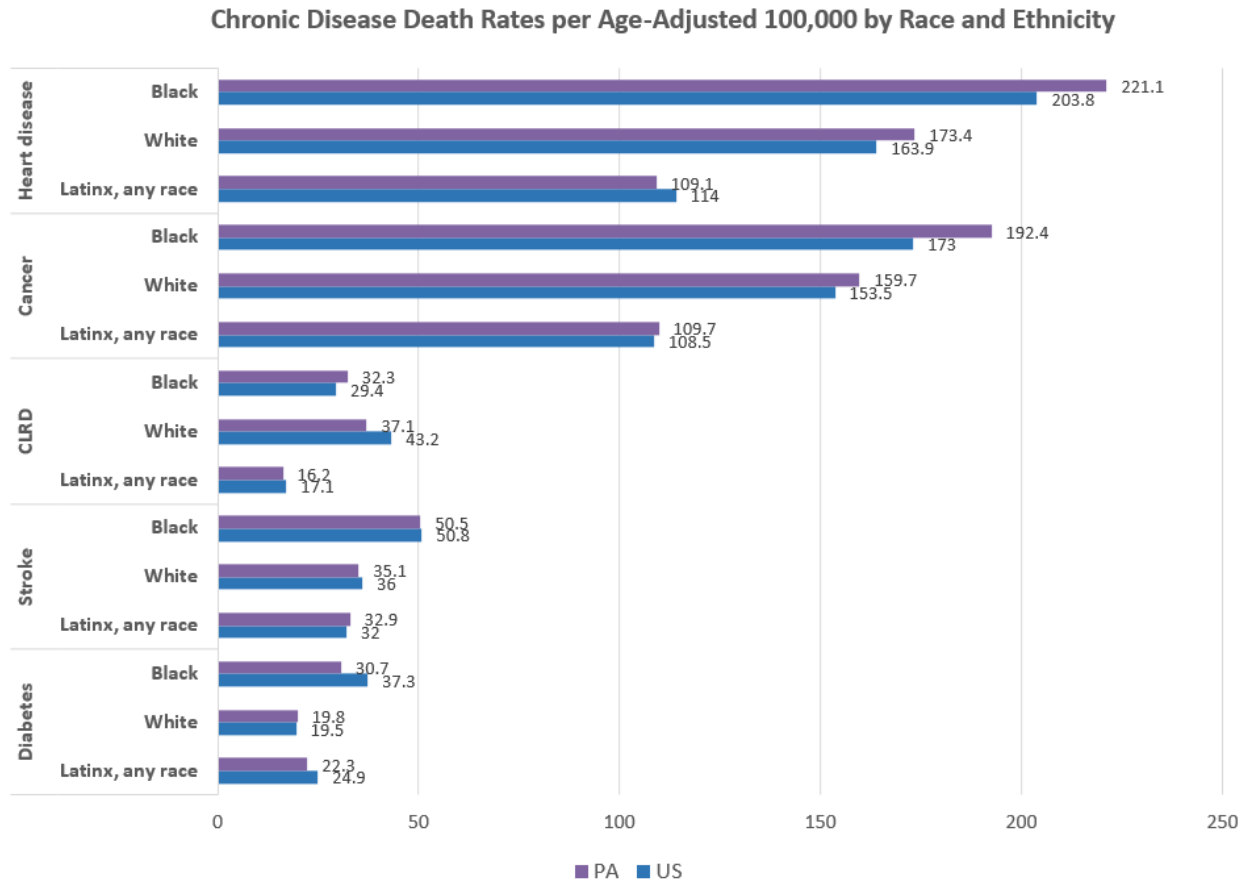
	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA	US
Heart Disease								
2018	180.4 ▼	126.1 ▼	218.4 ▼	238.5 ▼	167.0 ▲	135.2 ▼	176.1	163.6
2017	204.9	101.9	203.9	244.9	143.6	165.4	176.0	165.0
2016	173.4	140.3	189.7	254.4	118.3	142.9	176.2	165.5
2015	236.2	139.7	200.6	251.2	137.2	124.5	177.8	168.5
2014	219.7	138.0	232.2	243.9	144.1	139.0	175.8	167.0
Cancer								
2018	177.7 ▲	177.1	167.9 ▲	192.2 ▲	138.0 ▼	151.3 ▲	156.6	149.1
2017	158.5	155.9	168.9	193.9	132.0	134.9	161.0	152.5
2016	153.0	142.1	188.9	198.0	144.0	115.8	164.7	155.8
2015	155.5	172.2	162.9	195.1	140.9	135.9	167.2	158.5
2014	171.0	177.9	154.8	184.9	146.7	148.3	169.6	161.2
Chronic Lower Respiratory Disease (CLRD)								
2016-2018	42.8	46.9	41.6	43.1 ▼	26.6 ▼	24.2 ▼	36.3	40.4
2015-2017	38.3	41.7	43.9	47.9	30.5	29.6	37.3	41.0
2014-2016	41.8	46.1	43.4	49.5	34.2	26.2	37.3	40.9
Stroke								
2016-2018	30.6	32.8	28.2 ▼	41.7	30.6	25.1 ▼	36.2	37.3
2015-2017	29.1	31.3	33.8	38.8	30.1	31.1	37.4	37.5
2014-2016	30.0	32.7	33.9	40.1	30.1	34.9	37.5	37.2
Diabetes								
2016-2018	12.2 ▼	21.3	23.3 ▲	16.5	20.1 ▲	22.5 ▲	20.5	21.3
2015-2017	11.9	NA	19.1	16.8	14.9	18.5	21.1	21.2
2014-2016	16.1	NA	18.8	18.0	15.8	13.3	21.5	21.1

Source: Centers for Disease Control and Prevention

*Death rates for CLRD, stroke, and diabetes are shown as a 3-year aggregate due to lower death counts.

**Green highlighting indicates a lower rate than the state and nation; red highlighting indicates a higher rate. Trending denoted as increasing (▲) or decreasing (▼) by ≥2 points since 2014/2014-2016.

Chronic Disease Data



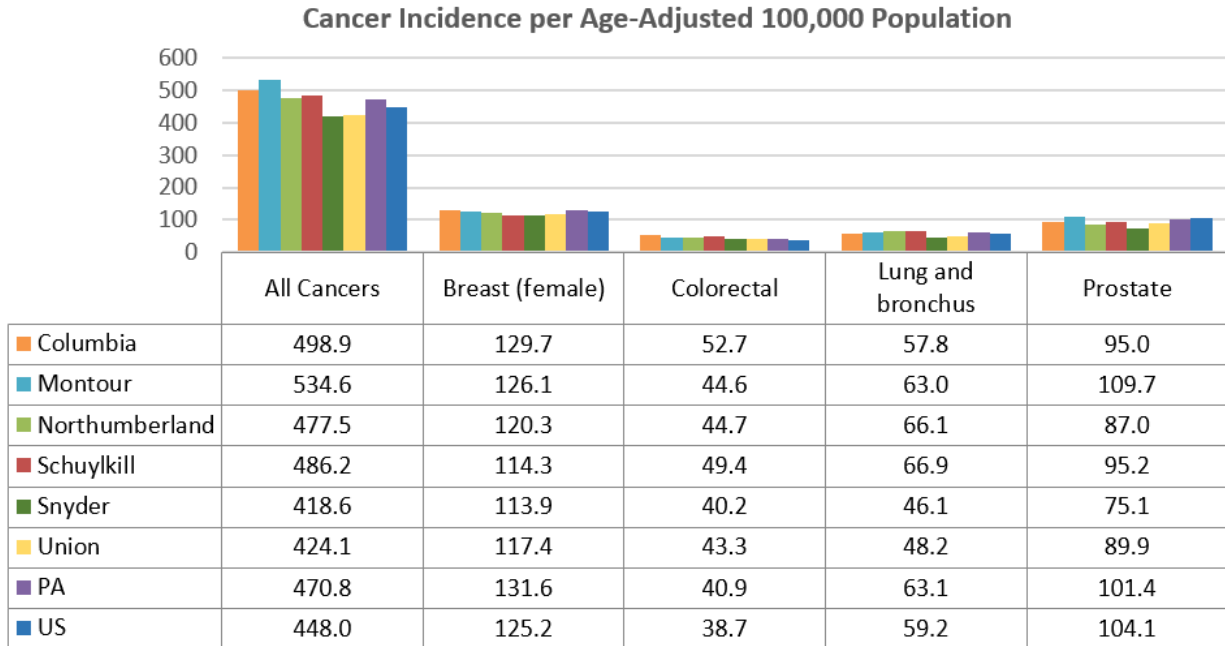
Source: Centers for Disease Control and Prevention, 2016-2018
 *Data for Central Region counties are not reported due to low death counts.

Youth Chronic Disease Prevalence

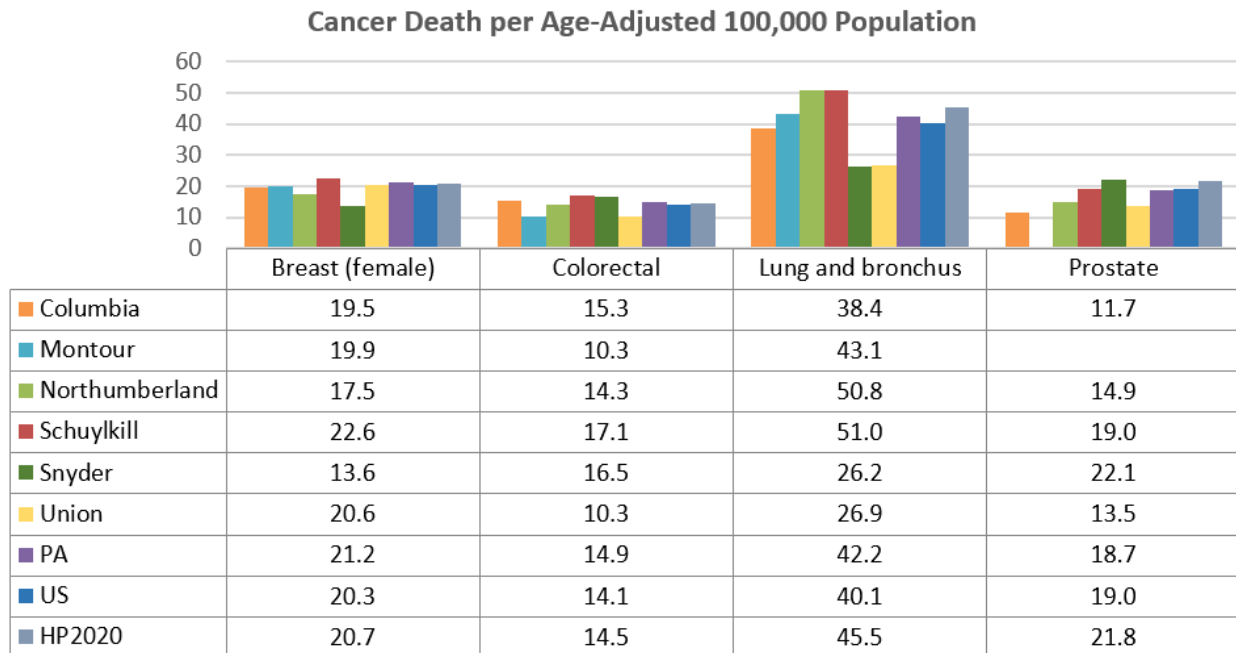
	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA
Asthma							
Total students	946	148	917	1,088	577	322	206,712
Percent	9.6%	6.3%	7.8%	5.7%	12.1%	8.1%	11.3%
Type II Diabetes							
Total students	3	1	15	12	4	0	1,052
Percent	0.03%	0.04%	0.13%	0.06%	0.08%	0.0%	0.06%

Source: Pennsylvania Department of Health, 2017-2018
 *Green highlighting indicates a lower percentage than the state; red highlighting indicates a higher percentage.

Chronic Disease Data



Source: Pennsylvania Department of Health, 2013-2017; Centers for Disease Control and Prevention, 2012-2016 (most recent available)

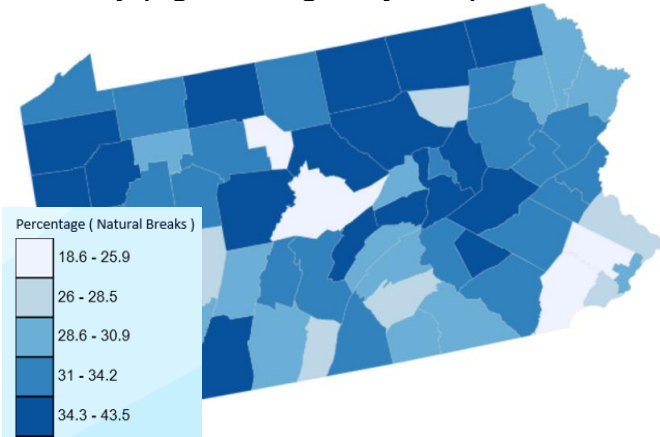


Source: Pennsylvania Department of Health, 2013-2017; Centers for Disease Control and Prevention, 2013-2017

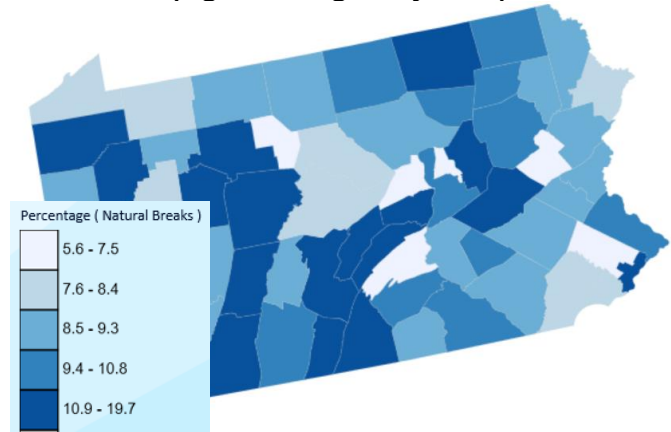
*A Montour County prostate cancer death rate is not reported due to a low death count.

