



CENTRE COUNTY

# 2019 Community Health Needs Assessment



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## Our Commitment to Community Health

Mount Nittany Health (MNH), based in State College, PA, provides primary, specialized, emergency, and surgical care to the residents of Central Pennsylvania. Originally established as a community hospital, we've grown exponentially to add the care our community needs, where they need it.

Integrated as a multi-branch organization in 2011, MNH is the parent organization for:

- [Mount Nittany Medical Center](#), a 260-bed acute-care facility offering medical, surgical, diagnostic and community services
- [Mount Nittany Physician Group](#), a group of more than 150 healthcare providers, across more than 30 specialties in 17 convenient locations
- [Mount Nittany Health Foundation](#), the fundraising entity for MNH developments

Mount Nittany Health's commitment to community health is embodied by its mission statement: *We are here to make people healthier*. As a trusted local healthcare leader, MNH is committed to understanding and addressing the most pressing health and wellness concerns for our community. Therefore, every three years MNH conducts a Community Health Needs Assessment (CHNA) and creates a corresponding Implementation Plan to address the health priorities identified by the CHNA.

The 2019 CHNA builds upon previous assessments conducted in 2013 and 2016 and will continue to guide our community benefit and community health improvement efforts. Consistent with previous assessments, the 2019 CHNA focused on the health needs of residents of Centre County. The assessment was conducted from June 2018 to May 2019.

The CHNA included a mix of quantitative and qualitative research to collect and analyze health trends and socio-economic data, among other information to inform community health planning. Community engagement was an integral part of the 2019 CHNA. Mount Nittany Health solicited insight from a diverse mix of community members and leaders, including public health experts and representatives of medically underserved, low income, and minority populations. Based on the CHNA research and community insight, the following health issues were identified as priorities for Centre County:

- Behavioral Health
- Substance Use Disorder
- Chronic Disease

To address these health priorities, we developed a plan for community health improvement that details strategies to collaborate with our local community partners.

We invite our community partners to learn more about the CHNA and opportunities for collaboration to address identified health needs. Please visit our [website](#) or contact Jeannine Lozier, Community Outreach Coordinator at [jlozier@mountnittany.org](mailto:jlozier@mountnittany.org).

## Executive Summary

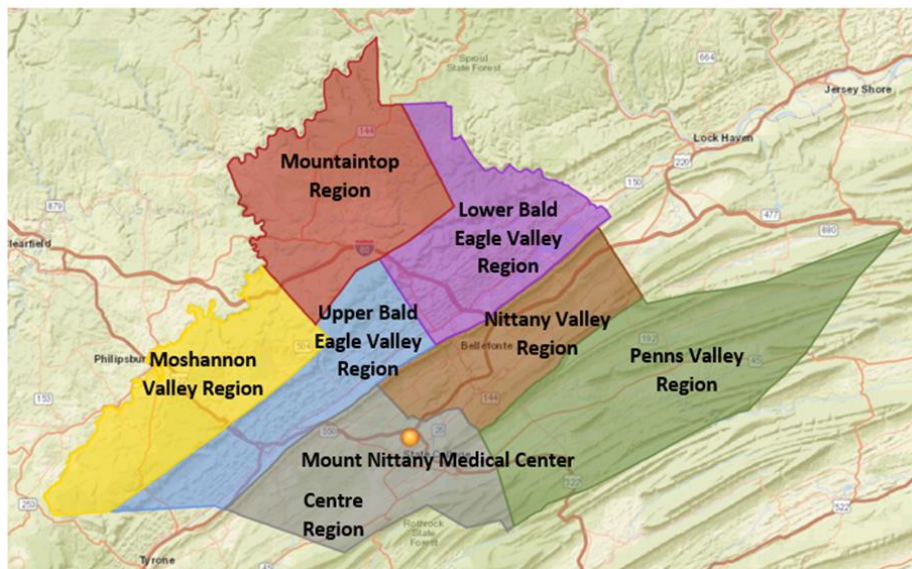
### Mount Nittany Health's Service Area

Mount Nittany Health's service area, defined for the purposes of the CHNA, encompasses all of Centre County in Pennsylvania. The service area is based on the residence for the majority of Mount Nittany Medical Center patients.

The 2018 population of Centre County is 166,313. The population increased 8% from the 2010 Census, and is projected to increase an additional 4.1% by 2023. Centre County is diverse with areas of high population density and overall economic strength in the Centre Region, surrounded by small, rural communities that experience higher proportions of socioeconomic disparity. In recognition of the county's diverse population, MNH aligned the CHNA process with the seven planning regions defined by the Centre County Planning Commission. The planning regions are shown in the map below.

State College and Bellefonte, located in the Centre and Nittany Valley Regions, comprise approximately 60% of the county population. State College is home to Mount Nittany Medical Center and the Pennsylvania State University with an undergraduate enrollment of over 46,000. The two institutions are the top employers for the county. Bellefonte is the county seat of government, as well as a bedroom community for individuals working in State College. Other regions of the county are primarily rural and include state forestlands, Amish farmland, and small towns ranging in population size from less than 100 to approximately 10,000. The health needs of residents in each region vary widely and were a primary consideration for the CHNA.

### Centre County Planning Regions



## Overview of the Mount Nittany Health 2019 CHNA

### CHNA Leadership

The 2019 CHNA was overseen by a Steering Committee of representatives from MNH, in partnership with Centre Foundation, Centre County Government, and Center County United Way. Committee members are listed below, along with Baker Tilly consultant team members. Baker Tilly assisted in all phases of the CHNA including project management, quantitative and qualitative data collection, and report writing.

#### Mount Nittany Health CHNA Steering Committee

Tom Charles, Executive Vice President, System Development and Chief Strategy Officer

Nichole Monica, Director, Community Health and Outreach

Jeannine Lozier, Community Outreach Coordinator

Maureen Karstetter, Senior Executive Communications Advisor

#### Mount Nittany Health CHNA Community Partners

Natalie Corman, Centre County Government

Tammy Gentzel, Centre County United Way

Molly Kunkle, Centre Foundation

#### Consulting Team

Catherine Birdsey, MPH, CHNA Project Manager

Jessica Losito, BS, Research Consultant

Colleen Milligan, MBA, Director, CHNA Services

### CHNA Methodology

The 2019 CHNA was conducted from June 2018 to May 2019 and used both primary and secondary study methods to compare health trends and disparities across Centre County. Primary study methods were used to solicit input from healthcare consumers and key community stakeholders representing the broad interests of the community. Secondary study methods were used to identify and analyze statistical demographic and health trends.

Specific CHNA study methods included:

- An analysis of existing secondary data sources, including public health statistics, demographic and social measures, and healthcare utilization
- A review of hospital discharge data to analyze how consumers are accessing care and where gaps in service exist
- A Key Informant Survey with 98 community leaders and representatives

- Focus Groups with 30 healthcare consumers to inform action planning and strategies to address community health priorities
- A Community Partner Forum with 52 individuals representing community agencies to gather insight on existing health improvement efforts and opportunities for partnership

The 2019 CHNA built upon MNH’s previous CHNAs and subsequent Implementation Plans. The CHNA was conducted in a timeline to comply with IRS Tax Code 501(r) requirements to conduct a CHNA every three years as set forth by the Affordable Care Act (ACA). The findings will be used to guide community benefit initiatives for the hospitals and engage local partners to collectively address identified health needs.

### Prioritized Community Health Needs

The 2019 CHNA consistently identified Chronic Disease, Behavioral Health, and Substance Use Disorder as the most significant health needs for Centre County residents. These health needs were confirmed by quantitative and qualitative research, as well as community stakeholders representing the broad interests of the community. Community stakeholders brought wide perspectives on resident health needs, existing community resources available to meet those needs, and gaps in the service delivery system.



The prioritized health needs are consistent with the health needs identified as part of the 2016 CHNA. Mount Nittany Health, in partnership with community agencies, has made significant progress in addressing these needs, both from a community and population health management perspective. Improved access to care will continue to be a cross-cutting strategy for all priority needs.



To direct community benefit and health improvement activities, MNH will develop a three-year Implementation Plan detailing the resources and services to be used to address the prioritized health needs.

### Board Approval

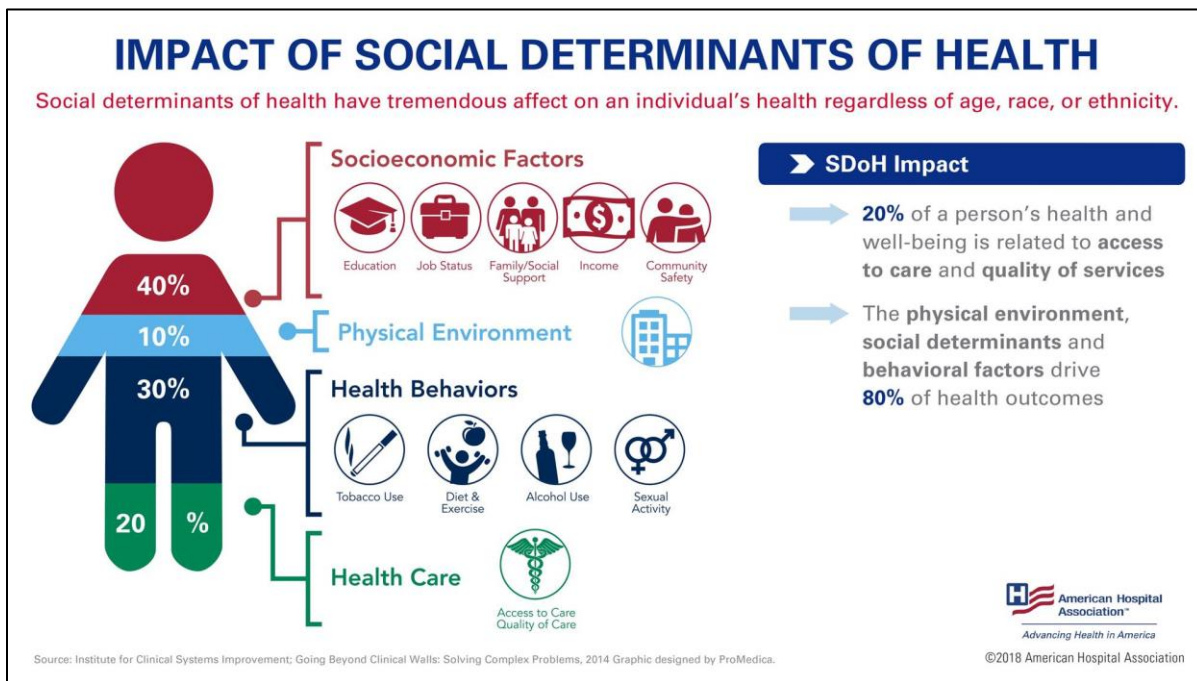
The 2019 MNH CHNA Final Report was reviewed and approved by the Board of Directors on June 24, 2019. Following the Board's approval, the CHNA report is available to the public via the MNH website:

<https://www.mountnittany.org/HealthNeeds>.

