



Community Health Needs Assessment Final Summary Report



December 2019

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Our Commitment to Community Health

Endless Mountains Health Systems (EMHS) is a not-for-profit Critical Access Hospital, primarily serving the residents of Susquehanna County, Pennsylvania. Our hospital is licensed for 25 beds and offers a short procedure unit, emergency services, and various ancillary services typically associated with a medical facility. We maintain physician offices, including various specialties on site. We have established a vast referral source for additional off-site specialties. The hospital has an annual average of 1,000 admissions, 42,000 office visits, and 7,500 emergency visits.

Endless Mountains Health Systems is committed to the operation and development of a health system that will provide optimum care within the scope of its abilities. We consider each patient to be an individual with unique physical, emotional, spiritual, and financial concerns.

The future of EMHS is geared toward prevention, education, and quality with continued development as a health resource. In March 2019, EMHS became one of five hospitals in the state to participate in the new Pennsylvania Rural Health Model in collaboration with the Centers for Medicare and Medicaid Innovation. The model aims to improve care quality and preventative care and reduce hospital spending through new investments and innovative patient care approaches. As a partner in the Rural Health Model, EMHS will be better positioned to meet the community's health needs.



To guide our community benefit and health improvement efforts, EMHS conducts a comprehensive Community Health Needs Assessment (CHNA) every three years. The 2019 CHNA builds upon our 2013 and 2016 studies. The CHNAs are one way we monitor health status across Susquehanna County. The CHNA includes a mix of statistical research and stakeholder input to collect and analyze health trends that impact the health of residents.

This report outlines findings from the 2019 CHNA and highlights strengths and opportunities across Susquehanna County. The findings will be used to guide services at EMHS, as well as to serve as a community resource for grant making, advocacy, and to support the many programs provided by our community health and social service partners.

To learn more about EMHS's work to improve the health of our community, we invite you to visit our [website](#).

Executive Summary of CHNA Findings

CHNA Leadership

The 2019 CHNA was led by EMHS with participation by our community partners. EMHS representatives, listed below, oversaw research and stakeholder engagement. Throughout the process, CHNA findings were shared with EMHS leadership and community partners for review and input. Baker Tilly community health consultants assisted in all phases of the CHNA including project management, data collection and analysis, and report writing.

EMHS CHNA Leadership Representatives

Loren Stone, Chief Executive Officer

Tanya Oleniacz, Accountant

Baker Tilly CHNA Team

Colleen Milligan, MBA, Director, Healthcare Practice

Catherine Birdsey, MPH, Research Manager

Jessica Losito, Research Consultant

CHNA Methodology

The 2019 CHNA was conducted from September to December 2019 and included quantitative and qualitative research methods to determine health trends and disparities within Susquehanna County as compared to health indicators across Pennsylvania and the nation. Primary study methods were used to solicit input from key community stakeholders and health improvement partners. Secondary study methods were used to identify and analyze statistical demographic and health trends.

Specific CHNA methods and stakeholder engagement included:

- > An analysis of secondary data, including health, demographic, and social measures
- > A Key Informant Survey of representatives from health, social services, education, economic, and other community based organizations
- > Prioritization and planning meeting with hospital leadership
- > Development of three-year Implementation Plan

The CHNA was conducted in a timeline to comply with IRS Tax Code 501(r) requirements to conduct a CHNA every three years as set forth by the Affordable Care Act (ACA). The findings will be used to guide EMHS's community benefit initiatives and engage local partners to collectively address identified health needs.

Community Engagement

Community engagement was an integral part of the CHNA. In assessing the health needs of the community, input was solicited and received from persons who represent the broad interests of the community, including underserved, low income, and minority populations. These individuals provided wide perspectives on health trends, expertise about existing community resources available to meet those needs, and insights into service delivery gaps that contribute to health disparities.

Summary Findings

The population of the EMHS service area is less diverse than Pennsylvania and the nation in terms of racial composition, with more than 97% of residents identifying as White. Consistent with national trends, the White population is declining as a percentage of the total population, while minority populations are growing. EMHS service area residents are older than other Pennsylvanians, with a median age of 47.3 versus 41.5. Nearly 1 in 4 residents in the service area is age 65 or over.

EMHS service area residents are less diverse and older with nearly 1 in 4 age 65 or over

The EMHS service area is a predominantly blue-collar community. Approximately 54% of workers are employed in blue-collar positions compared to 39% of workers statewide and nationally. Residents have more moderate incomes and are less likely to pursue higher education. Unemployment is low at 3.5%.

Children in the service area experience greater economic disparity. Approximately 23% of children live in poverty compared to 19% across Pennsylvania. Childhood poverty is higher in areas like Hallstead, Jackson, New Milford, Lawton, and Stevensville. Food insecurity is closely associated with poverty. Approximately 18% of children in Susquehanna County are food insecure compared to 16% statewide, although fewer households receive Food Stamp or SNAP benefits.

Children in the EMHS service area experience greater economic disparity

Public health areas of opportunity within EMHS's service area continue to be centered on access to care; health risk factors and chronic disease; behavioral health needs; and maternal and child health.

Access to Healthcare

Access to healthcare is a concern for Susquehanna County residents. While 9 out of 10 residents have health insurance, and the percentage of uninsured is declining, the county is largely underserved by health professionals. All of Susquehanna County is a Health Professional Shortage Area (HPSA) for dental care for low-income individuals, and a high need HPSA for mental healthcare. The majority of the county, including nearly all of the EMHS service area, is a primary care HPSA.

All or nearly all of Susquehanna County is federally designated as a HPSA for primary, dental, and mental healthcare

The impact of care access barriers is seen in the rate of superutilizers of hospital services among Susquehanna County residents. The Pennsylvania Health Care Cost Containment Council defines superutilizers as patients with five or more annual admissions to a hospital. In Susquehanna County, the rate of superutilizers per 10,000 population increased from 20.2 in 2012 to 23.8 in 2016, exceeding the state benchmark of 21.7. Superutilizers are historically individuals who have poor access to primary care and/or experience socioeconomic barriers.

Health Risk Factors and Chronic Disease

Susquehanna County residents have more health risk factors. Approximately 34% of Susquehanna County adults are obese and 19% smoke. The percentages are higher than the state and nation and increased from previous years. Among youth, nearly 21% of elementary and 25% of middle and high school students are obese. Approximately 9% of youth report smoking and 20% report vaping. All youth reported percentages exceed state averages; the vaping percentage also increased.

Susquehanna County adults and youth have more health risk factors, contributing to higher chronic disease prevalence and poorer disease outcomes

Obesity and smoking, as well as access to care barriers, contribute to heart disease and diabetes prevalence and poorer disease outcomes. While the death rate due to heart disease continued to decline across the state and nation, it increased 59 points in Susquehanna County from 2015 to 2017. The current death rate exceeds both state and national benchmarks. Diabetes prevalence among residents is similar to the state, but the diabetes death rate is nearly two times the state rate.

Respiratory conditions are also associated with health risk factors and are more prevalent across service area residents. Within the four-county region, including Monroe, Pike, Suquehanna, and Wayne counties, an estimated 17% of adults have an asthma diagnosis and 9% have COPD, a higher percentage than the state average. Within Susquehanna County, the death rate due to chronic lower respiratory diseases, including asthma and COPD, is nearly 20 points higher than the state death rate.

COPD is one of the leading causes of morbidity and mortality among vulnerable populations in Susquehanna County

COPD is one of the leading causes of morbidity and mortality among vulnerable populations in Susquehanna County. It is the top reason for hospital admission among superutilizers. It is also the only chronic disease that is more prevalent among Susquehanna County senior Medicare Beneficiaries when compared to the state and nation.

Behavioral Health

Mental distress and demand for mental health services is increasing among Susquehanna County residents. The county had a total of 44 suicide deaths between 2013 and 2017. The corresponding death rate is double the Healthy People 2020 goal. The mental and behavioral disorders death rate in Susquehanna County is lower than the state, but increasing. Trends may continue to shift upward as more youth report feelings of depression and substance use. As of 2017, 41% of Susquehanna County students reported feeling sad or depressed and 20% reported using alcohol, higher than state benchmarks.

Behavioral health needs are growing among adults and youth

The national epidemic of opiate use and overdose has affected Susquehanna County, nearly doubling the drug-induced death rate over the past decade. Residents of all ages are impacted,

as evidenced by the rate of newborns with neonatal abstinence syndrome (NAS), a result of exposure to certain drugs in the womb. The NAS rate per 1,000 newborn stays in Susquehanna County is nearly double the state rate.

Maternal and Child Health

Mothers who experience limited access to care are at increased risk for poorer birth outcomes. The percentage of Susquehanna County mothers receiving early prenatal care is generally declining.

Currently, only 66% of mothers receive prenatal care in the first trimester compared to 73% of mothers statewide. Mothers who do not receive early prenatal care are less likely to initiate breastfeeding or abstain from smoking; both are areas of opportunity for Susquehanna County.

Fewer Susquehanna County mothers access early prenatal care, contributing to poorer birth outcomes

Community Health Priorities

To work toward health equity, it is imperative to prioritize resources and activities toward the most pressing and cross-cutting health needs within our community. In determining the issues on which to focus efforts in our 2020-2022 Implementation Plan, EMHS solicited input from community partners and stakeholders. A summary of the prioritization process for identifying priority health needs is included within this report.

Using stakeholder feedback and taking into account the hospital's expertise and resources, EMHS will focus efforts on the following community health priorities:

- > Access to Healthcare
- > Health Risk Factors & Chronic Disease

Due to resource limitations, EMHS will not directly address behavioral health and maternal and child health needs, although we recognize they are key drivers of poor health outcomes within the community. We will continue to engage with community partners, including the Susquehanna County Suicide Awareness Initiative, NEPA Community Health Care, and Scranton Counseling Center, to collaboratively address behavioral health needs. We will also promote early prenatal care and reduced maternal risk factors as part of our focus on increasing access to high quality care and reducing the burden of chronic disease among residents.

Board Approval

The 2019 CHNA Final Report and corresponding Implementation Plan were reviewed and approved by the EMHS Board of Directors on December 27, 2019. The CHNA Final Report is available for review and comment on the EMHS website.

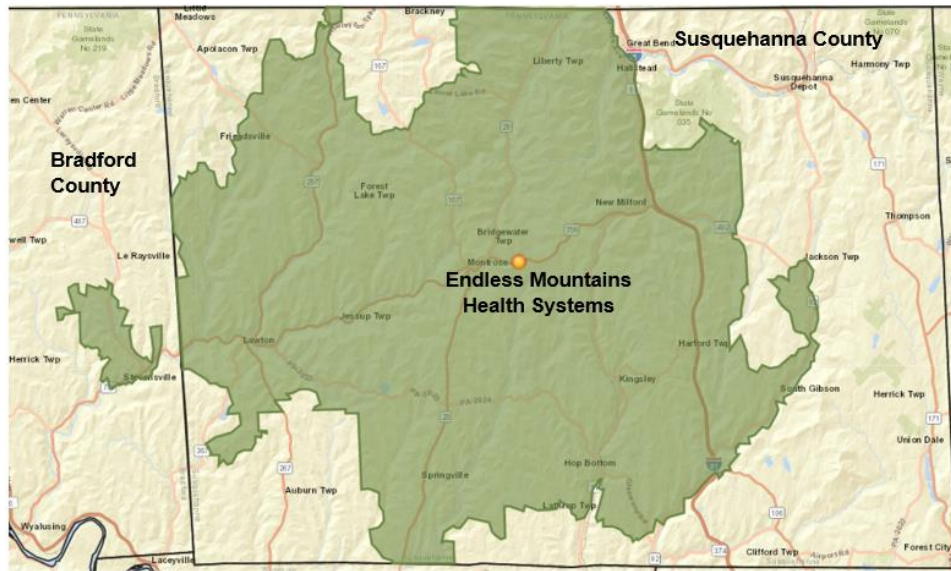
Full Report of CHNA Findings

The Endless Mountains Health Systems Service Area

Endless Mountains Health Systems is located in Montrose, Pennsylvania in Susquehanna County. For purposes of the 2019 CHNA, EMHS focused on its primary service area including 12 zip codes surrounding the hospital.

The 2019 CHNA analyzed socioeconomic and health indicators data for all of Susquehanna County, while highlighting unique findings within the primary service area, as available. The map below depicts EMHS's primary service area.

The Endless Mountains Health Systems Service Area



Primary Service Area Zip Codes

- 18801, Montrose
- 18818, Friendsville
- 18822, Hallstead
- 18823, Harford
- 18824, Hop Bottom
- 18825, Jackson
- 18826, Kingsley
- 18828, Lawton
- 18834, New Milford
- 18842, South Gibson
- 18844, Springville
- 18845, Stevensville

Endless Mountains Health Systems Service Area Demographic Data Analysis

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**. Healthy People 2020 defines a health disparity as “a particular type of health difference that is closely linked with social, economic, or environmental disadvantage.”

Social determinants of health are factors within the environment in which people live, work, and play that can affect health and quality of life

Data for the EMHS service area and all of Susquehanna County are presented with state and national data sets to demonstrate broad trends and areas of strength and opportunity. Demographic analysis by zip code follow the local-level analysis to provide a detailed view of population statistics. All reported data were provided by ESRI Business Analyst, 2019 and the US Census Bureau unless otherwise noted.

Population Trends

The 2019 population of the EMHS service area is 24,145. The population is projected to decline through 2024 at a similar rate to Susquehanna County. The state population is projected to increase approximately 1% by 2024, a slower rate of growth than the nation overall.

EMHS service area residents are less diverse than the state and nation, with more than 97% of residents identifying as White. Consistent with national trends, the White population as a percentage of the total population is projected to decline gradually in the service area, while other racial groups are projected to increase. Approximately 3% of service area residents speak a language other than English compared to 11% statewide and 21% nationally.

The median age of EMHS service area residents is 47.3, higher than the state and nation. The population age 60 or over within the service area is increasing, bringing increased emphasis on health and social needs among older residents.

The older adult population within the EMHS service area is greater than the state and nation and increasing

Population Growth

	2019 Population	Growth 2010-2019	Growth 2019-2024
EMHS Service Area	24,145	2.0%	-0.8%
Susquehanna County	44,127	1.8%	-0.9%
Pennsylvania	13,012,438	2.4%	1.1%
United States	332,417,793	7.7%	3.9%

Source: ESRI, 2019

2019 Population Overview

	White	African American	Asian	Other Unspecified Race	Latinx (any race)	Primary Language Other than English
EMHS Service Area	97.4%	0.5%	0.3%	0.5%	1.6%	2.7%
Susquehanna County	97.2%	0.5%	0.4%	0.4%	1.7%	2.6%
Pennsylvania	78.9%	11.4%	3.7%	3.3%	7.9%	11.0%
United States	69.6%	12.9%	5.8%	7.0%	18.6%	21.3%

Source: ESRI, 2019

2010-2024 Projected Population Change by Race/Ethnicity

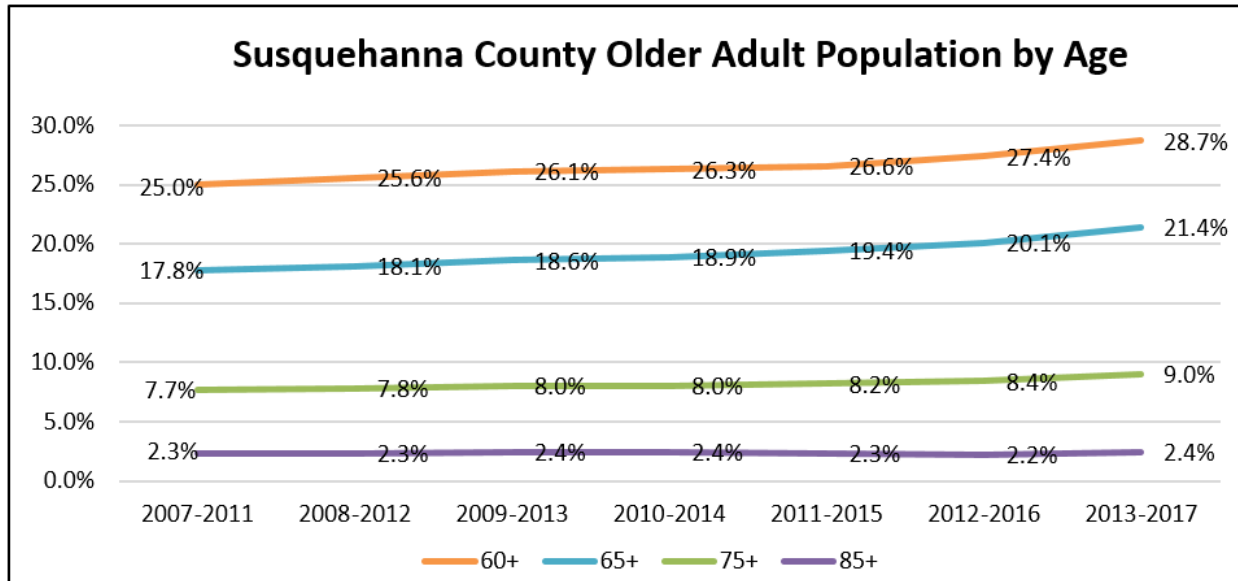
	White		African American		Asian		Latinx	
	2010	2024	2010	2024	2010	2024	2010	2024
EMHS Service Area	98.2%	96.9%	0.4%	0.6%	0.2%	0.4%	1.2%	1.9%
Susquehanna County	98.1%	96.7%	0.4%	0.7%	0.3%	0.5%	1.3%	2.0%
Pennsylvania	81.9%	76.9%	10.9%	11.7%	2.8%	4.4%	5.7%	9.4%
United States	72.4%	68.1%	12.6%	13.1%	4.8%	6.4%	16.4%	19.9%

Source: ESRI, 2019

2019 Population by Age

	Under 15	15-24 years	25-34 years	35-54 years	55-64 years	65+ years	Median Age
EMHS Service Area	15.0%	10.0%	11.3%	24.3%	16.7%	22.6%	47.3
Susquehanna County	15.0%	10.0%	11.2%	24.3%	16.8%	22.8%	47.5
Pennsylvania	16.6%	13.0%	12.7%	24.6%	14.2%	19.1%	41.5
United States	18.4%	13.0%	14.0%	25.1%	13.1%	16.4%	38.5

Source: ESRI, 2019



Source: US Census Bureau, 2007-2011 – 2013-2017

Economic Measures

Residents of the EMHS service area have lower incomes than the state and nation and experience higher poverty among children. Despite greater childhood poverty, residents of the service area and Susquehanna County overall are less likely to receive Food Stamp/SNAP benefits, indicating potential access barriers.

More children in the EMHS service area live in poverty, but fewer households receive Food Stamp/SNAP benefits

A similar percentage of White and Black/African American residents living in the service area experience poverty, while the percentage among Latinxs is nearly double. Across Susquehanna County, poverty among Blacks/African Americans and Latinxs is similar and affects approximately 1 in 4 residents compared to 1 in 10 White residents.

2019 Median Household Income and 2013-2017 Poverty/Food Stamp Status

	Median Household Income	People in Poverty	Children in Poverty	Households with Food Stamp/SNAP Benefits
EMHS Service Area	\$51,917	13.3%	23.1%	6.8%
Susquehanna County	\$50,811	13.0%	20.0%	9.2%
Pennsylvania	\$59,112	13.1%	18.6%	13.0%
United States	\$60,548	14.6%	20.3%	12.7%

Source: ESRI, 2019; US Census Bureau, 2013-2017

2013-2017 Individuals in Poverty by Race and Ethnicity

	White		Black/African American		Latinx	
	Count	Percentage	Count	Percentage	Count	Percentage
EMHS Service Area	2,850	13.2%	18	13.7%	96	24.4%
Susquehanna County	5,131	12.7%	52	25.2%	191	27.9%
Pennsylvania	1,036,506	10.3%	368,064	27.6%	259,020	30.8%
United States	27,607,156	12.0%	9,807,009	25.2%	12,269,452	22.2%

Source: US Census Bureau, 2013-2017

Unemployment in the EMHS service area is lower than the county, state, and nation. More than half of workers are employed in blue-collar positions compared to 39% of workers statewide and nationally. In comparison to the 2016 CHNA, the unemployment rate for Susquehanna County declined and the percentage of blue-collar workers increased. Compensation for blue-collar workers tends to include fewer benefits like private health insurance than it does for white-collar workers.

The EMHS service area has a low unemployment rate; more workers are employed in blue-collar positions

Blacks/African Americans have the highest unemployment rate among all population groups in the EMHS service area, but the percentage is lower than the state and nation. Latinxs have the lowest unemployment rate in the service area at 3.3%. It is important to exercise caution when interpreting this data as the percentages are based on low counts.

2019 Occupation and Unemployment Indicators

	White-Collar Workforce	Blue-Collar Workforce	Unemployment Rate
EMHS Service Area	46.0%	54.0%	3.5%
Susquehanna County	47.0%	53.0%	3.9%
Pennsylvania	61.0%	39.0%	4.2%
United States	61.0%	39.0%	4.6%

Source: ESRI, 2019

2013-2017 Unemployment Rates by Race and Ethnicity

	White		Black/African American		Latinx	
	Count	Percentage	Count	Percentage	Count	Percentage
EMHS Service Area	1,068	5.9%	12	11.3%	10	3.3%
Susquehanna County	2,282	6.7%	26	14.9%	41	8.4%
Pennsylvania	465,752	5.4%	149,906	13.7%	70,964	11.8%
United States	10,482,610	5.5%	3,742,989	11.9%	3,057,796	7.6%

Source: US Census Bureau, 2013-2017

Housing Measures

The median home value in the EMHS service area is more than \$15,000 less than the state and more than \$55,000 less than the nation. Three-quarters of residents in the service area own their home, higher than the state and nation. While these findings may indicate more affordable housing stock, the percentage of housing cost burdened homeowners is higher than the state and similar to the nation. Housing cost burden is defined as spending more than 30% of household income on rent or mortgage expenses.

Service area residents are more likely to own their home and experience housing cost burdened compared to the state

2019 Households by Occupancy and Housing Cost Burden

	Renter-Occupied	Cost Burdened Renters	Owner-Occupied	Median Home Value	Cost Burdened Owners
EMHS Service Area	24.2%	44.9%	75.8%	\$179,009	29.4%
Susquehanna County	24.8%	47.8%	75.3%	\$176,880	29.1%
Pennsylvania	32.8%	49.0%	67.2%	\$194,596	26.9%
United States	36.5%	50.6%	63.5%	\$234,154	29.5%

Source: ESRI, 2019; US Census Bureau, 2013-2017

Education Measures

Education is the largest predictor of poverty and one of the most effective means of reducing inequalities. Consistent with workforce demographics, more EMHS service area residents complete high school and fewer residents complete higher education, although the percentage of residents attaining higher education increased from the 2016 CHNA. Contrary to state and national trends, non-White residents are more likely than White residents to attain higher education, although the percentage is based on a low count.