Chronic Disease Data

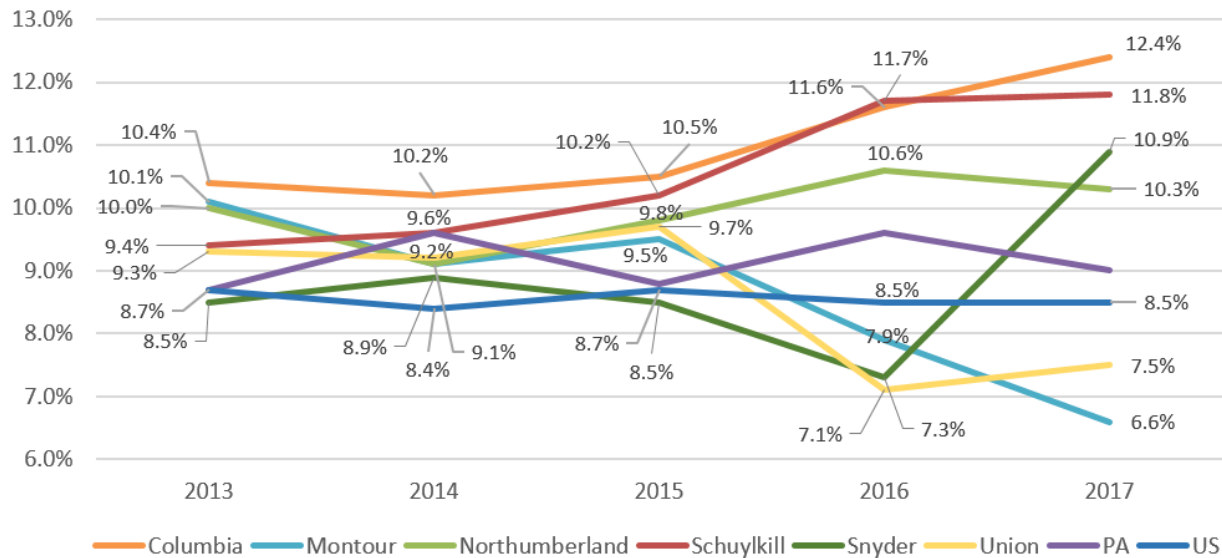
Obesity (Age 20+, Age-Adjusted), 2017



Diabetes (Age 20+, Age-Adjusted), 2017



Age-Adjusted Adult (Age 20+) Diabetes



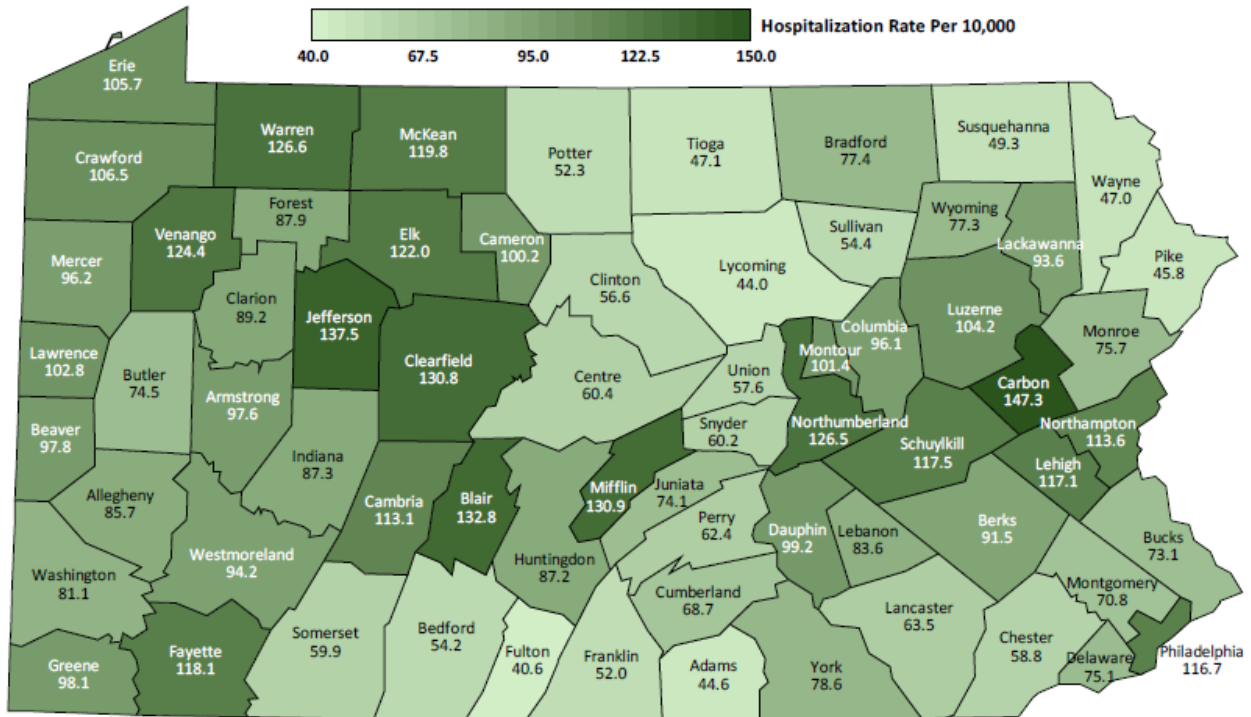
Source: Centers for Disease Control and Prevention

Behavioral Health Key Findings

- > Across the state in 2018, there were 113,704 hospital stays for mental disorders for a rate of 88.8 per 10,000 residents. Depression diagnoses accounted for nearly 44% of all mental disorders hospitalizations. About half of all patients were between the ages of 18-44 and one-third were ages 45-64.
- > All Central Region counties except Snyder and Union have a higher rate of mental disorders hospitalizations than the state. Northumberland County has the highest rate, followed by Schuylkill County. Schuylkill County also has a high suicide death rate that exceeds state and national benchmarks by more than 10 points. Mental distress in Northumberland and Schuylkill counties may be partially attributed to socioeconomic barriers. Statewide, mental disorder hospitalizations were approximately 3 times higher in areas of high poverty and low educational attainment.
- > The Columbia County suicide death rate also increased in recent years and exceeds state and national benchmarks, although to a lesser degree than Schuylkill County.
- > The PA Health Care Cost Containment Council reports that across PA from 2016 to 2017, “the number of hospitalizations for opioid overdose increased from 3,342 to 3,500—a 4.7% increase. In 2018, the number dropped to 2,667—a 23.8% decrease from 2017.” The percentage of overdoses due to pain medication increased from 2017 to 2018, while the percentage due to heroin decreased. Opioid overdose hospitalizations were more prevalent in areas of socioeconomic distress.
- > Opioid overdose hospitalization rates per 10,000 are only reported for Northumberland and Schuylkill counties. The Northumberland County rate (28.8) exceeds the state rate (25.1), but the Schuylkill County rate is lower (22.7). However, of note, Schuylkill County continued to have a higher number of deaths due to overdose than other Central Region counties. While the number of deaths generally declined from 2018 to 2019 across the full 15-county CHNA service region, they remained consistent in Schuylkill County.
- > Neonatal abstinence syndrome (NAS) is another indicator of the prevalence and impact of opioid use disorder. A positive finding is that all Central Region counties have a lower rate of NAS in comparison to the state.
- > Adult excessive drinking increased in all Central Region counties from the FY2019 CHNA, although the increase was marginal for all counties except Union. Union County saw a nearly 3-point increase in adult excessive drinking and leads the region at 22% of adults. Union County also leads the region in the percentage of driving deaths due to alcohol impairment (44% vs. the statewide average of 27%). Of note, Union County also saw an increase in youth alcohol use from 2017 to 2019.
- > Among Central Region counties with reportable data, 35% or more of youth report consistent feelings of depression, with higher, increasing percentages in Union and Schuylkill counties. Schuylkill County also has a higher percentage of youth who have attempted suicide, along with Northumberland and Columbia counties. A positive finding is that Central Region youth are generally less likely to use substances, although Columbia and Union counties saw increases in marijuana and alcohol use, respectively.

Behavioral Health Data

Hospitalizations for Mental Disorders per 10,000 Residents, 2018 Statewide Rate: 88.8 per 10,000 Residents



Source: Pennsylvania Health Care Cost Containment Council (PHC4), 2018

Mental Disorders Hospitalizations per 10,000 by Socioeconomic Factors, 2018

	Pennsylvania
Poverty Rate	
Areas of high poverty (>25% of population)	163.3
Areas of low poverty (≤5% of population)	53.0
Education	
Areas of low education (≤10% with a bachelor's degree)	159.4
Areas of higher education (≥40% with a bachelor's degree)	58.4
Race/Ethnicity	
Black, Non-Hispanic	154.0
White, Non-Hispanic	81.7
Hispanic/Latinx	67.9

Source: Pennsylvania Health Care Cost Containment Council (PHC4), 2018

Behavioral Health Data

Mental Disorders Hospital Stays, 2018

	Pennsylvania (Total Hospital Stays: 113,704)
Treatment Setting	
Acute care hospital	56.4%
Psychiatric hospital	43.6%
Average Length of Stay	
Acute care hospital	8.6 days
Psychiatric hospital	12.3 days
Type of Mental Disorder	
Depression	44.0%
Schizophrenia	20.7%
Bipolar	20.2%
Other (conduct, anxiety, somatic, miscellaneous)	7.3%
Suicidal	4.2%
Trauma (adjustment, post-traumatic stress and dissociative disorders)	3.6%
Patient Age	
Under 18 years	14.8%
18-44 years	50.8%
45-64 years	27.2%
65-74 years	4.7%
75 years or over	2.6%

Source: Pennsylvania Health Care Cost Containment Council (PHC4), 2018

Suicide Death per Age-Adjusted 100,000 Population

Suicide Death
HP2020 Goal: 10.2

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA	US
2016-2018	17.5 ▲	NA (n=11)	14.2	25.0	NA (n=14)	NA (n=15)	14.9	13.9
2015-2017	18.9	NA**	13.8	25.7	NA (n=14)	NA (n=13)	14.6	13.6
2014-2016	15.1	NA**	15.5	23.2	NA (n=13)	NA (n=14)	14.0	13.2

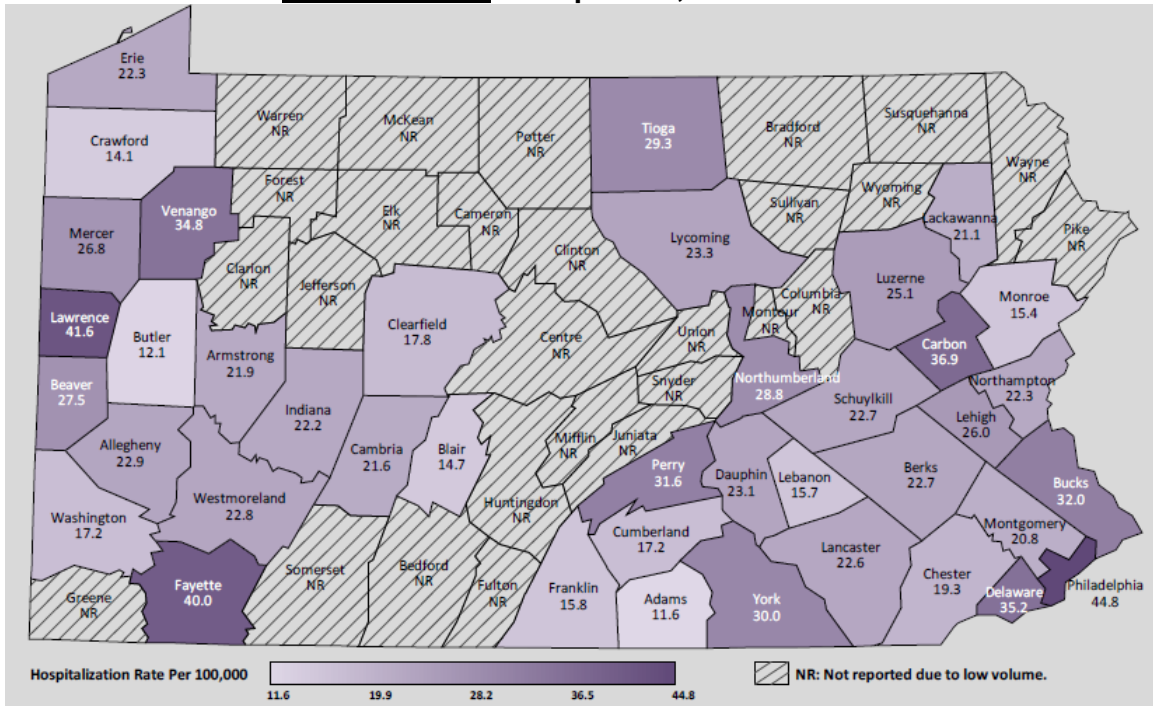
Source: Centers for Disease Control and Prevention

*Green highlighting indicates a lower rate than the state and nation; red highlighting indicates a higher rate. Trending denoted as increasing (▲) or decreasing (▼) by ≥2 points since 2014-2016.

**A death count is not reportable.

Behavioral Health Data

Opioid Overdose Hospitalizations per 100,000 Residents, 2018 Statewide Rate: 25.1 per 100,000 Residents



Source: Pennsylvania Health Care Cost Containment Council (PHC4), 2018

Opioid Overdose Hospitalizations, 2018

Pennsylvania	
Total Hospitalizations	
2018	2,667
2017	3,500
2016	3,342
Heroin Overdose Admissions	
2018	1,115 (41.8%)
2017	1,753 (50.1%)
2016	1,555 (46.5%)
Pain Medication Overdose Admissions	
2018	1,552 (58.2%)
2017	1,747 (49.9%)
2016	1,787 (53.5%)

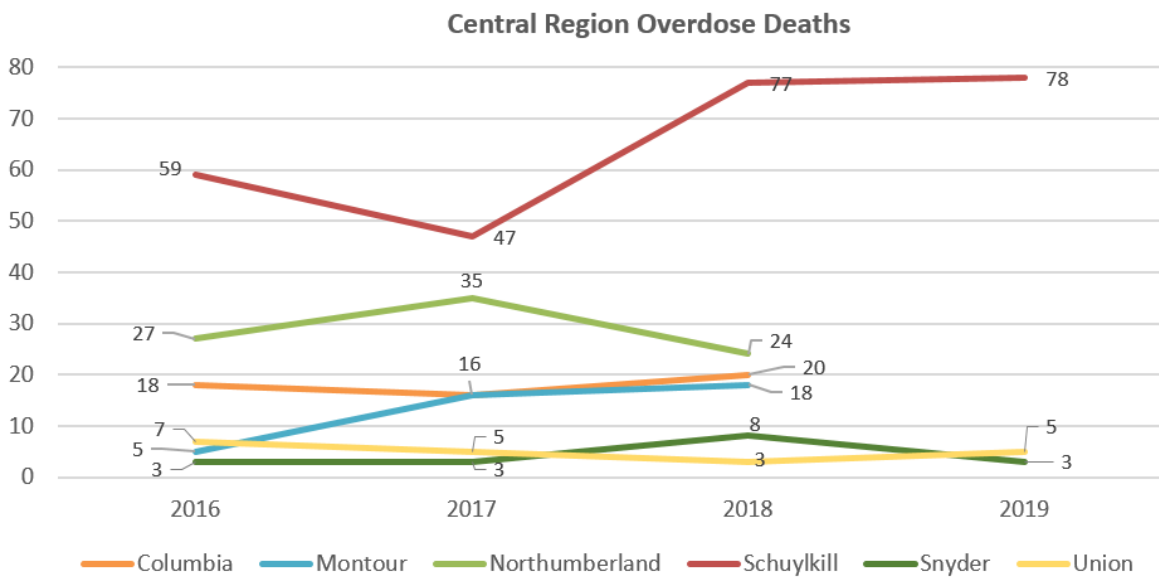
Source: Pennsylvania Health Care Cost Containment Council (PHC4), 2018

Behavioral Health Data

Opioid Overdose Hospitalizations per 100,000 by Socioeconomic Factors, 2018

Pennsylvania	
Income	
Low-income areas (avg. less than \$30,000)	54.4
High-income areas (avg. \$90,000 or higher)	17.3
Education	
Areas of low education (≤10% with a bachelor's degree)	46.2
Areas of higher education (≥60% with a bachelor's degree)	14.6
Race/Ethnicity	
Black, Non-Hispanic	28.9
White, Non-Hispanic	25.2
Hispanic/Latinx	20.0

Source: Pennsylvania Health Care Cost Containment Council (PHC4), 2018



Source: OverdoseFreePA

*Data are reported as available through 2019.