### Summary of CHNA Findings in Support of Priority Needs

The following section summarizes key CHNA findings in support of the identified priority health needs for Centre County. Recognizing the relationship between social determinants of health and health status, emphasis is placed on underlying environmental and socioeconomic factors that contribute to priority health needs

Social determinants of health are factors within the environment in which people live, work, and play that can affect health and quality of life, and are often the root cause of health disparity. As depicted in the following American Hospital Association graphic, it is estimated that socioeconomic factors and the physical environment drive 50% of individual health outcomes. Only 20% of a person's health is driven by access to care and quality of services.





### Priority Health Needs by Region

Overall, Centre County is one of the healthiest counties in the state, ranked #2 out of 67 counties in Pennsylvania by the national County Health Rankings. As a whole, county residents have better access to care, lower rates of morbidity and mortality due to chronic conditions, higher life expectancy, and better health outcomes for vulnerable populations including mothers, youth, and seniors.

However, in all communities, at all times, there is room for improvement on many health issues and needs. Additionally, while Centre County is an overall healthy community, positive health indicators are not uniform across the county, impacting the Centre Region and rural areas to differing degrees. The table below depicts opportunities for improvement for each of the three priority health needs for Centre County overall and by region, as identified by CHNA research. Additional narrative insight is provided following the table.

## Identified Community Health Needs across Centre County and by Region

CHNA Priorities		State College & Bellefonte Health Needs	Rural Community Health Needs	County-Wide Health Needs
Chronic Disease	New or Growing Need	<ul style="list-style-type: none"> <li>- Affordable housing that promotes health</li> </ul>	<ul style="list-style-type: none"> <li>- Access to local prevention and management services</li> <li>- Food insecurity</li> <li>- Patient advocacy to assist with medical and social needs</li> </ul>	<ul style="list-style-type: none"> <li>- Health insurance cost, coverage, education</li> <li>- Affordable care, prescriptions</li> <li>- Declining employer-based benefits</li> <li>- Aging population, prevalence of disease</li> </ul>
	Continued Need	<ul style="list-style-type: none"> <li>- Cost of living, social service needs of low-income residents</li> <li>- Language, cultural barriers among racially, ethnically diverse populations</li> </ul>	<ul style="list-style-type: none"> <li>- Health risk factors, healthy lifestyle habits</li> <li>- Built environment (e.g., sidewalks)</li> <li>- Medical transportation</li> <li>- Support for local EMS</li> </ul>	<ul style="list-style-type: none"> <li>- Screenings, education for heart disease, cancer, and diabetes</li> <li>- Adult and youth obesity</li> </ul>
Behavioral Health	New or Growing Need	<ul style="list-style-type: none"> <li>- Increased depression among residents</li> </ul>	<ul style="list-style-type: none"> <li>- Depression, isolation among adults, youth</li> <li>- Lack of student depression screenings</li> </ul>	<ul style="list-style-type: none"> <li>- Adult, youth poor mental health</li> <li>- Senior depression, isolation</li> </ul>
	Continued Need	<ul style="list-style-type: none"> <li>- Availability of providers</li> </ul>	<ul style="list-style-type: none"> <li>- Economic instability</li> <li>- Availability of providers</li> </ul>	<ul style="list-style-type: none"> <li>- Suicide deaths</li> <li>- Mental/behavioral disorder deaths</li> <li>- Availability of providers</li> <li>- Reducing stigma</li> </ul>
Substance Use Disorder	New or Growing Need	<ul style="list-style-type: none"> <li>- Opioid overdose</li> <li>- Drug abuse crime offenses</li> </ul>	<ul style="list-style-type: none"> <li>- Student alcohol use, tobacco use</li> </ul>	<ul style="list-style-type: none"> <li>- Student marijuana use and vaping</li> <li>- ED utilization for alcohol, drugs</li> </ul>
	Continued Need	<ul style="list-style-type: none"> <li>- Alcohol use and culture, crime</li> <li>- Alcohol abuse among college, middle/high school students</li> <li>- Availability of providers</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of youth engagement, alternative outlets to substance use</li> <li>- Availability of providers</li> </ul>	<ul style="list-style-type: none"> <li>- DUI-related deaths</li> <li>- Demand on first-responders (911, EMS) and social service partners</li> <li>- Availability of providers</li> </ul>

## Chronic Disease

Chronic conditions, particularly heart disease, cancer, and diabetes, continue to be the leading causes of morbidity and mortality in Centre County. While county prevalence and death rates due to these conditions are lower than state and national benchmarks, risk factors like smoking and obesity, continue to be areas of opportunity.

Adult and youth smoking rates declined in Centre County, and are lower than state and national benchmarks. However, the youth smoking rate among rural school districts is double the rate for the State College Area School District. Across all Centre County school districts, approximately 1 in 10 youth report using e-cigarettes, presenting challenges related to both chronic disease and addiction.

Centre County meets the Healthy People 2020 goal for adult obesity, and fewer adults are obese when compared to state and national averages. However, more than 1 in 4 adults in the county are obese. Among youth, more than 1 in 10 school-age students are obese.

Seniors are among the most impacted by chronic disease. Consistent with the state and nation, approximately 40% of seniors in Centre County manage four or more chronic conditions. The most common chronic conditions among county seniors are hypertension and high cholesterol, however, it is worth noting that nearly 1 in 5 seniors have a depression diagnosis, a higher proportion than the state and nation. Social support is key to effectively managing chronic conditions. Consistent with the nation, 1 in 10 seniors in Centre County live alone.

Rural communities were seen as being at greater risk for poorer health outcomes and chronic disease. Among key informants surveyed during the CHNA, less than 25% indicated that rural community residents have “very good” or “excellent” health status compared to 61% of informants when asked about the Centre Region. Social determinants of health, particularly poverty, ability to afford healthcare, transportation, lack of a built environment (e.g. sidewalks), and social isolation, were seen as underlying factors to poor health outcomes among rural residents. Transportation was identified as a key barrier as the majority of health and social services are located within the Centre Region.

Within the Centre Region, affordable housing and rising cost of living were seen as the biggest drivers of poor health outcomes and chronic disease. Community stakeholders interviewed during the CHNA indicated that these two indicators contribute to economic insecurity, as well as preclude individuals who work in the Centre Region from living in the community. Individuals who cannot afford to live in the Centre Region seek more affordable rural communities, where they are potentially impacted by the negative social determinants of health indicated previously.

## Behavioral Health

Behavioral health encompasses all contributors to a person's mental well-being, including mental health or biological components and behaviors or habits like substance abuse. The term "behavioral health" acknowledges a more comprehensive approach to mental well-being and the multitude of internal and external factors that can influence it. Mount Nittany Health adopted behavioral health as a priority health need, replacing "mental health" in the 2016 CHNA.

Choosing from a list of specified health issues, key informants were asked to rank order what they perceived as the top health concerns impacting Centre County residents. Mental health conditions were identified as the #1 concern by 35% of informants and a top three concern by 66% of informants. Mental health services were also selected as the #1 missing resource in the community by 81% of informants. Key informant perceptions are supported by secondary data findings, as outlined below.

Centre County adults report an average of four poor mental health days per month, an increase from three days reported at the time of the 2016 CHNA. Youth are also impacted by poor mental health. Consistent with prior years of data, in 2017, more than 1 in 4 Centre County students in middle and high school reported feeling sad or depressed on most days in the past year. Rural school district students were more negatively impacted with 35% reporting feelings of depression compared to 24% of State College Area School District students.

Poor mental health can increase the risk for death due to suicide. Centre County had 54 suicide deaths between 2014 and 2016 for a rate of 10.5 per 100,000. The death rate is lower than the state and the nation, but represents an increase from the 2013-2015 rate of 8.7.

Centre County has a similar mental health provider rate per 100,000 to the state, but both are lower than the nation. The need for additional providers was demonstrated by both community partner data and Mount Nittany Medical Center utilization data. Centre County Mental Health, a department of the county government, received a total of 738 resident calls in FY2017-2018 for mental health services, an average of 62 calls per month. In 2017, Centre Helps, a 24-hour hotline, received 889 calls related to mental/emotional health. Also in 2017, Mount Nittany Medical Center reported that mental health conditions were the top ambulatory care sensitive condition in both the inpatient and emergency department (ED) settings. Ambulatory care sensitive conditions are conditions that are most effectively treated in an outpatient setting, and are an indicator of access to care barriers when seen in the hospital.

Youth were identified by key informants as being particularly underserved by behavioral healthcare services. One key informant stated, *“There are minimal inpatient BH services for children/adolescents, only one inpatient facility that I am aware of. These kids are housed in our ED for 24-96 hours awaiting placement for inpatient care.”* An analysis of Mount Nittany Medical Center utilization data identified depression, anxiety disorders, and unspecified mood disorders as the top three mental health diagnoses in the ED. Youth and young adults age 24 or younger comprised about half of all depression- and unspecified mood disorder-related visits and 36% of anxiety-related visits.

### Substance Use Disorder

The American Medical Association and other national and international bodies have called on healthcare providers to reduce stigma and support treatment for substance use disorders by adopting clinical, non-stigmatizing language. The term “substance use disorder” is recommended to replace older, accusatory terms such as “substance abuse” or “substance dependence.” In recognition of this change, Mount Nittany Health adopted substance use disorder as a priority health need, replacing “substance abuse” in the 2016 CHNA.

Substance use disorder includes both alcohol- and drug-related health issues; both are concerns for Centre County. Nearly 1 in 4 adults in Centre County report excessive drinking, a higher proportion than the state and nation. Excessive drinking includes both chronic heavy drinking and binge drinking. Among youth surveyed in 2017, 14% reported using alcohol in the 30 days prior to the survey. The percentage of youth using alcohol is lower than the state, but impacts rural students (16%) at a higher rate than State College area students (13%).

Centre County has a lower drug-induced death rate than the state and nation, but the rate is slowly increasing. Drug overdoses comprise the majority of drug-induced deaths. From 2015 to 2017, Centre County had a total of 46 overdose deaths. In 2018 alone, the county had 22 overdose deaths. The majority of overdose deaths from 2015 to 2018 were among males (62%) and individuals between the ages of 18-34 (53%).

Substance use disorder services were selected as the #2 missing resource in the community by 63% of key informants. Similar to behavioral health, the need for substance use disorder services is reflected in the impact on community health and social service providers. From January 2017 to April 2018, the county had a total of 346 911 overdose calls, 279 for alcohol-related calls and 67 for opioid-related calls. State College was the top municipality of origin for alcohol-related 911 calls, accounting for nearly 60%. An equal percentage of opioid-related calls originated from Bellefonte and State College (16% each). In 2017, Centre Helps received 685 calls for substance use disorder. The Centre County rate of alcohol crime offenses is declining, but still nearly

double the state rate, while the drug crime offense rate is increasing and nearly 200 points higher than the state rate.