Fewer EMHS service area residents pursue higher education, but the percentage is increasing

2019 Population (25 Years or Older) by Educational Attainment

	Less than a High School Diploma	High School Graduate/GED	Bachelor's Degree or Higher
EMHS Service Area	9.7%	46.0%	18.7%
Susquehanna County	10.2%	45.5%	19.1%
Pennsylvania	9.1%	34.7%	32.1%
United States	11.6%	27.0%	32.5%

Source: ESRI, 2019

2013-2017 Population with a Bachelor's Degree or Higher by Race and Ethnicity

	White		Black/African American		Latinx	
	Count	Percentage	Count	Percentage	Count	Percentage
EMHS Service Area	464	17.2%	3	34.4%	3	22.9%
Susquehanna County	5,226	17.4%	18	13.3%	41	10.7%
Pennsylvania	2,315,761	31.0%	157,379	17.9%	69,401	15.1%
United States	52,756,175	32.2%	5,250,673	20.6%	4,814,289	15.2%

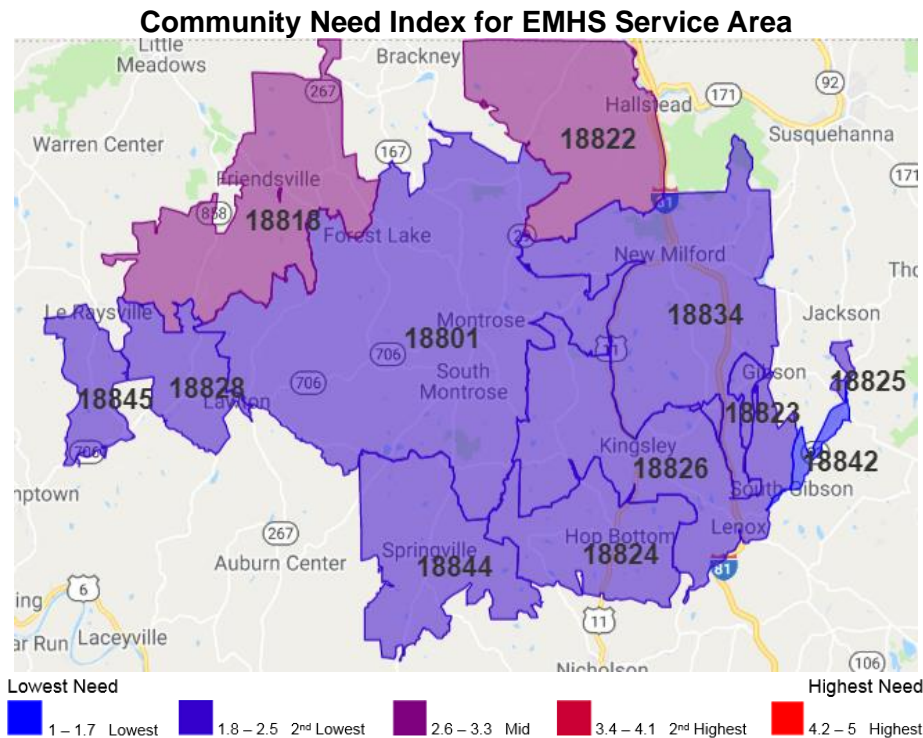
Source: US Census Bureau, 2013-2017

Zip Code Analysis

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 socio-economic 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 EMHS service area is 2.2, indicating lower overall community needs. The CNI score for the service area is slightly lower than the score for Susquehanna County overall (2.4).



The following table lists the social determinants of health that contribute to zip code CNI scores and are often indicative of health disparities. Social determinants of health indicators are shown for all EMHS service area zip codes, and are presented in descending order by CNI score. Demographic data by zip code are shown in the accompanying table to further analyze areas of

disparity. Cells highlighted in **yellow** are more than 2% points higher than the county statistic, but not necessarily statistically significant.

Social Determinants of Health by Zip Code*

	Households in Poverty	Households with Food Stamps	Children in Poverty	Unemployment	Less than High School Diploma	Without Health Insurance	CNI Score
Susquehanna County	12.8%	9.2%	20.0%	3.9%	10.2%	8.8%	2.4
18822 (Hallstead)	18.4%	11.3%	38.8%	5.2%	14.7%	15.6%	3.2
18818 (Friendsville)	8.5%	4.9%	13.9%	3.3%	8.9%	7.6%	2.6
18823 (Harford)	8.2%	9.2%	0.0%	2.2%	9.1%	8.7%	2.2
18825 (Jackson)	12.5%	3.6%	36.4%	3.4%	5.8%	5.3%	2.2
18834 (New Milford)	11.7%	8.7%	26.4%	2.4%	10.9%	7.9%	2.2
18801 (Montrose)	11.5%	5.3%	19.5%	3.1%	8.2%	8.6%	2.0
18824 (Hop Bottom)	12.0%	5.6%	17.5%	4.6%	8.8%	6.9%	2.0
18828 (Lawton)	14.0%	1.8%	67.9%	2.3%	15.9%	8.5%	2.0
18826 (Kingsley)	8.4%	7.6%	5.8%	3.7%	7.9%	7.1%	1.8
18844 (Springville)	9.6%	4.2%	17.5%	3.8%	9.0%	6.2%	1.8
18845 (Stevensville)	12.8%	5.5%	34.5%	0.8%	10.1%	7.6%	1.8
18842 (South Gibson)	14.2%	3.8%	0.0%	4.4%	3.9%	5.3%	1.6
EMHS Service Area	12.1%	6.8%	23.1%	3.5%	9.7%	9.0%	2.2
Pennsylvania	12.7%	13.0%	18.6%	4.2%	9.1%	7.1%	NA

*Data are reported for 2013-2017. Exception: Unemployment and education percentages reported for 2019.

2019 Demographic Indicators by Zip Code

	White	African American	Latinx	Under 15	15-24	25-34	35-54	55-64	65+
Susquehanna County	97.2%	0.5%	1.7%	15.0%	10.0%	11.2%	24.3%	16.8%	22.8%
18822 (Hallstead)	96.7%	0.9%	1.8%	15.5%	11.0%	12.5%	23.5%	16.2%	21.8%
18818 (Friendsville)	97.2%	1.0%	1.1%	14.3%	9.0%	10.4%	24.0%	18.7%	23.6%
18823 (Harford)	98.7%	0.0%	0.4%	14.0%	9.0%	11.0%	24.1%	18.9%	23.3%
18825 (Jackson)	97.8%	0.7%	2.2%	14.7%	10.0%	10.3%	22.8%	19.9%	22.8%
18834 (New Milford)	97.6%	0.7%	1.4%	15.1%	9.0%	11.1%	25.1%	16.8%	22.4%
18801 (Montrose)	97.5%	0.4%	1.7%	14.8%	10.0%	10.6%	24.7%	16.3%	23.2%
18824 (Hop Bottom)	98.1%	0.2%	0.9%	13.8%	9.0%	12.6%	24.0%	16.7%	23.5%
18828 (Lawton)	96.1%	0.7%	2.9%	15.7%	10.0%	10.8%	23.5%	17.3%	22.6%
18826 (Kingsley)	97.4%	0.3%	1.6%	14.0%	10.0%	12.5%	23.1%	18.0%	22.5%
18844 (Springville)	97.8%	0.3%	1.6%	16.2%	10.0%	11.6%	24.7%	16.0%	21.0%
18845 (Stevensville)	98.2%	0.7%	1.4%	19.0%	10.0%	11.1%	24.0%	14.3%	21.5%
18842 (South Gibson)	96.4%	0.7%	2.9%	15.9%	10.0%	11.3%	22.7%	17.8%	22.7%
EMHS Service Area	97.4%	0.5%	1.6%	15.0%	10.0%	11.3%	24.3%	16.7%	22.6%
Pennsylvania	78.9%	11.4%	7.9%	16.6%	13.0%	12.7%	24.6%	14.2%	19.1%

Statistical Analysis of Health Indicators

Background

Health indicators 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), and the University of Wisconsin County Health Rankings & Roadmaps program, among other sources. A comprehensive list of data sources is provided in Appendix A.

Health data focus on county-level reporting which is generally the most recent and most consistent data available. Health data for the county is compared to state and national averages and Healthy People 2020 (HP 2020) goals, where applicable, to provide benchmark comparisons. Healthy People 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.

Age-adjusted rates are referenced throughout the reporting 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, and preventive health measures, among other health indicators. BRFSS results included within this report were provided by the Pennsylvania Department of Health and are reported by region, including an aggregate of multiple counties. The region reported in this assessment includes Pike, Monroe, Susquehanna, and Wayne counties.

The most recent data available at the time of this study were used unless otherwise noted.

Access to Healthcare

Susquehanna County was ranked #66 out of 67 counties in Pennsylvania for clinical care, as reported by the 2019 University of Wisconsin County Health Rankings & Roadmaps program. The rankings are based on a number of indicators, including health insurance coverage and provider access, with a rank of #1 being the best in the state. Susquehanna County improved by one position from the 2016 CHNA.

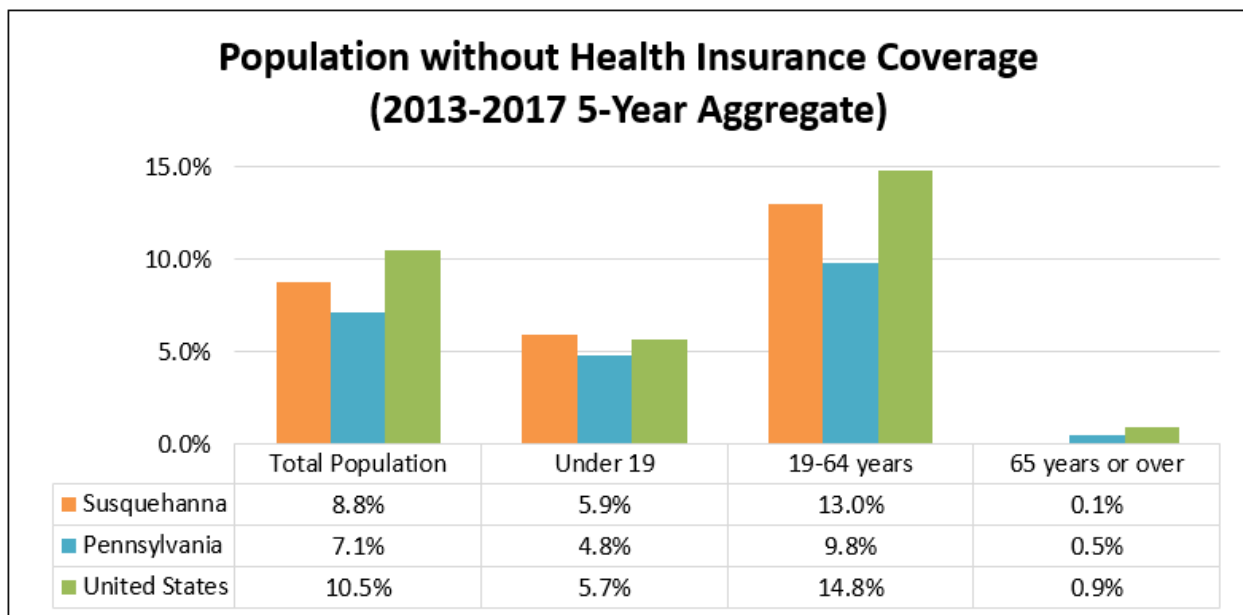
2019 Clinical Care County Health Rankings
#66 Susquehanna County (#67 in 2016)

Health Insurance Coverage

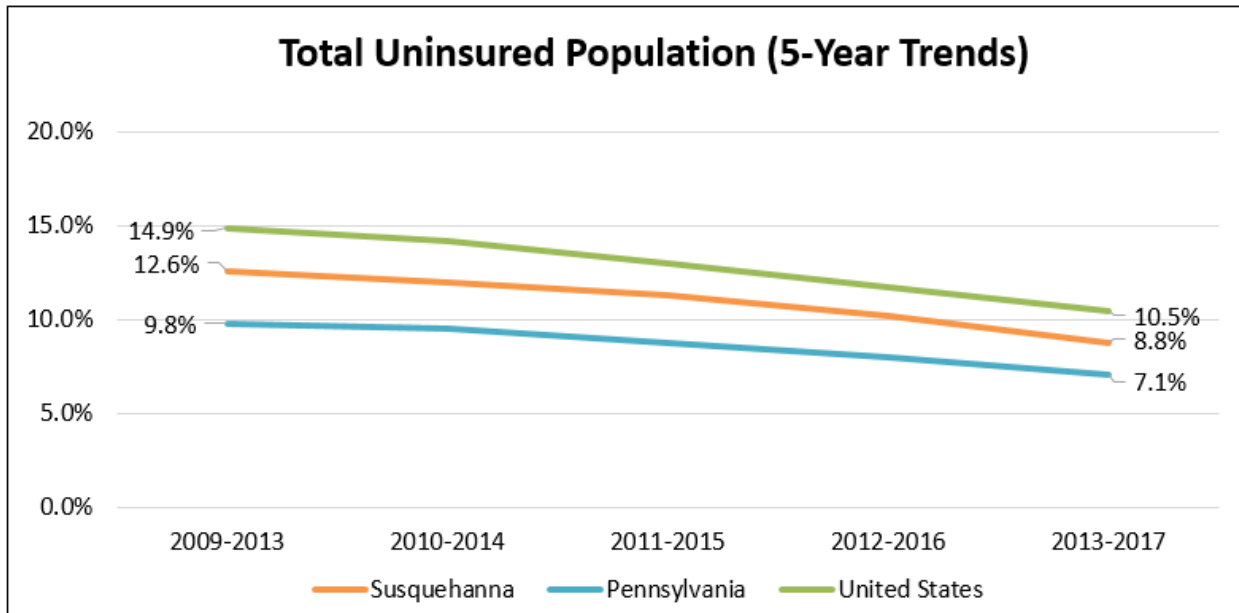
The proportion of uninsured people in Susquehanna County is decreasing. Approximately 9% of residents are uninsured, lower than the national average, but higher than the state average. Susquehanna County residents are more likely to have employer-based insurance than any other type of insurance, although the percentage is lower than state and national benchmarks. Susquehanna County residents are more likely than the state and nation to have direct purchase, Medicare, or two or more types of insurance.

The percentage of uninsured Susquehanna County residents is declining, but remains higher than the state

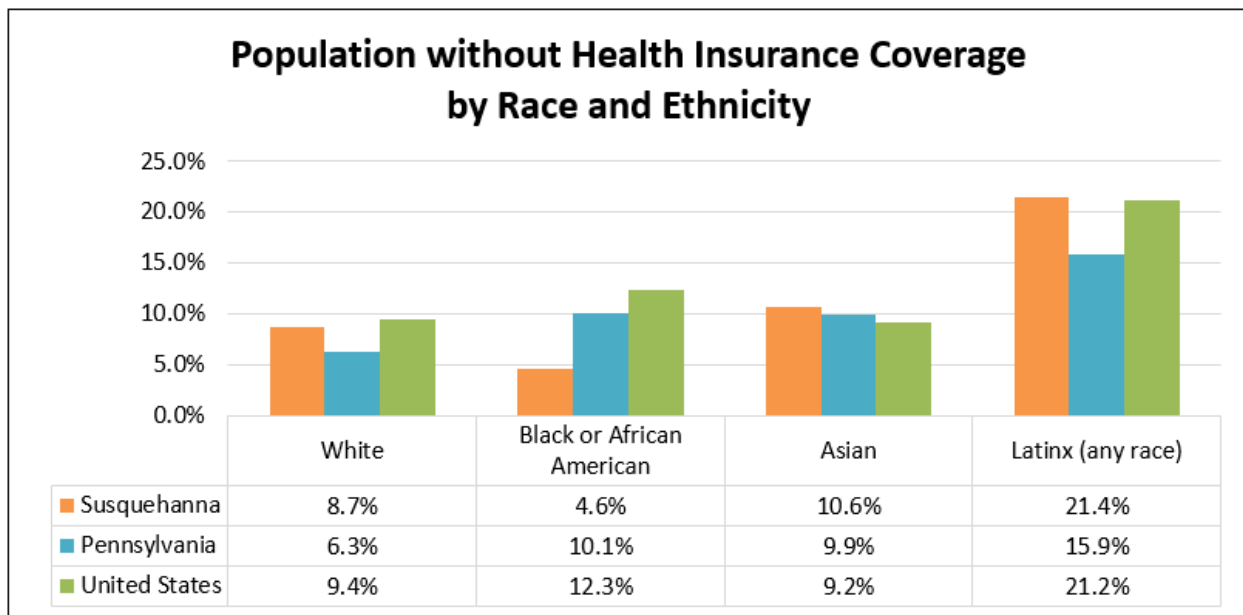
Latinxs living in Susquehanna County experience the greatest disparity in uninsured rates with a rate that is more than two times higher than Whites, and higher than for other Latinxs living across Pennsylvania. Contrary to state and national trends, Blacks/African Americans have the lowest uninsured rate among service area populations. Note: Uninsured percentages for both Latinx and Black/African American residents are based on low counts.



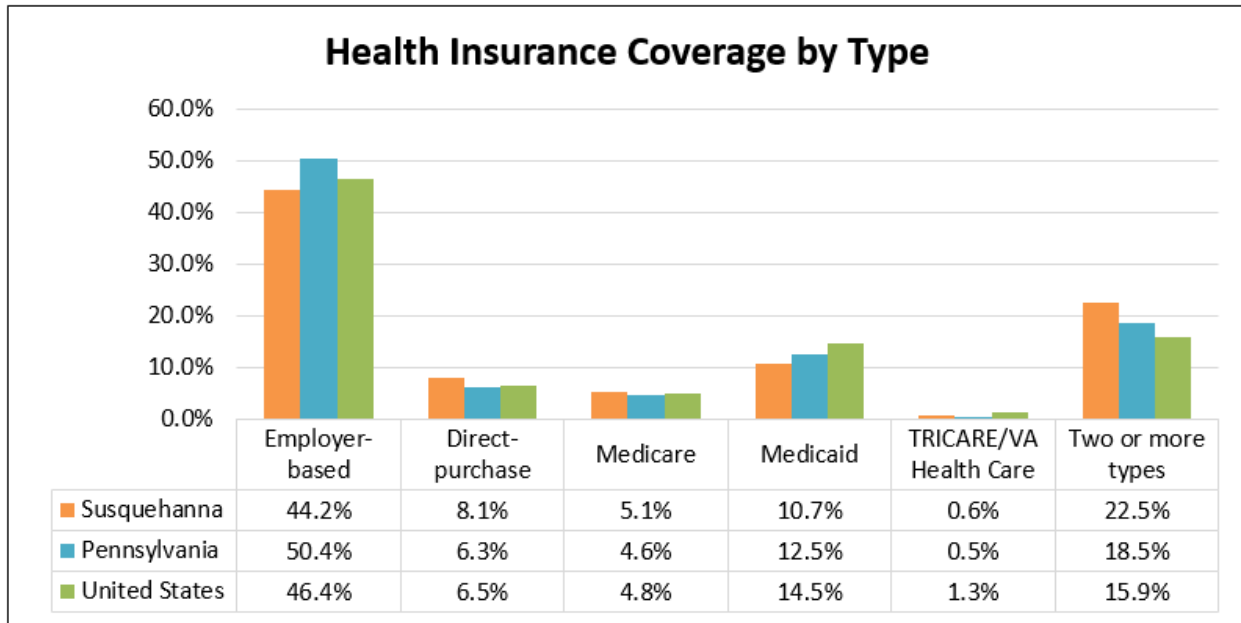
Source: US Census Bureau, 2013-2017



Source: US Census Bureau, 2009-2013 – 2013-2017



Source: US Census Bureau, 2013-2017



Source: US Census Bureau, 2013-2017

Provider Access

Provider availability is measured as both a ratio of the number of residents to each provider, and a rate indicating the number of providers per 100,000 people. Provider availability is shown for primary care physicians, dentists, and mental health providers. Primary care physicians include non-federal, practicing physicians under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics. Mental health providers include psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental healthcare.

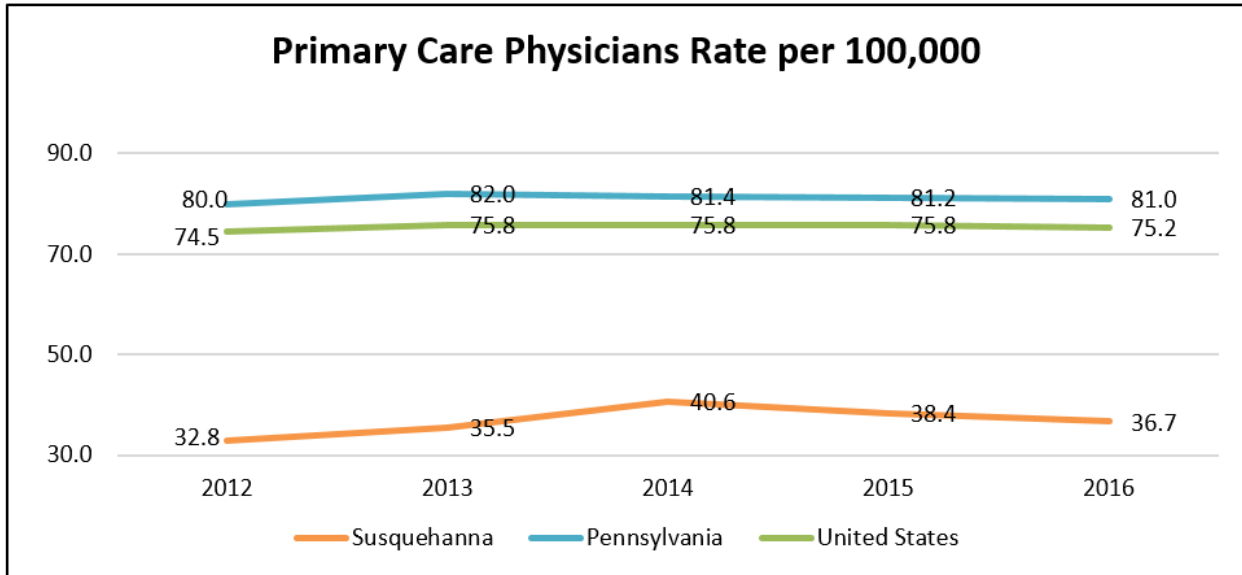
Susquehanna County has a lower ratio and rate of primary care physicians, dentists, and mental health providers than the state and nation. Primary and mental health provider rates increased in the county over the past five years, while the dental provider rate decreased.