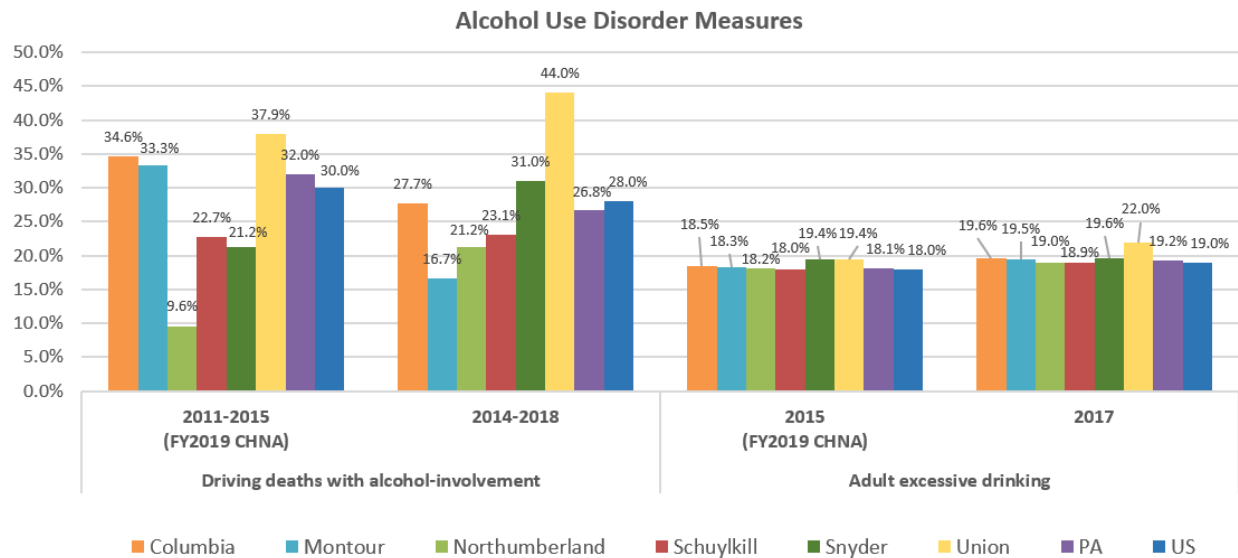
Neonatal Abstinence Syndrome (NAS), FY2019

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA
Number of NAS stays	NA	NA	NA	12	NA	NA	1,733
Rate per 1,000 newborn stays	11.3	NA	10.9	10.4	11.9	6.1	13.8

Source: Pennsylvania Health Care Cost Containment Council (PHC4), July 1, 2018-June 30, 2019

*PHC4 defines NAS as “An array of withdrawal symptoms that develops soon after birth in newborns exposed to addictive drugs (e.g., opioids) while in the mother’s womb.”

Behavioral Health Data



Source: Centers for Disease Control and Prevention & National Highway Safety Administration

Youth Behavioral Health Measures (Grades 6, 8, 10, 12) Youth Tobacco Use (Grades 6, 8, 10, 12)

	Columbia County	Northumberland County	Schuylkill County	Snyder County	Union County	PA
Sad or Depressed Most Days in the Past Year						
2019	35.1% ▲	38.7% ▼	40.6% ▲	NA	43.3% ▲	38.0%
2017	38.2%	41.2%	38.2%	30.8%	37.3%	38.1%
2015	31.8%	42.2%	37.6%	NA	NA	38.3%
Attempted Suicide						
2019	10.5% ▲	11.6%	11.5% ▲	NA	9.7%	9.7%
2017	10.5%	12.7%	9.1%	7.4%	9.8%	10.0%
2015	8.2%	12.8%	9.1%	NA	NA	9.5%
Alcohol Use within Past 30 Days						
2019	14.7%	14.2%	17.3%	NA	13.8% ▲	16.8%
2017	17.4%	15.0%	19.4%	10.4%	11.7%	17.9%
2015	16.4%	12.5%	19.0%	NA	NA	18.2%
Marijuana Use within Past 30 Days						
2019	8.1% ▲	6.8%	7.6%	NA	6.1%	9.6%
2017	8.8%	7.6%	7.5%	3.6%	5.3%	9.7%
2015	5.3%	5.8%	7.4%	NA	NA	9.4%

Source: Pennsylvania Commission on Crime and Delinquency

*Green highlighting indicates a lower percentage than the state; red highlighting indicates a higher percentage. Trending denoted as increasing (▲) or decreasing (▼) by ≥2 percentage points since 2015 or 2017 (Union).

**Montour and Snyder county data are not reported or are limited due to low school district participation.

Maternal and Child Health Key Findings

- > Schuylkill and Union counties maintained a similar birth rate from the FY2019 CHNA, but all other Central Region counties experienced a decline consistent with statewide trends. All counties except Montour and Snyder have a lower birth rate than the state overall. Births by race and ethnicity are consistent with current and projected county demographics with approximately 90% or more of births to White mothers.
- > The percentage of births to teens is higher in all Central Region counties except Montour when compared to the state. While teen births declined statewide from the FY2019 CHNA, teen birth percentages in the Central Region have been largely consistent.
- > The percentage of pregnant women receiving first trimester prenatal care is lower in all Central Region counties compared to the state and nation. Columbia, Northumberland, Snyder, and Union counties have seen significant declines in women accessing early prenatal care in recent years.
- > Despite lower prenatal care access, all Central Region counties except Columbia have a lower percentage of low birth weight babies compared to the state and nation. Columbia County saw significant increases in both low birth weight and preterm births in 2018. Montour County also saw an increase in preterm births, although statistics for the county historically fluctuate from year-to-year, likely due to low birth counts.
- > Breastfeeding varies widely across the region. While Montour, Snyder, and Union county breastfeeding percentages exceed state and national benchmarks, percentages for Columbia, Northumberland, and Schuylkill counties are lower and declining. Declines were primarily seen within the last year and should continue to be monitored.
- > Pennsylvania has a higher percentage of women who report smoking during pregnancy compared to the nation overall, although the percentage is declining. The percentage is also declining across the Central Region, but remains higher in all counties except Union when compared to state and national averages. Consistent with higher overall adult smoking rates, Northumberland and Schuylkill counties have the highest percentage of pregnant women who report smoking.
- > Columbia, Northumberland, and Schuylkill counties experience notable maternal and child health disparities related to prenatal care access, low birth weight, breastfeeding, and/or smoking. Consistent with this finding, the infant death rate for these counties increased and/or exceeds state and national rates.
- > As demonstrated in these data, across PA and the nation, Black and/or Latina mothers experience notable maternal and child health disparities. Within PA and the US, there is a ≥ 10 -point deficit for Black and/or Latina women receiving early prenatal care compared to White women. Black and/or Latina babies are more likely to be born with low birth weight and/or premature. Of grave concern, as a national average, Black mothers are more than 2.5 times as likely as White and/or Latina mothers to die due to pregnancy-related causes. Maternal and child health data by race and ethnicity are limited within the Central Region due to small counts.

Maternal and Child Health Data

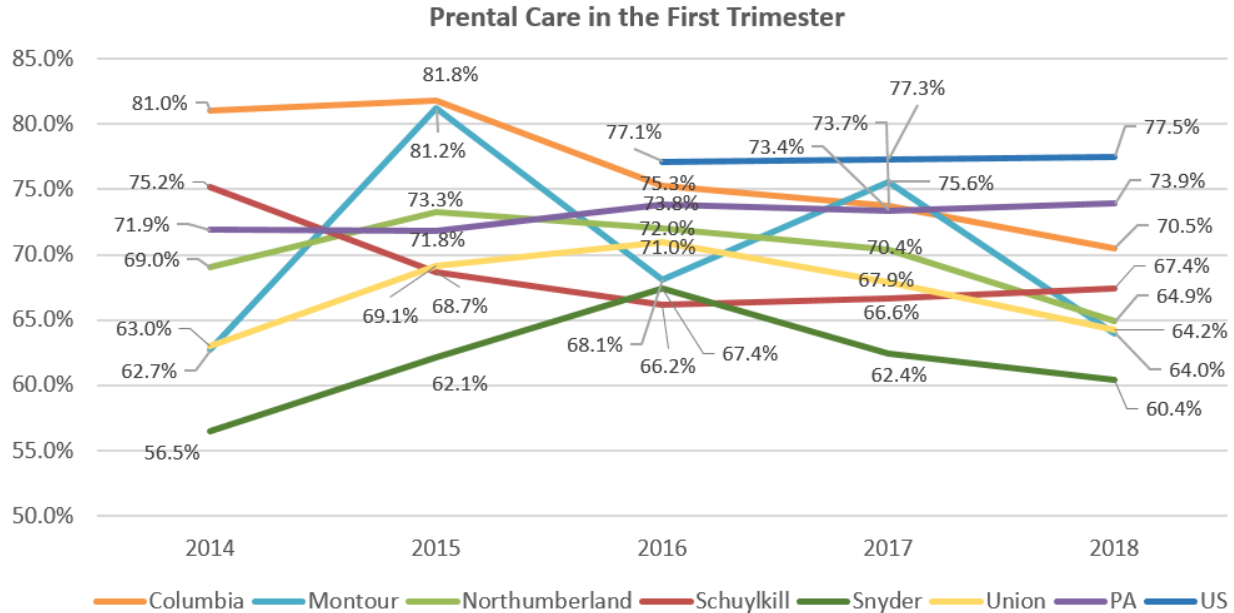
Total Births

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA
Birth Rate per 1,000							
2018	15.4	20.9	19.8	18.4	21.1	19.6	20.8
2017	15.5	22.1	20.4	19.1	21.7	19.7	21.1
2016	16.7	22.9	20.3	19.6	21.7	20.3	21.4
2015 (FY2019 CHNA)	16.6	22.3	20.4	18.6	22.7	19.8	21.5
2018 Births by Race and Ethnicity							
Total	522	197	895	1,275	432	401	135,677
Asian	0.8%	7.1%	0.8%	0.9%	1.2%	1.2%	4.6%
Black	1.1%	1.5%	2.3%	2.0%	0.9%	0.7%	13.9%
White	93.9%	87.3%	92.1%	90.0%	95.4%	93.5%	70.1%
Latinx	4.2%	2.5%	6.5%	11.4%	1.6%	4.2%	11.6%
Births to Teens							
2018	4.4% ▼	NA	5.8%	6.3%	5.3%	5.0%	4.1%
2017	4.5%	NA	6.6%	5.4%	3.6%	3.5%	4.3%
2016	4.0%	NA	5.1%	6.7%	4.3%	5.1%	4.6%
2015 (FY2019 CHNA)	7.5%	4.6%	6.6%	5.2%	4.3%	4.5%	5.1%

Source: Pennsylvania Department of Health

*Green highlighting indicates a lower percentage than the state; red highlighting indicates a higher percentage. Trending denoted as increasing (▲) or decreasing (▼) by ≥2 points since 2015.

Maternal and Child Health Data



Source: Pennsylvania Department of Health & Centers for Disease Control and Prevention

*Starting in 2016, all of the US reported data based on the 2003 US Certificate of Live Birth, providing national indicators.

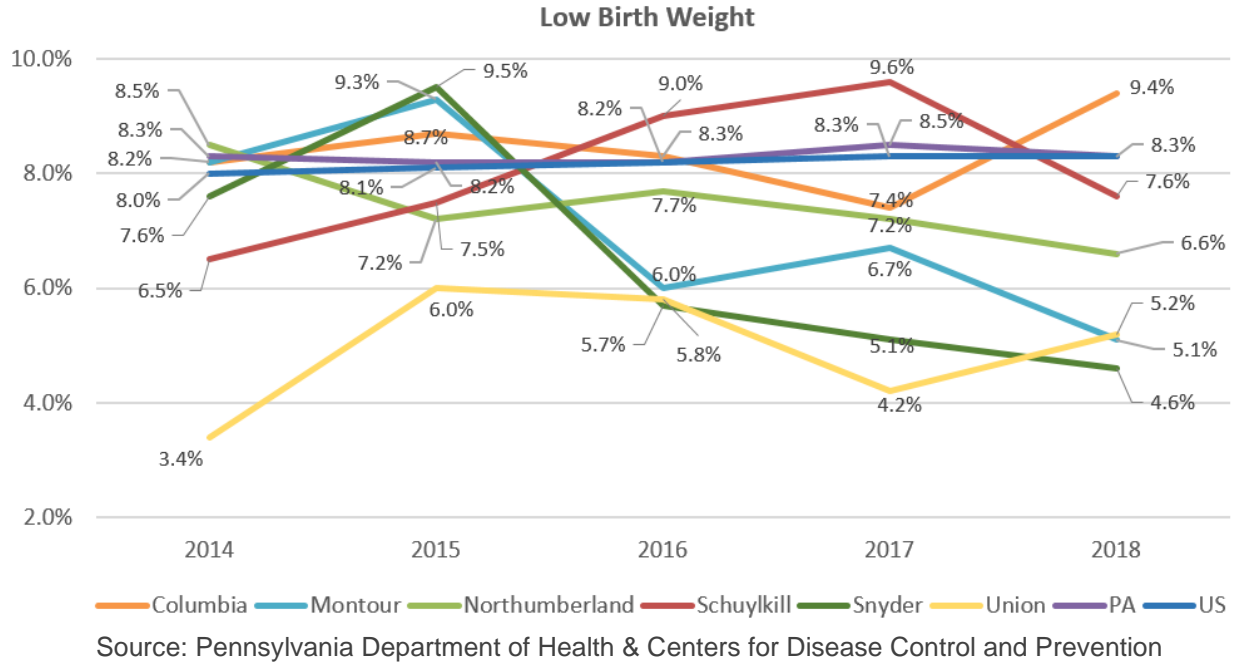
Prenatal Care in the First Trimester by Race and Ethnicity

	Total Births	Asian	Black	White	Latina
Columbia County	70.5%	NA	NA	71.5%	57.1%
Montour County	64.0%	78.6%	NA	62.8%	NA
Northumberland County	64.9%	NA	NA	66.7%	39.7%
Schuylkill County	67.4%	NA	50.0%	68.9%	51.8%
Snyder County	60.4%	NA	NA	59.7%	NA
Union County	64.2%	NA	NA	64.4%	58.8%
PA	73.9%	73.0%	64.6%	77.3%	65.3%
US	77.5%	81.8%	67.1%	82.5%	72.7%
HP2020	77.9%	--	--	--	--

Source: Pennsylvania Department of Health, 2018 & Centers for Disease Control and Prevention, 2018

*Green highlighting indicates a higher percentage than state and national benchmarks; red highlighting indicates a lower percentage.

Maternal and Child Health Data

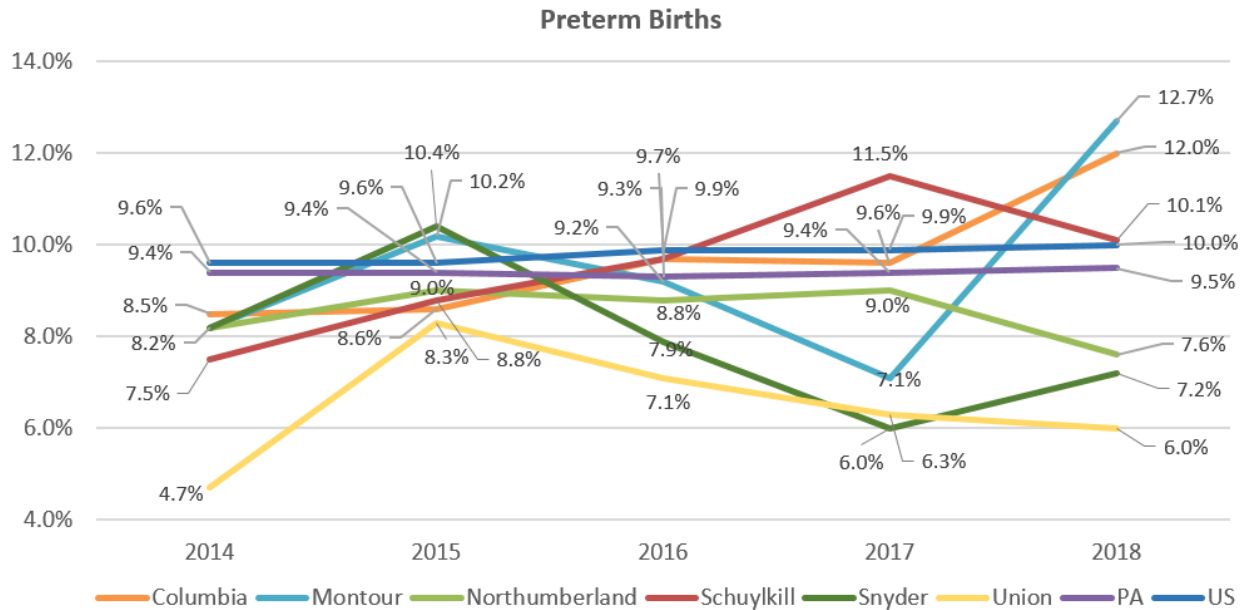


Low Birth Weight by Race and Ethnicity

	Total Births	Asian	Black	White	Latinx
Columbia County	9.4%	NA	NA	9.8%	NA
Montour County	5.1%	NA	NA	NA	NA
Northumberland County	6.6%	NA	NA	6.1%	NA
Schuylkill County	7.6%	NA	NA	7.2%	9.0%
Snyder County	4.6%	NA	NA	4.9%	NA
Union County	5.2%	NA	NA	4.8%	NA
PA	8.3%	8.8%	13.9%	7.0%	9.0%
US	8.3%	8.6%	14.1%	6.9%	7.5%
HP2020	7.8%	--	--	--	--

Source: Pennsylvania Department of Health, 2018 & Centers for Disease Control and Prevention, 2018
 *Green highlighting indicates a lower percentage than state and national benchmarks; red highlighting indicates a higher percentage.