From 2013 to 2017, the number of ED visits at Mount Nittany Medical Center for alcohol or drug overdose increased from 186 to 399. In 2017, all substance use disorder diagnoses accounted for 2% of ED visits. Alcohol-related visits were the most common, accounting for 89% of ED substance use disorder visits. Approximately 69% of alcohol-related visits occurred among patients age 18 to 24, while 60% of drug-related visits occurred among patients age 25 or over.

Prescription opioids are a leading contributor to opioid addiction and overdose deaths. Centre County is succeeding in stemming the availability of opioid prescriptions. In 2017, 9.6% of Centre County residents received a prescription for an opioid compared to 13.2% of residents statewide. A total of 2,497,920 opioid pills were dispensed to Centre County residents for an average of 15.6 pills per person. The statewide average was 32 per person.

A full report of CHNA data and findings grouped by study method follows.

# Full Report of CHNA Data and Findings

## Secondary Data Profile

### Background

Secondary data, including demographic and public health indicators, were analyzed for Centre County to better understand community drivers of health status, health and socio-economic trends, and emerging community needs. Narrative interpretation of data highlights key findings across the county.

All reported demographic data were provided by ESRI Business Analyst, 2018 and the US Census Bureau unless otherwise noted. Public health data were analyzed for a number of health issues, including access to care, health behaviors and outcomes, chronic disease prevalence and mortality, behavioral health and substance use disorder, and maternal and child health. Data were compiled from secondary sources including the Pennsylvania Department of Health, the Centers for Disease Control and Prevention (CDC), the Behavioral Risk Factor Surveillance System (BRFSS), the University of Wisconsin County Health Rankings & Roadmaps program, among other sources. A comprehensive list of data sources can be found in Appendix A.

Public health data focus on county-level reporting; zip code or town/city data is provided as available. Public health data for the county are 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 report to depict a comparable burden of disease among residents. Age-adjusted rates are summary measures adjusted for differences in age distributions so that data from one year to another, or between one geographic area and another, can be compared as if the communities reflected the same age distribution.

The BRFSS is a telephone survey of residents age 18 or over conducted nationally by states as required by the CDC. A consistent survey tool is used across the US to assess health risk behaviors, prevalence of chronic health conditions, access to care, preventive health measures, among other health indicators. BRFSS results, as provided by the Pennsylvania Department of Health, are reported by county or by region. Centre County is reported as a region with five other Pennsylvania counties: Columbia, Montour, Northumberland, Snyder, and Union Counties.



## Summary of Secondary Data Findings

The population of Centre County is primarily White, but diversity is increasing. The White population as a percentage of the total population is gradually declining, while Asian, Black/African American, and Hispanic/Latino populations are slowly growing. This demographic shift is consistent with the state and national trend of racial and ethnic diversification. The Hispanic/Latino population is one of the fastest growing demographic groups statewide.

According to the US Census Bureau, by 2060, the median age of the US population is expected to grow from the current age of 38 to age 43. The current median age of Centre County residents is 30 years, which is lower than state and national medians. However, the county median age is increasing as evidenced by median ages reported at the time of the 2016 CHNA (29.8) and 2013 CHNA (28.7).

Approximately 19% of Centre County residents live in poverty compared to 13% of residents across the state and 15% of residents nationally. However, the poverty percentage is likely impacted by Penn State University students. A more accurate measure of poverty in the county is the percentage of families and children living in poverty (7% and 14% respectively). Both of these indicators are lower than the state and the nation and decreased from the 2016 CHNA. The county also has a lower unemployment rate and a higher percentage of residents attaining higher education than the state and the nation.

The median home value in Centre County exceeds the state median by more than \$38,000 and increased nearly \$15,000 from the 2016 CHNA. The percentage of homeowners in the county also increased, while the percentage of housing cost burdened homeowners decreased. Approximately 24% of homeowners are housing cost burdened compared to 28% statewide and 31% nationally. The percentage of housing cost burdened homeowners is reflective of the entire county and does not account for affordable housing needs in and around State College, as indicated by Key Informant Survey participants and other community representatives.

Centre County overall fares better than the state and the nation on most socioeconomic indicators, but minority residents are disproportionately impacted by adverse indicators. Poverty is one of the biggest drivers of disparity, and affects one-quarter to one-third of minority residents compared to 10% of White residents. Socioeconomic disparity contributes to worse health outcomes. Health data by race and ethnicity are reported as available at the county-level, but are most robust for the state and the nation.

Centre County shows a number of strengths related to public health statistics as listed below:

1. Residents are more likely to have health insurance when compared to the state and the nation, and to be covered by employer-based insurance. The percentage of uninsured residents declined annually from 2012 to 2016.
2. The county is served by one FQHC and one free clinic. The FQHC is located in Snow Shoe, which is a designated Health Professional Shortage Area for primary care.
3. As a whole, county residents experience better overall health, as indicated by a lower premature death rate, higher life expectancy, and fewer adults self-reporting “poor” or “fair” health status.
4. Smoking rates declined among adults, youth, and pregnant women; current percentages are lower than state and national benchmarks.
5. Centre County has lower rates of death for the top five causes (heart disease, cancer, accidents, chronic lower respiratory disease, and stroke) than the state and the nation. Heart disease and cancer death rates declined more than 35 points from 2007 to 2016. The cancer incidence rate also declined over the past decade.
6. Fewer students across the county have an asthma diagnosis when compared to the state, and the percentage of students diagnosed with asthma declined since the 2016 CHNA.
7. The percentage of births to teenage mothers declined over the past decade and is lower than state and national benchmarks. Mothers in Centre County meet Healthy People 2020 goals for low birth weight, breastfeeding, and preterm birth.

The CHNA also identified areas for health improvement as outlined below.

1. Despite the decline in the uninsured rate, Black/African American and Hispanic/Latino residents continue to have higher uninsured rates than Whites. Rural communities, including Rebersburg and Madisonburg, also have higher uninsured rates; these rates are likely impacted by Amish settlements located within those communities.
2. The county has lower primary, dental, and mental health provider rates than the state and the nation. The dental provider rate is particularly low; Centre County is a Health Professional Shortage Area for dental care for low-income

populations. Note: Provider rates are likely impacted by a high proportion of college-age students who likely seek care outside of Centre County.

3. Smoking among youth declined to less than 4%, but nearly 1 in 10 youth report vaping, indicating a shift from traditional cigarette use to e-cigarette use.
4. Centre County meets the Healthy People 2020 goal for adult obesity, but the current percentage indicates that 1 in 4 adults are obese. The percentage of obese adults increased from 2011 to 2014, but decreased in 2015. Centre County youth obesity is consistent from the 2016 CHNA and meets Healthy People 2020 goals, but more than 1 in 10 youth are impacted.
5. The county has lower incidence rates for chlamydia and gonorrhea, but the chlamydia rate increased 159 points from 2014 to 2016.
6. The Lyme disease incidence rate increased 142 from 2010 to 2016 and exceeds the state rate by 100 points.
7. As a total, county adults experience an average of four poor mental health days per month, an increase from the 2016 CHNA. More than one-quarter of youth report feeling consistently sad or depressed. The county suicide death rate is consistently lower than the state and the nation, but accounted for 54 deaths between 2014 and 2016. The age-adjusted suicide rate per 100,000 increased from 2013-2015 (8.7) to 2014-2016 (10.5).
8. A higher percentage of adults report excessive drinking compared to the state and the nation and one-third of 12<sup>th</sup> grade students report using alcohol in the past 30 days. Among Penn State University students, 79% report drinking alcohol, an increase from 2015. The county's alcohol offense rate is nearly double the state rate.
9. From 2015 to 2017, Centre County had a total of 46 drug-related overdose deaths. The number of deaths in 2018 alone was 22. The corresponding death rate is lower than state and national benchmarks, but represents a growing community need.
10. Between January 2017 and April 2018, residents made 279 alcohol overdose calls and 67 opioid overdose calls to 911. The majority of alcohol-related calls were made by State College residents ages 19 to 24. Opioid-related calls primarily originated from State College and Bellefonte; the majority of calls were by people age 25 or older.

11. Rural school district students experience greater behavioral health and substance use disorder needs than State College Area School District students, as indicated by higher smoking, depression, and alcohol use rates.
12. The Centre Helps 24-hour hotline received 7,033 calls for assistance in 2017. The largest portion of calls originated from State College Area School District. Of the total calls, 685 were for substance use disorder and 889 were for mental/emotional health. Centre County Mental Health, a department of the county government, also received 738 calls in FY2017-2018 for mental health services, an average of 62 calls per month.
13. Approximately 70% of Medicare beneficiaries 65 years or over have two or more chronic conditions, which is consistent with the state. The most commonly diagnosed conditions are hypertension, high cholesterol, and arthritis. Consistent with the 2016 CHNA, beneficiaries have a higher prevalence of asthma and depression when compared to state and national benchmarks.
14. The county nearly meets the Healthy People 2020 goal for mothers accessing early prenatal care, but the percentage declined from 2007 to 2016. The percentage of Black/African American and Hispanic/Latina mothers receiving first trimester prenatal care is 10-13 points lower than the percentage of White mothers receiving care.

## Full Report of Demographic Findings

The following section outlines key demographic indicators related to the social determinants of health within Centre County. All reported demographic data are provided by ESRI Business Analyst, 2018 and the US Census Bureau unless otherwise noted.

### Demographic Overview

A higher proportion of Centre County residents are White compared to the state and the nation, but diversity is gradually increasing. The percentage of the total population that identifies as White is projected to decrease through 2023, while the percentage of residents identifying as Asian, Black/African American, and/or Hispanic/Latino is projected to increase. The primary language spoken by residents is consistent with the racial and ethnic demographics of the county. Approximately 90% of residents speak English only.

#### 2018 Population Overview

	Centre County	Pennsylvania	United States
White	86.6%	79.3%	70.0%
Asian	6.5%	3.6%	5.7%
Black or African American	3.9%	11.3%	12.9%
Hispanic or Latino (any race)	3.1%	7.6%	18.3%
Language other than English spoken at home*	10.4%	10.8%	21.1%

Source: ESRI, 2018

\*Data are reported for 2012-2016 based on most recent records available.

#### 2010-2023 Population Change by Race/Ethnicity

	Asian		Black/African American		White		Hispanic or Latino (any race)	
	2010	2023	2010	2023	2010	2023	2010	2023
Centre County	5.2%	7.5%	3.0%	4.5%	89.4%	84.6%	2.4%	3.6%
Pennsylvania	2.8%	4.3%	10.9%	11.7%	81.9%	77.1%	5.7%	9.2%
United States	4.8%	6.4%	12.6%	13.0%	72.4%	68.2%	16.4%	19.8%

Source: ESRI, 2018

The median age of the state and national populations is increasing as the baby boomer population ages. According to the US Census Bureau, by 2030, all baby boomers will be older than age 65, and older individuals will outnumber children for the first time in national history. Centre County continues to have a lower median age than the state and the nation; the percentage of residents between the ages of 0-24 years is more than double the state percentage. However, the median age of the county is increasing. The median age reported at the time of the 2013 and 2016 CHNAs was 28.7 and 29.8 respectively.