Susquehanna County has lower availability of primary care physicians, dentists, and mental health providers than the state and nation

Provider Availability, Ratio of Residents to Providers

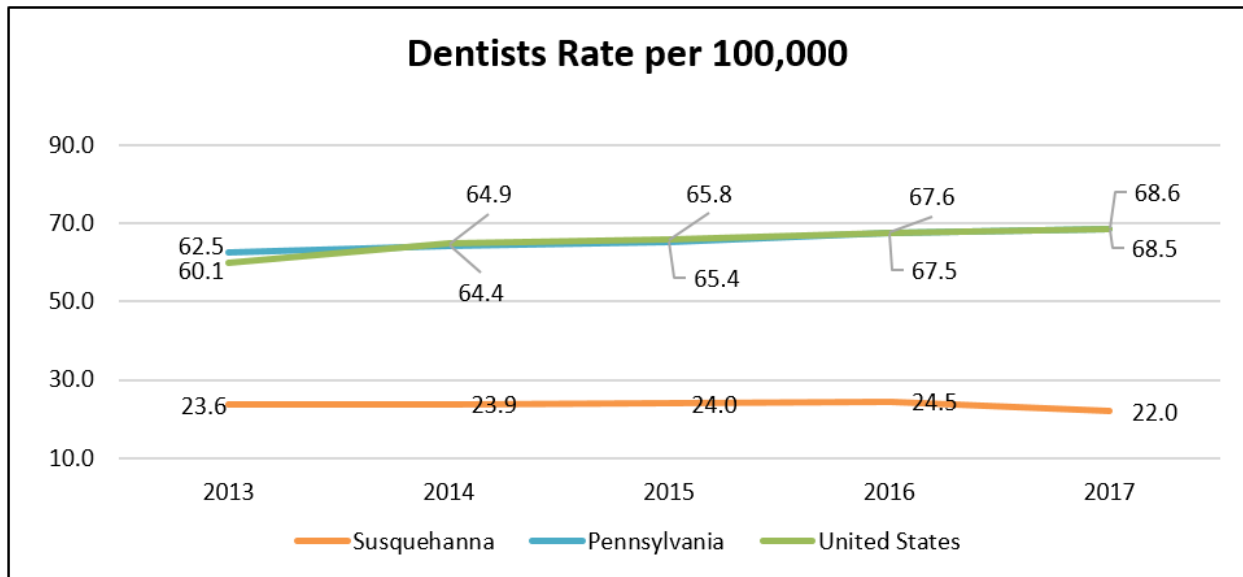
	2016 Primary Care Physicians		2017 Dentist Providers		2018 Mental Health Providers	
	Count	Ratio	Count	Ratio	Count	Ratio
Susquehanna County	15	2,724:1	9	4,554:1	25	1,639:1
Pennsylvania	10,357	1,234:1	8,783	1,458:1	24,338	526:1
United States	NA	1,330:1	NA	1,460:1	NA	440:1

Source: Health Resources & Services Administration, 2016 & 2017; Centers for Medicare and Medicaid Services, 2018

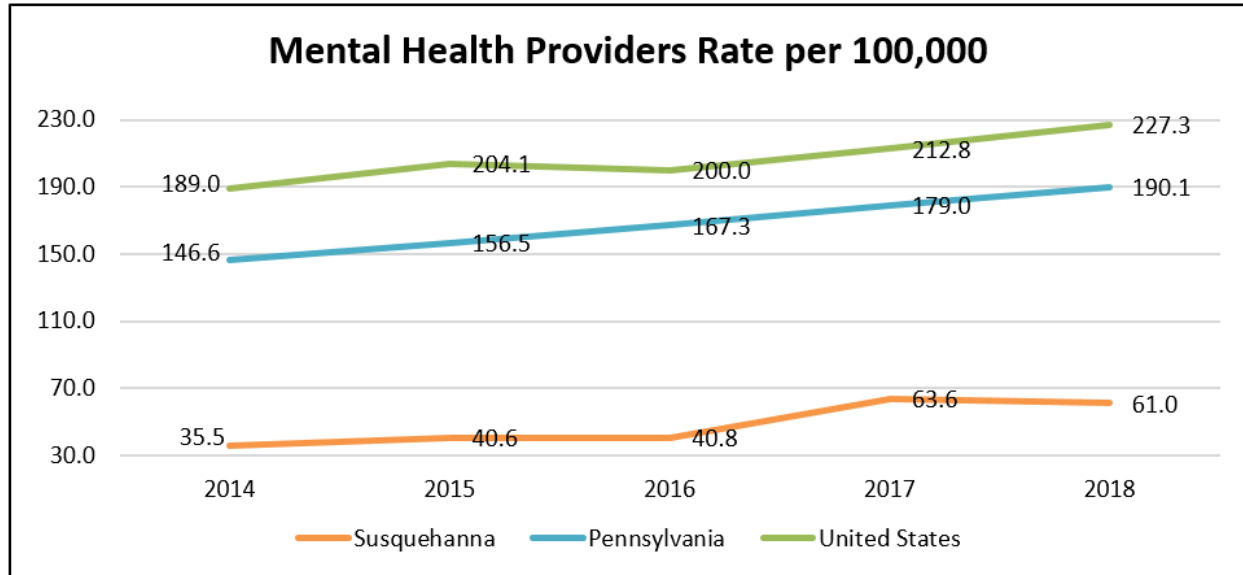


Source: Health Resources & Services Administration, 2012-2016

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



Source: Health Resources & Services Administration, 2013-2017

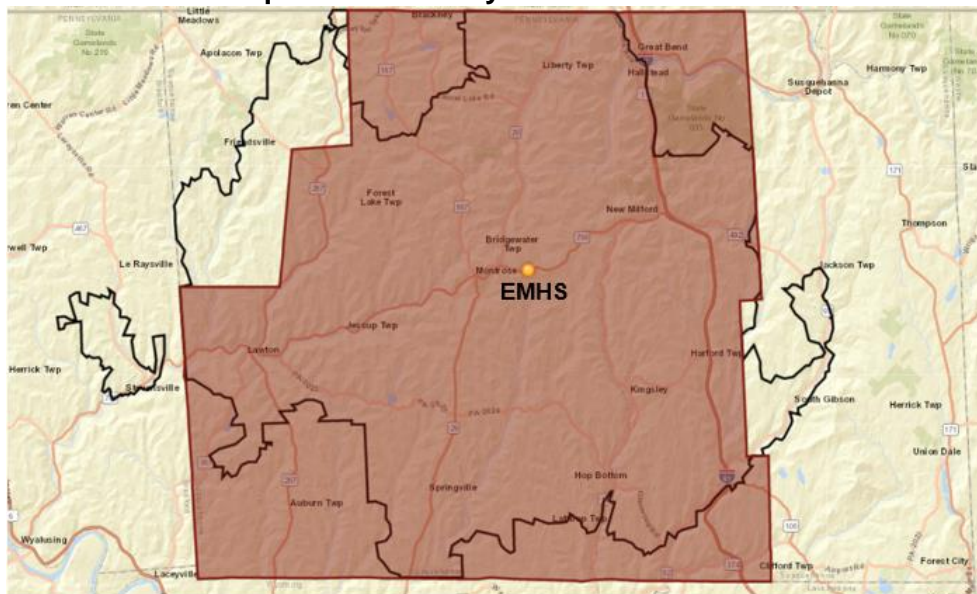


Source: Centers for Medicare and Medicaid Services, 2014-2018

The Health Resources & Services Administration (HRSA) is responsible for designating Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas (MUAs). Shortage areas are determined based on a defined ratio of total health professionals to total population. MUAs identify geographic areas with a lack of access to primary care services.

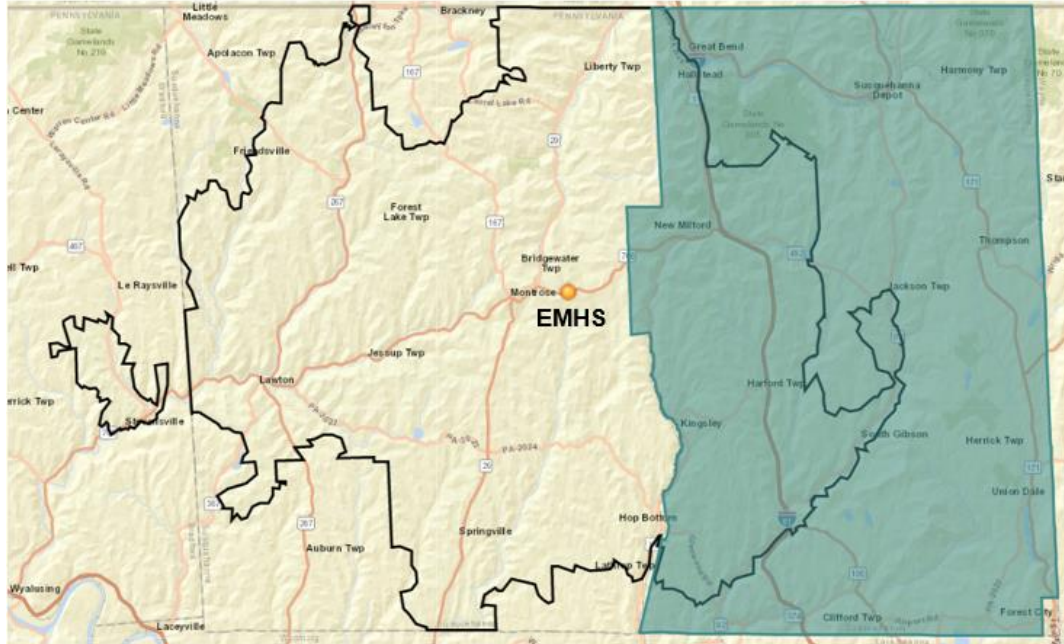
All of Susquehanna County is a dental HPSA for low-income individuals and a high need mental health HPSA. The majority of the county, including nearly all of the EMHS service area, is a primary care HPSA. Primary care HPSAs are shown in the map below.

**Primary Care HPSAs (Red Shading)
within Susquehanna County and the EMHS Service Area**



Medically underserved areas within Susquehanna County and the EMHS service area are shown below. Nearly all of the eastern portion of the county is a MUA.

**Medically Underserved Areas (Blue Shading)
within Susquehanna County and the EMHS Service Area**



Federally Qualified Health Centers (FQHCs) are defined as “community-based healthcare providers that receive funds from the HRSA Health Center Program to provide primary care services in underserved areas.” Services are provided on a sliding fee scale based on patient ability to pay. FQHCs are critical to serving the healthcare needs of medically underserved populations. There are seven FQHC locations within Susquehanna County, listed below. Three of the locations are within the EMHS service area. All of the locations, with the exception of Forest City Health Center, are operated by NEPA Community Health Care

FQHCs within Susquehanna County and the EMHS Service Area

Location	Address
NEPA: Andrew C. Mazza Memorial Health Center	127 Route 106, Carbondale, PA 18
NEPA: Elk Lake School District	2380 Elk Lake School Road, Springville, PA 18844
NEPA: Matthew W Stahl Memorial Health Center	498 South Main St, Ste D, Montrose, PA 18801
NEPA: Mountain View Plaza	25066 State Route 11, Hallstead, PA 18822
NEPA: Susquehanna Community School District	3192 Turnpike St, Susquehanna, PA 18847
NEPA: Susquehanna Site	155 Erie Blvd, Susquehanna, PA 18847
Wayne Memorial Community Health Centers: Forest City Family Health Center	100 Dundaff St, Forest City, PA 18421

Routine Healthcare Access

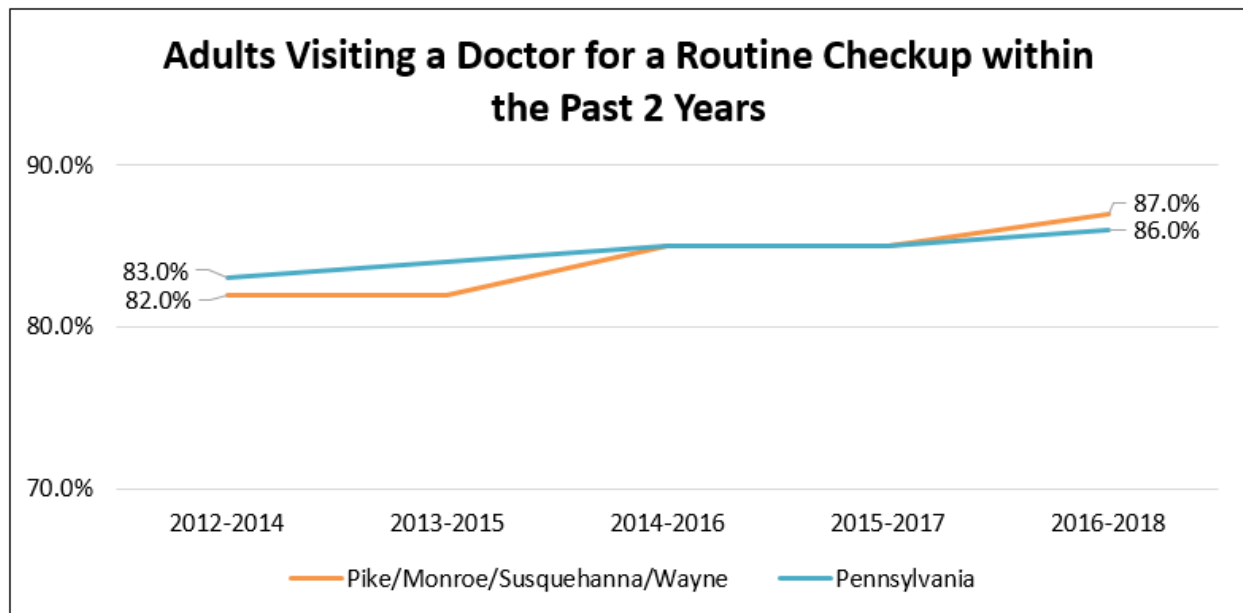
Approximately 1 in 10 residents in the Pike/Monroe/Susquehanna/Wayne region do not have a personal doctor and experience medically-related cost barriers. While these percentages are similar to the state overall, they represent notable disparities in accessing care. Individual percentages are not reported for Susquehanna County, but they are likely higher due to physician shortages.

Consistent with the state, the percentage of residents in the region who visited a doctor for a routine checkup within the past two years increased.

Adult Routine Healthcare Access

	Does Not Have a Personal Doctor	Received a Routine Checkup within the Past 2 Years	Unable to See a Doctor within the Past Year due to Cost
Pike/Monroe/Susquehanna/Wayne	14%	87%	11%
Pennsylvania	15%	86%	10%

Source: Pennsylvania Department of Health, 2016-2018



Source: Pennsylvania Department of Health, 2012-2014 – 2016-2018

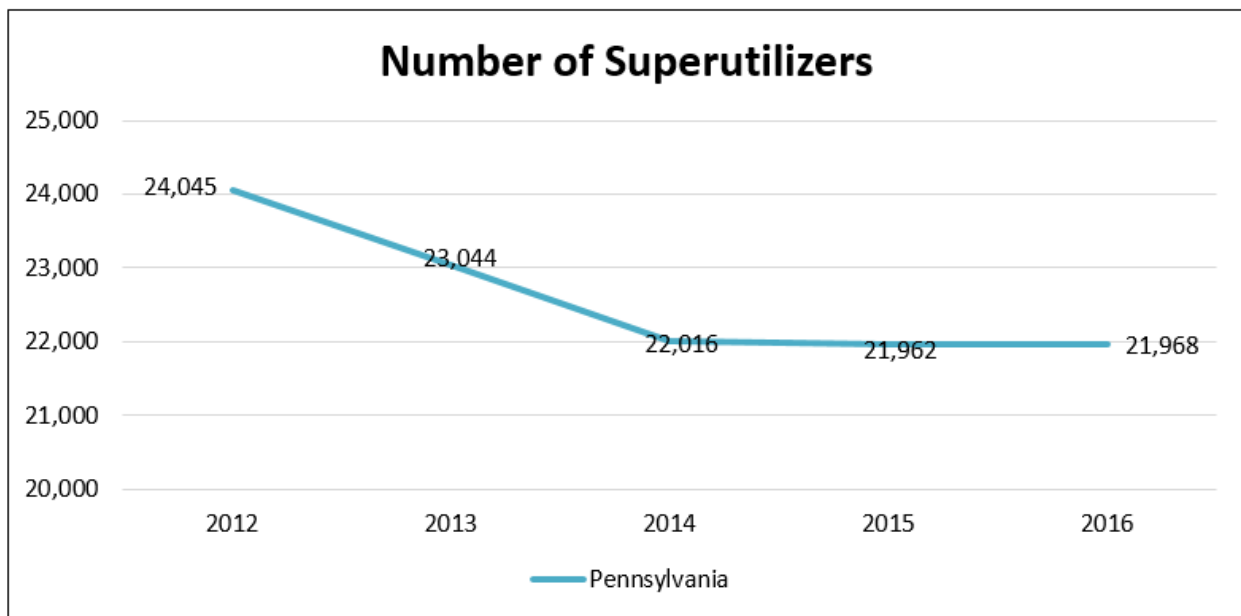
Hospital Superutilizers

Superutilizers are patients who have frequent hospital stays or emergency department (ED) visits. These visits often result in high healthcare costs, and may indicate care access and disease management barriers. The following section depicts superutilizer data, as analyzed by the Pennsylvania Health Care Cost Containment Council (PHC4). Superutilizers are considered patients with five or more admissions to a Pennsylvania general acute care hospital in a given year.

The number of superutilizers in Pennsylvania decreased from 2012 to 2016. As of 2016, the rate of superutilizers per 10,000 people was 21.7. The following populations had a higher rate of superutilizers:

The majority of superutilizers in Pennsylvania are age 50 or older and have Medicare

- The rate for Black, Hispanic or non-Hispanic residents was 39.3 per 10,000.
- The rate for lower income residents of all races was 38.8 per 10,000.
- Residents age 60-69 accounted for 23.3% of superutilizers, while residents age 50-59 accounted for 19.9% of superutilizers.
- 44.1% of superutilizers had Medicare (only), while 18.2% had Medicare and Medicaid.
- 26% of superutilizers were also a superutilizer in at least one of the previous four years.



Source: Pennsylvania Health Care Cost Containment Council, 2012-2016

In Susquehanna County, the rate of superutilizers per 10,000 population increased from 20.2 in 2012 to 23.8 in 2016, exceeding the state benchmark. The top reasons for hospital admissions among superutilizers were COPD, heart failure, and pneumonia.

The rate of superutilizers increased in Susquehanna County, and is higher than the state

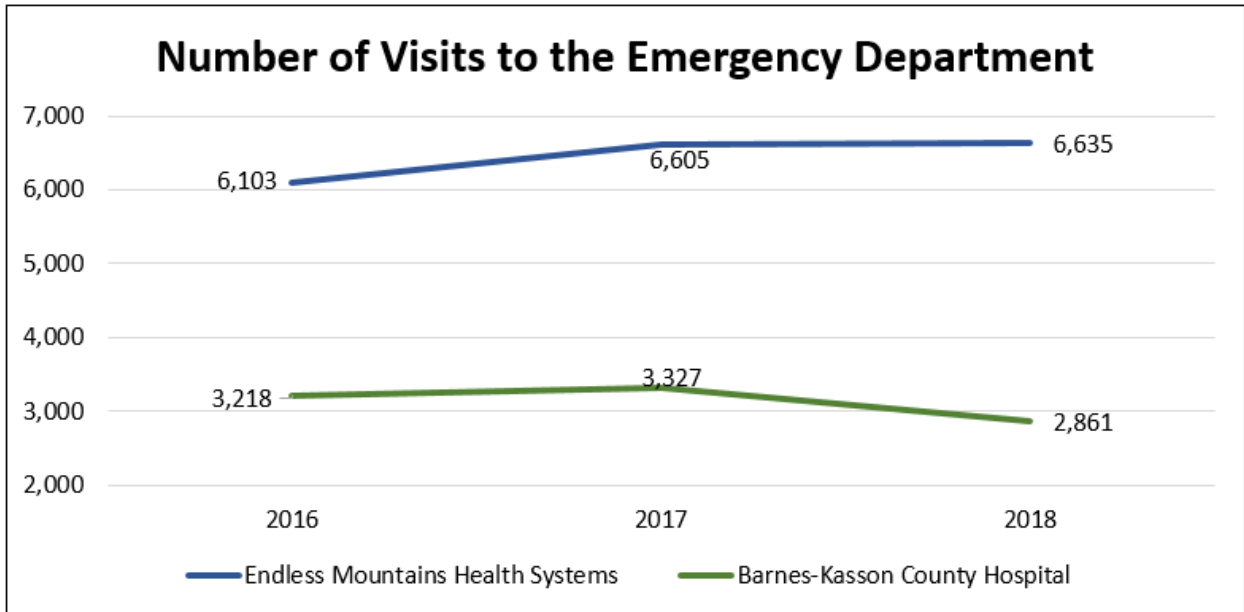
Top Reasons for Hospital Admissions Among Superutilizers in Susquehanna County

	Number of Admissions	
	2012	2016
COPD	32	34
Heart failure	22	43
Pneumonia	20	32

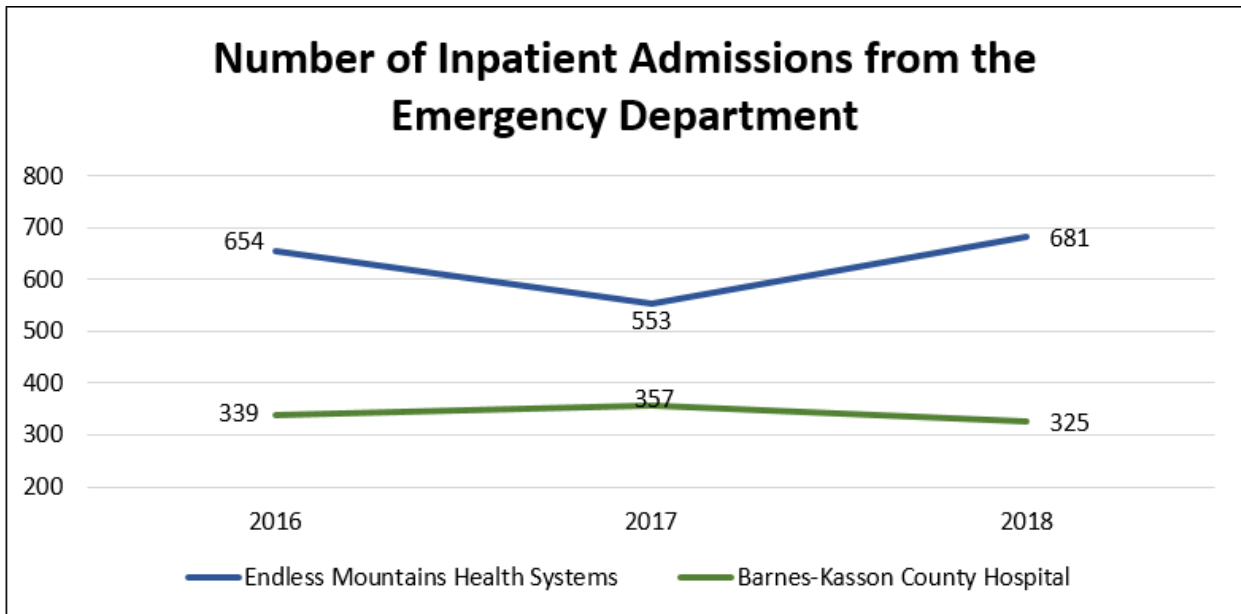
Source: Pennsylvania Health Care Cost Containment Council, 2012 & 2016

The following graphs show the number of ED visits and inpatient admissions from the ED for EMHS and Barnes-Kasson County Hospital, also located in Susquehanna County. The number of visits to the EMHS ED increased over the past three years, while the number of visits to the Barnes-Kasson ED decreased. Only about 10% of patients seen in either ED are admitted to the hospital. EMHS saw an increase in the number of inpatient admissions from the ED from 2017 to 2018.

ED visits at EMHS are increasing



Source: Pennsylvania Department of Health, 2016-2018



Source: Pennsylvania Department of Health, 2016-2018

Overall Health Status

Susquehanna County received the following ranking for health outcomes out of 67 counties in Pennsylvania, as reported by the 2019 University of Wisconsin County Health Rankings & Roadmaps program. Health outcomes are measured in relation to premature death (before age 75) and quality of life, with a rank of #1 being the best in the state. Susquehanna County improved by 13 positions from the 2016 CHNA.