Maternal and Child Health Data



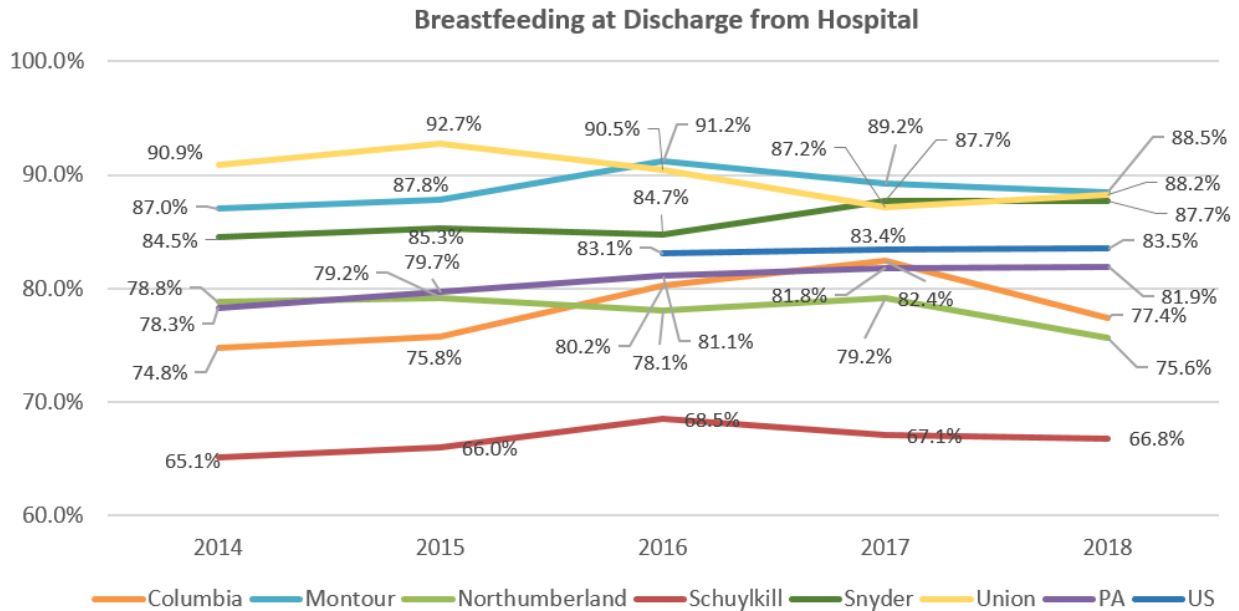
Preterm Births by Race and Ethnicity

	Total Births	Asian	Black	White	Latinx
Columbia County	12.0%	NA	NA	12.8%	NA
Montour County	12.7%	NA	NA	11.6%	NA
Northumberland County	7.6%	NA	NA	7.3%	NA
Schuylkill County	10.1%	NA	NA	10.0%	11.7%
Snyder County	7.2%	NA	NA	7.3%	NA
Union County	6.0%	NA	NA	5.9%	NA
PA	9.5%	8.1%	13.6%	8.7%	10.0%
US	10.0%	8.6%	14.1%	9.1%	9.7%
HP2020	9.4%	--	--	--	--

Source: Pennsylvania Department of Health, 2018 & Centers for Disease Control and Prevention, 2018

*Green highlighting indicates a lower percentage than state and national benchmarks; red highlighting indicates a higher percentage.

Maternal and Child Health Data



Source: Pennsylvania Department of Health & Centers for Disease Control and Prevention

*Starting in 2016, all of the US reported data based on the 2003 US Certificate of Live Birth, providing national indicators.

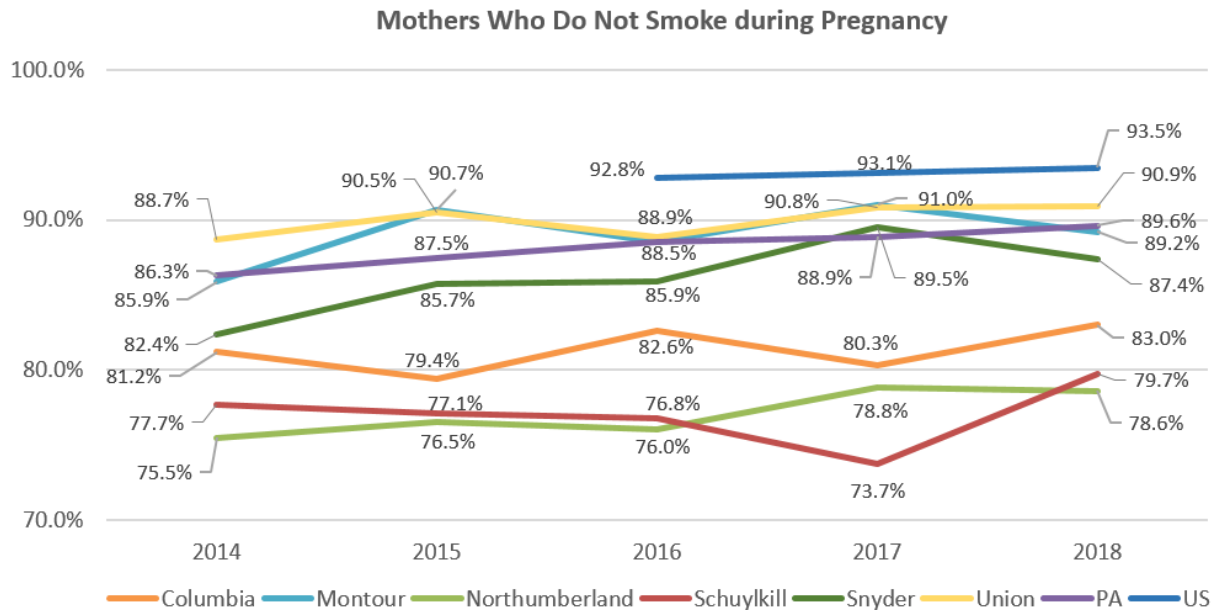
Breastfeeding at Discharge from Hospital by Race and Ethnicity

	Total Births	Asian	Black	White	Latina
Columbia County	77.4%	NA	NA	76.5%	90.9%
Montour County	88.5%	85.7%	NA	88.1%	NA
Northumberland County	75.6%	NA	72.2%	76.7%	65.3%
Schuylkill County	66.8%	100%	77.3%	66.0%	74.8%
Snyder County	87.7%	NA	NA	87.5%	NA
Union County	88.2%	NA	NA	88.8%	75.0%
PA	81.9%	92.1%	76.7%	82.4%	80.6%
US	83.5%	90.9%	72.3%	84.9%	87.1%
HP2020	81.9%	--	--	--	--

Source: Pennsylvania Department of Health, 2018 & Centers for Disease Control and Prevention, 2018

*Green highlighting indicates a higher percentage than state and national benchmarks; red highlighting indicates a lower percentage.

Maternal and Child Health Data



Source: Pennsylvania Department of Health & Centers for Disease Control and Prevention

*Starting in 2016, all of the US reported data based on the 2003 US Certificate of Live Birth, providing national indicators.

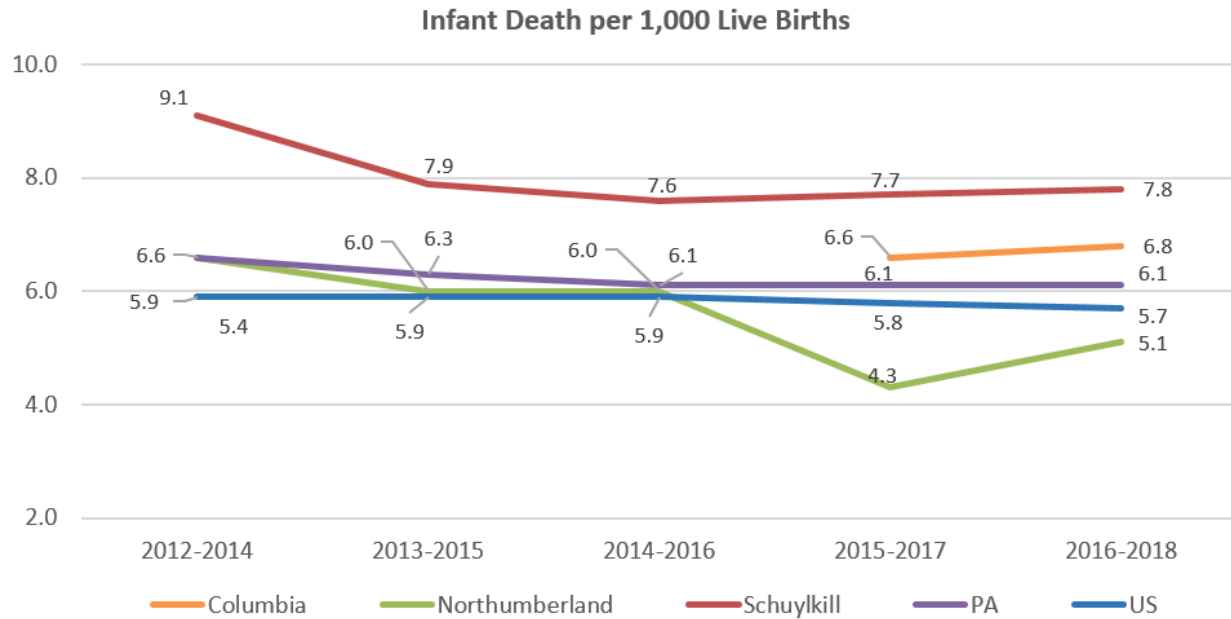
Mothers Who Do Not Smoke during Pregnancy by Race and Ethnicity

	Total Births	Asian	Black	White	Latina
Columbia County	83.0%	NA	NA	82.6%	95.2%
Montour County	89.2%	100%	NA	88.8%	NA
Northumberland County	78.6%	NA	75.0%	78.1%	91.1%
Schuylkill County	79.7%	100%	80.0%	78.3%	93.1%
Snyder County	87.4%	NA	NA	87.5%	NA
Union County	90.9%	NA	NA	90.3%	100%
PA	89.6%	99.2%	91.8%	88.1%	94.6%
US	93.5%	99.5%	94.8%	90.5%	98.3%
HP2020	98.6%	--	--	--	--

Source: Pennsylvania Department of Health, 2018 & Centers for Disease Control and Prevention, 2018

*Green highlighting indicates a higher percentage than state and national benchmarks; red highlighting indicates a lower percentage.

Maternal and Child Health Data



Source: Pennsylvania Department of Health & Centers for Disease Control and Prevention
 *Data are not reported for Montour, Snyder, and Union counties due to low death counts. Data for Columbia County are limited.

Maternal Death per 100,000 Live Births

	Total Deaths	Total Death Rate	Black Death Rate	White Death Rate	Latina Death Rate
PA	19	14.0	NA	NA	NA
US	658	17.4	37.1	14.7	11.8

Source: Pennsylvania Department of Health, 2018 & Centers for Disease Control and Prevention, 2018
 *Maternal deaths include deaths of women while pregnant or within 42 days of termination of pregnancy, from any cause related to pregnancy or its management.

Aging Population Key Findings

- > The Central Region is aging faster than the population statewide and nationally, and seniors are less healthy overall. All counties exceed national benchmarks for multiple chronic conditions among senior Medicare beneficiaries; Northumberland, Schuylkill, and Snyder counties also have a higher percentage in comparison to the state. Of note, Northumberland, Schuylkill, and Snyder counties have a higher percentage of seniors with 6 or more chronic conditions than both the state and nation; the percentage of seniors with 6 or more conditions increased from the FY2019 CHNA for Schuylkill and Snyder counties.
- > Seniors spend more money on healthcare than any other age group, and spending increases with a higher reported number of chronic conditions. Within the Central Region, senior Medicare beneficiaries with 6 or more chronic conditions have approximately \$25,000 or more in annual expenses, with the highest spending in Schuylkill County.
- > Consistent with having a higher prevalence of comorbidities, senior Medicare beneficiaries in Northumberland, Schuylkill, and Snyder counties have a higher prevalence of 8 or more of the 12 reported chronic condition types in comparison to the state and nation. Of note, at least 4 counties in the region have a higher prevalence of the following conditions: asthma, COPD, depression, heart failure, and high cholesterol.
- > Alzheimer's disease death rates among seniors increased statewide and nationally before leveling off in recent years. Some of the increase in death rates may be due to reclassification of cause of death to Alzheimer's disease as the primary cause of death rather than the resulting acute condition e.g. pneumonia or heart failure. Within the Central Region, Montour County is the only county to have a higher Alzheimer's disease death rate than the state and nation, exceeding both by more than 150 points. Death rates are reported by county of residence; it may be worth exploring if individuals with Alzheimer's disease and their families move to Montour County as they seek care.
- > 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 who live alone. The percentage of seniors living alone increased statewide and nationally with a higher percentage in PA (13%) versus the US (11%). Within the Central Region, all counties except Snyder have a higher percentage of seniors living alone in comparison to the state and nation. Union County experienced the greatest increase (nearly 5 percentage points) in seniors living alone from 2010-2014 to 2014-2018.