### 2018 Population by Age

	Centre County	Pennsylvania	United States
14 years and under	12.3%	6.7%	18.6%
15-24 years	30.5%	13.1%	13.3%
25-34 years	12.9%	12.6%	13.9%
35-54 years	20.0%	24.9%	25.3%
55-64 years	10.6%	14.2%	13.0%
65+ years	13.7%	18.6%	16.0%
Median Age	30.2	41.4	38.3

Source: ESRI, 2018

A higher percentage of Centre County residents live in poverty; however, the percentage is likely impacted by college students. The percentage of Centre County families and children living in poverty and the percentage of households receiving food stamp benefits are better indicators of the economic position of permanent residents. All of these indicators are favorable compared to the state and the nation. In comparison to the 2016 CHNA, the percentage of families and children living in poverty declined, while the percentage of households receiving food stamp benefits remained stable.

### 2012-2016 Economic Characteristics

	Centre County	Pennsylvania	United States
Median Household Income	\$54,407	\$54,895	\$55,322
Families in Poverty	6.7%	9.1%	11.0%
People in Poverty	19.1%	13.3%	15.1%
Children in Poverty	13.6%	19.1%	21.2%
Households with Food Stamp/SNAP Benefits	6.8%	13.0%	13.1%

Source: US Census Bureau, 2012-2016

### 2016 CHNA vs. 2019 CHNA Comparison of Economic Characteristics

	Centre County	
	2016 CHNA	2019 CHNA
<b>Median Household Income</b>	<b>\$50,633</b>	<b>\$54,407</b>
<b>Families in Poverty</b>	<b>7.5%</b>	<b>6.7%</b>
<b>People in Poverty</b>	<b>20.9%</b>	<b>19.1%</b>
<b>Children in Poverty</b>	<b>15.1%</b>	<b>13.6%</b>
<b>Households with Food Stamp/SNAP Benefits</b>	<b>6.7%</b>	<b>6.8%</b>

Source: US Census Bureau, 2011-2013, 2012-2016

Centre County has a more prominent white collar workforce and a lower unemployment rate compared to the state and the nation. Similar to the 2016 CHNA, residents are most likely to work in educational services and healthcare and social assistance (38.8%). Other top industries include arts, entertainment, recreation, accommodation, and food services (11.3%) and retail trade (10.2%).

### 2018 Population by Occupation and Unemployment

	Centre County	Pennsylvania	United States
<b>White Collar Workforce</b>	<b>65.0%</b>	<b>61.0%</b>	<b>61.0%</b>
<b>Blue Collar Workforce</b>	<b>35.0%</b>	<b>39.0%</b>	<b>39.0%</b>
<b>Unemployment Rate</b>	<b>4.3%</b>	<b>6.1%</b>	<b>4.8%</b>

Source: ESRI, 2018

Homeownership is a measure of housing affordability and economic stability. Approximately 61% of Centre County housing units are owner-occupied, a slight increase from the 2016 CHNA. The median home value in Centre County is higher than the state and the nation and increased nearly \$15,000 from the 2016 CHNA.

Housing cost burden is defined by the US Census Bureau as spending more than 30% of household income on rent or mortgages expenses. Housing cost burdened households are more likely to have difficulty affording other necessities like food, transportation, and medical care. Approximately 57% of renters in Centre County are considered housing cost burdened, higher than the state and the nation, however, the higher percentage may be driven by college students. Home owners in Centre County are less likely to be housing cost burdened.



### 2012-2016 Housing Characteristics

	Centre County	Pennsylvania	United States
Renter-Occupied	39.0%	31.0%	36.4%
Median Monthly Rent	\$930	\$859	\$949
Percent of Renters Paying 30% or More of Income on Rent	56.8%	49.6%	51.1%
Owner-Occupied	61.0%	69.0%	63.6%
Median Home Value	\$206,000	\$167,700	\$184,700
Median Monthly Cost with a Mortgage	\$1,496	\$1,426	\$1,491
Percent of Mortgages Costing 30% or More of Household Income	24.1%	28.0%	30.8%

Source: US Census Bureau, 2012-2016

### 2016 CHNA vs. 2019 CHNA Comparison of Housing Characteristics

	Centre County	
	2016 CHNA	2019 CHNA
Renter-Occupied	39.9%	39.0%
Median Monthly Rent	\$876	\$930
Percent of Renters Paying 30% or More of Income on Rent	61.3%	56.8%
Owner-Occupied	60.1%	61.0%
Median Home Value	\$191,400	\$206,000
Median Monthly Cost with a Mortgage	\$1,422	\$1,496
Percent of Mortgages Costing 30% or More of Household Income	25.8%	24.1%

Source: US Census Bureau, 2011-2013, 2012-2016

Education is the largest predictor of poverty and one of the most effective means of reducing inequalities. The percentage of Centre County residents who have attained a bachelor’s degree or higher exceeds the state and the nation by nearly 14 percentage points. Fewer individuals in the county have attained less than a high school diploma. This data is also likely impacted by the presence of Penn State University.

**2018 Population (25 Years or Over) by Educational Attainment**

	Centre County	Pennsylvania	United States
<b>Less than a high school diploma</b>	<b>6.0%</b>	<b>9.6%</b>	<b>12.3%</b>
<b>High school graduate/GED</b>	<b>29.5%</b>	<b>34.7%</b>	<b>27.0%</b>
<b>Bachelor’s degree or higher</b>	<b>45.1%</b>	<b>31.6%</b>	<b>31.8%</b>

Source: ESRI, 2018

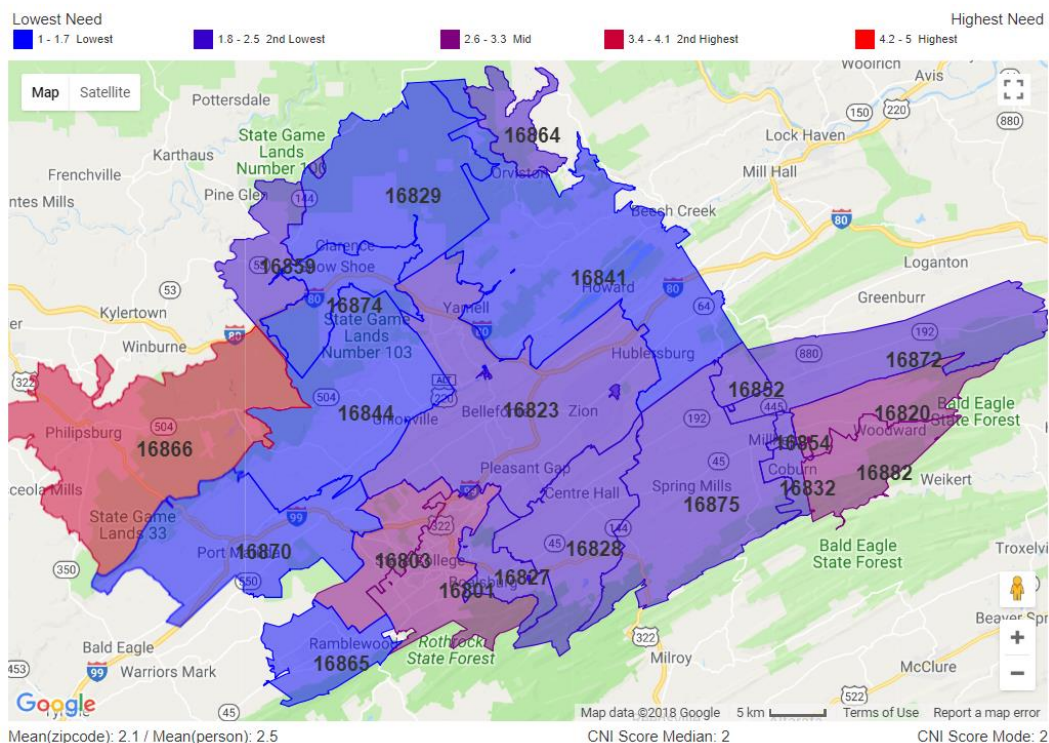
## Community Need Index

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 across 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 Centre County is 2.5, indicating lower overall community need.

## Community Need Index for Centre County



The table that follows analyzes social determinants of health contributing to zip code CNI scores. Zip codes are shown in comparison to the county and state, and are presented in descending order by CNI score. Cells highlighted in yellow are more than two points higher than the county statistic. Note: The two point difference does not represent statistical significance.

Zip codes 16866, Philipsburg and 16666, Osceola Mills have the highest CNI scores, indicating the greatest community need. Residents of the two zip codes have greater numbers of uninsured and children living in poverty, as well as fewer people with at least a high school diploma. Philipsburg and Osceola Mills residents are more diverse with a higher percentage identifying as Hispanic/Latino compared to the county. Across Centre County, Hispanic/Latino residents are more likely to be uninsured than White residents (9% vs. 6%) and less likely to have attained a bachelor’s degree or higher (38% vs. 41%). Note: The total population of 16666, Osceola Mills is small at 2,931, and the Hispanic Latino population accounts for 241 individuals.

State College zip codes 16801 and 16803 and Munson, zip code 16860, have the next highest CNI scores. State College zip codes have a higher percentage of households that live in poverty, as well as a higher percentage of residents speaking a primary language

other than English. The indicators are likely impacted by Pennsylvania State University students. Zip code 16860, Munson has a higher percentage of residents with less than a high school diploma and a higher uninsured rate. Note: The total population of Munson is low at 329.

Residents of other zip codes impacted by higher childhood poverty, language diversity, educational attainment, and uninsured rates are primarily located in areas with a prominent Amish population. Zip codes include 16820, Aaronburg; 16882, Woodward; 16832, Coburn; 16875, Spring Mills; 16852, Madisonburg; and 16872, Rebersburg.

The Centre County population under age 15 is nearly double the national percentage. Zip codes with the highest percentage of children are primarily zip codes with a prominent Amish population. A higher percentage of children are also located in zip codes with higher CNI scores, include 16666, Osceola Mills and 16860, Munson, which may be an important predictor of their health.

The Centre Region is dominated by State College zip codes, which comprise approximately 40% of the county population. Residents of the State College zip codes are primarily younger with a higher percentage between the ages of 15-24 and 25-34. However, the Centre Region is also home to 16877, Warriors Mark and 16827, Boalsburg, where 1 in 5 residents are age 65 or over. Zip code 16828, Centre Hall has the highest percentage of seniors in the county (26%) and neighbors the Centre Region. This finding presents an opportunity for health promotion initiatives that target both ends of the age spectrum.