2019 Health Outcomes County Health Rankings
#40 Susquehanna County (#53 in 2016)

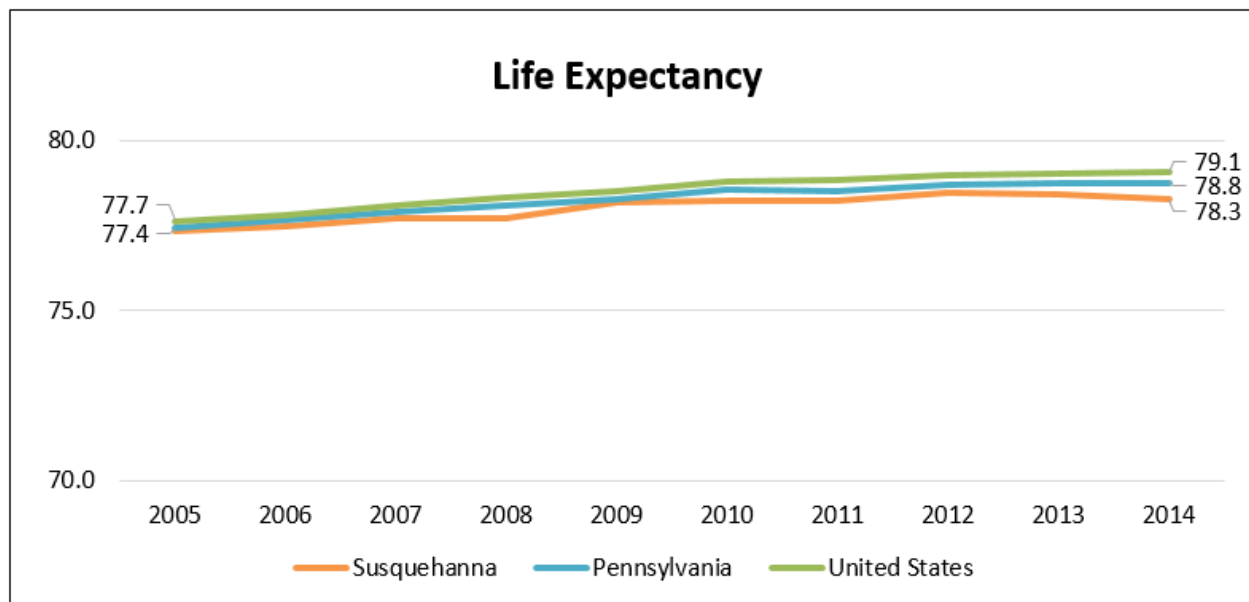
Residents of Susquehanna County live shorter lives compared to residents of Pennsylvania and the nation, but overall life expectancy is increasing. Susquehanna County residents are just as likely to report “poor” or “fair” health status or poor physical or mental health days as their peers.

Susquehanna County residents live shorter lives than residents across the state and nation, but life expectancy is increasing

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

	Premature Death Rate per 100,000	Adults with “Poor” or “Fair” Health Status	30-Day Average - Poor Physical Health Days	30-Day Average - Poor Mental Health Days
Susquehanna County	8,091	15.2%	3.7	4.0
Pennsylvania	7,483	15.1%	3.9	4.3
United States	6,900	16.0%	3.7	3.8

Source: National Center for Health Statistics, 2015-2017; Centers for Disease Control and Prevention, 2016



Source: Institute for Health Metrics and Evaluation, 2005-2014

Health Behaviors

Health behaviors may increase or reduce the likelihood of disease or early death. Individual health behaviors include risk factors like smoking and obesity, or health promoting behaviors like exercise, good nutrition, and stress management. The prevalence of these health behaviors is provided below, with benchmark comparisons, as available.

Tobacco Use

Within Susquehanna County, the proportion of adults who smoke is higher than both state and national percentages, and increased slightly from the 2016 CHNA. The percentage of smokers does not meet the Healthy People 2020 target.

Susquehanna County adults and youth are more likely to use tobacco than their peers statewide; adult smoking and youth vaping are on the rise

Youth within Susquehanna County are more likely to smoke and vape when compared to their peers statewide. While the percentage of youth who report smoking decreased from 2013 to 2017, the percentage of youth who report vaping increased. As of 2017, 1 in 5 youth in Susquehanna County report vaping.

Tobacco Trends among Adults and Youth*
(Red = Higher than the State and Nation)

	Adult Smoking		Youth Smoking (past 30 days)		Youth Vaping (past 30 days)	
	2014	2016	2013	2017	2015	2017
Susquehanna County	18.3%	18.9%	9.0%	8.7%	17.5%	19.8%
Pennsylvania	19.9%	18.0%	8.0%	5.6%	15.5%	16.3%
United States	17.0%	17.0%	NA	NA	NA	NA
Healthy People 2020	12.0%	12.0%	NA	NA	NA	NA

Source: Centers for Disease Control and Prevention, 2014 & 2016; Pennsylvania Commission on Crime and Delinquency, 2013-2017; Healthy People 2020

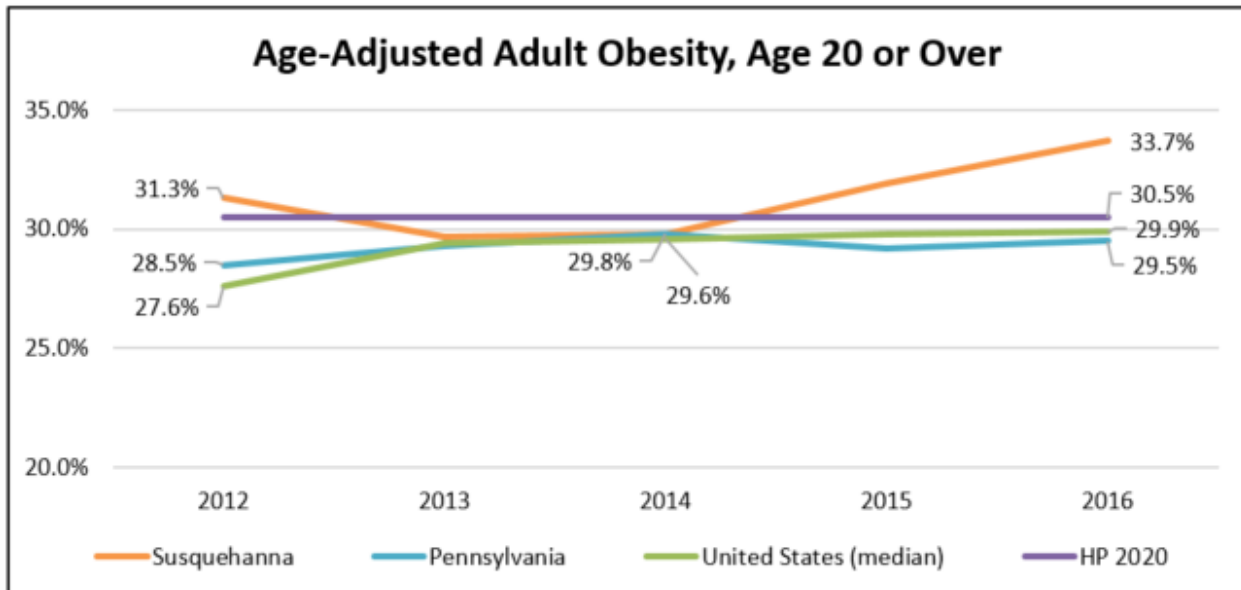
*Youth data includes students in grades 6, 8, 10, and 12. Vaping data were not reported for 2013.

Obesity

Healthy People 2020 sets a goal of having no more than 30.5% of all adults obese. Approximately 34% of Susquehanna County adults are obese, higher than the Healthy People 2020 target, as well as state and national percentages. The percentage of obese adults increased more than 2 percentage points from 2012 to 2016.

Susquehanna County adults and youth are more likely to be obese when compared to state averages

Obesity percentages among Susquehanna County students are also higher than state averages. Approximately 20.5% of elementary and 25% of middle and high school students in Susquehanna County are obese. Percentages are consistent from the 2016 CHNA.



Source: Centers for Disease Control and Prevention, 2012-2016

*National data are not age-adjusted.

**Obesity Trends among Students
(Red = Higher than the State by ≥2 Percentage Points)**

	2012-2013		2016-2017	
	K-6 Grade	7-12 Grade	K-6 Grade	7-12 Grade
Susquehanna County	20.4%	25.4%	20.5%	25.2%
Pennsylvania	16.4%	18.0%	16.4%	18.9%

Source: Pennsylvania Department of Health, 2012-2013 & 2016-2017

Healthy Eating and Food Insecurity

Food insecurity, defined as being without a consistent source of sufficient and affordable nutritious food, negatively impacts the opportunity for healthy eating and healthy weight management. Food insecurity decreased in Susquehanna County since the 2016 CHNA, but the percentage of food insecure children remains higher than the state and nation.

Eligibility for free lunch includes households with an income at or below 130% of the poverty income threshold, while eligibility for reduced price lunch includes households with an income between 130% and 185% of the poverty threshold. Approximately 45% of Susquehanna County children are eligible for free or reduced price lunch, slightly lower than the state.

Food insecurity decreased in Susquehanna County, but the percentage of food insecure children remains higher than the state and nation

**Food Insecure Residents
(Red = Higher than the State and Nation)**

	All Residents		Children	
	2014	2017	2014	2017
Susquehanna County	11.6%	10.8%	20.3%	17.9%
Pennsylvania	13.8%	12.0%	19.3%	16.4%
United States	15.4%	12.5%	20.9%	17.0%

Source: Feeding America, 2014-2017

Children Eligible for Free or Reduced Price Lunch

	Percent
Susquehanna County	45.2%
Pennsylvania	47.9%

Source: National Center for Education Statistics, 2016-2017

Regular physical activity can reduce the likelihood of obesity and improve overall health outcomes. Access to physical activity includes access to parks, gyms, pools, etc. Only 42% of Susquehanna County residents have access to physical activity opportunities, half the state percentage. A higher percentage of adults in the county are physically inactive compared to the state and nation.

Susquehanna County residents have fewer options for physical activity and are more likely to be physically inactive

**Physical Activity
(Red = Lower Access and Higher Inactivity than the State and Nation)**

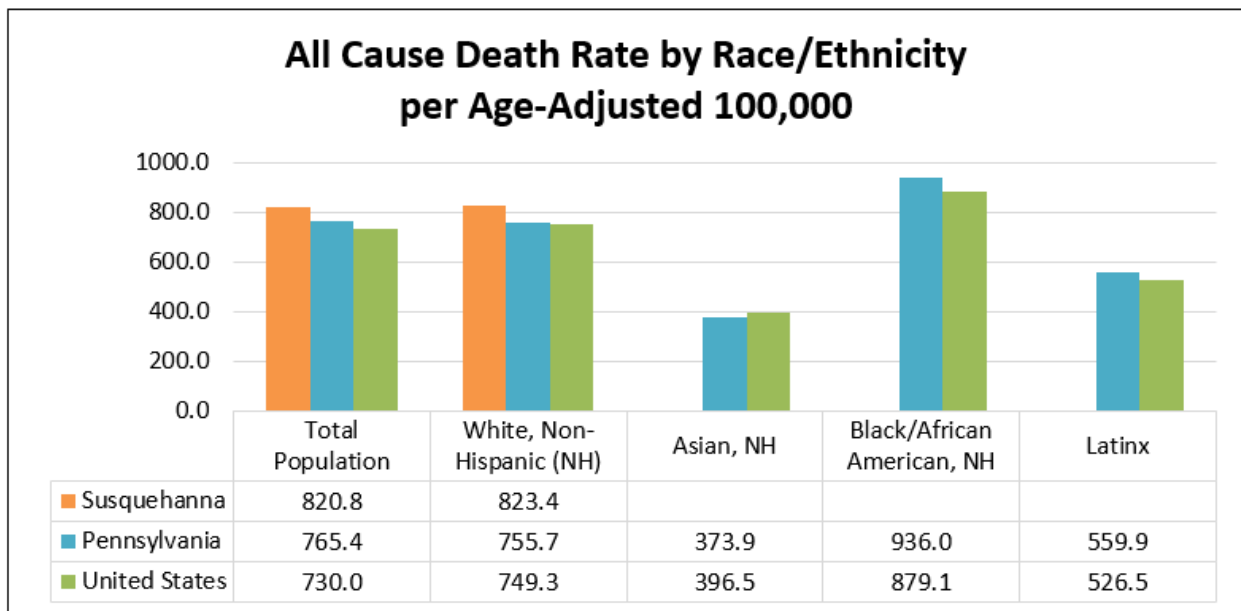
	Access to Physical Activity	Physically Inactive Adults
Susquehanna County	42.1%	27.6%
Pennsylvania	84.3%	22.4%
United States	84.0%	22.0%

Source: Business Analyst, Delorme Map Data, ESRI, & US Census Tigerline Files, 2018; Centers for Disease Control and Prevention, 2015

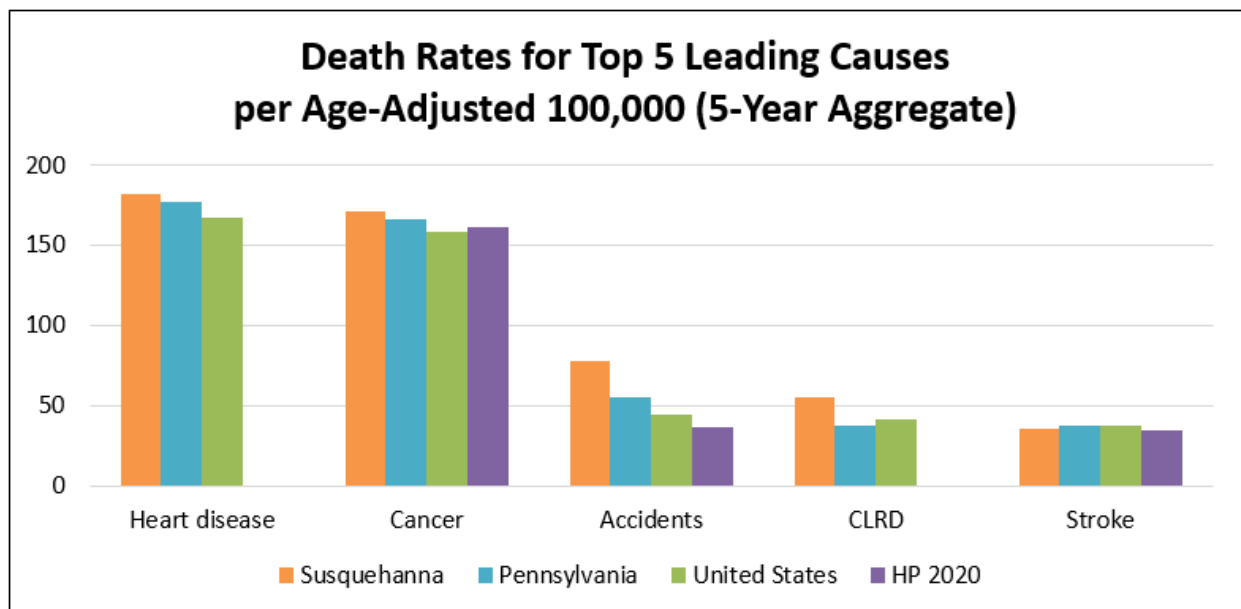
Mortality

The all cause age-adjusted death rate is higher in Susquehanna County than the state and nation. Death rates by race and ethnicity are not reported at the county-level due to low counts.

The top five causes of death in the nation, in rank order, are heart disease, cancer, accidents, chronic lower respiratory disease (CLRD), and stroke. When considered as five-year aggregates, Susquehanna County has higher rates of death for all top five causes, except stroke. Annual trends for the leading causes of death are analyzed in the following sections for more recent findings.



Source: Centers for Disease Control and Prevention, 2013-2017



Source: Centers for Disease Control and Prevention, 2013-2017; Healthy People 2020

Chronic Diseases

Chronic diseases are among the most prevalent and costly health conditions in the United States. More than two thirds of all deaths are caused by one or more of these five chronic diseases: heart disease, cancer, stroke, chronic obstructive pulmonary disease, and diabetes. Chronic diseases are often preventable through reduced risk behaviors, increased physical activity and good nutrition, early detection of risk factors, and effective primary and community management of disease.

Heart Disease and Stroke

Death rates due to heart disease declined across the state and nation over the past decade, but have been variable in Susquehanna County. From 2015 to 2017, the death rate in the county increased 59 points. The current death rate exceeds the state and nation.

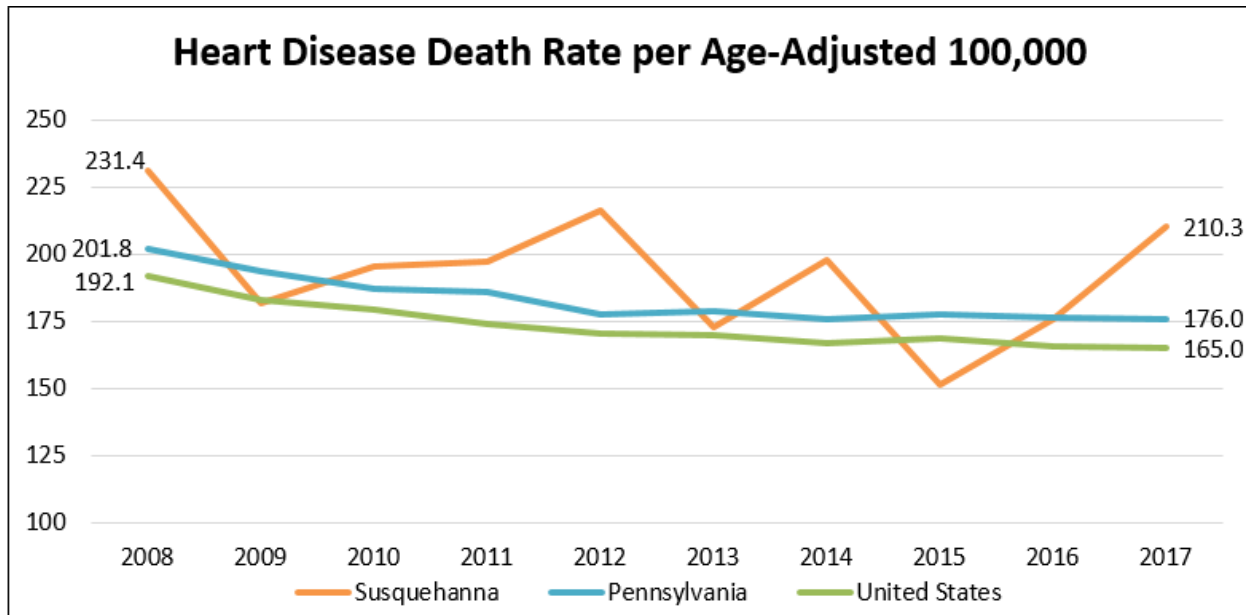
The Susquehanna County heart disease death rate increased 59 points from 2015 to 2017 and is higher than the state and nation

Prevalence of heart disease, heart attack, and stroke is similar across the region as the state, but may not reflect disparities within Susquehanna County.

Heart Disease Prevalence among Adults

	Heart Disease	Heart Attack	Stroke
Pike/Monroe/Susquehanna/Wayne	6%	6%	4%
Pennsylvania	7%	6%	5%

Source: Pennsylvania Department of Health, 2016-2018



Source: Centers for Disease Control and Prevention, 2008-2017

Coronary heart disease is characterized by the buildup of plaque inside the coronary arteries. Susquehanna County has a higher death rate due to coronary heart disease than the state and nation and does not meet the Healthy People 2020 goal. Several types of heart disease,

including coronary heart disease, are risk factors for stroke. The stroke death rate in Susquehanna County is lower than the state and nation, but slightly higher than the Healthy People 2020 goal.

**Coronary Heart Disease and Stroke Death Rates
(Red = Higher than State and National Benchmarks)**

	Coronary Heart Disease Death per Age-Adjusted 100,000	Stroke Death per Age-Adjusted 100,000
Susquehanna County	107.8	35.4
Pennsylvania	100.6	37.2
United States	97.1	37.1
Healthy People 2020	103.4	34.8

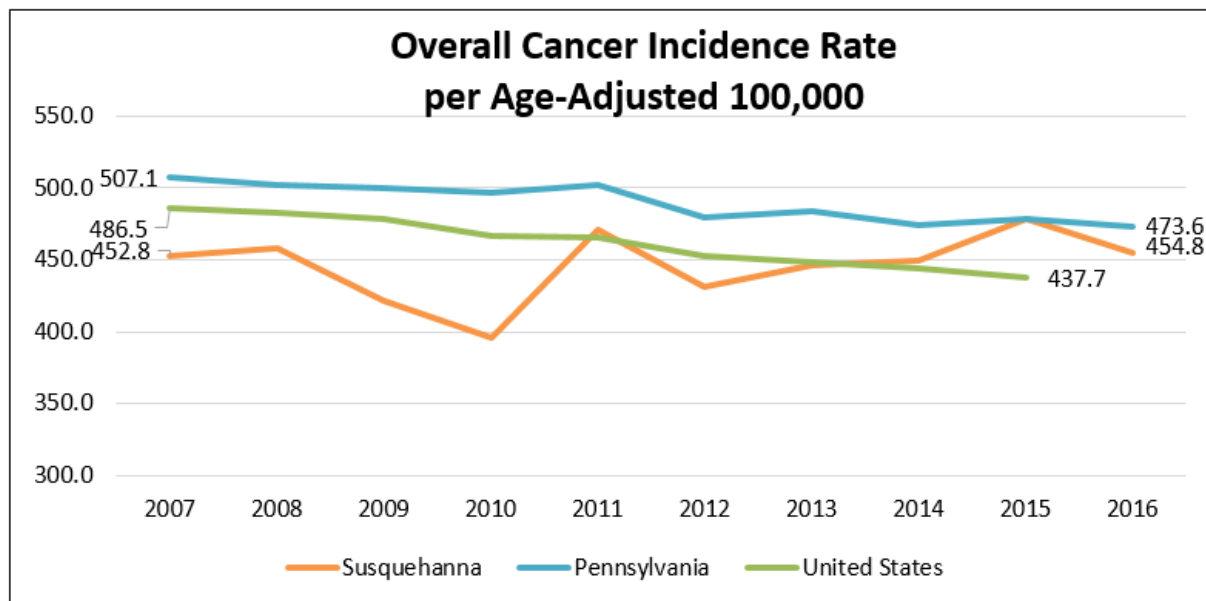
Source: Centers for Disease Control and Prevention, 2013-2017; Healthy People 2020

Cancer

Cancer remains a leading cause of death, but if detected early, can often be effectively treated. The overall cancer incidence rate in Susquehanna County has been variable, but generally on the rise since 2010. The current incidence rate is lower than the state rate, but both Susquehanna County and Pennsylvania exceed the national cancer incidence rate.