Aging Population Data

2017 Chronic Conditions among Medicare Beneficiaries 65 Years or Over

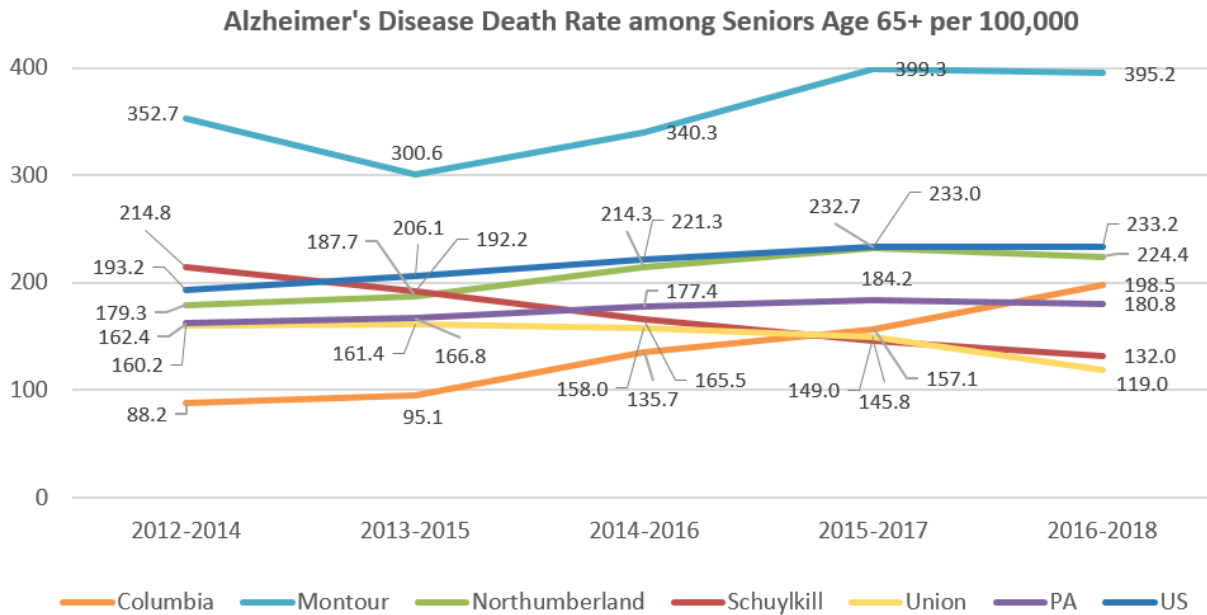
	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA	US
Multiple Chronic Conditions (Comorbidities)								
2 to 3 Conditions	31.8% ▲	31.4% ▲	30.3% ▼	32.1%	32.9%	33.5% ▼	31.1%	29.6%
2015 (FY2019 CHNA comparison)	30.5%	30.4%	31.3%	32.6%	33.7%	35.9%	31.1%	30.0%
4 to 5 Conditions	22.9%	21.6%	25.5%	24.2%	26.8%	23.1%	22.9%	21.8%
2015 (FY2019 CHNA comparison)	22.0%	21.5%	25.1%	24.8%	26.0%	22.5%	22.9%	21.6%
6 or More conditions	17.2%	17.4%	22.2%	19.8% ▲	19.8% ▲	14.8%	18.2%	17.4%
2015 (FY2019 CHNA comparison)	16.3%	16.9%	21.7%	18.7%	18.0%	15.0%	17.6%	16.2%
Per Capita Standardized¹ Spending								
2 to 3 Conditions	\$4,736	\$5,339	\$4,419	\$4,403	\$3,932	\$5,323	\$5,141	\$5,392
4 to 5 Conditions	\$9,504	\$9,857	\$8,689	\$9,189	\$7,416	\$8,449	\$10,117	\$10,475
6 or More conditions	\$25,656	\$26,999	\$25,483	\$29,110	\$24,716	\$26,952	\$29,184	\$29,004
Chronic Condition Prevalence by Type								
Alzheimer's Disease	10.1%	NA	12.2%	12.4%	10.6%	NA	12.2%	12.1%
Arthritis	34.2%	33.1%	36.5%	38.6%	36.5%	34.9%	36.1%	34.2%
Asthma	5.2%	6.4%	6.0%	3.6%	5.4%	4.8%	4.9%	4.6%
Cancer	9.2%	10.0%	9.6%	9.1%	8.6%	9.8%	10.1%	9.2%
COPD	11.4%	11.9%	14.7%	13.3%	12.4%	9.8%	11.2%	11.6%
Depression	17.4%	18.1%	20.1%	14.9%	20.3%	17.0%	16.1%	15.4%
Diabetes	25.8%	25.6%	30.3%	29.0%	29.5%	24.0%	26.6%	27.4%
Heart Failure	13.7%	14.8%	18.5%	17.5%	16.1%	13.0%	14.4%	14.5%
High Cholesterol	47.5%	43.1%	55.2%	51.6%	62.1%	50.8%	47.6%	43.0%
Hypertension	60.6%	56.4%	66.4%	66.8%	66.7%	58.8%	62.3%	59.9%
Ischemic Heart Disease	30.3%	28.0%	31.0%	32.3%	28.2%	26.3%	29.9%	28.8%
Stroke	3.9%	NA	4.4%	5.4%	3.9%	4.6%	4.6%	4.0%

Source: Centers for Medicare & Medicaid Services, 2015 & 2017

*Green highlighting indicates a lower burden of disease than the state and nation; red highlighting indicates a higher burden. Trending denoted as increasing (▲) or decreasing (▼) by ≥1 percentage point since 2015.

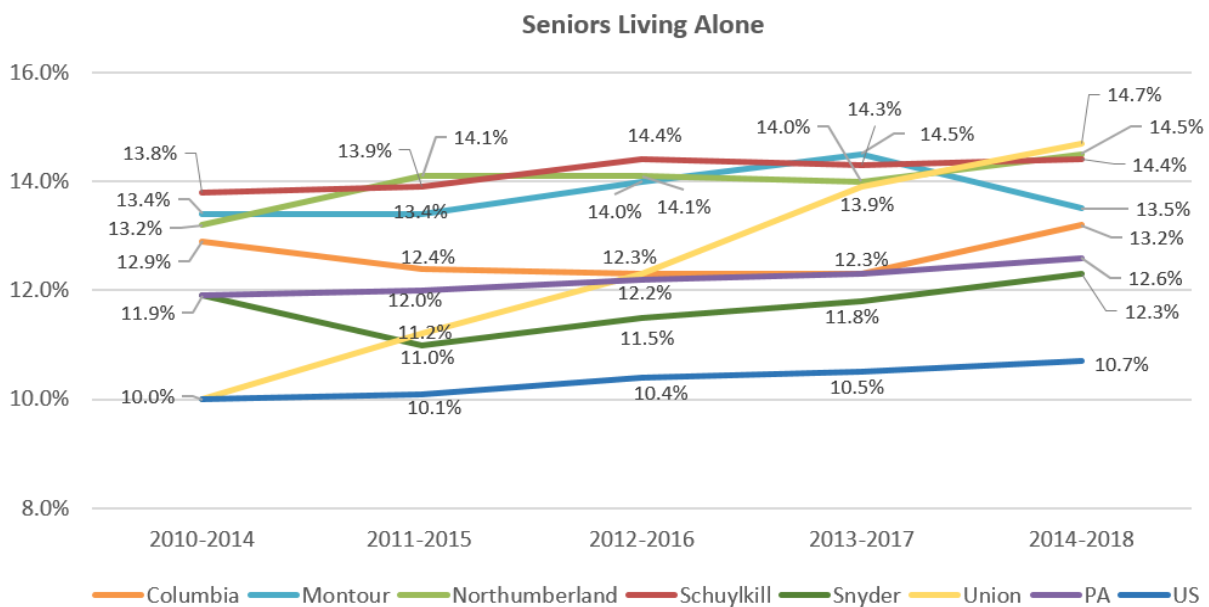
¹ Standardized spending takes into account payment factors that are unrelated to the care provided (e.g. geographic variation in Medicare payment amounts)

Aging Population Data



Source: Centers for Disease Control and Prevention

*The Snyder County 2016-2018 death rate was 112.8; data are not trended due to low death counts.



Source: US Census Bureau

Key Informant Survey Findings

Background

A Key Informant Survey was conducted with community representatives of the Central Region to solicit information about health needs among residents. A total of 77 individuals responded to the survey, including health and social service providers; community and public health experts; civic, religious, and social leaders; policy makers; and others representing diverse populations including minority, low-income, and underserved residents. A list of the represented community organizations and the key informants' respective titles is included in Appendix C. Key informant names are withheld for confidentiality.

These key informants were asked a series of questions about their perceptions of community health including health drivers, barriers to care, community infrastructure, and needed services within the community. Following is a summary of findings from their responses.

Summary of Findings

- > Key informants identified the Central Region's top community strength, as access to healthcare services (45.5%). Good schools and safe neighborhoods were also listed as community strengths by approximately one-third (31%-34%) of informants.
- > Behavioral health was seen as the top health concern for the region. Nearly 60% of informants selected mental health conditions and 44% of informants selected substance use disorder (SUD) among the top three health concerns across the region. About 40% of key informants named drug and alcohol use as a contributing factor to health concerns.
- > Overweight/obesity and aging-related problems were among other top issues with diet and physical activity among the top contributing factors to overarching health concerns.
- > About 30% of key informants recognized social determinants of health (SDoH), including poverty (32.5%), ability to afford healthcare (27%), and lack of transportation (27%) as key contributing factors to health.
- > Identified health concerns were reflected by the top missing community resources. Nearly 68% of key informants selected mental health services as a missing resource and 40% selected SUD services. Fifty-six percent (56%) of informants also saw transportation as a missing resource.
- > Overall quality of life in the Central Region was largely seen as stagnant (55%) or declining (27%) over the past 3-5 years. SDoH are key indicators of quality of life. Informants perceived the greatest improvements in "neighborhood and built environment" and the greatest decline in "social and community context" and "economic stability." These findings may be indicative of the economic impact of COVID-19 and the acknowledgement of historical and systemic racial inequities. Verbatim comments by informants noted regional economic decline and a growing need for affordable housing and healthcare options.

- > Nearly 80% of informants “agreed” or “strongly agreed” that health and social service providers welcome partnerships with area hospitals, and 70% “agreed” or “strongly agreed” that they regularly partner with hospitals on health improvement initiatives. Some informants commented that more work is needed to ensure effective collaboration to address health needs and to engage residents when developing health initiatives.
- > Informants differed on what they perceived as the top barriers to health and social service partnerships. Responses were divided by one-third across these issues: lack of shared data or measurement tools; inconsistent service areas or geographic boundaries; and ability to get local leaders to work together. Verbatim comments by informants indicated a need for better communication among partners regarding available resources and referral procedures, and a formal structure to initiate and sustain collective action.
- > Key informants were “somewhat” to “moderately” worried about the long-term impact of COVID-19 on communities and residents. They were most concerned about the impact on the mental and emotional health of residents, the well-being of the elderly, and community financial health.
- > When asked to share how their organization is effectively engaging community residents during COVID-19, many informants spoke to the increased use of technology and social media to provide virtual learning and service environments, community education and awareness campaigns, mobile and community-based services, and cross-sector partnerships to better understand COVID-related needs and disseminate available information and resources.

Survey Participants

Key informants represented diverse organizations and populations across the Central Region. The table below shows the breakdown of survey participants by county, with the highest number of responses from Northumberland and Union counties, in line with a higher number of community based organizations in these counties. Approximately 40% of key informants indicated that they served all populations. The most commonly served special population groups were low-income/poor, seniors/elderly, and children/youth.

Central Region Counties Served by Key Informants

	Percent of Informants*	Number of Informants
Northumberland County	63.6%	49
Union County	61.0%	47
Snyder County	52.0%	40
Montour County	48.1%	37
Columbia County	46.8%	36
Schuylkill County	33.8%	26

*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
Low-Income/Poor	44.2%	34
Seniors/Elderly	41.6%	32
Children/Youth	40.3%	31
Not Applicable (serve all populations)	40.3%	31
Families	37.7%	29
Emotionally or Physically Disabled	20.8%	16
Homeless	19.5%	15
Women	19.5%	15
Uninsured/Underinsured	19.5%	15
Men	15.6%	12
Hispanic/Latinx	14.3%	11
Black/African American	13.0%	10
LGBTQ+	13.0%	10
Veteran	13.0%	10
Other**	10.4%	8
American Indian/Alaska Native	6.5%	5
Asian/Pacific Islander	6.5%	5
Immigrant/Refugee	6.5%	5

*Key informants were able to select multiple populations. Percentages do not add up to 100%.

**Other populations included: Parents/Guardians of children; seniors who are socially, economically, and nutritionally in need; adults and children with development exceptionalities; plain community; college students; individuals with substance use disorder

Community Health and Well-Being

An asset-based approach to health improvement planning acknowledges and makes visible the strengths, resources, and potential in communities. This approach helps community planners to identify the existing factors that support resident health and well-being to better mobilize stakeholders.

Community Strengths

Choosing from a wide-ranging list of environmental, health, and social resources, key informants were asked to select the top three strengths in the communities they serve. An option to “write in” any resource not included on the list was provided. The top responses are depicted in the table below. The table is rank ordered by the percentage of respondents that selected the resource as a top three community strength.

Access to healthcare services was identified as the top strength in the Central Region by nearly half (45.5%) of key informants. Good schools and safe neighborhoods were also selected as top community strengths by approximately one-third of informants. Available social services (30%) and community connectedness (19.5%) rounded out the top five selections by informants.

Top Community Strengths

Ranking	Community Strength	Informants Selecting as a Top 3 Community Strength	
		Percent*	Count
1	Access to healthcare services	45.5%	35
2	Good schools	33.8%	26
3	Safe neighborhoods	31.2%	24
4	Available social services	29.9%	23
5	Community connectedness	19.5%	15
6	Resources for seniors	16.9%	13
7	Strong family life	14.3%	11
8	Access to healthy foods	13.0%	10
8	Affordable housing	13.0%	10
8	Recreation resources	13.0%	10

*Key informants were able to select up to three community strengths. Percentages do not add up to 100%.

Health Concerns

Key informants were asked to similarly select what they perceived as the top three health concerns and contributing factors impacting the population(s) they serve. An option to “write in” any health issue or contributing factor not included on the lists was provided. The top responses are depicted in the tables below. The tables are rank ordered by the percentage of respondents that selected the issue or contributing factor as a top three concern.

Nearly 60% of informants chose mental health conditions among the top three community health concerns and approximately 44% chose substance use disorder (SUD). This agreement demonstrates a consistent perspective that behavioral health is a key community issue. Overweight/Obesity was ranked the third health concern with 43% of informants choosing it as a key issue.

The Central Region has a significant percentage of older adults with approximately 20%-25% of residents age 65 or over. Key informants’ responses indicated aging-related problems as the fourth ranked health concern for the region. While chronic diseases affect residents of all ages, seniors typically have a higher prevalence of disease. Chronic conditions, including diabetes, heart disease, and cancer, were among the top 10 health concerns identified by key informants.

Top Health Concerns Affecting Residents

Ranking	Health Concern	Informants Selecting as a Top 3 Health Concern	
		Percent*	Count
1	Mental health conditions	58.4%	45
2	Substance use disorder	44.2%	34
3	Overweight/Obesity	42.9%	33
4	Aging-related problems	32.5%	25
5	Diabetes	19.5%	15
6	Heart disease and stroke	15.6%	12
7	Dental problems	14.3%	11
8	Cancers	11.7%	9
9	Child abuse/neglect	9.1%	7
10	Racial/Ethnic disparities	7.8%	6

*Key informants were able to select up to three health concerns. Percentages do not add up to 100%.

A similar percentage of key informants (40%-43%) identified drug/alcohol use and health habits (e.g. diet, physical activity) as top contributing factors to health concerns. This finding is consistent with the identification of behavioral health and SUD as the top identified health issues, reinforcing the relationship between physical and behavioral health outcomes. Social determinants of health, including poverty, ability to afford healthcare, and lack of transportation, were the next most commonly identified contributors to health concerns in the region.

Top Contributing Factors to Community Health Concerns

Ranking	Contributing Factor	Informants Selecting as a Top 3 Contributor	
		Percent*	Count
1	Drug/Alcohol use	42.9%	33
2	Health habits (diet, physical activity)	40.3%	31
3	Poverty	32.5%	25
4	Ability to afford healthcare	27.3%	21
4	Lack of transportation	27.3%	21
6	Stress (work, family, school, etc.)	18.2%	14
7	Lack of social support (family, friends, social network)	16.9%	13
8	Health literacy (ability to understand health information)	14.3%	11
9	Availability of healthcare providers	13.0%	10
10	Housing quality/stability	11.7%	9

*Key informants were able to select up to three contributing factors. Percentages do not add up to 100%.

Missing Resources

Key informants were asked what resources are missing in the community that would help residents optimize their health. Respondents could choose as many options as they saw as needed. An option to “write in” any resource not included on the list was provided.

Consistent with the finding of behavioral health as the top identified community health concern for the region, mental health services were the most commonly identified missing resource by 67.5% of informants. Substance use disorder services were chosen by 40% of informants, making it the third ranked missing resource. Transportation options, identified as a top contributor to health concerns, was prioritized by informants as a missing resource. Approximately 56% of key informants identified transportation options as missing resources, second only to mental health services.