### Social Determinants of Health Indicators by Zip Code

	HHs in Poverty	HHs Receiving Food Stamps/ SNAP	Children in Poverty	Language Other than English Spoken at Home	Unemployment	Less than HS Diploma	Without Health Insurance	CNI Score
Centre County	17.1%	6.8%	13.6%	10.4%	4.3%	6.0%	6.6%	2.5
16866 (Philipsburg)	18.4%	18.0%	21.4%	11.0%	5.2%	14.2%	9.3%	3.4
16666 (Osceola Mills)	17.4%	13.1%	20.9%	7.3%	5.2%	12.2%	9.5%	3.2
16801 (State College)	27.4%	4.5%	10.2%	14.0%	5.0%	2.7%	4.4%	3.0
16860 (Munson)	15.8%	NA	NA	2.5%	3.1%	13.8%	9.9%	3.0
16803 (State College)	23.0%	5.1%	11.9%	19.0%	3.7%	3.3%	6.6%	2.8
16820 (Aaronsburg)	15.2%	5.2%	50.8%	17.9%	5.7%	13.6%	23.5%	2.6
16882 (Woodward)	15.2%	4.6%	23.0%	17.8%	5.9%	13.8%	23.5%	2.6
16823 (Bellefonte)	8.2%	10.8%	9.5%	5.0%	3.5%	7.5%	6.5%	2.4
16845 (Karthaus)	9.5%	8.5%	11.8%	3.4%	4.4%	11.5%	8.5%	2.2
16832 (Coburn)	14.0%	2.2%	39.9%	18.4%	4.5%	13.7%	27.2%	2.2
16875 (Spring Mills)	10.0%	3.8%	25.3%	9.0%	3.4%	12.6%	13.4%	2.0
16852 (Madisonburg)	12.8%	8.5%	19.1%	24.8%	5.3%	19.1%	34.5%	2.0
16827 (Boalsburg)	7.1%	6.1%	28.3%	7.5%	2.1%	2.2%	1.8%	2.0
16854 (Millheim)	3.4%	6.3%	3.2%	3.1%	3.3%	11.1%	6.5%	2.0
16859 (Moshannon)	7.5%	11.9%	0.0%	3.4%	0.3%	9.7%	7.4%	2.0
16864 (Orviston)	9.3%	NA	NA	2.0%	5.6%	16.3%	6.7%	2.0
16872 (Rebersburg)	14.2%	8.2%	48.2%	30.1%	6.2%	21.7%	36.8%	2.0
16828 (Centre Hall)	7.6%	5.7%	19.6%	4.7%	2.5%	6.9%	4.7%	1.8
16841 (Howard)	7.5%	6.7%	18.1%	4.5%	3.8%	11.0%	12.0%	1.6
16874 (Snow Shoe)	9.2%	7.2%	13.6%	0.8%	2.7%	7.9%	5.0%	1.6
16877 (Warriors Mark)	6.1%	0.9%	NA	5.3%	2.3%	2.2%	3.6%	1.4

**Social Determinants of Health Indicators by Zip Code (cont.)**

	HHs in Poverty	HHs Receiving Food Stamps/ SNAP	Children in Poverty	Language Other than English Spoken at Home	Unemployment	Less than HS Diploma	Without Health Insurance	CNI Score
16829 (Clarence)	6.5%	2.5%	26.6%	1.7%	2.5%	11.1%	4.5%	1.4
16865 (Pennsylvania Furnace)	4.5%	3.0%	4.2%	7.6%	1.1%	4.4%	4.4%	1.4
16844 (Julian)	9.5%	8.8%	12.2%	1.9%	6.1%	5.8%	8.0%	1.2
16870 (Port Matilda)	6.3%	6.4%	2.9%	4.1%	2.6%	3.4%	4.9%	1.2
16851 (Lemont)	4.8%	3.2%	0.0%	3.3%	2.0%	1.7%	0.8%	NA*
16853 (Milesburg)	15.7%	27.0%	0.0%	2.5%	6.7%	8.6%	8.9%	NA*
16802 (University Park)	21.7%	0.0%	0.0%	11.0%	13.5%	6.0%	4.8%	NA*
16826 (Blanchard)	8.7%	4.5%	0.0%	1.6%	5.5%	15.5%	6.5%	NA*
16856 (Mingoville)	7.7%	NA	NA	13.1%	2.4%	14.1%	28.4%	NA*
16868 (Pine Grove Mills)	NA	NA	NA	NA	NA	NA	NA	NA*
<b>Pennsylvania</b>	<b>12.8%</b>	<b>13.0%</b>	<b>19.1%</b>	<b>10.8%</b>	<b>6.1%</b>	<b>9.6%</b>	<b>8.0%</b>	<b>NA</b>

\*CNI scores cannot be generated for zip codes 16826, 16851, 16853, 16856, and 16868 likely due to low population counts. A CNI score is also not generated for zip code 16802.

### Demographic Indicators by Zip Code

	Black/ African American	Hispanic/ Latino	Under 15	15-24	25-34	35-54	55-64	65+
<b>Centre County</b>	<b>3.9%</b>	<b>3.1%</b>	<b>12.3%</b>	<b>30.5%</b>	<b>12.9%</b>	<b>20.0%</b>	<b>10.6%</b>	<b>13.7%</b>
16866 (Philipsburg)	3.4%	12.4%	12.2%	9.7%	12.9%	32.6%	15.3%	17.4%
16666 (Osceola Mills)	2.1%	8.2%	18.8%	8.2%	12.1%	30.5%	12.9%	17.5%
16801 (State College)	3.2%	3.7%	8.7%	41.4%	14.9%	16.7%	7.7%	10.5%
16860 (Munson)	0.0%	0.6%	16.8%	5.2%	8.2%	38.2%	15.1%	16.5%
16803 (State College)	7.0%	4.3%	12.5%	28.2%	18.8%	20.2%	9.0%	11.5%
16820 (Aaronsburg)	0.3%	0.5%	18.9%	9.1%	10.2%	29.8%	16.3%	15.6%
16882 (Woodward)	0.2%	0.4%	23.0%	17.4%	3.4%	27.0%	20.2%	9.0%
16823 (Bellefonte)	5.4%	2.2%	15.6%	9.0%	18.1%	29.2%	14.0%	14.0%
16845 (Karthaus)	9.4%	4.9%	10.8%	16.4%	21.5%	26.1%	10.6%	14.6%
16832 (Coburn)	0.2%	1.1%	32.5%	12.8%	9.5%	24.0%	8.9%	12.1%
16875 (Spring Mills)	0.4%	1.5%	21.2%	9.2%	12.6%	29.6%	14.4%	12.9%
16852 (Madisonburg)	0.4%	0.2%	21.5%	12.8%	6.1%	27.3%	15.2%	17.3%
16827 (Boalsburg)	2.6%	2.2%	16.2%	11.7%	10.5%	26.6%	15.5%	19.5%
16854 (Millheim)	0.2%	0.4%	19.0%	10.4%	11.0%	26.3%	15.2%	18.0%
16859 (Moshannon)	0.0%	2.0%	14.8%	11.4%	6.6%	32.8%	19.9%	14.4%



### Demographic Indicators by Zip Code (cont.)

	Black/ African American	Hispanic/ Latino	Under 15	15-24	25-34	35-54	55-64	65+
16864 (Orviston)	NA	NA	NA	NA	NA	NA	NA	NA
16872 (Rebersburg)	0.2%	0.1%	29.9%	17.0%	9.4%	21.9%	8.2%	13.6%
16828 (Centre Hall)	0.5%	1.2%	13.7%	9.6%	5.6%	31.2%	13.5%	26.4%
16841 (Howard)	0.4%	0.9%	16.7%	12.9%	12.0%	27.7%	13.6%	17.2%
16874 (Snow Shoe)	0.0%	0.8%	18.3%	12.6%	8.7%	26.7%	17.5%	16.2%
16877 (Warriors Mark)	0.9%	1.5%	17.8%	5.4%	11.9%	27.2%	17.6%	20.1%
16829 (Clarence)	0.0%	1.7%	13.4%	7.0%	8.0%	32.8%	15.8%	23.0%
16865 (Pennsylvania Furnace)	1.6%	3.2%	15.6%	9.6%	11.8%	31.7%	12.3%	18.9%
16844 (Julian)	0.2%	0.8%	15.0%	7.3%	16.4%	26.7%	19.2%	15.6%
16870 (Port Matilda)	0.9%	1.8%	21.1%	10.8%	11.1%	30.0%	17.1%	9.8%
16851 (Lemont)	2.8%	2.4%	18.7%	21.3%	3.7%	24.0%	16.0%	16.3%
16853 (Milesburg)	0.4%	0.4%	8.6%	5.9%	39.6%	20.8%	10.7%	14.4%
16802 (University Park)	8.5%	6.9%	0.0%	99.5%	0.3%	0.1%	0.0%	0.0%
16826 (Blanchard)	0.4%	0.8%	22.2%	7.6%	15.9%	32.2%	11.8%	10.4%
16856 (Mingoville)	NA	NA	NA	NA	NA	NA	NA	NA
16868 (Pine Grove Mills)	2.4%	2.4%	12.6%	0.0%	31.5%	31.8%	16.1%	7.9%
<b>Pennsylvania</b>	<b>11.3%</b>	<b>7.6%</b>	<b>6.7%</b>	<b>13.1%</b>	<b>12.6%</b>	<b>24.9%</b>	<b>14.2%</b>	<b>18.6%</b>

The following tables profile the key social determinants of health of poverty, unemployment, and educational attainment by race and ethnicity. Minority populations within Centre County are impacted by adverse social determinants of health, particularly poverty. Poverty percentages among Asian, Black/African American, and Hispanic/Latino populations are 10 percentage points or higher than among Whites. As a whole, Black/African American and Hispanic/Latino residents experience higher unemployment rates and lower educational attainment compared to Whites. These data may also reflect university student populations.

### 2012-2016 Poverty Rates by Race and Ethnicity

	Centre County		Pennsylvania	United States
	Count	Percentage	Percentage	Percentage
White	22,087	17.4%	10.4%	12.4%
Asian	3,002	39.0%	15.7%	12.3%
Black/African American	1,378	35.5%	28.2%	26.2%
Hispanic/Latino	872	26.7%	31.5%	23.4%

Source: US Census Bureau, 2012-2016

### 2012-2016 Unemployment Rates by Race and Ethnicity

	Centre County		Pennsylvania	United States
	Count	Percentage	Percentage	Percentage
White	5,571	4.6%	6.0%	6.3%
Asian	333	4.1%	6.0%	5.7%
Black/African American	593	10.5%	15.2%	13.3%
Hispanic/Latino	249	6.5%	13.0%	8.7%

Source: US Census Bureau, 2012-2016

### 2012-2016 Bachelor's Degree or Higher by Race and Ethnicity

	Centre County		Pennsylvania	United States
	Count	Percentage	Percentage	Percentage
White	35,098	41.4%	30.3%	31.6%
Asian	2,979	72.5%	53.9%	52.1%
Black/African American	1,032	33.0%	17.2%	20.0%
Hispanic/Latino	744	38.4%	14.8%	14.7%

Source: US Census Bureau, 2012-2016

## Special Population Groups

### Amish Settlements

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

The following table depicts estimated population counts for Amish settlements within Centre County. The population is captured by church district, which is typically comprised of a few dozen families. Nittany Valley/Howard has the largest estimated Amish population, followed by Brush Valley/Rebersburg.