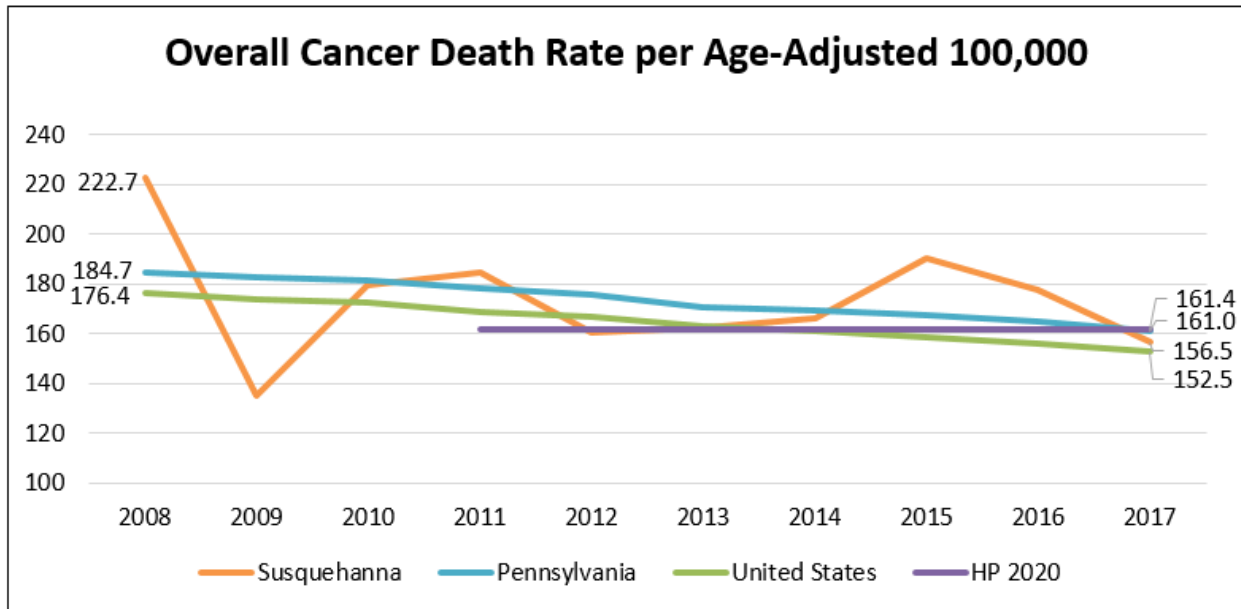
The cancer death rate in Susquehanna County has also been variable, but declined in recent years. The current death rate is similar to the state and nation and meets the Healthy People 2020 goal.

While Susquehanna County has a higher five-year average rate of death due to cancer, the current rate is similar to the state and nation and meets the Healthy People 2020 goal



Source: Centers for Disease Control and Prevention, 2007-2016; Pennsylvania Department of Health, 2007-2016

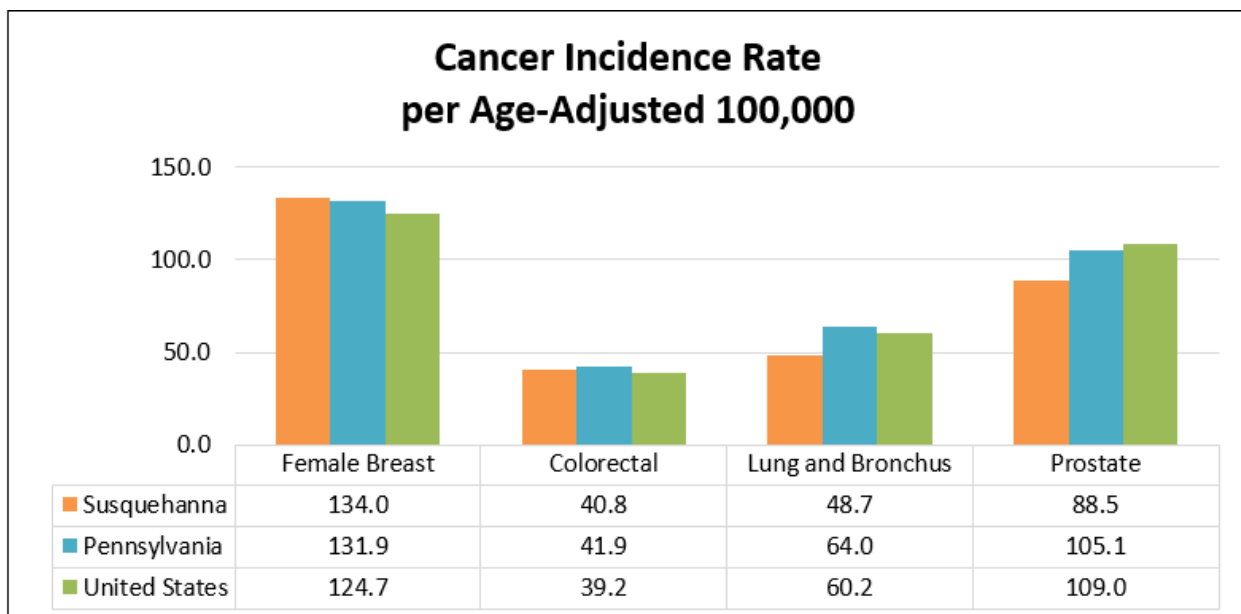
*National data are not available for 2016.



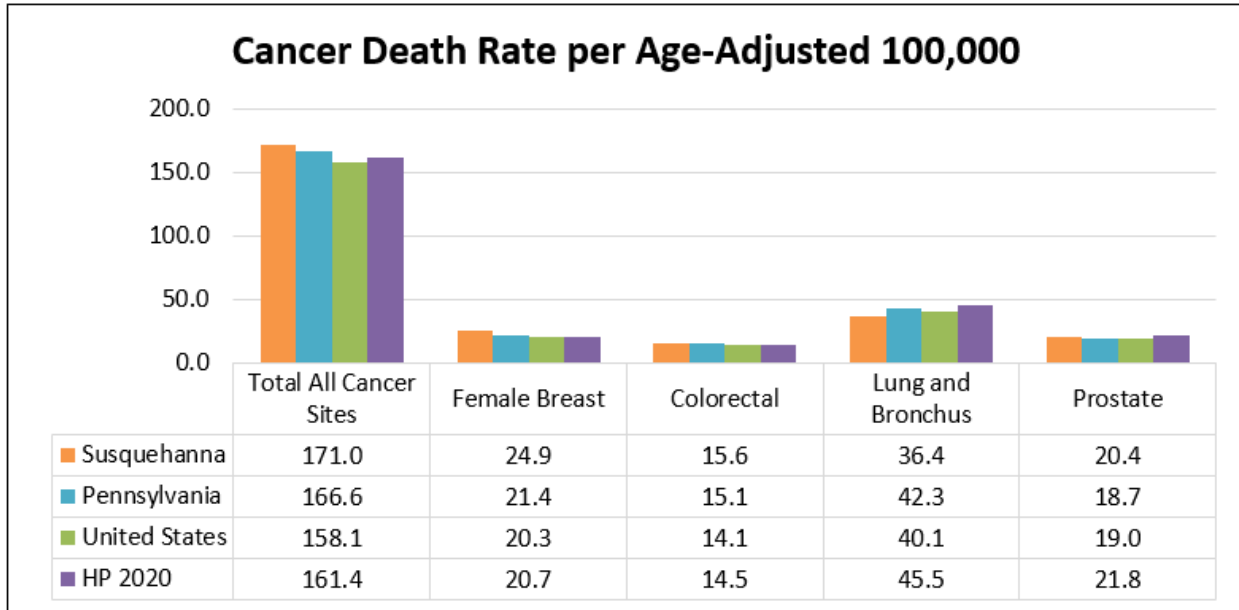
Source: Centers for Disease Control and Prevention, 2008-2017

The following graphs analyze the most common cancer types as a five-year aggregate. Susquehanna County has lower incidence of prostate and lung cancers than the state and nation; death rates are also lower than or similar to state and national rates and meet Healthy People 2020 goals. Breast cancer incidence and death rates are higher in Susquehanna County than the state and nation, indicating a greater burden of disease and increased need for screening and treatment. Colorectal cancer incidence and death rates are similar in Susquehanna County as the state and nation.

Susquehanna County has higher incidence and death rates due to breast cancer, indicating an opportunity for screening and treatment



Source: Centers for Disease Control and Prevention, 2011-2015; Pennsylvania Department of Health, 2012-2016



Source: Centers for Disease Control and Prevention, 2013-2017

Chronic Lower Respiratory Disease

Chronic lower respiratory disease (CLRD) is the third most common cause of death in the nation. CLRD encompasses diseases like chronic obstructive pulmonary disorder (COPD), emphysema, and asthma. The region has a higher prevalence of adult asthma and COPD compared to the state, but within Susquehanna County, fewer students have an asthma diagnosis.

Consistent with the 2016 CHNA, the CLRD death rate is higher in Susquehanna County than the state and nation. The death rate is likely impacted by higher smoking rates among adults.

Consistent with higher smoking rates, Susquehanna County has a higher rate of death due to CLRD

CLRD Prevalence among Adults (Red = Higher than State Benchmark by 2 or more points)

	Asthma Diagnosis (Current)	Asthma Diagnosis (Ever)	COPD Diagnosis (Ever)
Pike/Monroe/Susquehanna/Wayne	11%	17%	9%
Pennsylvania	10%	15%	7%

Source: Pennsylvania Department of Health, 2016-2018

Asthma among Students (Green = Lower than State Benchmark)

	Students with Asthma	
	Count	Percentage
Susquehanna County	399	6.6%
Pennsylvania	222,136	11.9%

Source: Pennsylvania Department of Health, 2016-2017

CLRD Death Rate per Age-Adjusted 100,000

	Total Population
Susquehanna County	55.0
Pennsylvania	37.6
United States	41.4

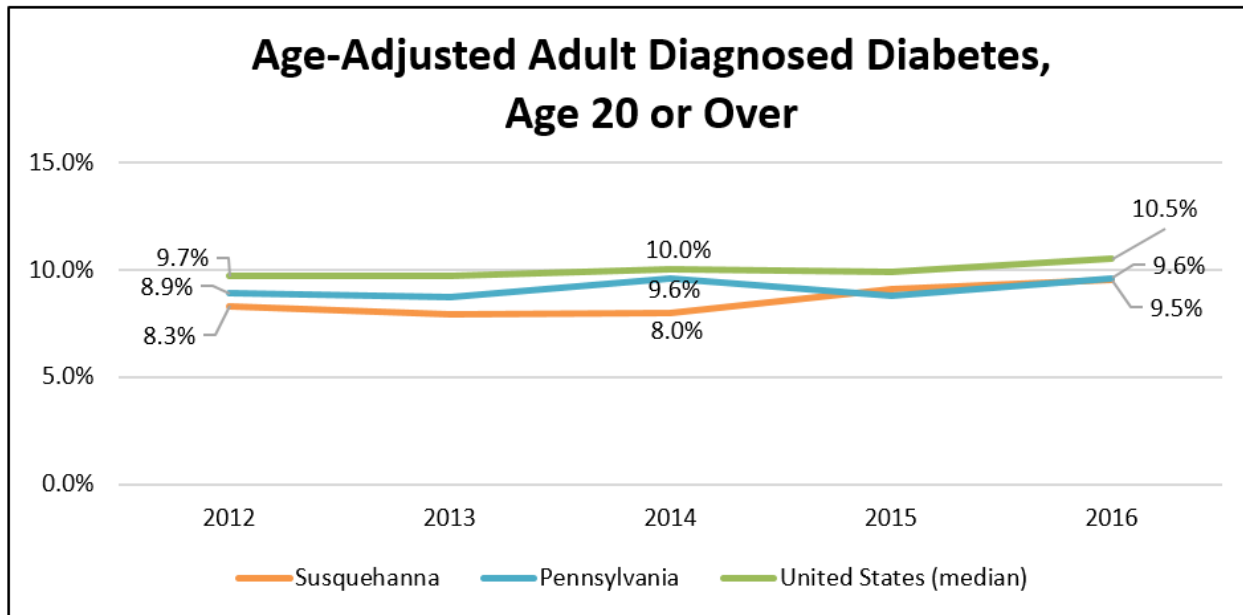
Source: Centers for Disease Control and Prevention, 2013-2017

Diabetes

Diabetes is among the top 10 causes of death in the nation. Diabetes can cause a number of serious complications. Type II diabetes, the most common form, is largely preventable through diet and exercise.

The prevalence of diabetes among adults in Pennsylvania and Susquehanna County is lower than the nation, but increasing. The death rate due to diabetes in Susquehanna County is nearly two times the rate for the state and nation, indicating care access and disease management barriers.

Susquehanna County has a similar prevalence of diabetes as the state, but the death rate is nearly two times higher



Source: Centers for Disease Control and Prevention, 2012-2016

*National data are not age-adjusted.

Diabetes Death Rate per Age-Adjusted 100,000

	Total Population
Susquehanna County	41.2
Pennsylvania	21.6
United States	21.2

Source: Centers for Disease Control and Prevention, 2013-2017

Senior Health

Seniors face a growing number of challenges related to health and well-being as they age. People over 65 are more prone to chronic disease, social isolation, and disability. The following sections highlight key health indicators for Susquehanna County’s senior population.

Chronic Disease Among Medicare Beneficiaries

According to the CDC, “Among Medicare fee-for-service beneficiaries, people with multiple chronic conditions account for 93% of total Medicare spending.” The tables below note the percentage of Medicare Beneficiaries who have been diagnosed with a chronic condition.

Overall, Susquehanna County senior Medicare Beneficiaries are less likely to have a chronic condition compared to seniors statewide and nationally. The exception is COPD, which is more prevalent among Susquehanna County seniors.

Seniors in Susquehanna County are less likely to be diagnosed with a chronic condition, with the exception of COPD

**Chronic Conditions among Medicare Beneficiaries 65 Years or Over
(Green = Lower than State and National Benchmarks;
Red = Higher than State and National Benchmarks)**

	Susquehanna County	Pennsylvania	United States
Alzheimer’s Disease	8.4%	12.2%	12.1%
Arthritis	35.0%	36.1%	34.2%
Asthma	4.0%	4.9%	4.6%
Cancer	9.4%	10.1%	9.2%
COPD	13.1%	11.2%	11.6%
Depression	10.4%	16.1%	15.4%
Diabetes	26.2%	26.6%	27.4%
Heart Failure	12.9%	14.4%	14.5%
High Cholesterol	39.1%	47.6%	43.0%
Hypertension	58.1%	62.3%	59.9%
Ischemic Heart Disease	26.5%	29.9%	28.8%
Stroke	3.6%	4.6%	4.0%

Source: Centers for Medicare & Medicaid Services, 2017

**Number of Chronic Conditions among Medicare Beneficiaries 65 Years or Over
(Green = Lower than State and National Benchmarks)**

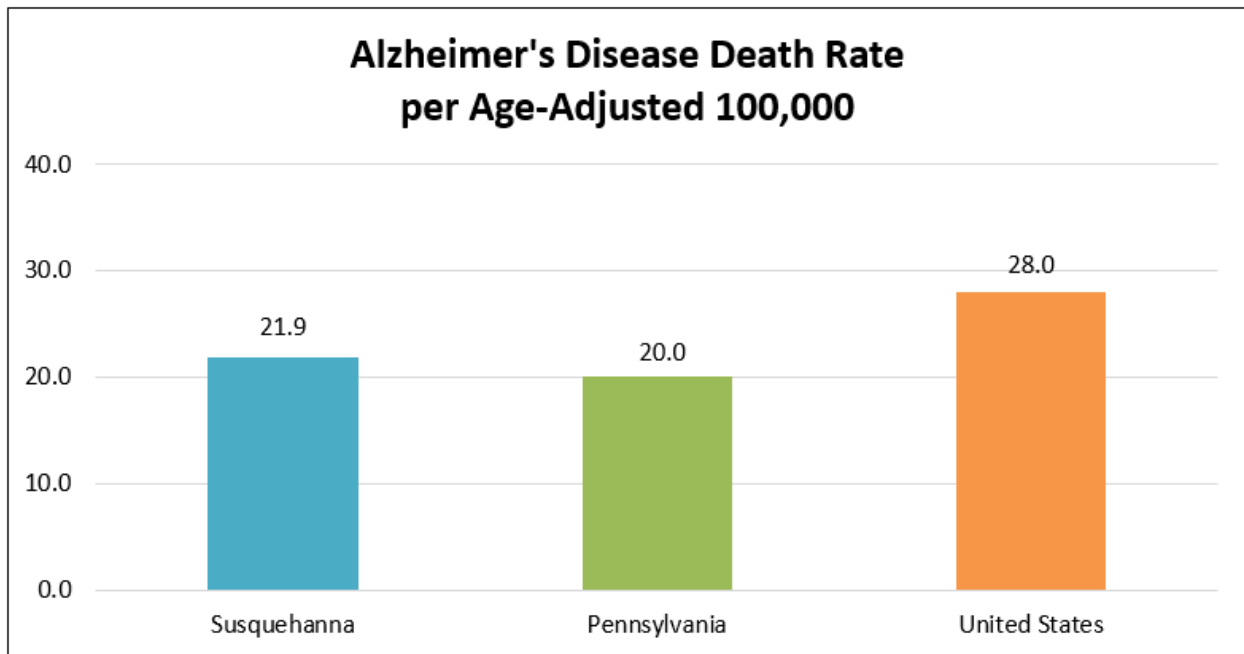
	Susquehanna County	Pennsylvania	United States
0 to 1 condition	33.6%	27.9%	31.1%
2 to 3 conditions	32.7%	31.1%	29.6%
4 to 5 conditions	19.8%	22.9%	21.8%
6 or more conditions	14.0%	18.2%	17.4%

Source: Centers for Medicare & Medicaid Services, 2017

Alzheimer’s Disease

Alzheimer’s disease is currently the sixth leading cause of death in the United States. According to the National Institute on Aging, “Alzheimer’s disease is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills, and, eventually, the ability to carry out the simplest tasks. In most people with Alzheimer’s, symptoms first appear in their mid-60s. Estimates vary, but experts suggest that more than 5.5 million Americans, most of them age 65 or older, may have dementia caused by Alzheimer’s.”

The Alzheimer’s disease death rate in Susquehanna County is slightly higher than the state, but lower than the nation.



Source: Centers for Disease Control and Prevention, 2013-2017

Immunizations

Pneumococcal disease continues to be a leading cause of serious illness among older adults. According to the CDC, approximately 20%–25% of pneumococcal cases are potentially preventable with proper vaccination. Seniors in the Pike/Monroe/Susquehanna/Wayne region receive the pneumonia vaccination at a lower rate than seniors across Pennsylvania.

Seniors in the region are less likely to receive a flu shot than seniors across Pennsylvania

**Adults 65 Years or Over Who Received a Pneumonia Vaccination
(Red = Lower than State Benchmark)**

	Ever Received a Pneumonia Vaccination
Pike/Monroe/Susquehanna/Wayne	66%
Pennsylvania	73%

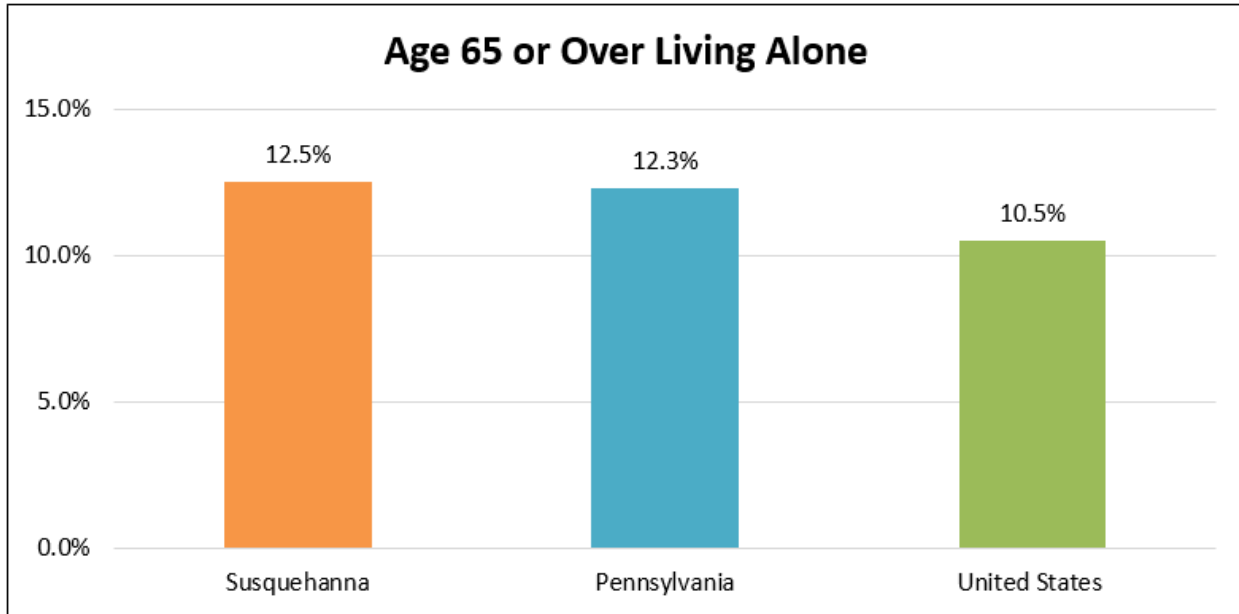
Source: Pennsylvania Department of Health, 2016-2018

Social Isolation Among Seniors

As seniors age, they are at risk for isolation due to physical limitations and decreasing social circles. One indicator of isolation is the percentage of seniors age 65 or over who live alone.

Approximately 12.5% of Susquehanna County seniors live alone, consistent with the state but higher than the nation.

Susquehanna County and Pennsylvania seniors are more likely than seniors nationwide to live alone



Source: US Census Bureau, 2013-2017

Behavioral Health

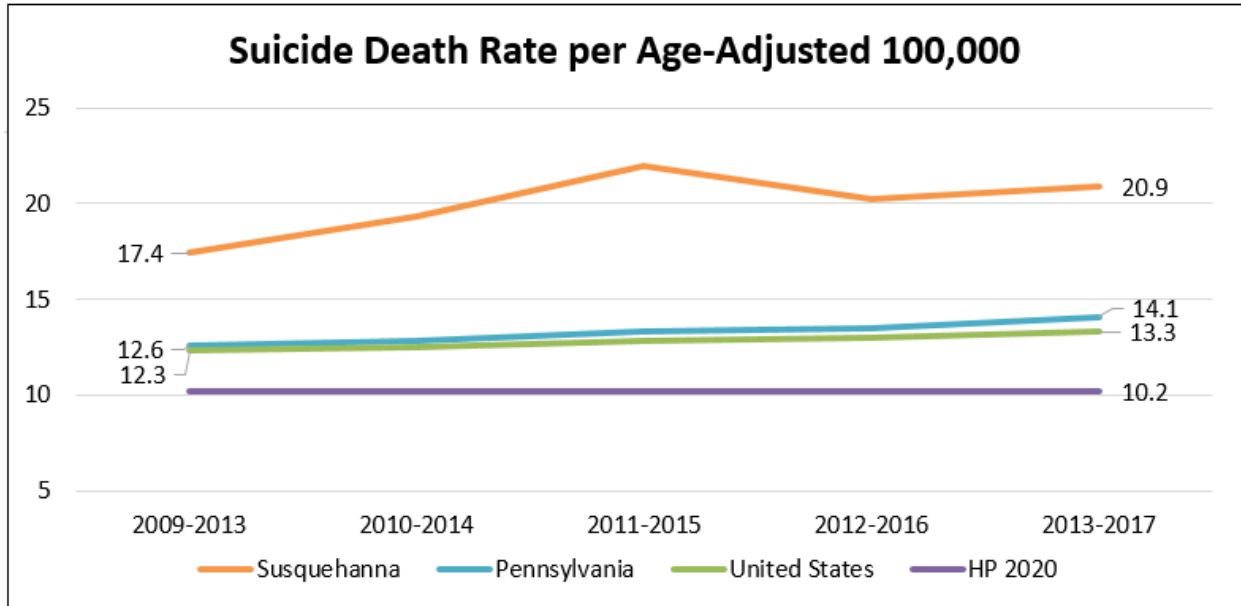
Mental Health

Mental health needs continue to be a concern for Susquehanna County residents as evidenced by an increasing rate of death due to suicide and mental and behavioral disorders.