Top Missing Resources within the Community to Optimize Health

Ranking	Resource	Percent of Informants	Number of Informants
1	Mental health services	67.5%	52
2	Transportation options	55.8%	43
3	Substance use disorder services	40.3%	31
4	Health and wellness education and programs	29.9%	23
5	Affordable housing	27.3%	21
5	Dental care	27.3%	21
7	Adult education (GED, training, work force development)	24.7%	19
7	Community support groups	24.7%	19
9	Child care providers	22.1%	17
10	Social services assistance (housing, electric, food, clothing)	19.5%	15

Social Determinants of Health

The US Department of Health and Human Services’ Healthy People initiative defines social determinants of health (SDoH) as, “The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes and risks.”

Informants were asked to rate select SDoH dimensions, as well as overall quality of life, based on perceived trends in the community over the past 3-5 years. Statements were rated on a scale of (1) “declined” to (3) “improved.” Key informants’ responses are outlined in the table below; SDoH are rank ordered by mean score.

According to survey responses, overall quality of life in the Central Region has been largely consistent (55%) or declining (27%) over the past 3-5 years. Informants perceived the greatest amount of progress in addressing the “neighborhood and built environment.” Nearly one-quarter of respondents indicated that this dimension improved in recent years. Other SDoH dimensions were largely seen as stagnant or declining. “Social and community context” and “economic stability” were seen as declining by 45.5% and 52% of informants, respectively. This finding may be indicative of the economic impact of COVID-19 and recent emphasis on historical and systemic racial inequities. Thirty percent (30%) of key informants saw housing opportunities as declining.

Quality of Life and Social Determinants of Health: Perceived Trends

	Improved (3)	Stayed the Same (2)	Declined (1)	Don't Know/NA	Mean Score
Quality of Life , defined as the general well-being of individuals and communities	10.4%	54.6%	27.3%	7.8%	1.68
Social Determinants of Health					
Neighborhood and built environment (access to healthy foods, sidewalks, open spaces, transportation)	22.1%	58.4%	14.3%	5.2%	1.97
Health and healthcare (access, cost, availability, quality)	13.0%	67.5%	15.6%	3.9%	1.90
Education (high school graduation, enrollment in higher education, language/literacy, early childhood education and development)	9.1%	64.9%	16.9%	9.1%	1.74
Housing opportunity (quality, cost, availability)	4.0%	57.9%	30.3%	7.9%	1.58
Social and community context (social cohesion, civic participation, perceptions of discrimination and equity, incarceration/institutionalization)	10.4%	32.5%	45.5%	11.7%	1.42
Economic stability (poverty, food security, employment, housing stability)	6.5%	33.8%	52.0%	7.8%	1.39

Informants were asked to share open-ended feedback regarding community health and well-being for the populations they serve. Many informants spoke to the impact of COVID-19 on the community, as well as regional economic decline, growing behavioral health needs, and lack of affordable housing and healthcare options. Select verbatim comments by key informants are included below.

- > *“COVID has seriously affected social interaction, exercise, healthy eating.”*
- > *“The COVID-19 pandemic has exposed shortfalls in public health, hospitals/health systems, payment systems/insurance.”*
- > *“Healthcare access and overall economic conditions did improve with the ACA, but have dramatically declined recently due to the pandemic.”*
- > *“Housing in the Danville area is high with limited availability.”*
- > *“Loss of factory work, no high paying jobs in area any longer, harder to make ends meet for most of Northumberland Co., no transportation available for people to get emergency care, increase of drug and alcohol use.”*
- > *“Need more intergenerational opportunities.”*

- > *“Our area is considered a rural area which consists of a large elderly population. The elderly population are hesitant to seek help for themselves and refrain from asking for assistance when they have an unmet need for daily living.”*
- > *“The area has seen a dramatic decline in the past 12 years since I moved here. People have continuously left the area to find work, go to college, and the elderly, which are the bedrock of this community, are passing away or moving into elder care facilities. The housing in the area is controlled by landlords who do the minimum upkeep to the properties. Many properties are unsafe. If you do not own a vehicle, you are relying on limited choices for transportation. This area is not appropriate for low-income families who could be better served in Urban/Metro areas where more services are available including public transportation.”*
- > *“The community I reside in has an influx of inner city folks who have brought their way of life with them, including heavy drug culture, that has been accommodated by lack of policy enforcement for maintaining quality housing (lack of codes follow through) leading to crime, racial tension and security loss for the community. Seniors are often at risk as they have limited supports and are often taken advantage of by these individuals. The whole health care and social supports systems are overwhelmed by lack of funding and staff availability to provide service. Health care workers are burning out and experiencing health issues themselves.”*
- > *“The opioid epidemic has stunted efforts being made to improve health and wellness in our region.”*
- > *“The price of healthcare keeps rising faster than inflation, and the toxic political culture nationally has poisoned the local mood, too. This latter comes directly from the top, i.e. the president. Likewise, the utterly awful response to COVID-19, nationally, has filtered down to a stupid, piecemeal approach statewide and locally -- high school sports most important, again? -- and this has left many of our businesses and all of us as citizens floundering.”*
- > *“There are opportunities available for people, there are plenty of "programs" but engaging those people caught in poverty due to mental health or substance abuse issues continues to be an issue. Meeting people where they are and providing early intervention for kids at risk is an important component to overall community health.”*
- > *“We have strong employers locally that provide a stable economic backbone for our borough, but like everyone else coronavirus has strained local resources. We have stronger local health-related amenities and infrastructure than some communities, but I also believe that poverty and struggle are somewhat hidden, because social services are all provided by larger, regional umbrella organizations rather than through our local municipality.”*

Community Engagement and Partnerships

Key informants were asked to rate their agreement to statements pertaining to community partnerships and engagement of diverse stakeholders and residents. Statements were rated on a scale of (1) “strongly disagree” to (5) “strongly agree.” Key informants’ responses are outlined in the table below in rank order by mean score.

Nearly 80% of informants “agreed” or “strongly agreed” that health and social service providers welcome partnership opportunities with area hospitals, and 70% “agreed” or “strongly agreed” that hospitals welcome partnership opportunities with health and social service providers. Nearly 70% of informants “agreed” or “strongly agreed” that they regularly partner with hospital providers on health improvement initiatives and that they know who to contact at the hospital to discuss opportunities. These factors received the highest mean scores by key informants.

Approximately 65% of key informants “agreed” or “strongly agreed” that health and social service providers effectively collaborate to address health needs, while 20% of informants “disagreed” that providers effectively collaborate. Similarly, 18% of informants “disagreed” that partners garner resident feedback or engage residents when developing health improvement initiatives. These factors received the lowest mean scores by key informants.

Community Engagement and Partnership Indicators in Descending Order by Mean Score

	Strongly Disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)	Mean Score
Health and social service providers in the community I serve welcome partnership opportunities with surrounding hospital(s)/health system(s).	0.0%	3.9%	19.5%	57.1%	19.5%	3.92
The hospital(s)/health system(s) located in the community I serve welcome partnership opportunities with surrounding health and social service providers.	2.6%	10.4%	16.9%	48.1%	22.1%	3.77
My organization regularly partners with the local hospital(s)/health system(s) on health improvement initiatives.	5.2%	11.7%	14.3%	44.2%	24.7%	3.71
If I want to collaborate with the hospital(s)/health system(s) located in the community I serve, I know who to contact.	3.9%	14.3%	14.3%	41.6%	26.0%	3.71
Health and social service partners in the community I serve effectively collaborate to address health needs.	0.0%	19.7%	15.8%	57.9%	6.6%	3.51
Health and social service partners in the community I serve garner resident feedback or engage residents when developing health improvement initiatives.	0.0%	18.4%	40.8%	39.5%	1.3%	3.24

Key informants were asked what they perceived as barriers to health and social service partnerships within their communities. Respondents could choose as many barriers as applied. The following were the top identified barriers, selected by 30%-34% of informants: Lack of shared data or measurement tools; inconsistent service areas or geographic boundaries; and ability to get local leaders to work together. Lack of operating support was the fourth ranked barrier (27%), followed by lack of consistent or timely communication (25%).

Top Perceived Barriers to Community Collective Impact Partnerships

Ranking	Barrier	Percent of Informants	Number of Informants
1	Lack of shared data or measurement tools	33.8%	26
2	Inconsistent service areas or geographic boundaries	31.2%	24
3	Ability to get local leaders to work together (competition, varying agendas)	29.9%	23
4	Lack of operating support	27.3%	21
5	Lack of consistent or timely communication	24.7%	19
6	Ability to demonstrate outcomes	23.4%	18
6	Lack of agreement on partnership structure or roles	23.4%	18
8	Don't know/Not sure	18.2%	14
9	Lack of agreement on the functions or management of the partnership	16.9%	13
10	Lack of backbone structure or leadership	11.7%	9
10	Other (please specify)	11.7%	9

Informants provided the following comments related to community partnerships and engagement:

- > *"I feel we have great partnerships. It's always good to have more!"*
- > *"I have been working with and trying to create partnerships and cooperative efforts with health care providers, social service organizations, and educational institutions for years. What I have witnessed is too many meetings and discussions that either allow a concept to die before it's born or no one to take ownership and continue the program after it's inception or trial run. There is no one willing to be held accountable for long-term commitment for change."*
- > *"In working with social service agencies and coalitions, I find the agencies are receptive to working together and overcoming barriers. The only reason I did not give that question strongly agree is the agency turnover due to the low pay in my community and higher pay in surrounding communities. It is hard to keep partnerships strong when staff is constantly changing. I have partnered with the hospitals in the past but I find they are controlling of the partnership and they are not flexible to meet my grant needs or they provide space only no support. A few hospitals in the area offer directly competitive programming and have no willingness to partner on shared goals. It is hard to contact doctors and hospitals to get support for advertising outside programs."*

- > *"I think with better communication among agencies, access to services would increase. I see many agencies operating in "silos," not aware of what others are doing."*
- > 1. *"Many times, hospitals or nursing homes discharge a person who lives alone, with a discharge summary that notes, "Referred to Area Agency on Aging." Often, they do not make this referral BEFORE discharge, they just send the person home. I have called numerous discharge planners to explain that Area Agency has waiting lists, does not always have funding, and in any case cannot provide 24/7 home care at all, let alone immediately. I have been told that since they made the referral, it is now our responsibility. If they would only call BEFORE the discharge and discuss what AAA can or can't provide for this particular patient, unsafe discharges would be avoided."*
- 2. *"Doctors (PCP offices) often call Area Agency on Aging about things that they (the PCP) should be doing. Only a physician, not Area Agency on Aging, can revoke a person's driver's license or declare a person mentally incompetent. Why don't they know this? I have also encountered PCPs who have no idea of the procedure involved to admit a patient to a nursing home. I am happy to explain, since this involves both the PCP and AAA, but again, shouldn't doctors and nursing homes be aware of this?"*
- > *"Partnership for true community based quality improvement issues is vital. Often that is challenged by the ability of partners and providers to have the structure and resources necessary to do so effectively. Within our scope of focusing on those 65+ and particularly those with cognitive concerns, we know there are well-documented challenges in detection and diagnosis, particularly in primary care and community settings. Geisinger's Memory Clinic staff have been incredibly engaged leaders and partners but overall sites and departments throughout the system are not and quite often any willingness or responsiveness to further discussions is met with silence or significant institutional barriers that make true partnerships difficult to advance."*
- > *"People may not have a clear understanding of the services that are available. I'm not sure they know where to start. Every organization has its own program and even if there is collaboration, do people really know where to go to get information or services they need?"*
- > *"There are frequent conversations that we, as social service agencies, have with healthcare leaders. But it very rarely leads to productive partnerships. We find that healthcare leaders are very inwardly focused on their own organizations. They are focused on hiring "their own people" instead of leveraging the strengths of and supporting social service agencies."*
- > *"We have multiple layers of jurisdiction and service. Our local jurisdictions are very politically divided. People have different facts. This has been a huge problem with corona virus pandemic."*

COVID-19 Response and Recovery

COVID-19, named as a novel coronavirus discovered in Wuhan China in December 2019, caused a worldwide pandemic, resulting in nearly one million deaths worldwide (as of the printing of this report) and global economic impact. New insights are derived daily during this dynamic situation and the CHNA partners will continue to learn from data collected throughout the pandemic.

Key informants were asked to rate the extent to which their organization is “worried” about the long-term impact of the COVID-19 health crisis on communities and residents. Ratings were based on a scale of (1) “not at all worried” to (5) “very worried.” Key informants’ responses are outlined in the table below in rank order by mean score.

Mean score findings indicate that key informants were generally “moderately” worried about the long-term impact of COVID-19 on communities and residents. All factors received rounded mean scores of 3.7 or higher, with the exception of “trust in public health institutions and information” rated as a score of 3.2. Key informants were most concerned about the impact of COVID-19 on the mental and emotional health of residents (86.5%), the well-being of the elderly (81%), and community financial health (73%). More than half of informants indicated they were “very worried” about these three items.

Perceived Level of Worry for the Long-Term Impact of COVID-19 on Communities and Populations in Descending Order by Mean Score

	Not At All Worried (1)	Slightly Worried (2)	Somewhat Worried (3)	Moderately Worried (4)	Very Worried (5)	Mean Score
Mental and emotional health of residents	0.0%	4.1%	9.5%	28.4%	58.1%	4.41
Well-being of the elderly	0.0%	1.4%	17.6%	27.0%	54.1%	4.34
Community financial health	2.7%	2.7%	21.9%	20.6%	52.1%	4.16
Well-being of healthcare workers	2.7%	8.1%	14.9%	32.4%	41.9%	4.03
Well-being of racial and ethnic minority groups	6.9%	6.9%	15.1%	41.1%	30.1%	3.81
Well-being of young people	4.1%	12.2%	21.6%	35.1%	27.0%	3.69
Trust in public health institutions and information	18.9%	14.9%	18.9%	20.3%	27.0%	3.22

COVID-19 has created new challenges for engaging residents in their health and well-being, and has highlighted longstanding inequities that perpetuate disparities among people of color and within vulnerable communities. Health and social service providers have the opportunity to apply lessons learned from COVID-19 to future efforts to better engage residents and promote sustained changes for community health.

Key informants were asked to share how their organization is effectively engaging community residents during COVID-19. Many informants spoke to the increased use of technology and social media to provide virtual learning and service environments, community education and awareness campaigns, mobile and community-based services, and cross-sector partnerships to better understand COVID-related needs and disseminate available information and resources. Select verbatim comments by key informants are included below.