**2017 Amish Population by Settlement**

County	Settlement	Districts	Population
Centre	Aaronsburg	4	329
Centre	Brush Valley/Rebersburg	7	960
Centre	Penns Valley	4	577
Centre/Clinton	Nittany Valley/Howard	7	1,244
Centre County		22	3,110
Pennsylvania		497	74,251

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

### Prisons

Three correctional institutions are located within Centre County. A study published in 2016 by The Sentencing Project, a not-for-profit advocacy organization, found that in state prisons, African Americans are incarcerated five times more than Whites, and Hispanics are incarcerated nearly two times more than Whites. The following table identifies state and federal prison facilities within Centre County and corresponding demographic data for the facility’s zip code of origin. Zip code 16866, Philipsburg is the location of a Correctional Institution, which may be a driver of the higher Hispanic/Latino population within the zip code.

### State and Federal Prison Facilities and Racial/Ethnic Demographics

Prison Facility	Location	Inmate Population	Zip Code Demographics		County Demographics	
			Black/African American	Hispanic/Latino	Black/African American	Hispanic/Latino
Correctional Institution, Moshannon Valley	16866, Philipsburg (Centre County)	1,795	3.4%	12.4%	3.9%	3.1%
State Correctional Institution, Benner Township	16823, Bellefonte (Centre County)	2,066	5.4%	2.2%	3.9%	3.1%
State Correctional Institution, Rockview	16823, Bellefonte (Centre County)	2,366	5.4%	2.2%	3.9%	3.1%

Source: Federal Bureau of Prisons and Pennsylvania Department of Corrections, 2018

#### Vulnerable populations

Centre Helps is a volunteer-based, not-for-profit organization that assists community members in navigating safety net services. Centre Helps provides four key program areas, including a 24-hour hotline. The hotline received 7,033 calls in 2017; 1,718 calls were related to basic needs, including food insecurity and housing. The following tables show a breakdown of calls by need and school district. More than half of the calls were from the State College Area School District, the largest school district in the county.

#### 2017 Centre Helps Hotline Statistics

Total Calls	7,033
Basic Needs	1,718
Food Insecurity	431
Emergency Food	156
State College Food Bank	234
Housing	765
Mental/Emotional Health	889
Substance Use Disorder	685

Source: Centre Helps, 2017

#### 2017 Centre Helps Hotline Calls by School District

State College Area	Other School Districts	Bellefonte Area	Bald Eagle Area	Philipsburg Osceola Area	Penns Valley Area
4,215	1,832	435	269	153	129

Source: Centre Helps, 2017

# Full Report of Public Health Statistical Analysis

## Access to Healthcare

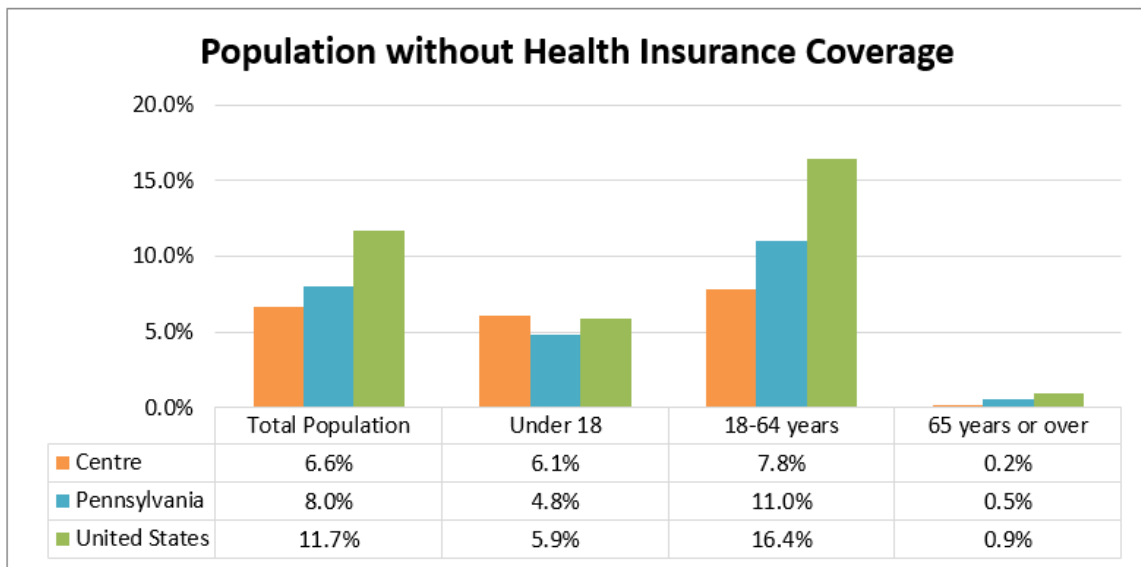
Centre County was ranked #13 out of 67 counties in Pennsylvania for clinical care, as reported by the 2018 University of Wisconsin County Health Rankings & Roadmaps program. The clinical care ranking is based on a number of indicators, including health insurance coverage and provider access. Centre County dropped one position in the rankings from the 2016 CHNA.

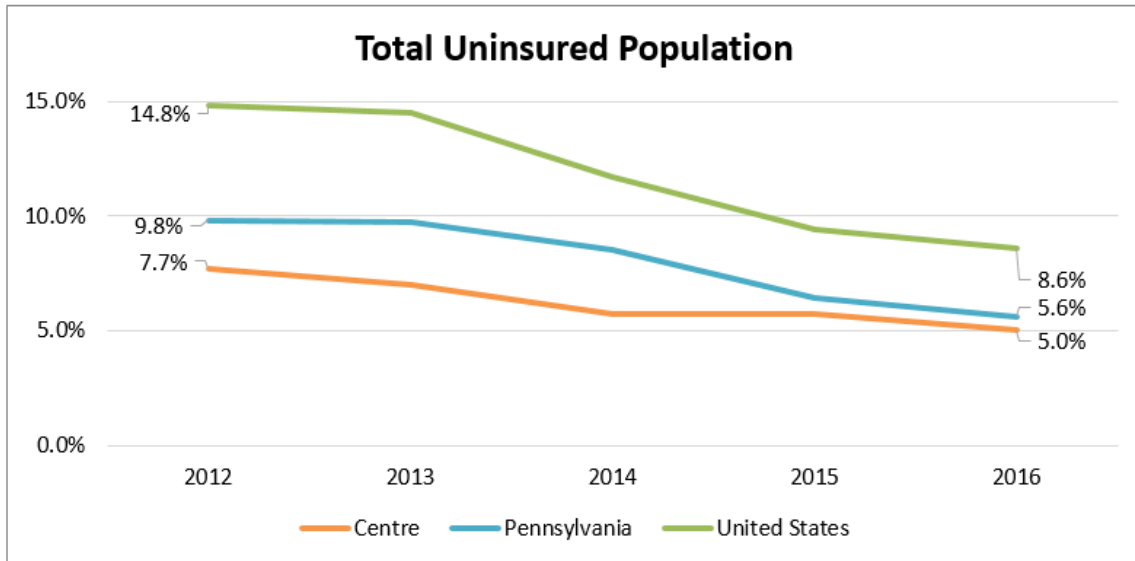
**2018 County Health Rankings  
Clinical Care**  
**#13 Centre County (#12 for 2016 CHNA)**

## Health Insurance Coverage

Fewer residents in Centre County are uninsured when compared to state and national benchmarks. The percentage of uninsured county residents declined nearly 3% points over the past five years. However, the county does not meet the Healthy People 2020 goal of having 100% of all residents insured. The percent uninsured is highest among adults ages 18 to 64, which is consistent with state and national trends.

Fewer Centre County residents are uninsured compared to the state and the nation, and the rate is declining





Source: US Census Bureau, 2012-2016

The following zip codes within Centre County exceed the county uninsured rate by five or more percentage points. Rebersburg and Madisonburg have the highest uninsured rates in the county; the rates are likely impacted by Amish residents.

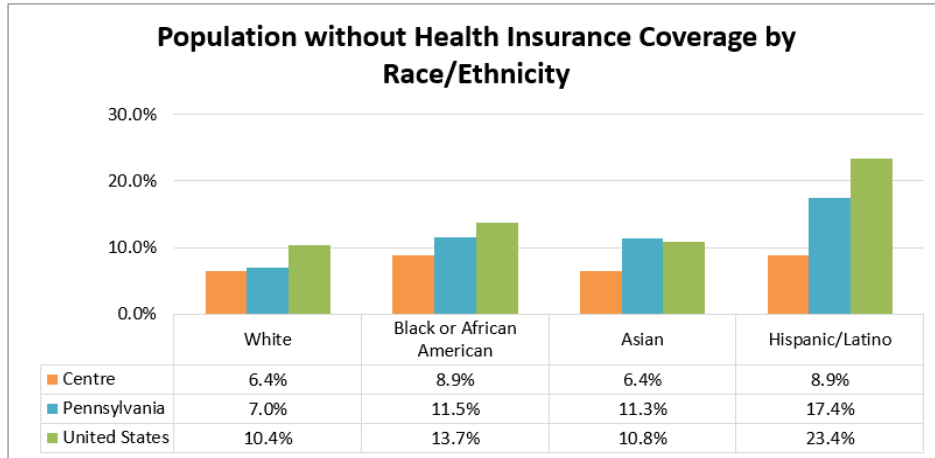
#### Centre County Zip Codes with Higher Uninsured Rates

	Percent	Number
16872 (Rebersburg)	36.8%	527
16852 (Madisonburg)	34.5%	169
16856 (Mingoville)	28.4%	25
16832 (Coburn)	27.2%	178
16820 (Aaronsburg)	23.5%	221
16882 (Woodward)	23.5%	108
16875 (Spring Mills)	13.4%	597
16841 (Howard)	12.0%	700

Source: US Census Bureau, 2012-2016

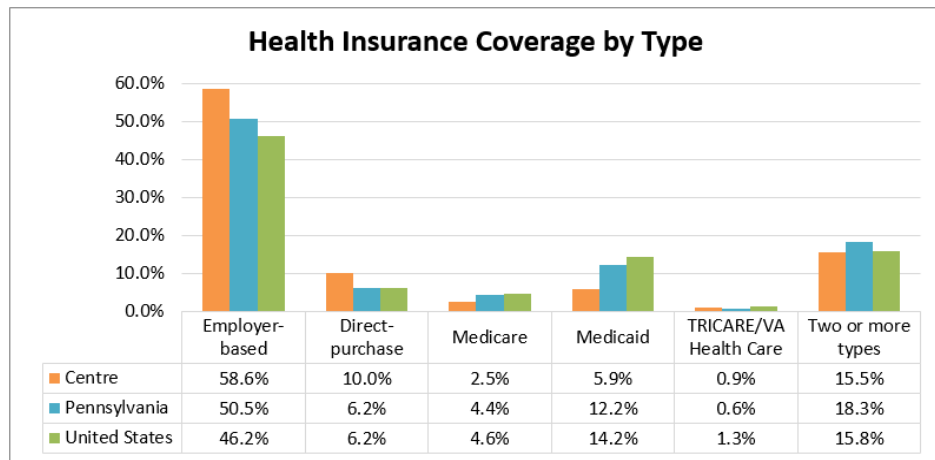
Across the state and the nation, uninsured rates are highest among Hispanic/Latino residents. In Centre County, the uninsured rate is equal among Black/African American and Hispanic/Latino residents, and exceeds the White uninsured rate by 2.5% points. The Asian uninsured rate is equal to the White uninsured rate.