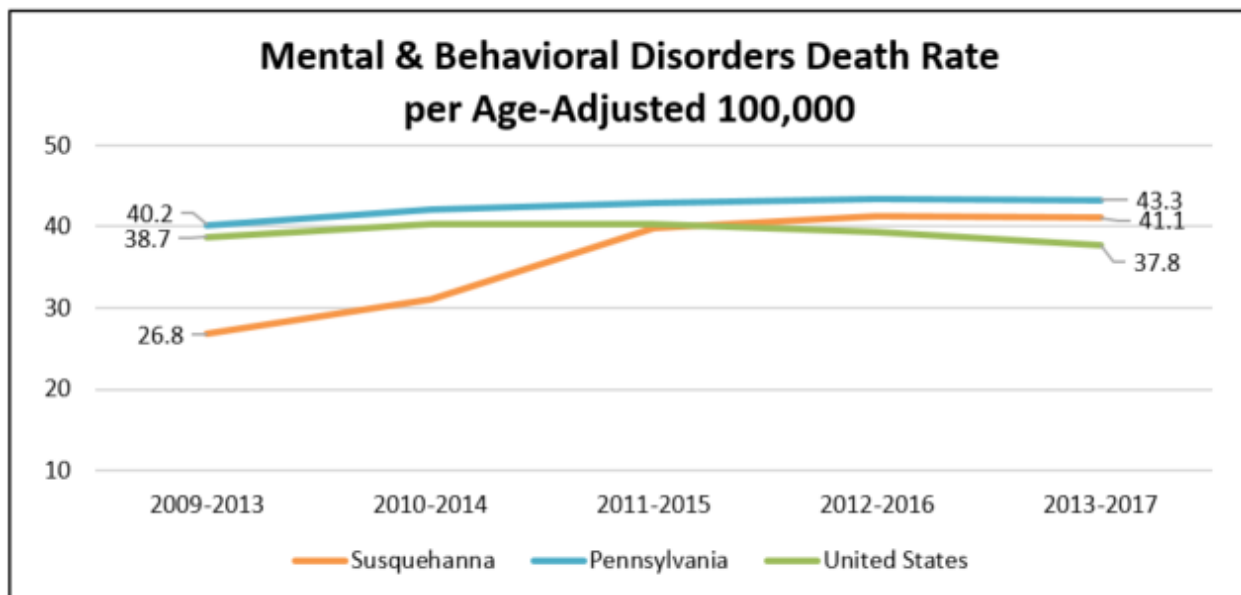
Susquehanna County had a total of 44 suicide deaths between 2013 and 2017. The corresponding death rate is double the Healthy People 2020 goal and exceeds the state and nation. The county has historically had a high suicide death rate.

The suicide death rate in Susquehanna County is double the Healthy People 2020 goal

Mental and behavioral disorders span a wide range of disorders, including disorders due to psychoactive substance use, anxiety disorders, Schizophrenia and other delusional disorders, and mood or personality disorders. The disorders are not induced by alcohol and other psychoactive substances, but they may result from substance abuse. The mental and behavioral disorders death rate in Susquehanna County is lower than the state, but higher than the nation and increased 14 points over the past five reporting cycles.



Source: Centers for Disease Control and Prevention, 2009-2013 – 2013-2017; Healthy People 2020



Source: Centers for Disease Control and Prevention, 2009-2013 – 2013-2017

Substance Use Disorder

The category of substance use disorder includes alcohol and drug use, including the use of prescription drugs outside of the prescribed use.

Excessive drinking includes binge drinking and heavy drinking. Susquehanna County adults are less likely to drink excessively compared to residents across the state. While the percentage of deaths due to driving under the influence (DUI) decreased in Susquehanna County since the 2016 CHNA, it is still nearly 20 points higher than the state and nation.

The percentage of DUI-related deaths in Susquehanna County decreased, but is nearly 20 points higher than the state and nation

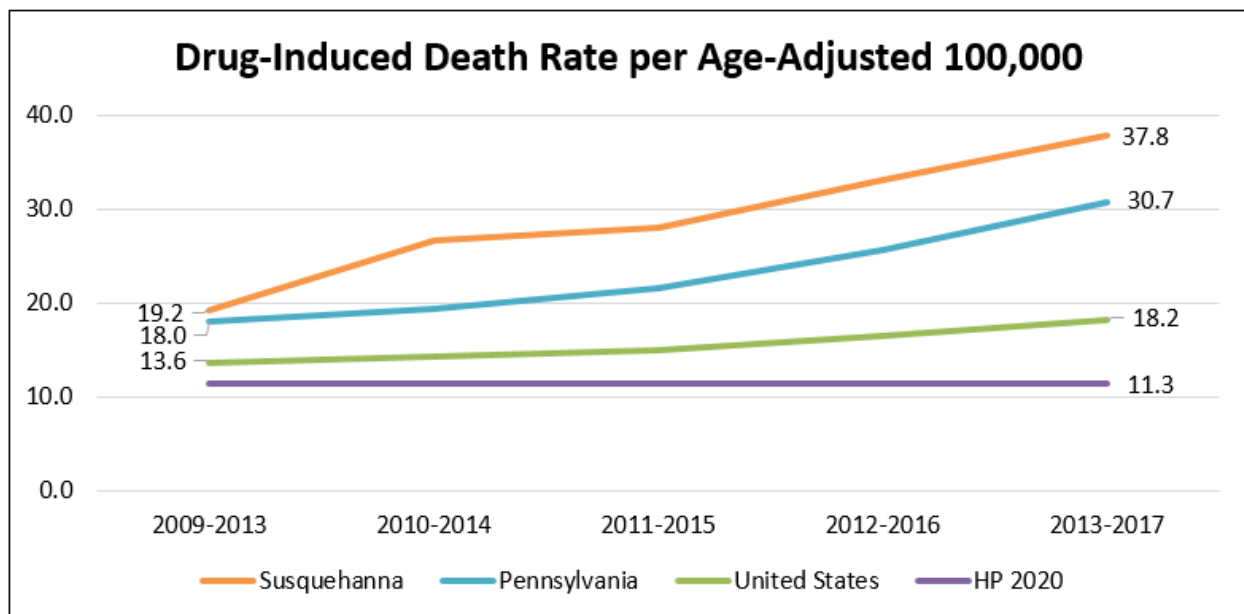
**Substance Abuse Measures
(Red = Higher than State and National Benchmarks)**

	Excessive Drinking (Adults)		Percent of Driving Deaths due to DUI	
	2014	2016	2010-2014	2013-2017
Susquehanna County	17.0%	18.7%	55.4%	48.1%
Pennsylvania	17.7%	20.5%	33.1%	28.3%
United States	17.0%	18.0%	31.0%	29.0%

Source: Centers for Disease Control and Prevention, 2014 & 2016; National Highway Traffic Safety Administration, 2010-2014 & 2013-2017

Drug-induced deaths include all deaths for which drugs are the underlying cause of death, including drug overdoses and deaths from medical conditions resulting from chronic drug use. The Susquehanna County drug-induced death rate increased nearly 19 points in recent years and exceeds all state and national benchmarks.

The Susquehanna County drug-induced death rate continued to increase, exceeding state and national benchmarks

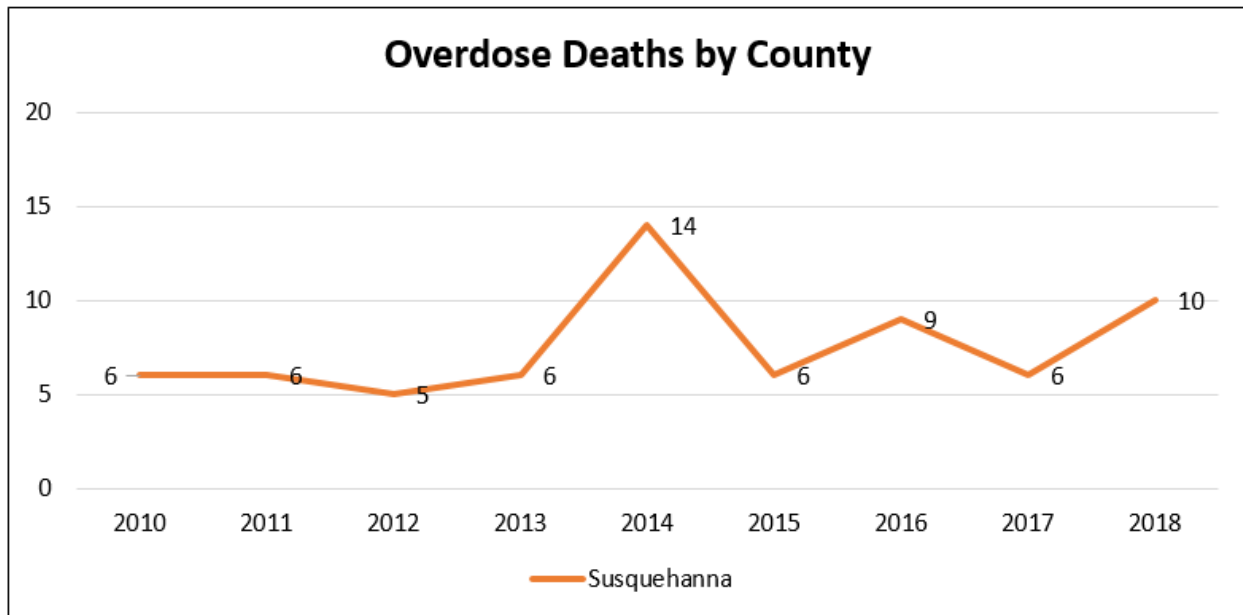


Source: Centers for Disease Control and Prevention, 2009-2013 – 2013-2017

OverdoseFreePA, operated by the Pennsylvania Overdose Reduction Technical Assistance Center out of the University of Pittsburgh School of Pharmacy, is a statewide collaborative to increase community awareness and knowledge of overdose and overdose prevention strategies. The following figures reflect overdose death data reported by OverdoseFreePA.

A total of 68 overdose deaths occurred in Susquehanna County from 2010 to 2018. The majority of overdose deaths were among males and individuals between the age of 25 and 54. Consistent with the population of the county, all overdose deaths were among White residents.

A total of 68 overdose deaths occurred in Susquehanna County from 2010 to 2018



Source: OverdoseFreePA, 2010-2018

Overdose Death Demographics

	Susquehanna County
Total Deaths	68
Gender	
Male	63.2%
Female	36.8%
Age Group	
0-17 years	NA
18-24 years	10.3%
25-34 years	35.3%
35-44 years	19.1%
45-54 years	25.0%
55-64 years	8.8%
65 years or over	1.5%

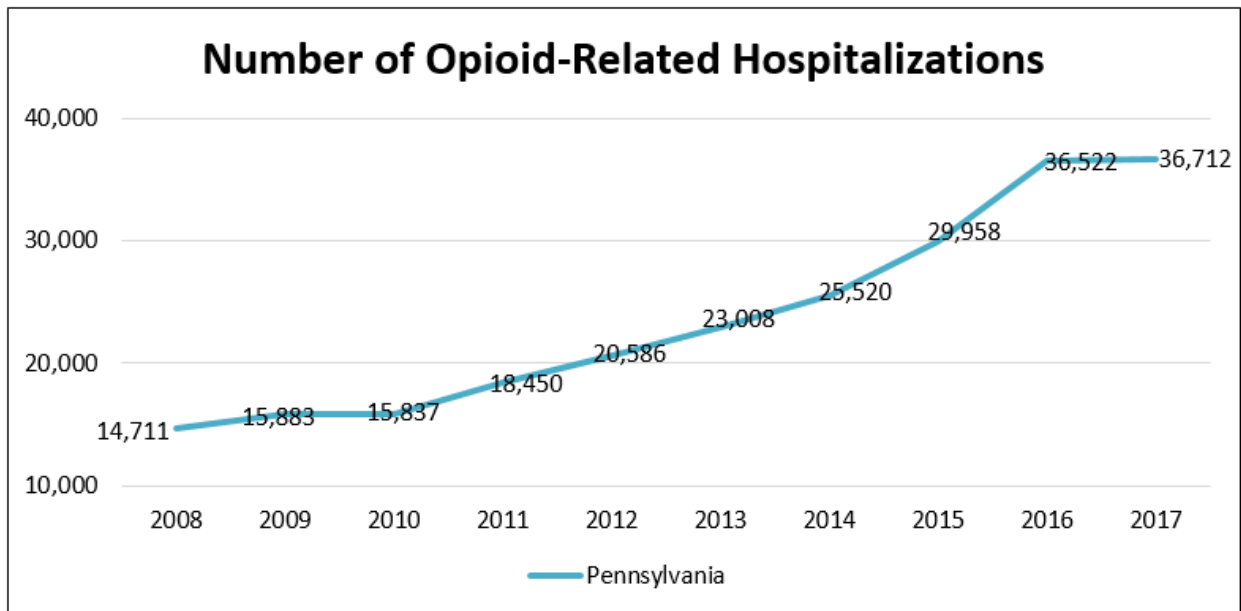
Source: OverdoseFreePA, 2010-2018

Opioid-Related Hospitalizations

According to PHC4, 36,712 or 1 in 37 hospitalizations in Pennsylvania in 2017 were related to opioids. Of the total opioid-related hospitalizations, 9.5% were due to overdose, 7.5% were due to opioid use disorder as the primary diagnosis, and 83% were due to opioid use disorder as a co-occurring condition. The number of opioid-related hospitalizations increased between 2008 and 2016 and remained stable in 2017.

Susquehanna County residents had 6 overdose deaths and 43 opioid-related hospitalizations in 2017

In 2017, Susquehanna County residents had 43 opioid-related hospitalizations. The corresponding hospitalization rate is less than half the state rate.



Source: Pennsylvania Health Care Cost Containment Council, 2008-2017

Opioid-Related Hospitalization Rate per 100,000

	Number of Hospitalizations	Hospitalization Rate
Susquehanna County	43	123.7
Pennsylvania	36,712	345.9

Source: Pennsylvania Health Care Cost Containment Council, 2017

Neonatal Abstinence Syndrome

Neonatal abstinence syndrome (NAS) is a group of conditions caused when a baby withdraws from certain drugs he or she was exposed to in the womb. Although most commonly associated with opioid exposure, other substances can also cause NAS, including antidepressants and benzodiazepines. In addition to withdrawal symptoms, babies born with NAS may experience problems related to premature birth, seizures, respiratory distress, birth defects, poor growth, and other developmental problems.

According to PHC4, there were more than 1,800 newborns affected by NAS in Pennsylvania in 2018. The average hospital stay for newborns with NAS was 15.9 days compared to 4.3 days for newborns without NAS. The number of NAS newborn stays in Susquehanna County is not reported due to low counts. The NAS rate per 1,000 newborn stays in Susquehanna County is nearly double the state rate.

The rate of NAS newborn stays in Susquehanna County is nearly double the state rate

Neonatal Abstinence Syndrome Rate per 1,000 Newborn Stays

	Number of NAS Stays	Rate per 1,000 Newborn Stays
Susquehanna County	NA	27.3
Pennsylvania	1,833	14.4

Source: Pennsylvania Health Care Cost Containment Council, 2017

*The number of NAS stays is not reported for Susquehanna County due to low counts.

Youth Behavioral Health

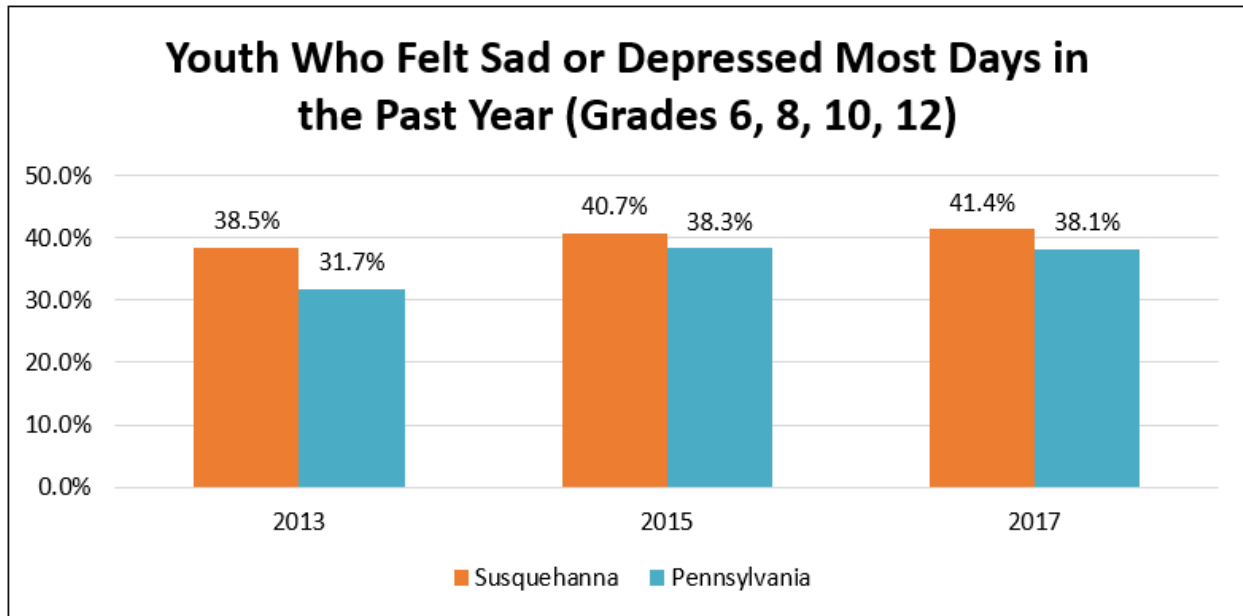
Young people who consistently feel depressed or sad may be at risk for self-harm and risky behaviors. The following figures depict the percentage of students who felt sad or depressed on most days during the past year. Overall, Susquehanna County students are more likely to feel sad or depressed than students across the state. The percentage of youth who feel sad or depressed increased from 2013 to 2017.

Susquehanna County youth overall are more likely to feel sad or depressed than students across the state, and the percentage increased

**Youth Who Felt Sad or Depressed on Most Days in the Past Year
(Green = Lower than State Benchmark; Red = Higher than State Benchmark)**

	6 th Grade	8 th Grade	10 th Grade	12 th Grade
Susquehanna County	36.9%	47.2%	45.7%	33.6%
Pennsylvania	32.3%	36.9%	41.4%	40.8%

Source: Pennsylvania Commission on Crime and Delinquency, 2017



Source: Pennsylvania Commission on Crime and Delinquency, 2013-2017

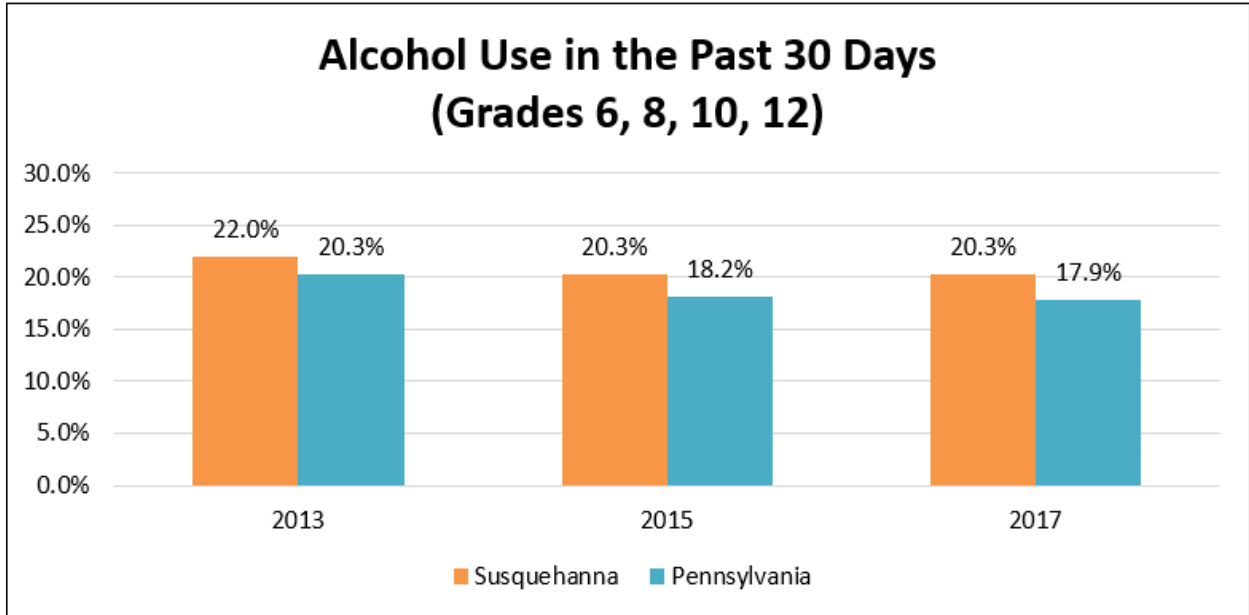
Substance use among youth can lead to many negative health outcomes. Overall, Susquehanna County students are more likely to use alcohol, but less likely to use marijuana than students across the state. Within the county, students in 12th grade are the most likely to use alcohol, but students in 6th, 8th, and 10th grades exceed state benchmarks for reported use. Students in 8th and 10th grades also exceed state benchmarks for marijuana use.