- > *“Agency staff continue to contact community residents weekly to assess their needs for agency services.”*
- > *“All meetings are open via zoom to the public. Issued declaration of health emergency and regularly release reports and status.”*
- > *“All services of the MACC (Middlecreek Area Community Center) are opened so that we can support the physical fitness, food insecurity, childcare, medical outreach, and family activity needs of our community in a manner consistent with the orders and guidance from the state.”*
- > *“Distribution of food and case management for clients by appointments or phone calls.”*
- > *“Education on COVID, offering face-to-face visits and video/telephone visits for those at risk patients.”*
- > *“Free Mobile Food Pantry. Online programs.”*
- > *“Head Start will offer in-classroom and virtual services to clients. Social services staff will be reaching out to families on a weekly basis to assess the family's needs.”*
- > *“Launched several initiatives aimed at helping businesses, schools, and community organizations reopen, as well as served as the trusted healthcare partner to disseminate info on COVID.”*
- > *“Not as well as I'd like. We have done press releases, a public health signage campaign, and have organized a Spotlight Orange press conference. It's still hard.”*
- > *“Partnering with local nursing homes for support. Masking education provided to community.”*
- > *“Providing access to COVID testing through our internal hotline. Providing community education. Offering community-welcomed flu shots/health screenings.”*
- > *“Providing programming and services to help meet the needs of patients, members, and communities to help them successfully navigate through this challenging time. Engaging with CBOs and forming partnerships and formalized referral options in conjunction with newly introduced tech support (Neighborly). Doing "check in" appointments and making sure we are embedding questions during appointments to better understand if any concerns or issues.”*
- > *“Public awareness, open access meetings for the community, signage in medical practices and facilities, public access to COVID-19 hotline. Health and wellness coaches engaging community residents. Mobile bus bringing services to the community (lab testing, flu vaccine, diabetes screening).”*

- > *“Subsidizing efforts to provide safety and hygiene information in multiple ways, both broadly (podcast, news releases) and specifically (signs in stores, etc.).”*
- > *“We are back in operation at 75 percent capacity. We are using virtual methods to assist with volunteering e.g., college student reading book to children, virtual play and learn sessions.”*
- > *“We are doing everything we can at the Miller Center to provide a clean and safe environment for members to exercise while COVID-19 is still very present in our communities. Exercise is an extremely important part of well-being and it is important for local gyms, fitness, and recreation centers to stay open to provide safe opportunities for people to get out of their homes and exercise.”*
- > *“We are gradually restarting programming to support health and wellness, however, many people in our community do not feel comfortable participating yet.”*
- > *“We are leading the coordination of COVID response for social service agencies. We have leveraged funding and provided that to support agency grants as well as direct support to the community.”*
- > *“We are not effectively engaging the community. I personally work with many who have lack of internet and phone services to complete courses online or via phone communication. It is very hard to market the programs and advertise when so many businesses and partner agencies are closed or are limiting their own in-person, telephone, or online services. Our offices are only accessible to the public by email, mail, or phone as all agents are working remotely and online with very limited face-to-face contact. The website as a whole is a useful tool for COVID-19 research and science-based information, but if they are unable to access the internet or do not know of our website's existence, they will not benefit.”*
- > *“We are working on developing programs that can provide hope for a brighter future and prosperity for our region as a whole. Trying to get the right people at the table to seriously address the mental and psychological treatment that is, and will be, needed long term. Trying to create alternatives for employers to hire and retain employees that either have skills and/or get the necessary skills while employed.”*
- > *“We have created a podcast to facilitate communication and compile and share information about the pandemic, highlighting the need to follow trustworthy sources and recognize/fight disinformation and misinformation. We struggle with a lack of leadership outside of the service agencies on this topic locally.”*
- > *“We have funds available to provide financial assistance with rent, car repairs, utility shut off notices, and other unexpected financial obligations that arose during COVID (e.g., a death in family).”*
- > *“We have responded with financial support, as well as participated in task forces to better understand the needs of the community and the resources that are available. These efforts have helped to highlight what needs are being met and where focus is still needed or will be needed to fill gaps in services and resources.”*
- > *“We worked with healthcare and manufacturers to make and acquire PPE for high-risk individuals and providers.”*

Additionally, informants were asked to share how hospitals and community partners can effectively collaborate to address health and social disparities highlighted by COVID-19. Informants provided the following suggestions:

- > *“As a leader of a facility that is owned by two separate hospital systems, we find regular meetings to be an extremely effective way to collaborate. In these meetings we share with the healthcare teams what is going on in the Center and they share with us their challenges and opportunities to collaborate. For example, blood donations are in high demand right now. Due to restrictions in hospitals on visitation they cannot host blood drives. However, in a recreation center we are able to host such an event and help meet this demand.”*
- > *“Available education to community groups, public access to COVID-19 hotline, availability of testing centers on public transportation routes.”*
- > *“Braided funding is a must. We need to get creative about how we fund these issues. And we need to do it together. Healthcare leaders need to respect and be open to the fact that social service agencies can provide services and programs at a fraction of the cost that they can. And often are more effectively.”*
- > *“Geisinger launched Neighborly is an easy-to-use social care platform that can help connect our neighbors to free and reduced-cost programs and services in the community. Since March 2020, over 600 people from various community organizations participated in training regarding the platform.”*
- > *“Hospital social workers understand more about the services offered by the community partners and as soon as possible notify the social service partner of what issues the patient about to be discharged has and to make sure there is effective and ready answers to meet those needs. Last minute needs are often times very difficult to fill within a few hours' time span. This is particularly true of those needing housing. Geisinger Foundation has been extremely helpful for AGAPE in its financial donations to help with housing, food, and transportation needs of our clients.”*
- > *“I think communication is critical to effectively collaborate. It is important for both groups to listen to one another and for conversations to be had with those with the authority to act. Response efforts cannot get lost in committee discussions or be only feel-good in nature. Our communities are going to need a united front now and going forward to address the health and social disparities highlighted by COVID-19.”*
- > *“It is difficult for parents to access mental health services for both their children and themselves. Shorter response time for in-take.”*
- > *“It would be beneficial to attend schools and provide information at student levels. It would be important to get involved with churches, workout groups, or social committees to share information regarding CDC guidelines, misconceptions, and importance of social practices to maintain health and wellness of all community members.”*

- > *“Let's start by being honest. The health and social disparities were not highlighted by covid-19, as much as they were made worse and thus more apparent due to the orders put in place in response to covid-19. For example, in the case of COVID patients being placed in nursing homes, where the population was most vulnerable, there was an egregious disparity of elitism in that the health secretary who made that decision took her own mother out of the senior home just prior to enacting the decision. Hospitals and community partners can address such disparity by effectively collaborating to holding these officials in government accountable.”*
- > *“Our community center strives to meet the needs of the community as best we can. I would recommend starting collaboration by understanding what hospital community services and benefits might best be delivered via a community center setting. The Evangelical Hospital mobile unit comes to our facility on a regular basis. Red Cross comes for blood drives and provides some educational classes like CPR and first aid. There may be others including on-site doctor visits or physical therapy or diet programs where the community center provides the facility and perhaps some staffing but the hospital provides the programs and expertise.”*
- > *“Provide local asymptomatic testing options to get community members back to work in a timely fashion, especially given the public transportation dependency of our community.”*
- > *“Put pressure/convince local elected officials of the need to amplify public health messaging.”*
- > *“Sharing information. Using social media. Conducting and attending coalition meetings and sharing resources. Open communication and partnerships with area social service organizations. Supporting local agencies by providing guest speakers to events (live or virtual) and creating opportunities for the community to learn more about the hospital and agencies that support the health and welfare of the community through health fairs, open houses, and community events when face to face communication is safe again.”*
- > *“There is so much conflicting information out about COVID-19 that it would be nice to have hospitals and community partners on the same page. Keeping everyone informed about the rate of spread would also help. Again, numbers continuously differ so that it is difficult to know who to believe or trust.”*

Evaluation of Impact from Prior CHNA Implementation Plan

Background

In FY2019, GMC, GSACH, and Geisinger Encompass Health Rehabilitation Hospital completed a CHNA and developed a supporting Implementation Plan to address identified health priorities. The strategies implemented to address the health priorities reflect Geisinger’s mission and commitment to improving the health and well-being of the community.

Guided by the findings from the FY2019 CHNA and input from key community stakeholders, Geisinger leadership identified the following priorities to be addressed by the Implementation Plan:

- > 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)

Geisinger’s timeline for completing the FY2019 CHNA was consistent with their fiscal tax year, beginning July 1 and ending June 30. Starting in 2021, Geisinger will transition its year-end to a calendar year. Due to the change in year-end, the Implementation Plan initiated by GMC, GSACH, and Geisinger Encompass Health Rehabilitation Hospital was in effect from July 1, 2018 to December 31, 2020. The hospitals’ new Implementation Plan will be effective January 1, 2021 through December 31, 2023.

FY2019-CY2020 Evaluation of Impact

GMC, GSACH, and Geisinger Encompass Health Rehabilitation Hospital collaboratively developed and implemented a plan to address community health needs that leverages resources across the health system and the community. The following section highlights the status and outcomes from the implemented strategies.

Access to Care

Goal: Ensure residents have access to quality, comprehensive healthcare close to home.

Objective #1: Increase the number of residents who have a regular primary care provider (PCP).	
Strategies	Status
1. Partner with the Primary Health Network to increase availability of primary and specialty care services for uninsured and underinsured residents.	Active
2. Screen patients who access services at the ED to determine if they have a medical home and assist those that do not in finding a PCP.	Active
3. Assist residents with eligibility determination and enrollment in subsidized health insurance programs to increase provider options.	Active
Additional Information	
<ul style="list-style-type: none"> • Geisinger is actively meeting with local legislators, the Primary Health Network, and Keystone Health to discuss partnership opportunities to improve access to Federally Qualified Health Centers (FHQCs), including new provider sites and programs. 	

Objective #2: Increase access to primary and specialty care providers.	
Strategies	Status
1. Recruit primary care and specialists.	Active
2. Develop relationship and self-pay contracting with Amish populations to increase early access to preventive and well care.	Active
3. Explore telemedicine options to provide services to MUAs and HPSAs.	Achieved
Additional Information	
<ul style="list-style-type: none"> • Geisinger is assessing baseline healthcare usage among Amish residents to measure outreach strategy outcomes. Geisinger holds provider meetings around episodes of care for the Amish community to establish treatment plans consistent with cultural norms and values. • In June 2020, Geisinger Infectious Disease physicians began conducting telemedicine consults at Mount Nittany Medical Center in State College, a designated medically underserved area. • In 2020, Geisinger launched a mobile dental care unit to deliver no-cost dental exams and preventive services to children in pre-K through grade 12 throughout its service area. The 38-foot-long bus is outfitted with two fully equipped dental operatories to provide a full spectrum of preventive and diagnostic services at no cost, such as dental exams, X-rays, cleanings, fluoride treatments and sealants, as well as home care education and nutritional counseling. The bus rotates to different schools and locations in Geisinger’s footprint with the goal of improving oral health in the community, educating children and parents, and helping them find a permanent dental home. 	

Objective #3: Reduce barriers to receiving care for residents without transportation.	
Strategies	Status
1. Partner with Geisinger Health Plan and local agencies to expand transportation services to access health and social services.	Active
2. Explore telemedicine options to address transportation barriers to care.	Achieved
3. Explore options and partners to provide home-based care services.	Active
Additional Information	
<ul style="list-style-type: none"> • Geisinger provides coordinated rides to clinical appointments for Geisinger Health Plan patients referred by a Community Health Assistant, and identified as medically complex and having a transportation barrier. Rural Danville (within 50 miles) is a target geography for the program. • Geisinger provides transport for Fresh Food Farmacy patients in Shamokin and has added post-discharge transports as a result of limited transportation resources due to COVID-19. • In April 2020, Geisinger System Triage Officers initiated telemedicine for COVID-19 patients discharged home and requiring further monitoring of their condition. • All patients enrolled in Complex and Behavioral Health Care Management are screened for Social Determinants of Health needs. Using Neighborly, an enrollment and administration software for community development programs, members with identified needs are referred to community resources such as housing and food sources. 	

Objective #4: Promote awareness of available options for assistance to pay for health care needs.	
Strategies	Status
1. Develop a communication strategy to promote awareness of the Financial Assistance Policy.	Active
2. Improve literacy level and language availability of the Financial Assistance Policy (FAP) to improve readability by patients.	Active
Additional Information	
<ul style="list-style-type: none"> Geisinger offers payment plans and financial assistance to eligible patients who are struggling financially or who are uninsured. Geisinger's financial assistance application, brochures, policy, and participating provider list are available in the following languages: English, Spanish, Arabic, Chinese, Nepali, and Vietnamese. The brochure is written at a fifth-grade reading level. 	

Objective #5: Foster pursuit of health careers and ongoing training of health professionals.	
Strategies	Status
1. Engage community members and health professionals in introductory educational opportunities and ongoing healthcare education.	Deferred
2. Develop retention plans to maintain our healthcare workforce in rural areas.	Active
Additional Information	
<ul style="list-style-type: none"> Healthcare education programs were offered in 2018 and 2019, but were postponed in 2020 due to COVID-19 restrictions. GMC and GSACH collaborate with the Geisinger Commonwealth School of Medicine to enroll medical students in the Abigail Geisinger Scholars Program. The program aims to help students achieve their professional goals without financial burden, while promoting needed medical specialty areas, including primary care and psychiatry. Participant scholars graduate from medical school without tuition debt and receive a \$2,000 monthly stipend. Upon completion of residency training, scholars become Geisinger-employed physicians with a two-year minimum employment requirement. To measure healthcare workforce retention, Geisinger set a new hire target ratio. In FY2020, the system met and exceeded the target ratio. 	

Behavioral Health

Goal: Model best practices to address community behavioral health care needs and promote collaboration among organizations to meet the health and social needs of residents.

Objective #1: Advance local and state dialogue to address behavioral health needs.	
Strategies	Status
1. Convene partners or participate in existing coalitions to identify and address gaps in services.	Active
2. Advocate to remove regulatory barriers to the provision of behavioral health services.	Active
Additional Information	
<ul style="list-style-type: none"> Geisinger Behavioral Health is engaged in a variety of community forums to identify and meet gaps in service. Forums are held with the United Way, mental health providers, and Single County Authorities (county drug and alcohol offices), among others. Due to COVID-19, a number of regulatory barriers to providing telepsychiatry care were removed, resulting in improved access to services for residents. Geisinger is advocating for these changes to become permanent beyond the pandemic. 	

Objective #2: Foster integration of behavioral and primary health care.	
Strategies	Status
1. Integrate primary and behavioral healthcare within PCP practices.	Achieved
2. Expand partnership with the Primary Health Network to integrate behavioral health services within Federally Qualified Health Center locations.	Deferred
Additional Information	
<ul style="list-style-type: none"> Pediatric and adult psychiatry services are now available to Geisinger PCP practices via the addition of 5.2 full-time employees (FTEs) providing telepsychiatry services. While Geisinger held initial conversations with the Primary Health Network to discuss integrated behavioral health services, a formal partnership plan has not been established to date. Geisinger will continue to pursue this opportunity as appropriate. 	

Objective #3: Provide education to increase residents' awareness of behavioral health issues and reduce stigma associated with behavioral health conditions.	
Strategies	Status
1. Provide a Chronic Pain Support Group for patients and their caregivers.	Deferred
2. Provide the Multidisciplinary Pain Management (MPP) program to educate individuals about alternative treatments for chronic pain.	Achieved
3. Implement Post-Partum depression screening in new mothers, from post-partum period through first year of baby's life.	Achieved
Additional Information	
<ul style="list-style-type: none"> • The Chronic Pain Support Group was held through November 2019. Due to COVID-19, sessions were not held in 2020. Geisinger will reevaluate hosting sessions in 2021. • The MPP program continues to see patients both virtually and in a socially distanced classroom setting. Approximately 100 patients are currently enrolled in the program. • In May 2020, Geisinger implemented a program to screen for postpartum depression when mothers visit their providers for routine checkups or bring their children to the pediatrician's office. The program uses the Edinburgh Postnatal Depression Scale (EPDS), a validated 10-item questionnaire. During prenatal appointments, moms are screened during their initial obstetrician visit, at the 28-week and 34-week checkups, during the six-week postpartum visit, and during the one-year postpartum checkup visit. The screening program expands to pediatric appointments, where mothers are screened during the encounter as part of their child's well-child visits from two weeks to 12 months. Geisinger created an online pregnancy hub called MyPregnancy Center, which hosts tools and resources for women's health, pregnancy, breastfeeding, postpartum depression, and newborn care. 	

Objective #4: Increase access to behavioral health services.	
Strategies	Status
1. Promote the Geisinger psychiatry residency program, and continue to develop residency experiences in the community setting.	Active
2. Explore telemedicine options to provide services.	Achieved
3. Support enhancement of Medically-Assisted Treatment (MAT) clinics and broader access to reversal drugs.	Active
4. Recruit additional substance use disorder providers.	Active
Additional Information	
<ul style="list-style-type: none"> • The Geisinger psychiatry residency program has 16 current residents and has graduated seven residents. Residents provide care at county-based Mental Health Clinics and at area universities. • Behavioral health telemedicine access has been approved and is active at both GMC and GSACH campuses. • Geisinger continues to expand MAT services and provider availability. As of September 2020, the MAT clinics saw a total of 3,705 unique patients; 85% of patients were seen within 10 days of referral. As of June 2020, MAT clinics reported an 86% reduction in all-cause mortality among individuals with opioid use disorder. 	