Centre County Black/African American and Hispanic/Latino residents have higher uninsured rates than White and Asian residents



Source: US Census Bureau, 2012-2016

The following graph depicts health insurance coverage by type of insurance. Nearly 60% of residents in Centre County are covered by employer-based insurance, higher than the state and the nation. The second most common insurance coverage type among residents is a combination of private and/or public insurance.



Source: US Census Bureau, 2012-2016

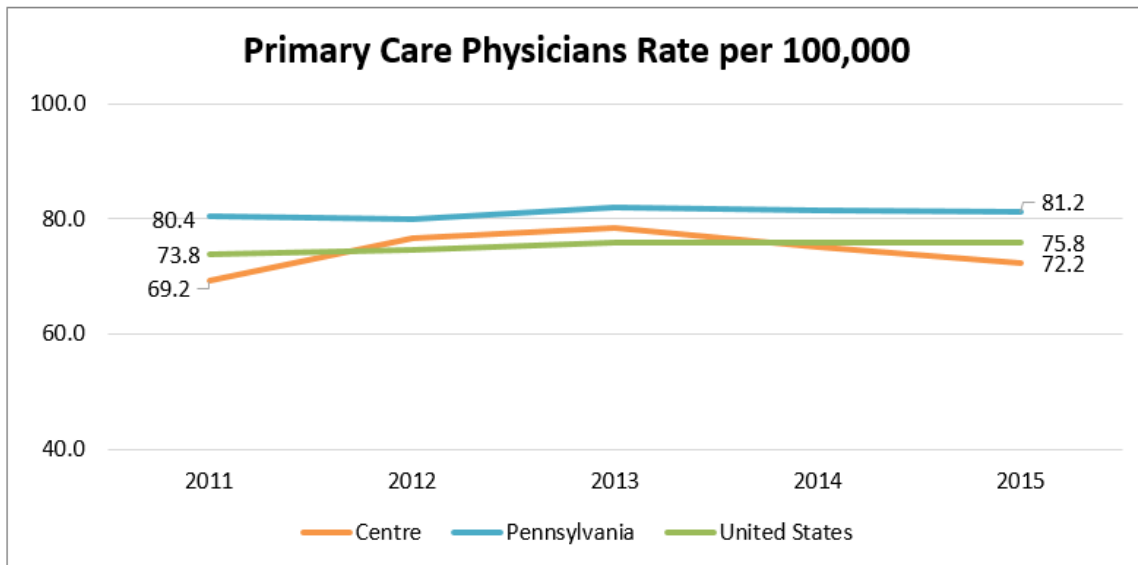


## Provider Access

Provider rates are measured as the number of providers in an area per 100,000 people, and are measured against state and national benchmarks for primary, dental, and mental healthcare. The following graphs show the change in provider rates over the past five reporting years, as available.

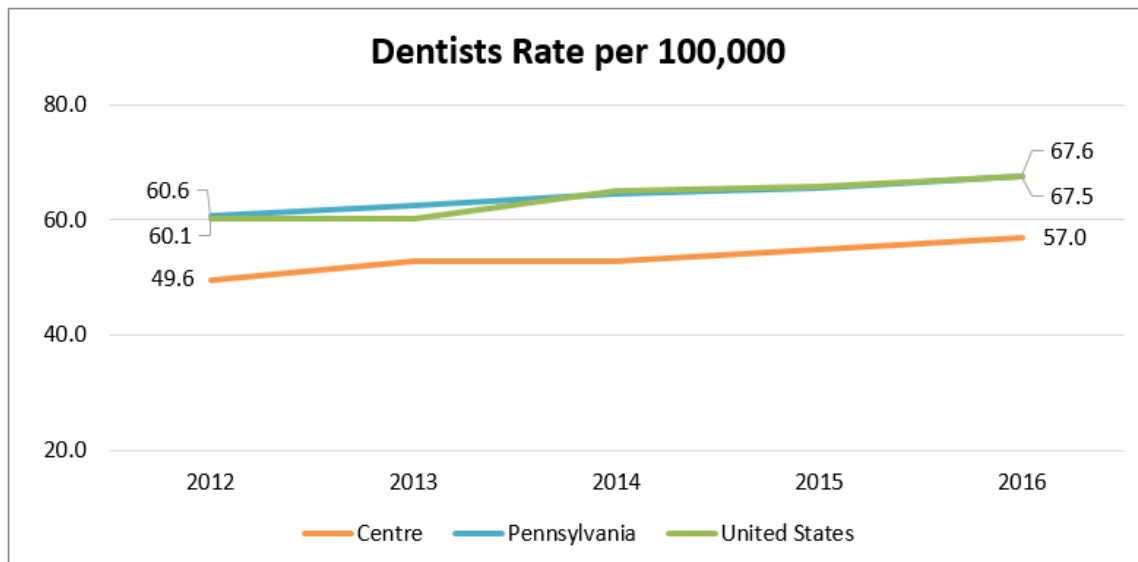
Provider rates for primary, dental, and mental health are lower in Centre County compared to the state and the nation. The primary care physician rate increased from 2011 to 2013, but declined from 2013 to 2015. The dentist rate increased steadily over the past five years, but it is approximately 10 points lower than state and national rates. The mental health provider rate also increased steadily; the current rate is comparable to the state rate, but lower than the national rate by nearly 40 points. Note: Provider rates are likely impacted by a high proportion of college-age students, who are counted among the population of Centre County, but who likely see care outside of the county.

Centre County primary, dental, and mental health provider rates are lower than state and national rates, but rates for dental and mental health increased

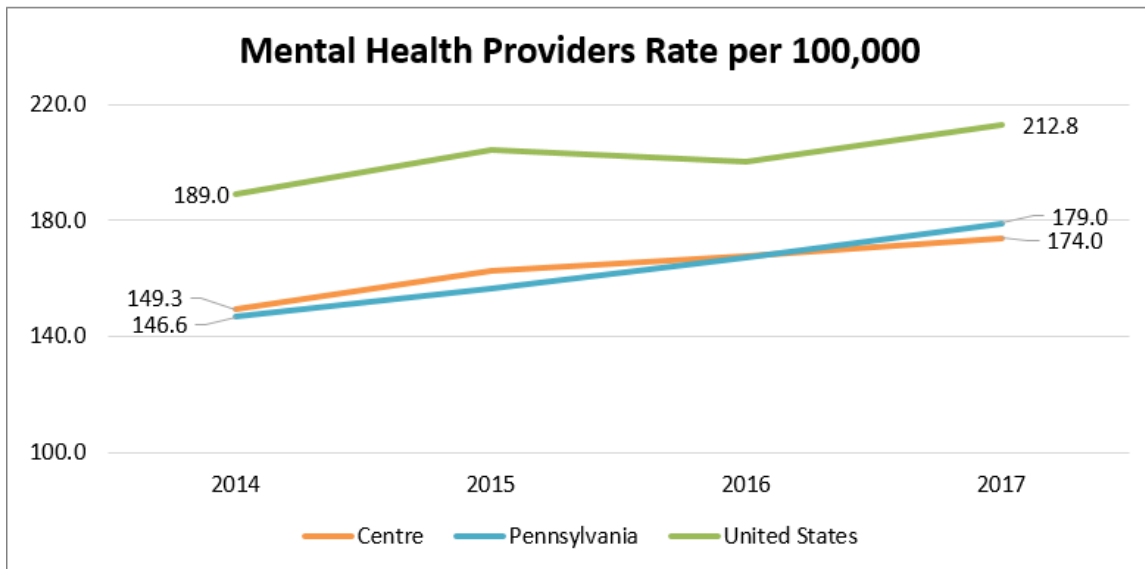


Source: Health Resources & Services Administration, 2011-2015

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



Source: Health Resources & Services Administration, 2012-2016



Source: Centers for Medicare and Medicaid Services, 2014-2017

\*An error occurred in the County Health Rankings method for identifying mental health providers in 2013. Data prior to 2014 are not shown.

The Health Resources & Services Administration (HRSA) is responsible for designating Health Professional Shortage Areas (HPSAs), as well as Medically Underserved Areas (MUAs). Shortage areas are determined based on a defined ratio of total health professionals to total population. Medically Underserved Areas are designated based on an Index of Medical Underservice (IMU) score of 62 or lower. The IMU scale is 0 (completely underserved) to 100 (least underserved) and is based on a weighted value of four demographic and health indicators: primary care providers per 1,000, population in poverty, population age 65 or over, and infant mortality rate.

Consistent with the 2016 CHNA, the following HPSAs are located within Centre County:

- All of Centre County: Dental health HPSA for low-income populations
- Snow Shoe Area: Primary care HPSA
- Philipsburg Area: Primary care HPSA for low-income populations

Medically Underserved Areas in Centre County include:

- Boggs Service Area (Boggs Township, Burnside Township, Snow Shoe Borough, Snow Shoe Township)
- Curtin Service Area (Curtin Township, Liberty Township, Marion Township, Walker Township)
- Millheim Borough
- State College Borough\*
- Union Township

\*Note: State College Borough includes a portion of the Pennsylvania State University and surrounding areas. The MUA designation is likely impacted by high student population density and low provider counts, and higher reported poverty rates among university students.

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. Centre County has one FQHC, Mountaintop Area Medical Center, offering primary, dental, and limited mental healthcare services. The FQHC is located in Snow Shoe in the northern most portion of the county. Centre County is also served by Centre Volunteers in Medicine in State College, offering free primary and dental care to medically underserved residents. Services are available to residents who pass a means test and are ineligible for public assistance.

## Routine Care

Health insurance coverage and provider availability can impact the number of residents who have a primary care provider and receive routine care.