Susquehanna County youth are more likely to use alcohol, but less likely to use marijuana than students across the state

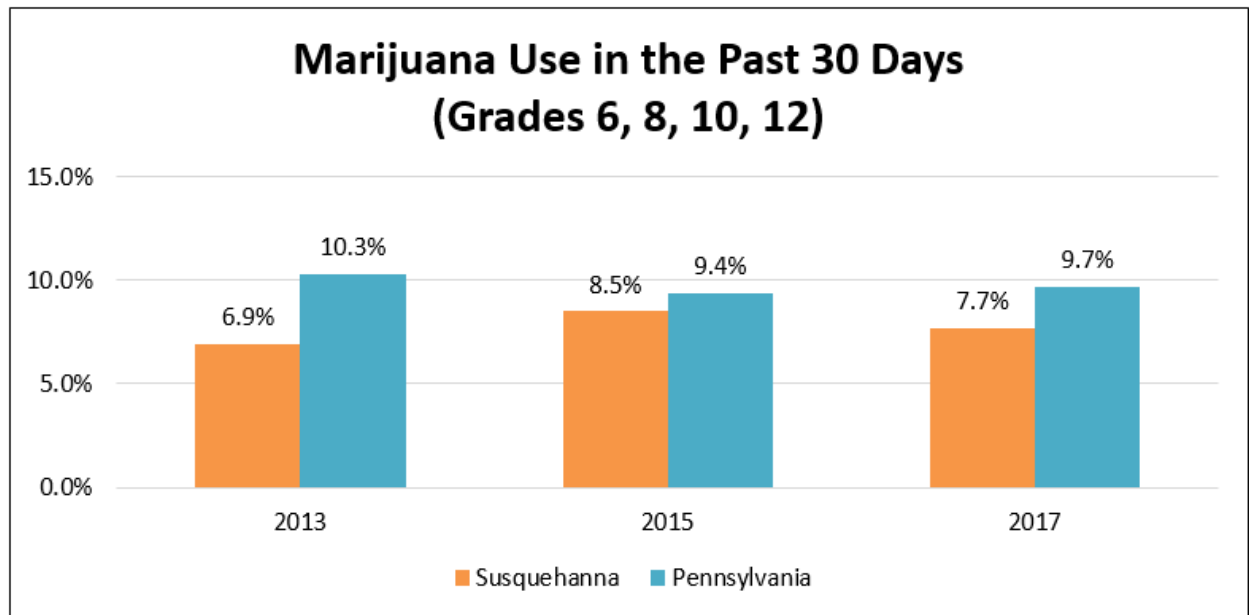
Youth Substance Abuse Measures
(Green = Lower than State Benchmark; Red = Higher than State Benchmark)

	6 th Grade	8 th Grade	10 th Grade	12 th Grade
Used Alcohol in the Past 30 Days				
Susquehanna County	5.0%	16.8%	29.1%	35.7%
Pennsylvania	3.3%	9.3%	22.3%	35.9%
Used Marijuana in the Past 30 Days				
Susquehanna County	0.0%	5.2%	12.8%	15.4%
Pennsylvania	0.5%	4.6%	12.0%	20.8%

Source: Pennsylvania Commission on Crime and Delinquency, 2017



Source: Pennsylvania Commission on Crime and Delinquency, 2013-2017



Source: Pennsylvania Commission on Crime and Delinquency, 2013-2017

Maternal and Child Health

Total Births and Teen Pregnancy

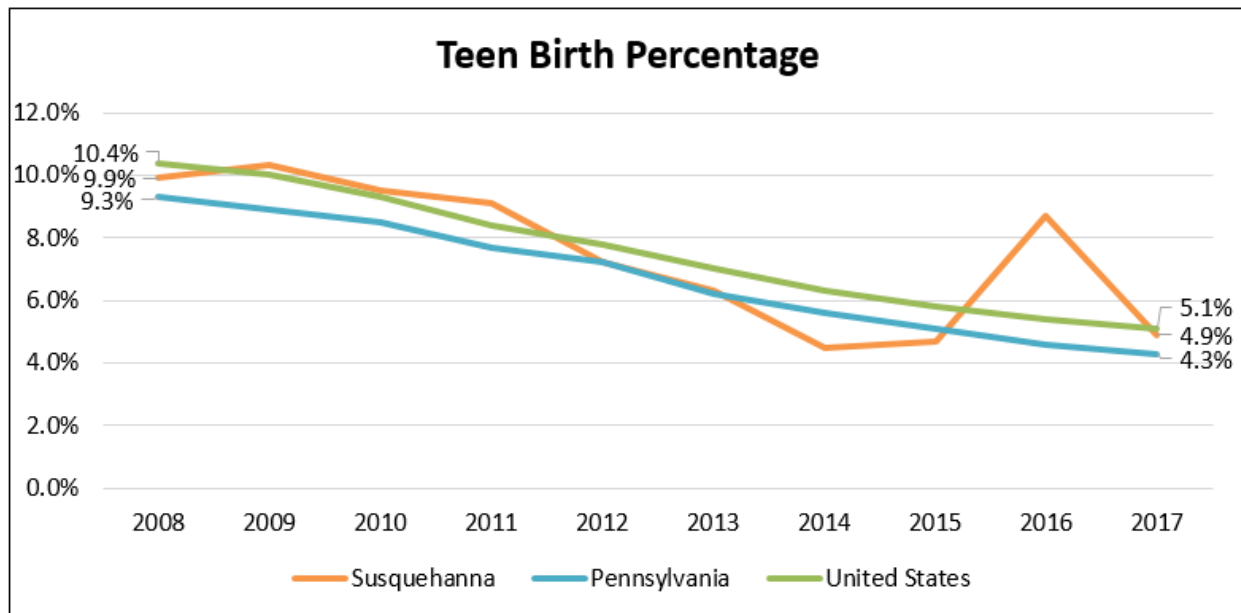
The birth rate for Susquehanna County is lower than the state rate. Consistent with the demographics of the county, the majority of births (97%) are to White mothers.

2017 Births by Race and Ethnicity

	Total Births	Birth Rate per 1,000	White Births as a Percentage of Total	Black/African American Births as a Percentage of Total	Latinx Births as a Percentage of Total
Susquehanna County	368	18.1	97.3%	NA	2.4%
Pennsylvania	137,771	21.1	69.7%	14.0%	11.5%

Source: Pennsylvania Department of Health, 2017

The percentage of births to teenagers has been declining nationally. The teen birth percentage in Susquehanna County increased notably in 2016, but has since declined and is similar to the state and nation.



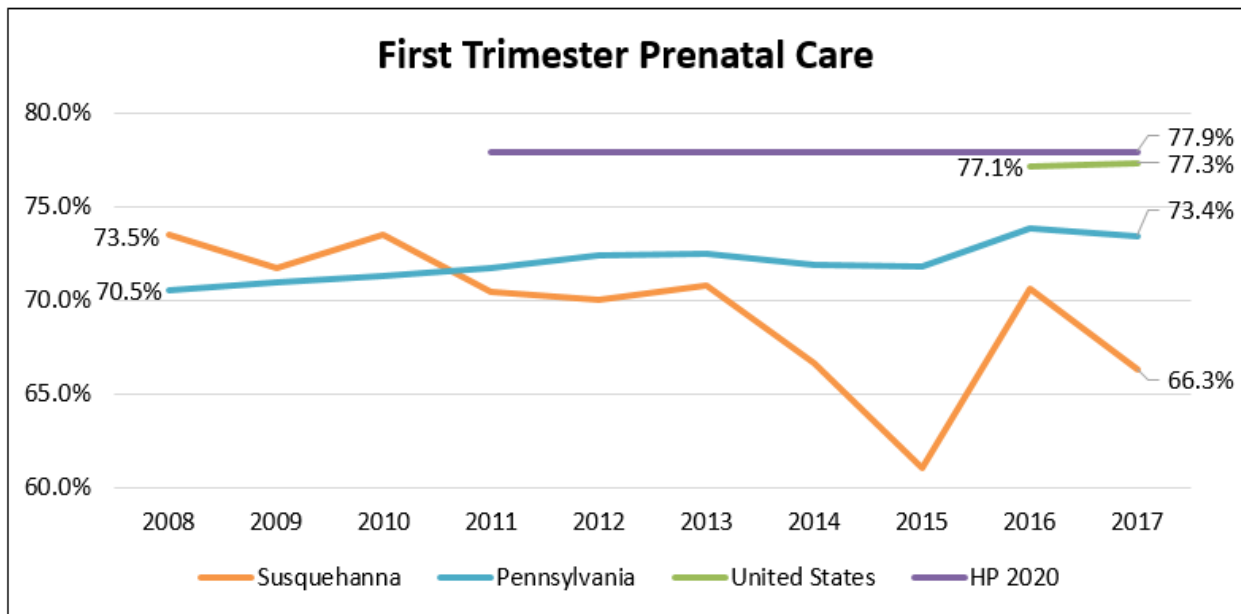
Source: Centers for Disease Control and Prevention, 2008-2017; Pennsylvania Department of Health, 2008-2017

Prenatal Care

Engaging in early prenatal care increases the chances that a mother and her baby will have a healthy pregnancy and a healthy birth. Entry into prenatal care after the first trimester can suggest barriers to accessing care. The percentage of Susquehanna County mothers receiving early prenatal care

The percentage of Susquehanna County mothers receiving early prenatal care is generally declining and lower than state and national benchmarks

has been variable, but generally declining and lower than the state percentage. The current 2017 percentage of 66.3% is nearly 12 points below the Healthy People 2020 goal.



Source: Pennsylvania Department of Health, 2008-2017; Healthy People 2020

*Starting in 2016, all of the US reported data based on the 2003 US Certificate of Live Birth, providing national indicators for timing of prenatal care. Data prior to 2016 are not reported.

The following municipalities in Susquehanna County do not meet the Healthy People 2020 goal for mothers receiving first trimester prenatal care by more than 5 percentage points. Municipalities are presented in ascending order by percentage of mothers receiving first trimester prenatal care.

Municipalities That Do Not Meet the Healthy People 2020 Goal (77.9%) for Mothers Receiving First Trimester Prenatal Care by More Than 10 Points

Susquehanna County Municipality	%
Hop Bottom Borough	57.6%
Montrose Borough	58.6%
Liberty Township	61.2%
Susquehanna Depot Borough	62.0%
Great Bend Borough	63.3%
Clifford Township	64.0%
Choconut Township	64.9%
Great Bend Township	65.7%
New Milford Township	66.3%
Auburn Township	66.7%
Jackson Township	66.7%
Hallstead Borough	67.3%

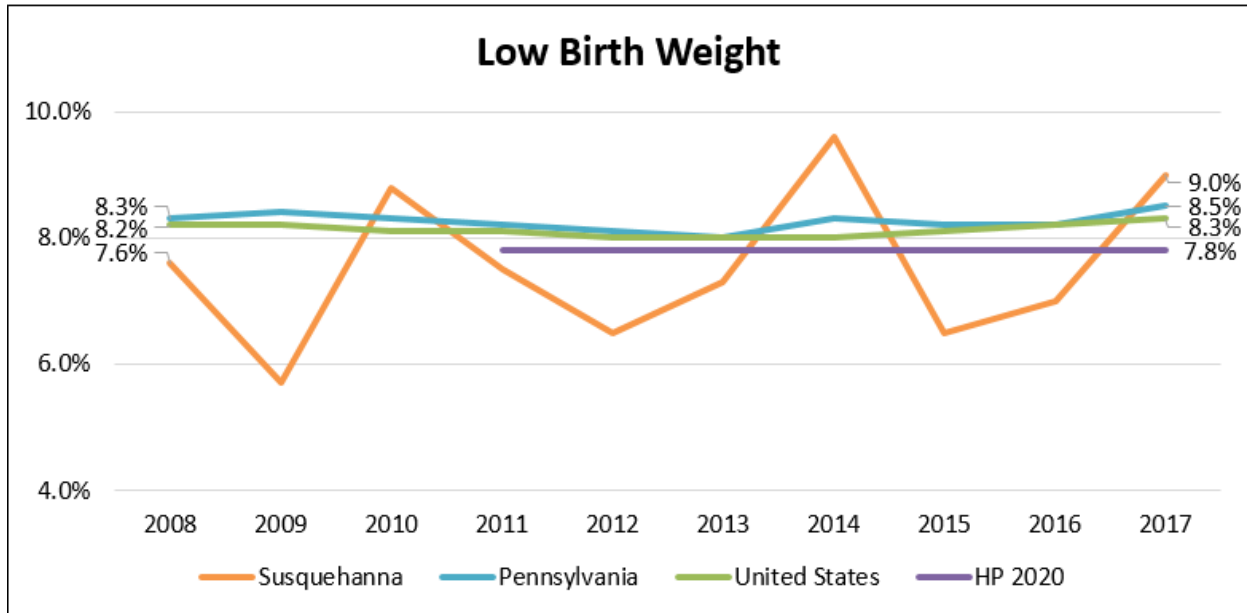
Source: PA Department of Health, 2013-2017

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

Low Birth Weight and Preterm Birth

Low birth weight is defined as a birth weight of less than 5 pounds, 8 ounces. Low birth weight is often a result of preterm birth, fetal growth restrictions, or birth defects and can be associated with a variety of negative birth outcomes. The percentage of low birth weight babies in Susquehanna County has been increasing since 2015, and is currently higher than state and national benchmarks, including the Healthy People 2020 goal.

The percentage of low birth weight and preterm babies in Susquehanna County has been increasing since 2015



Source: Centers for Disease Control and Prevention, 2008-2017; Pennsylvania Department of Health, 2008-2017; Healthy People 2020

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

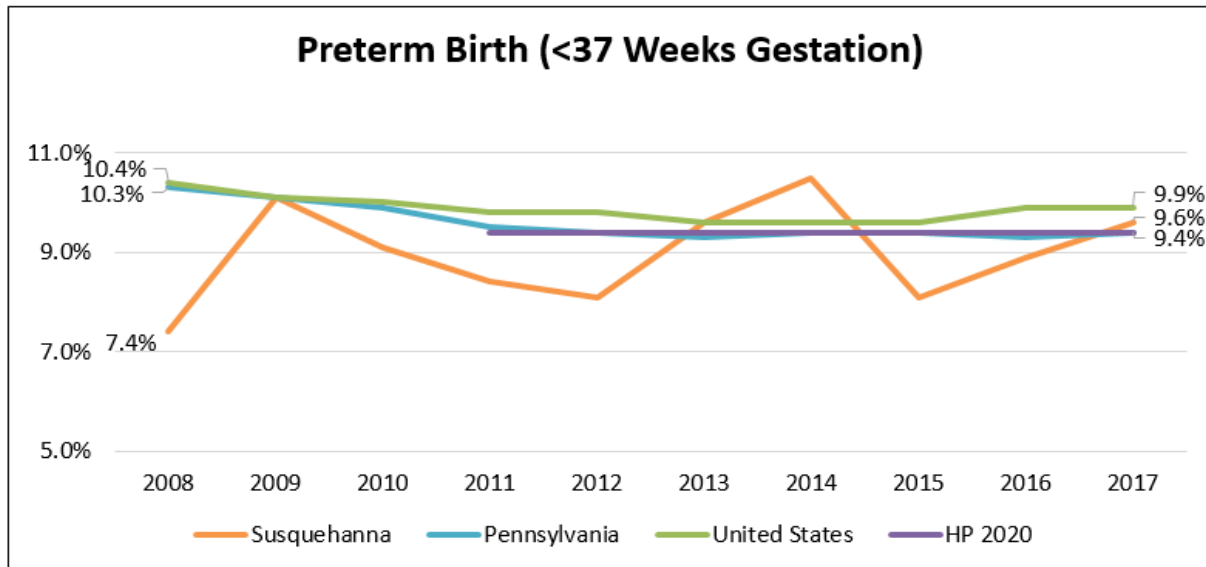
Municipalities that Do Not Meet the Healthy People 2020 Goal (7.8%) for Low Birth Weight Babies by More Than 3 Points

Susquehanna County Municipality	%
Harford Township	13.2%
Oakland Borough	12.9%
Lathrop Township	12.5%
Silver Lake Township	12.2%
Jackson Township	11.1%

Source: Pennsylvania Department of Health, 2013-2017

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

Preterm birth is defined as birth before 37 weeks of pregnancy, and can contribute to infant death or disability. The percentage of preterm births in Susquehanna County has been variable over the past ten years, but it is currently on the rise.

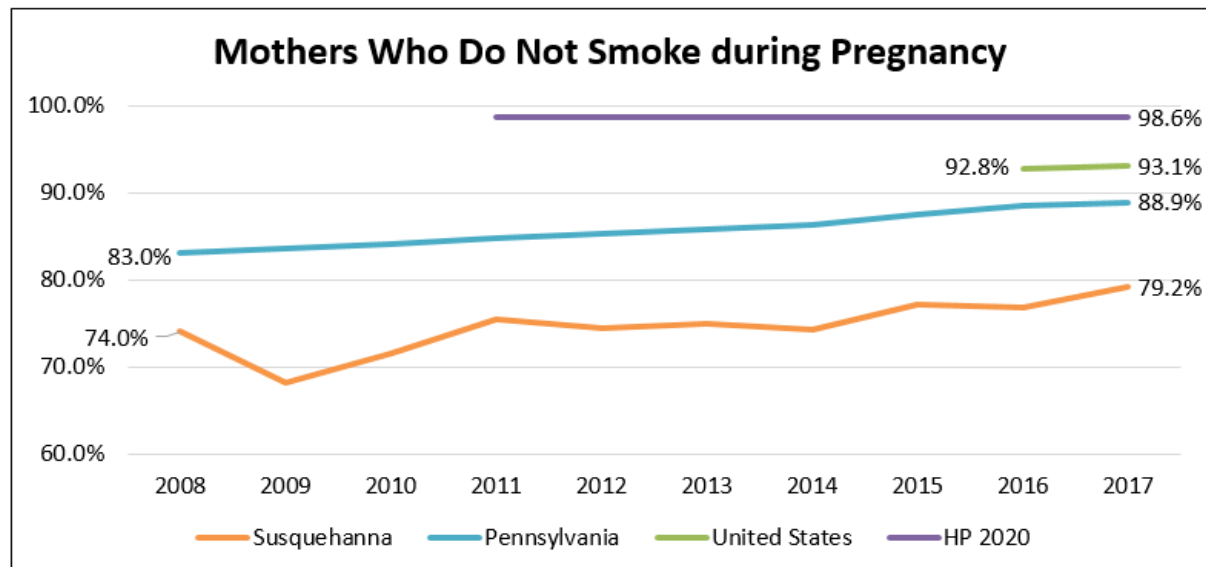


Source: Centers for Disease Control and Prevention, 2008-2017; Pennsylvania Department of Health, 2008-2017; Healthy People 2020

Smoking during Pregnancy

Smoking during pregnancy is associated with a variety of negative birth outcomes. Susquehanna County mothers are more likely to smoke during pregnancy than state and national benchmarks, but the percentage is declining.

Mothers in Susquehanna County are more likely to smoke during pregnancy and less likely to breastfeed, but percentages are improving

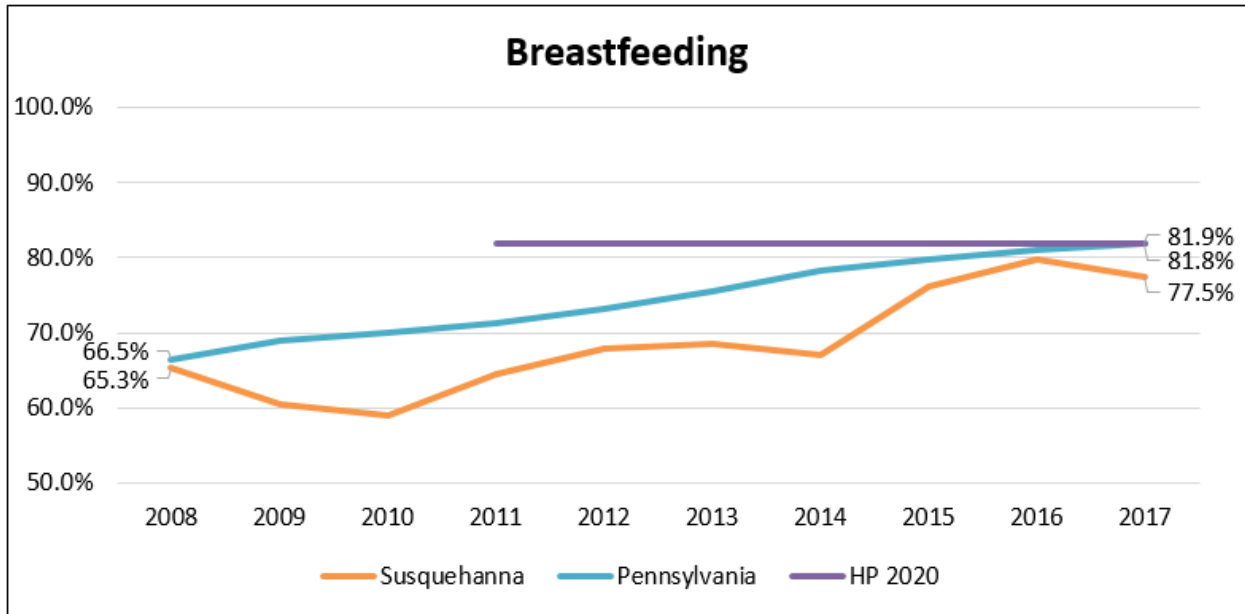


Source: Pennsylvania Department of Health, 2008-2017; Healthy People 2020

*Starting in 2016, all of the US reported data based on the 2003 US Certificate of Live Birth, providing national indicators for smoking during pregnancy. Data prior to 2016 are not reported.

Breastfeeding

Breastfeeding is recommended to ensure healthy nutritional intake for babies and to promote bonding between mother and child. Healthy People 2020 set a goal for 81.9% of all infants to have initiated breastfeeding at the time of delivery discharge. Mothers in Susquehanna County are less likely than mothers across the state to breastfeed, but the percentage increased more than 10 points since 2008.



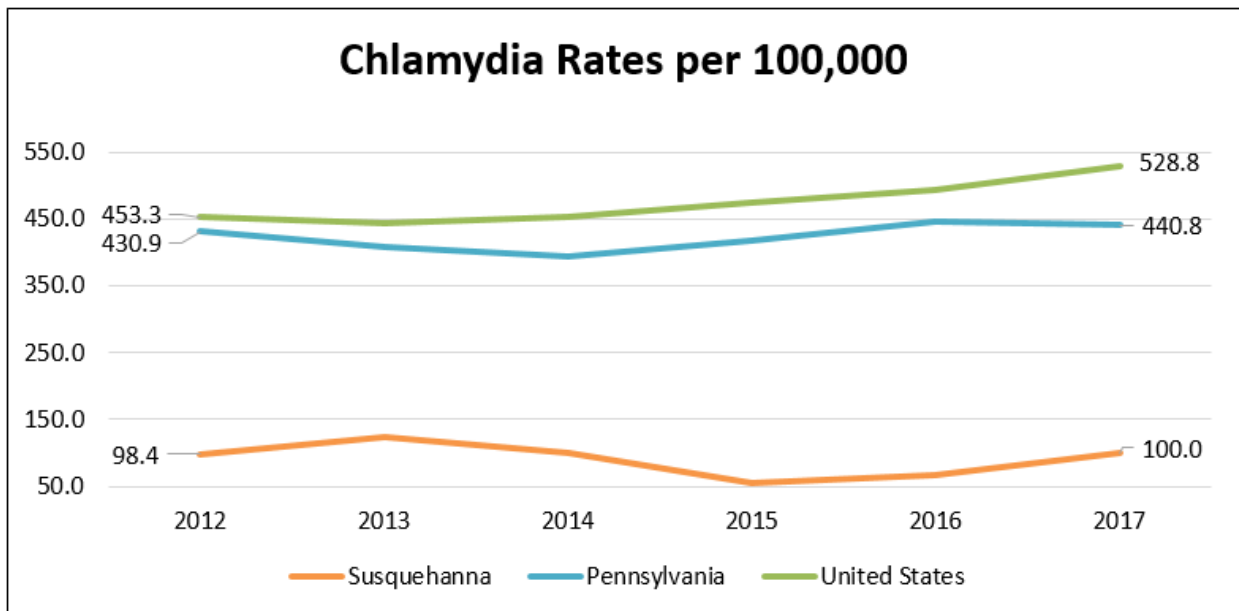
Source: Pennsylvania Department of Health, 2008-2017; Healthy People 2020

Reportable Diseases

Sexually Transmitted Infections

The rate of infection of sexually transmitted infections (STIs) including chlamydia, gonorrhea, and HIV has been increasing across the nation since 2010. As highly communicable conditions, STIs require reporting to the CDC and state and local health bureaus upon detection. The chlamydia rate in Susquehanna County is less than one-quarter of the state rate and less than one-fifth of the national rate. Gonorrhea rates at the county level are not available due to low counts.

The chlamydia rate in Susquehanna County has consistently been less than one-quarter of the state rate



Source: Centers for Disease Control and Prevention, 2012-2017; Pennsylvania Department of Health, 2012-2017

Susquehanna County has a lower incidence of HIV compared to the state and nation. Between 2015 and 2018, the county had a total of five cases of HIV.