Chronic Disease Prevention and Management

Goal: Reduce risk factors and premature death attributed to chronic diseases.

Objective #1: Encourage community initiatives that support access to and availability of healthy lifestyle choices.	
Strategies	Status
1. Enhance food services opportunities for residents and employees.	Active
2. Support various community health and wellness educational programs.	Active
Additional Information	
<ul style="list-style-type: none"> From July 2018 to July 2020, GSACH served a total of 557,900 meals to residents in need. The program has seen increased demand, with 1,592 individuals served in July 2018 (15,920 meals) and 2,839 individuals served in July 2020 (28,310 meals). Since July 2018, GSACH has seen a 43% increase in healthy meals provided per month. Geisinger offered 145 no-cost events, reaching more than 48,600 patients and residents, from July 2018 to July 2020. Note: Several events were cancelled in 2020 due to COVID-19. Geisinger was able to transition most evidence-based programs to a virtual setting. 	

Objective #2: Initiate early stage interventions for individuals at high risk for chronic disease.	
Strategies	Status
1. Provide HealthyWomen PA mammogram and cervical cancer for underserved women.	Active
2. Provide free diabetes prevention and management education and screenings.	Active
3. Provide nutrition and weight management classes for residents.	Deferred
4. Provide Cardiology outreach to Schuylkill County.	Achieved
5. Promote and support the Geisinger Fresh Food Farmacy initiative.	Active
Additional Information	
<ul style="list-style-type: none"> Geisinger offered 324 no-cost, evidence-based diabetes prevention and management programs, reaching more than 2,300 residents, from July 2018 to July 2020. Note: Several programs were cancelled in 2020 due to COVID-19, including nutrition and weight management classes. Geisinger was able to transition most programs to a virtual setting. Schuylkill County has the highest heart disease death rate in the Central Region, exceeding state and national benchmarks. Geisinger is increasing access to cardiology services in the county, including daily specialty provider appointments and construction of a new medical office building to include cardiology care. The GSACH Fresh Food Farmacy pilot site saw increased enrollment of 36.5% or 98 participants from July 2018 (170 participants) to July 2020 (268 participants). Participants averaged an A1C reduction of just over 2 points, indicating both program adherence and adoption of healthier lifestyles. A1C is a measure of diabetes management. Geisinger Encompass Health Rehabilitation Hospital provided chronic disease screenings, seminars, and support groups, largely targeting seniors. Programs included stroke screenings and fall prevention/home safety awareness seminars in partnership with senior centers and the YMCA. Support groups included sessions for stroke, amputation, brain injury, Parkinson's disease, and spine, and addressed diverse topics including elder law, yoga and mindfulness, the importance of caregivers, and music therapy, among others. 	

Objective #3: Develop integrative care models to improve outcomes for patients with chronic disease.

Strategies	Status
1. Expand Paramedic and At Home resources to minimize travel and provide care within the home.	Active

Additional Information

- Geisinger’s Mobile Paramedic Health Program is designed to decrease unnecessary utilization of emergency medicine services and reduce hospital readmissions. In 2015, the program won the Emergency Care Innovation of the Year award by unanimous vote by Urgent Matters and the American College of Emergency Physicians. The program continues to see increased volumes in the Central Region.
- More than 5,000 Geisinger Gold members currently benefit from Geisinger at Home in more than 15 counties in Pennsylvania. The program has seen a 43% reduction in ED visits and a 48% reduction in hospital admissions among program participants.

Board Approval and Next Steps

The 2021 CHNA final report was reviewed and approved by the Geisinger Board of Directors in December 2020. Following the Board's approval, the CHNA report was made available to the public via the Geisinger website at <https://www.geisinger.org/about-geisinger/in-our-community/chna>.

Questions or comments regarding the 2021 CHNA or Geisinger's commitment to community health can be directed to Allison Clark, Community Benefit Coordinator, Strategy & Market Advancement, Geisinger at aclark1@geisinger.edu.

Geisinger is committed to our not-for-profit mission and an evolution of caring. Everything we do is about caring for our patients, our members, our students, our Geisinger family, and our communities. Founded more than 100 years ago by Abigail Geisinger for her central Pennsylvania community, Geisinger has expanded and evolved to meet regional needs and developed innovative, national programs in the process.

The organizations throughout northeast and central Pennsylvania are strong representations of what makes our community unique. We are proud to foster partnerships that focus on strengthening our communities - whether directly health care related or not. We welcome community organizations to engage with us as we work to address the region's top health issues and implement a plan for community health improvement.

Appendix A: Public Health Secondary Data References

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Appendix B: Public Health Data Summary

The following table highlights key public health data findings for the Central Region. A “red” finding indicates an area of opportunity, while a “green” finding indicates an area of strength, in comparison to state and national benchmarks. Arrows indicate increasing (▲) or decreasing (▼) trends, as demonstrated in this report.

Public Health Data Summary

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA	US
Access to Healthcare (FY2019 CHNA Priority Area)								
Total Uninsured (2014-2018)	4.7% ▼	5.4% ▼	5.9% ▼	6.1% ▼	11.9% ▼	10.3% ▼	6.2%	9.4%
Black uninsured	7.6%	16.3%	9.2%	4.5%	3.3%	4.2%	8.7%	10.8%
Latinx uninsured	1.9%	1.4%	12.0%	15.8%	10.4%	34.8%	14.4%	19.2%
Medicaid insured (2014-2018)	16.6%	16.5%	20.6%	20.5%	15.2%	15.7%	18.9%	20.1%
Primary care providers per 100,000 (2017)	53.1	514.4 ▲	44.6 ▲	55.4 ▼	49.0	94.2 ▲	80.8	75.2
Dentists per 100,000 (2018)	45.8	115.1 ▲	39.5	45.0	49.3 ▲	55.8	69.0	69.0
Potentially Preventable Hospitalizations per 10,000 (FY2019)	112.5	134.3	164.3	181.8	112.4	77.5	150.8	NA
Chronic Disease and Health Risk Factors (FY2019 CHNA Priority Area)								
Adult smoking (2017)	18.0% ▲	16.1% ▲	19.5% ▲	18.9% ▲	18.0% ▲	17.0% ▲	18.8%	17.1%
Adult obesity (2017)	36.1% ▲	32.5%	39.1% ▲	36.7% ▲	35.2% ▲	29.8%	30.8%	31.3%
Adult physical inactivity (2017)	32.7%	30.5%	26.4%	23.2%	22.2%	19.3%	23.9%	25.6%
Adult diabetes (2017)	12.4% ▲	6.6% ▼	10.3%	11.8% ▲	10.9% ▲	7.5% ▼	9.0%	8.5%
Heart disease death ¹ (2018)	180.4 ▼	126.1 ▼	218.4 ▼	238.5 ▼	167.0 ▲	135.2 ▼	176.1	163.6
Black (2016-2018)	NA	NA	NA	NA	NA	NA	221.1	203.8
Latinx (2016-2018)	NA	NA	NA	NA	NA	NA	109.1	114.0
Cancer death ¹ (2018)	177.7 ▲	177.1	167.9 ▲	192.2 ▲	138.0 ▼	151.3 ▲	156.6	149.1
Black (2016-2018)	NA	NA	NA	NA	NA	NA	192.4	173.0
Latinx (2016-2018)	NA	NA	NA	NA	NA	NA	109.7	108.5
CLRD ² death ¹ (2016-2018)	42.8	46.9	41.6	43.1 ▼	26.6 ▼	24.2 ▼	36.3	40.4

¹ Death per age-adjusted 100,000.

² Chronic Lower Respiratory Disease (e.g. asthma, COPD, emphysema).

Public Health Data Summary, cont'd

	Columbia County	Montour County	Northumberland County	Schuylkill County	Snyder County	Union County	PA	US
Behavioral Health (FY2019 CHNA Priority Area)								
Mental health providers per 100,000 (2019)	68.7 ▲	515.4 ▲	35.1 ▲	73.9 ▲	59.2 ▲	134.0 ▲	206.5	250.0
Mental disorders hospitalizations per 10,000 (2018)	96.1	101.4	126.5	117.5	60.2	57.6	88.8	NA
Suicide death ¹ (2016-2018)	17.5 ▲	NA	14.2	25.0	NA	NA	14.9	13.9
Adult excessive drinking	19.6% ▲	19.5% ▲	19.0%	18.9%	19.6%	22.0% ▲	19.2%	19.0%
Opioid overdose hospitalizations per 10,000 (2018)	NA	NA	28.8	22.7	NA	NA	25.1	NA
Maternal and Child Health (All 2018 data)								
Teen births	4.4% ▼	NA	5.8%	6.3%	5.3%	5.0%	4.1%	4.7%
First trimester care	70.5% ▼	64.0%	64.9% ▼	67.4%	60.4% ▼	64.2% ▼	73.9%	77.5%
Black	NA	NA	NA	50.0%	NA	NA	64.6%	67.1%
Latina	57.1%	NA	39.7%	51.8%	NA	58.8%	65.3%	72.7%
Low birth weight	9.4% ▲	5.1% ▼	6.6% ▼	7.6% ▼	4.6% ▼	5.2%	8.3%	8.3%
Preterm births	12.0% ▲	12.7% ▲	7.6% ▼	10.1% ▲	7.2%	6.0% ▼	9.5%	10.0%
Breastfeeding	77.4% ▼	88.5% ▼	75.6% ▼	66.8% ▼	87.7% ▲	88.2%	81.9%	83.5%
Non-smoking during pregnancy	83.0% ▲	89.2% ▲	78.6% ▲	79.7% ▲	87.4% ▲	90.9% ▲	89.6%	93.5%
Aging Population Age 65 or Over								
2+ chronic conditions (2017)	71.9% ▲	70.4% ▲	77.9%	76.0%	79.4% ▲	71.4% ▼	72.2%	68.8%
Alzheimer's disease	10.1%	NA	12.2%	12.4%	10.6%	NA	12.2%	12.1%
Depression	17.4%	18.1%	20.1%	14.9%	20.3%	17.0%	16.1%	15.4%
Diabetes	25.8%	25.6%	30.3%	29.0%	29.5%	24.0%	26.6%	27.4%
High cholesterol	47.5%	43.1%	55.2%	51.6%	62.1%	50.8%	47.6%	43.0%
Hypertension	60.6%	56.4%	66.4%	66.8%	66.7%	58.8%	62.3%	59.9%
Living alone (2014-2018)	13.2% ▲	13.5%	14.5% ▲	14.4%	12.3% ▲	14.7% ▲	12.6%	10.7%
Youth Health								
Obesity (Grades 7-12, 2017-2018)	26.3% ▲	22.3%	26.2%	24.3% ▲	24.4% ▲	20.2%	19.5%	NA
Asthma diagnosis (2017-2018)	9.6%	6.3%	7.8%	5.7%	12.1%	8.1%	11.3%	NA
Sad or depressed most days (2019)	35.1% ▲	NA	38.7% ▼	40.6% ▲	NA	43.3% ▲	38.0%	NA
E-cigarette use (2019)	19.6% ▲	NA	19.6% ▲	23.4% ▲	NA	15.2% ▲	19.0%	NA
Alcohol use (2019)	14.7%	NA	14.2%	17.3%	NA	13.8% ▲	16.8%	NA

¹ Death per age-adjusted 100,000.

Appendix C: Key Informants

A Key Informant Survey was conducted with 77 community representatives. The organizations represented by key informants, and their respective role/title, included:

Key Informant Organization	Key Informant Title/Role
A Community Clinic, Inc.	Administrator
AGAPE Love From Above To Our Community	Executive Director
Allied Services Integrated Health System	Assistant Vice President, In-Home Care
Allied Services Integrated Health System	Director
Allied Services Integrated Health System	Vice President, Home Care Services
Alzheimer's Association	Executive Director
Benton Area Rodeo Association, Inc.	Chairman
Berwick Industrial Development Association	Executive Director
Borough of Lewisburg	Special Projects Coordinator
Camp Victory	Camp Director
Central Susquehanna Valley United Way	Board Member
Coal Region Senior Action Centers	Center Operator
Columbia Child Development Program	Administrator
Columbia Child Development Program Head Start	Family Services Manager
Columbia County Volunteers in Medicine	Executive Director
Columbia Montour Chamber of Commerce	Chairperson
Columbia Montour Chamber of Commerce	President
Danville Area School District	Superintendent
Diakon Community Services	Community Wellness Coordinator
DRIVE Economic Development Entity	Executive Director
Evangelical Community Hospital	Director of Quality, Patient Safety, & Risk Mgmt.
Evangelical Community Hospital	Manager, Community Health and Wellness
Evangelical Community Hospital	President/Chief Executive Officer
Evangelical Community Hospital	Vice President of Medical Affairs
Family Services Association	Chief Executive Officer
Foundation of the Columbia Montour Chamber of Commerce	Director
Geisinger Encompass Health Rehabilitation Hospital	Business Development Director
Geisinger Health Plan	Senior Director, Health and Wellness
Geisinger Health System	Administrative Director
Geisinger Health System	Community Benefit Coordinator
Geisinger Health System	Community Specialist
Geisinger Health System	Director Patient Access
Geisinger Health System	Director Tax Services
Geisinger Health System	Marketing Specialist
Geisinger Health System	Vice President, Health Innovation
Geisinger Jersey Shore Hospital	Associate Vice President, Nursing and Clinic Operations
Geisinger Northeast	Director, Nursing Services

Key Informant Organization	Key Informant Title/Role
Good Samaritan Mission	Executive Director
Greater Susquehanna Valley United Way	President/Chief Executive Officer
Greater Susquehanna Valley YMCA-Mifflinburg YMCA	Director
Harrisburg Area YMCA	Executive Director of Chronic Disease
Lewisburg Borough	Borough Council President/Ward 3 Representative
Lewisburg Borough Council	Ward I representative
Lewisburg Neighborhoods	Director
McBride Memorial Library	Library Director
Middlecreek Area Community Center	Executive Director
MidPenn Legal Services	Coordinated Intake
MidPenn Legal Services	Staff Attorney
Miller Center for Recreation and Wellness	Director, Miller Center Joint Venture
Moses Taylor Foundation	President/Chief Executive Officer
New Roots Recovery Support Center	Outreach Director
Northumberland County Area Agency on Aging	Agency Administrator
Northumberland County Area Agency on Aging	Aging Care Manager 2
Northumberland County Area Agency on Aging	Care Manager
Northumberland County Area Agency on Aging	Center Supervisor/Health & Wellness Coordinator
Northumberland County Children and Youth	Administrator
Penn State Extension	Extension Educator
Penn State Extension	Nutrition Education Adviser
Penn State Extension/Nutrition Links	Nutrition Education Adviser
Pennsylvania Office of Rural Health	Director and Outreach Associate Professor of Health Policy and Administration
Primary Health Network	Executive Director of Behavioral Health
Regional Engagement Center	President
Schuylkill 911	Systems Manager
Senior Center	Center Operator
Snyder County Children and Youth Services	Program Specialist
St. Columba School	Principal
SUMMIT Early Learning	Data & Quality Assurance Coordinator
SUMMIT Early Learning	Family Community Engagement Director
SUMMIT Early Learning	Family Engagement Manager
SUMMIT Early Learning	Site Supervisor
The 1994 Charles B. Degenstein Foundation	Trustee
The Children's Museum	Director
The Exchange	Executive Director
The Northumberland National Bank	Chairman/Chief Executive Officer
Town of Bloomsburg	Mayor
Union County Probation Department	Chief Probation Officer
Union-Snyder Agency on Aging, Inc.	Health & Wellness Coordinator