HIV Incidence Rate

	2017 Crude Incidence Rate per 100,000	Cumulative 2015-2018* Incidence Count
Susquehanna County	4.9	5
Pennsylvania	8.4	4,355
United States	11.8	117,834

Source: Centers for Disease Control and Prevention, 2015-2017 & 2017; Pennsylvania Department of Health, 2015-2018 & 2017

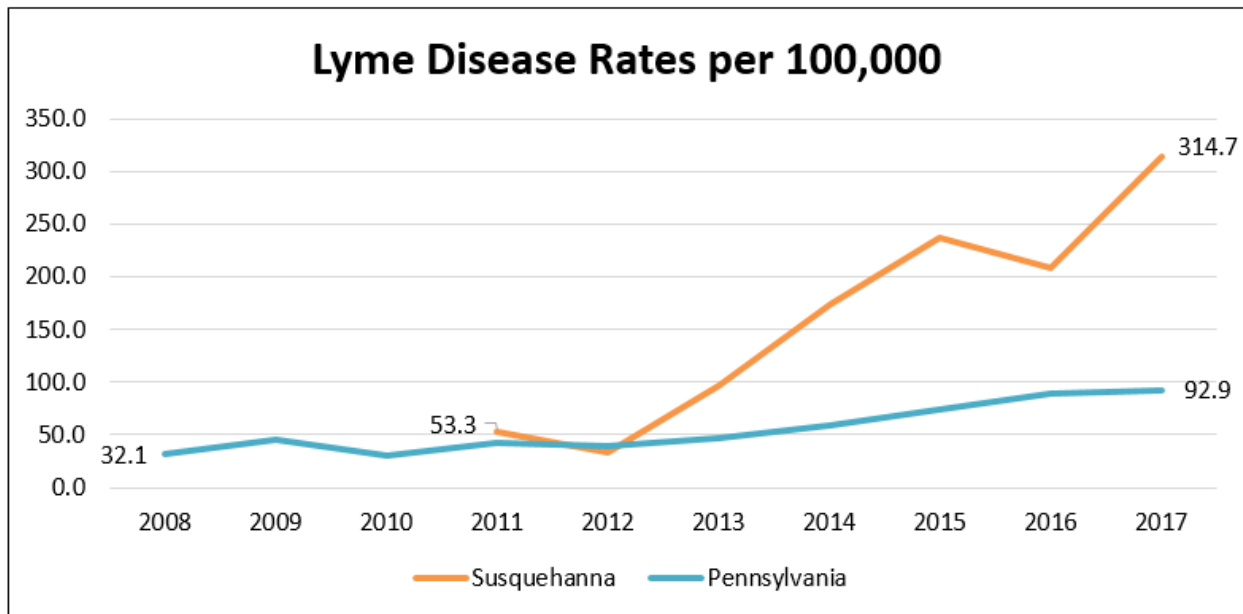
*The cumulative incidence count for the United States is for 2015-2017.

Lyme Disease

Lyme disease, according to the CDC, “is transmitted to humans through the bite of infected blacklegged ticks. Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans. If left untreated, infection can spread to joints, the heart, and the nervous system.”

The northeast United States, from Virginia to Maine, is one of the primary geographic areas for Lyme disease infection. The incidence of Lyme disease increased sharply in Susquehanna County from 2012 to 2017. The current Lyme disease rate is nearly 3.5 times higher than the state rate.

The current Lyme disease rate in Susquehanna County is nearly 3.5 times higher than the state rate



Source: Pennsylvania Department of Health, 2007-2016

*Data for years prior to 2011 for Susquehanna County are not reported due to data availability.

Child Lead Screening and Poisoning

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

The measure for high levels of lead exposure or lead poisoning was recently revised from 10 micrograms per decileter of blood (µg/dL) or higher to 5 µg/dL of blood or higher. The Pennsylvania Department of Health reports blood lead levels based on the original 10 µg/dL measure.

Susquehanna County children age 3 to 6 are more likely to test positive for lead poisoning, but are less likely to receive screenings

The following table depicts children ages 0 to 6 who have been tested for lead poisoning and who have a positive screening. Susquehanna County children are less likely to be tested for lead poisoning, despite higher positive screenings among children age 3 to 6.

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

	Age Group	Percent Tested for Lead Poisoning	Percent with Blood Lead Levels ≥10 µg/dL
Susquehanna County	0-2 years	17.1%	1.1%
	3-6 years	3.6%	4.5%
Pennsylvania	0-2 years	27.4%	1.2%
	3-6 years	4.4%	1.9%

Source: Pennsylvania Department of Health, 2015

Secondary data findings were analyzed as part of the 2019 CHNA to inform prioritization of health needs in the EMHS service area. Secondary data is valuable for tracking and benchmarking community health status indicators, as well as for identifying emerging community needs. Secondary data findings were correlated with qualitative insights from hospital and community partners to better understand drivers of health status and barriers to improving health.

Key Informant Survey

Background

A Key Informant Survey was conducted with community representatives within Susquehanna County to solicit information about health needs among residents. A total of 11 individuals responded to the survey, including health and social service providers; community and public health experts; civic and social leaders; and others representing underserved or vulnerable populations. A list of the represented community organizations and the key informants' respective titles is included in Appendix B. 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 missing resources within the community. A summary of findings from their responses is included below.

Summary of Findings

- > When asked to rate community dimensions impacting social determinants of health, respondent mean scores were between 2.09 and 3.82 out of 5, indicating mostly "average" ratings. Natural environment and education were seen as the strongest dimensions.
- > When asked if various community and healthcare services are available in the area, respondent mean scores were between 2.30 and 3.30 out of 5, indicating overall disagreement or neutral perspectives. Specialty medical care and knowledge of health and social service assistance options were considered the least available services.
- > The top community health concerns, in rank order according to key informants, are substance use disorder, heart disease, cancer, and diabetes. The top contributing factors to identified health concerns, in rank order, are health habits, socioeconomic disparities, and attitudes/perceptions toward health.
- > Key informants identified preventive care and education and better access to care, including affordable services and health insurance coverage, as the most needed community resources.
- > Community partnerships to address collective health improvement goals are already underway in Susquehanna County. Informants saw opportunity for EMHS to continue to be a community convener and catalyst for new healthcare options and models.

Survey Participants

All key informants indicated that they served residents of Susquehanna County. Nearly half also served residents of other Pennsylvania counties. “Other” geographies served by one informant included the four county region (Bradford, Sullivan, Susquehanna, Tioga counties).

Geographies Served by Key Informants

	Percent of Informants*	Number of Informants
Susquehanna County	100.0%	11
Other Pennsylvania Counties	45.5%	5
Other New York Counties	9.1%	1
Other	9.1%	1

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

Nearly three-quarters of key informants indicated that they served seniors or elderly individuals. More than 60% of key informants served poor/low-income individuals, children/youth, and families.

Populations Served by Key Informants

	Percent of Informants*	Number of Informants
Seniors/Elderly	72.7%	8
Poor/Low income	63.6%	7
Children/Youth	63.6%	7
Families	63.6%	7
Women	54.5%	6
Men	54.5%	6
Homeless	45.5%	5
Uninsured/Underinsured	36.4%	4
Emotionally or Physically Disabled	36.4%	4
Veteran	18.2%	2
Hispanic/Latinx	9.1%	1
LGBTQ	9.1%	1

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

Community Dimensions

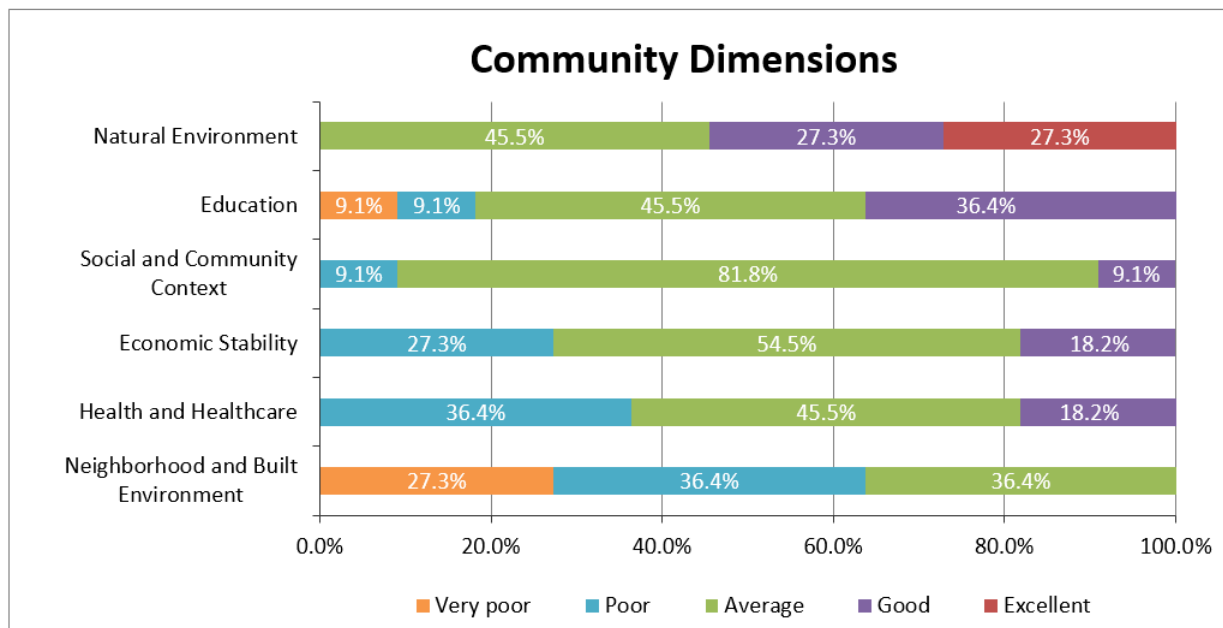
Healthy People 2020 defines social determinants of health as conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, function, and quality of life outcomes and risks. Informants were asked to rate six community dimensions that most highly impact social determinants of health: economic stability; education; health and healthcare; natural environment; neighborhood and built environment; and social and community context using a scale of (1) “very poor” to (5) “excellent.”

The mean score for each dimension is listed in the table below in rank order, followed by a graph showing the scoring frequency. Mean scores were between 2.09 and 3.82 out of 5, with

the majority of respondents rating the listed dimensions as “average.” Natural environment was seen as the strongest community dimension, while neighborhood and built environment was seen as the weakest community dimension.

Ranking of Community Dimensions in Descending Order by Mean Score

Ranking	Community Dimension	Mean Score
1	Natural Environment: air/water quality, pollution, conservation efforts	3.82
2	Education: quality, graduation rates, higher education attainment, community investment	3.09
3	Social and Community Context: social cohesion, civic participation, perceptions of discrimination and equity, community appreciation/pride	3.00
4	Economic Stability: employment opportunities, poverty, food security, housing stability	2.91
5	Health and Healthcare: availability, quality, affordability	2.81
6	Neighborhood and Built Environment: transportation, neighborhood safety, blight, bike and pedestrian paths, parks and recreation, fresh food availability	2.09



Community Access

Key informants were asked to rate their agreement to statements pertaining to access to care and other health related indicators using a scale of (1) “strongly disagree” to (5) “strongly agree.” Their responses are outlined in the table below.

The ability of residents to receive healthcare when they need it and the functionality of the community’s healthcare system received the highest mean score among access indicators, although key informants had differing perspectives. Approximately 50% of informants “agreed”

or “strongly agreed” that residents receive care when they need it, while 40% of informants “disagreed.” An equal percentage (40%) of informants “agreed” or “strongly agreed” and “neither agreed nor disagreed” that the health system works well in the community.

Availability of specialty care received the lowest mean score, followed by resident knowledge of how to get help with health and social services when needed. Approximately 70% of informants “disagreed” that residents can receive specialty medical care when they need it, while 50% “disagreed” or “strongly disagreed” that residents know how to get help with health or social services.

Community Access Indicators in Descending Order by Mean Score

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Mean Score
The healthcare system works well in our community.	0.0%	20.0%	40.0%	30.0%	10.0%	3.30
Residents can receive healthcare when they need it.	0.0%	40.0%	10.0%	30.0%	20.0%	3.30
Residents have a regular primary care provider for healthcare.	0.0%	40.0%	20.0%	30.0%	10.0%	3.10
Residents see their health as a priority.	10.0%	30.0%	20.0%	30.0%	10.0%	3.00
Residents have health insurance.	0.0%	40.0%	40.0%	10.0%	10.0%	2.90
I would describe my community as healthy.	10.0%	30.0%	30.0%	30.0%	0.0%	2.80
Residents know how to get help with health or social services when they need it.	10.0%	40.0%	40.0%	10.0%	0.0%	2.50
Residents can receive specialty medical care when they need it.	0.0%	70.0%	30.0%	0.0%	0.0%	2.30

Health Perceptions

Choosing from a wide-ranging list of health issues, key informants were asked to rank order what they perceived as the top five health concerns impacting the population(s) they serve. An option to “write in” any issue 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 issue within the top five health concerns. The number of informants that selected the issue as the #1 health concern is also shown.

While nearly all informants chose substance use disorder as a top community health concern, no informants chose it as the #1 health concern. Heart disease, cancer, and diabetes were also selected as top health concerns with 60-70% of informants selecting them among their top five choices. Cancer and diabetes were also chosen as top (#1) health concerns by 3 in 10 informants.

Top Five Health Concerns Affecting Residents

Ranking	Health Concern	Informants Selecting as a Top 5 Health Concern		Informants Selecting as the Top (#1) Health Concern	
		Percent*	Count	Percent	Count
1	Substance use disorder	90.0%	9	0.0%	0
2	Heart disease	70.0%	7	0.0%	0
3	Cancer	60.0%	6	30.0%	3
3	Diabetes	60.0%	6	30.0%	3
4	Mental health	50.0%	5	10.0%	1
5	Overweight and obesity	30.0%	3	10.0%	1

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

Key informants were asked to similarly rank order what they perceived as the top five contributing factors to the health concerns they had indicated in the previous question. An option to “write in” any contributing factor 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 issue within the top five contributing factors. The number of informants that selected the issue as the #1 contributing factor is also shown.

All informants chose health habits (e.g. diet, physical activity) among the top five contributing factors to community health concerns. Socioeconomic disparities and attitudes/perceptions towards health were also selected as top five contributing factors by 40-50% of informants, and 2 in 10 informants selected them as the #1 contributing factors.

Top Five Contributing Factors to Community Health Concerns

Ranking	Contributing Factor	Informants Selecting as a Top 5 Contributor		Informants Selecting as the Top (#1) Contributor	
		Percent*	Count	Percent	Count
1	Health habits	100.0%	10	10.0%	1
2	Socioeconomic disparities	50.0%	5	20.0%	2
3	Attitudes/Perceptions toward health	40.0%	4	20.0%	2
4	Health insurance coverage	40.0%	4	0.0%	0
5	Affordability of healthcare	30.0%	3	10.0%	1

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

Community Resources

Informants were asked to share open-ended feedback related to available and needed community resources. Their responses are included below by question.

Needed community resources identified by key informants primarily addressed preventive care and education and access to care, including affordable services and health insurance coverage. Many informants recognized EMHS for its role in meeting these and other community health needs. Informants saw opportunity for EMHS to continue its work as a community convener and to advance new healthcare options and models, included telemedicine and Community Health Workers.

What community programs/initiatives/partnerships are helping residents improve their health?

- > *“Endless Mountains has community engagement committees underway.”*
- > *“Endless Walk-with-a-doc...monthly food pantry at the hospital...Endless Weighs to Health Program.”*
- > *“Health and Wellness Programs. Health Insurance Counseling to apprise residents of available health insurance coverage available, including applying for Medical Assistance.”*
- > *“Keep working with Scranton Counseling to provide mental health.”*
- > *“WIC.”*

What resources does the community need to help improve health for residents?

- > *“Affordable health insurance, lower deductibles.”*
- > *“Better nutrition education programs. Better access to healthy food.”*
- > *“Expanded access to primary and preventative care to include dental and mental health providers.”*
- > *“Good referral system.”*
- > *“Help people realize that being healthy prevents other illnesses.”*
- > *“Increased education, more health services, increased availability to insurance.”*
- > *“More programs like you are offering on stroke awareness.”*
- > *“More well care and testing for cancer.”*
- > *“Partnerships with community organizations to work toward common goals to promote healthy lifestyles.”*
- > *“Specialists. Mental Health Services. Transportation.”*

What could Endless Mountains Health Systems do better to optimize health in the community?

- > *“As a grandparent I would like to see a certified pediatrician.”*
- > *“Continue to engage with communities throughout the county.”*
- > *“Continue to work with all agencies to provide the best access to resources available.”*
- > *“Educating the community on available health services. Partnerships with community organizations to promote healthy living, resources available in the communities to promote independent and healthy living.”*
- > *“Get involved in activities at the schools to encourage healthy lifestyles.”*
- > *“Increase the use of telemedicine for specialty care and mental health. Consider hiring community health workers.”*
- > *“Provide Medical Specialists on a more frequent basis.”*

Key Informant Survey findings were considered in conjunction with statistical secondary data to determine health priorities. Key Informant Survey data is valuable in informing community strengths and gaps in services, as well as wider community context for secondary data findings.

Evaluation of Community Health Impact from 2016 CHNA Implementation Plan for Community Health Improvement

In 2016, EMHS completed a CHNA and developed a supporting three year Implementation Plan for community health improvement. The strategies implemented to address the health priorities reflect EMHS's community benefit work and our commitment to improving the health and well-being of our community.

Guided by the findings from the 2016 CHNA and input from key community stakeholders, EMHS leadership identified the following priorities for 2017-2019:

- > Access to Healthcare
- > Chronic Disease Prevention & Management

EMHS's 2016 Implementation Plan outlined strategies to address the identified priority health needs among service area residents. The plan leveraged resources across the hospital and the community, drawing on existing partnerships. The following section highlights the hospital's approach to addressing health needs, and outcomes from the implemented action items.

Access to Healthcare

In March 2019, EMHS was selected to participate in the Pennsylvania Rural Health Model, a pilot program in partnership with the Centers for Medicare and Medicaid Services (CMS) Innovation Center. The Rural Health Model is an alternative payment model that seeks to increase access to care in rural areas, improve health outcomes, and ensure financial sustainability for rural hospitals. As a program participant, EMHS will be better positioned to deliver value-based care and transform care delivery to better meet community health needs.

EMHS also sought to improve access to primary care through the recruitment of providers. Since 2016, EMHS recruited one primary care physician, providing care in the geographic HPSA of Bridgewater Township. EMHS also initiated strategies to explore telemedicine options to expand access to specialty care services.

EMHS continued to partner with community-based behavioral health providers for both crisis services and a warm handoff program for patients seen in the emergency department. NEPA Community Health Care and Scranton Counseling Center provide onsite psychiatric consultations and direct referrals for additional services.

EMHS worked to screen and identify individuals without health insurance seen at the hospital. Financial counseling staff members assisted identified individuals with eligibility determination and enrollment in subsidized health insurance programs.

Chronic Disease Prevention & Management

Susquehanna County residents are more likely to smoke and experience respiratory conditions, particularly COPD. EMHS developed a COPD management program to improve health outcomes for patients with COPD and reduce avoidable hospital utilization. The program

provides care management services, including medication adherence support, targeting high utilizer patients. EMHS also provides patient education, including smoking cessation classes.

EMHS has provided diabetes self-management education and nutrition counseling to patients and community members at no charge since 2014. The program is aimed at empowering patients to expertly manage their own diabetes care to improve quality of life. Core education concepts include disease process, glucose monitoring and goals, medication administration, identifying and treating hyperglycemia and hypoglycemia, sick day management, foot care, and carbohydrate counting. Counseling is provided at the patient's pace and directed by the patient's needs, with individualization of goals. The program is overseen by a joint collaboration of nursing staff and a registered dietitian/certified diabetes educator.

EMHS implemented the "Endless Weighs to Health" program to provide community-based healthy lifestyle education. The 10-week program, led by the hospital's registered dietitian/certified diabetes educator, teaches better nutrition and physical activity as a starting point for better health, while providing tools for healthy lifestyle behavior change. The program has had over 80 participants to date.

EMHS also implemented "Walk with a Doc," a national initiative to keep people moving for a better tomorrow, through movement and conversation. The program, offered in partnership with Geisinger Health Plan, kicked off in April 2019 and was offered once per month through November. The walks were led by different EMHS physicians and included different health topic areas, including diet/cholesterol, pre-diabetes, child/adult obesity, and vaccines.

Social determinants of health play a significant role in individual health, particularly related to chronic disease prevention and management. EMHS initiated screenings among patients to identify potential social determinants of health needs. Patients with identified needs were connected with the United Way of Susquehanna County's 2-1-1 program, a 24/7 hotline for health and human service assistance.

To further address social determinants of health needs for patients and community members, EMHS initiated a mobile food pantry in partnership with the Weinberg North East Regional Food Bank. The pantry is available to Susquehanna County residents. Distribution takes place at the hospital on the fourth Friday of the month from 2-4pm. While pre-registration is required, walk-ins are welcome after 3:30pm.

Prioritization Process and Identified Priority Areas

Endless Mountains Health Systems leadership reviewed findings from the CHNA research and feedback from community stakeholders to determine priority health needs on which to focus community health improvement efforts. Leadership representatives considered the research findings, as well as existing community and hospital services, programs, and areas of expertise.

The following rationale and criteria guided the prioritization process:

- > Scope: How many people are affected?
- > Severity: How critical is the issue?
- > Ability to Impact: Can we achieve the desired outcome?
- > Community Readiness: Is the community prepared to take action?

EMHS leadership discussion culminated in the identification of the following priorities to be addressed during the next three-year cycle.

Endless Mountains Health Systems Community Health Priorities & Goals for 2020-2022

- > **Access to Healthcare:** Improve access to quality, preventive healthcare services.
- > **Health Risk Factors & Chronic Disease:** Reduce health disparities and improve health outcomes through chronic disease management and prevention services.

EMHS developed an Implementation Plan to guide community benefit and health improvement activities related to the priority areas. The plan builds upon previous health improvement activities, while recognizing new health needs and a changing healthcare delivery environment.

While behavioral health and maternal and child health needs were identified as priority health areas for Susquehanna County, EMHS will not address them directly as part of the Implementation Plan due to resource limitations. We will continue to engage with community partners to collaboratively address these needs, and will promote better patient outcomes as part of our focus on increasing access to high quality care and reducing the burden of chronic disease among residents.

In support of its continued investment in meeting the health needs of Susquehanna County residents, the EMHS Board of Directors reviewed and approved the Implementation Plan, along with the CHNA report, on December 27, 2019. A copy of the 2019 CHNA Final Report can be found on the EMHS website.

Appendix A: Public Health Secondary Data References

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Appendix B: Key Informant Survey Participants

Key Informant Organization	Key Informant Title/Role
B/S/S/T (Bradford, Sullivan, Susquehanna, and Tioga Counties) Area Agency on Aging, Inc.	Executive Director
Elk Lake School District	Superintendent
Gracious Living Estates	Executive Director
Hawk Insurance Agency, LLC	Owner/Agent
Mountain View School District	Superintendent
NEPA Community Health Care	Physician
Rural Health Redesign Office	Director
Susquehanna County Interfaith	Executive Director
Susquehanna County Sheriff's Office	Sheriff
Trehab Community Action Agency	Executive Director
United Way of Susquehanna County	Director of Corporate and Community Giving