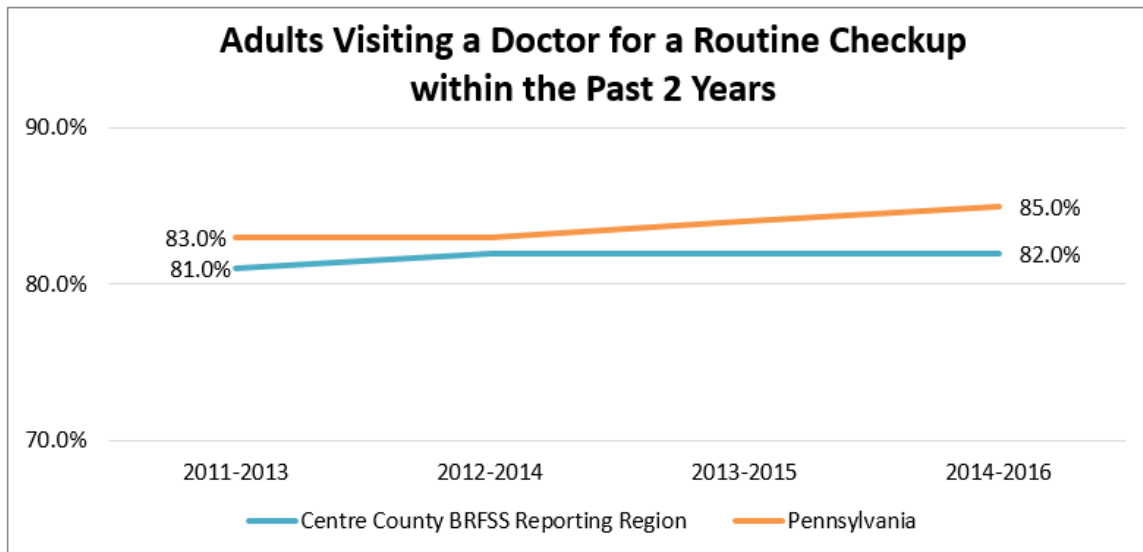
The percentage of adults who receive routine checkups remained stable in the Centre County BRFSS Reporting Region over the past four years and is lower than the statewide percentage. Approximately one in 10 adults across the reporting region and the state do not have a personal doctor and/or consider cost as a barrier to receiving care.

Approximately 1 in 10 adults do not have a personal doctor and/or consider cost as a barrier to care

### Adult Healthcare Access

	Does Not Have a Personal Doctor	Received a Routine Checkup within the Past 2 Years	Unable to See a Doctor within the Past Year due to Cost
BRFSS Reporting Region: Centre/Columbia/Montour/Northumberland/Snyder/Union Counties	13%	82%	11%
Pennsylvania	14%	85%	12%

Source: Pennsylvania Department of Health, 2014-2016



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

## Overall Health Status

Centre County was ranked #2 out of 67 counties in Pennsylvania for health outcomes, as reported by the 2018 University of Wisconsin County Health Rankings & Roadmaps program. Health outcomes are measured in relation to premature death (before age 75) and quality of life. Centre County maintained its ranking from the 2016 CHNA.

**2018 County Health Rankings  
Health Outcomes**  
**#2 Centre County (#2 in 2015)**

The Centre County premature death rate is approximately half of the state and national rates. Life expectancy for residents increased over the past decade and exceeds the statewide life expectancy by three years.

Centre County adults are less likely to self-report having “poor” or “fair” health status and report a lower average of poor physical and mental health days compared to the state and/or the nation. The 30-day averages for poor physical health and poor mental health days among residents increased in Centre County and across the state since the 2016 CHNA.

Adults report lower 30-day averages of poor physical and mental health days, but the averages increased from the 2016 CHNA

### Health Outcomes Indicators

(Green = Lower than State and National Benchmarks)

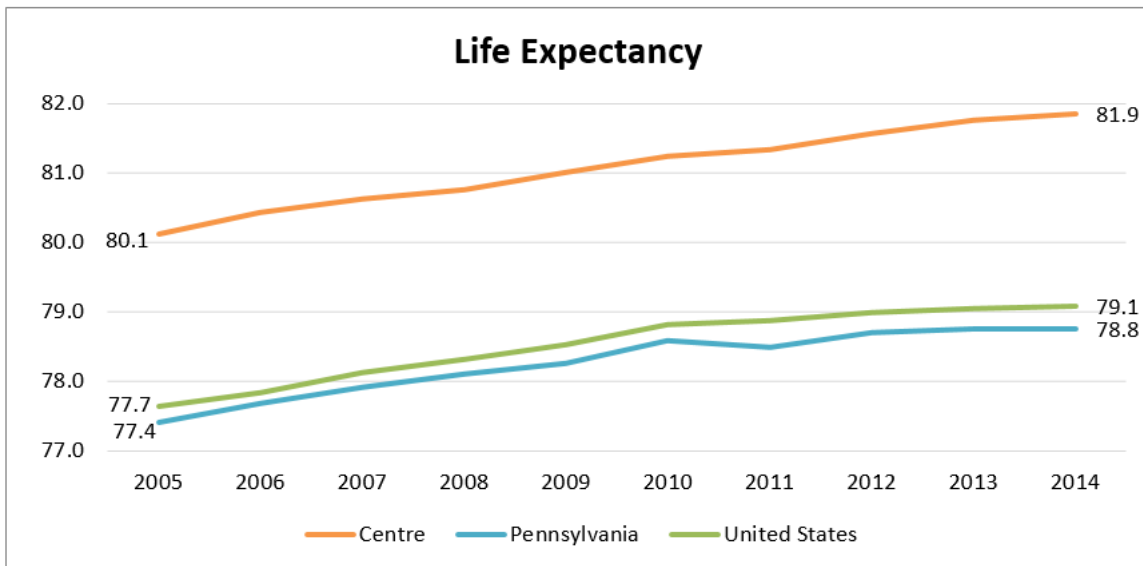
	Premature Death Rate per 100,000	Adults with “Poor” or “Fair” Health Status	30-Day Average - Poor Physical Health Days	30-Day Average - Poor Mental Health Days
Centre County	3,900	13.6%	3.5	3.8
Pennsylvania	6,900	15.1%	3.9	4.3
United States	6,700	16.0%	3.7	3.8

Source: National Center for Health Statistics, 2014-2016; Centers for Disease Control and Prevention, 2016

### 30-Day Average of Poor Physical and Mental Health Days Trend

	Poor Physical Health Days			Poor Mental Health Days		
	2013 CHNA	2016 CHNA	2019 CHNA	2013 CHNA	2016 CHNA	2019 CHNA
Centre County	3.4	3.1	3.5	3.3	3.0	3.8
Pennsylvania	3.5	3.5	3.9	3.6	3.6	4.3
United States	NA	3.7	3.7	2.2	3.4	3.8

Source: Centers for Disease Control and Prevention, 2004-2010, 2006-2012, and 2016



### Health Behaviors

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

#### Smoking

The percent of adults who report smoking declined in Centre County from 2014 to 2016 by three percentage points. Adults in the county are less likely to smoke when compared to the state and the nation. However, the county does not meet the Healthy People 2020 goal for adult smoking of 12%.

Adults who report smoking declined 3 percentage points from 2014 to 2016



The Pennsylvania Youth Survey (PAYS) is conducted every other year among students in grades 6, 8, 10, and 12 to monitor health risk behaviors. According to 2017 PAYS results, the percentage of students who report smoking declined nearly two percentage points from 2013 to 2017. Less than 4% of students across the county report smoking. However, nearly 10% of students report vaping. The percentage decreased from 2015 and is lower than the state percentage, but represents a shift from traditional cigarette use to e-cigarette use.

4% of youth report smoking, while nearly 10% report vaping

**Tobacco Use among Adults and Youth (Grades 6, 8, 10, 12)**  
**(Green = Decrease of More than 2 Points)**

	Adult Smoking		Youth Smoking (past 30 days)		Youth Vaping (past 30 days)	
	2014	2016	2013	2017	2015*	2017
Centre County	17.9%	14.6%	5.5%	3.7%	11.4%	9.4%
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

\*Vaping data was not reported for 2013.

Pennsylvania Youth Survey data are reported separately for State College Area School District and rural school districts. The following table shows tobacco use trends among these students compared to the county and state overall. A similar percentage of students from both communities report vaping compared to the state percentage. The percentage of rural school district students who report smoking is also on par with the state, but double the percentage among State College Area School District students.

The percentage of rural school district students who report smoking is double the percentage among State College Area School District students

**Tobacco Use among State College Area School District Youth (Grades 6, 8, 10, 12)**  
**(Green = Lower than County and State Benchmarks)**

	Youth Smoking (past 30 days)		Youth Vaping (past 30 days)	
	2013	2017	2015*	2017
State College Area School District	3.1%	3.0%	9.6%	9.9%
Rural School Districts**	8.3%	5.9%	14.5%	10.6%
Centre County	5.5%	3.7%	11.4%	9.4%
Pennsylvania	8.0%	5.6%	15.5%	16.3%

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

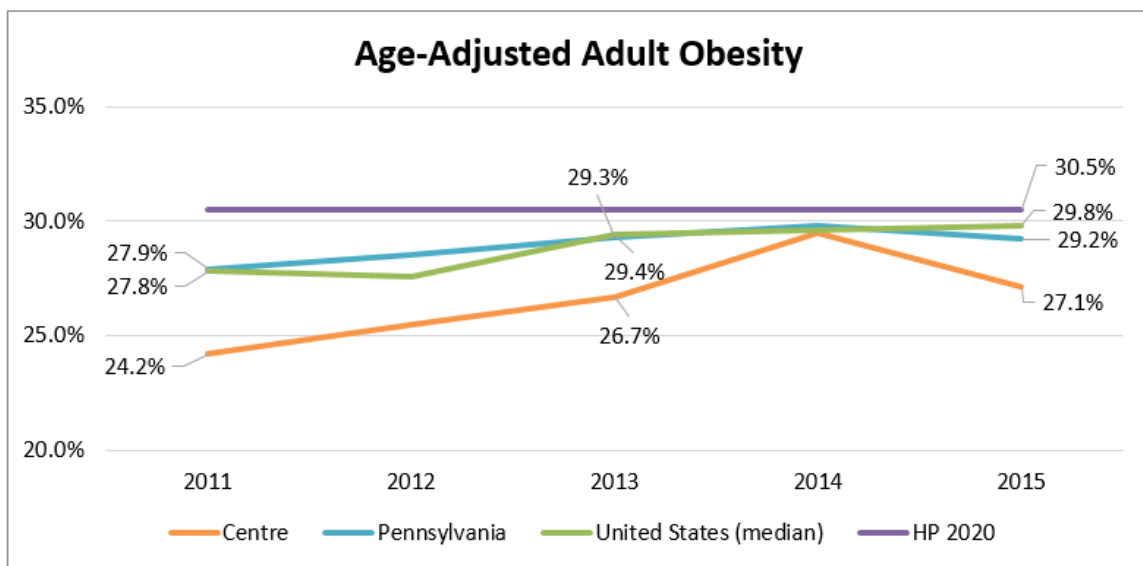
\*Vaping data was not reported for 2013.

\*\*Includes Bald Eagle School District, Bellefonte Area School District, Penns Valley Area School District, and Philipsburg-Osceola Area School District.

## Obesity

Obesity is associated with an increased risk of disease and mortality, as well as a reduced quality of life. Healthy People 2020 sets a goal of having no more than 30.5% of all adults considered obese. Centre County meets the Healthy People 2020 goal, and fewer adults are obese when compared to state and national averages. However, the current percentage indicates that roughly one in four adults are obese. The percentage of obese adults increased steadily from 2011 to 2014, but declined from 2014 to 2015.

Approximately 1 in 4 Centre County adults are obese



Source: Centers for Disease Control and Prevention, 2011-2015

Pennsylvania youth are screened for BMI as part of school health assessments. Data are reported for students in grades K-6 and 7-12. As of the 2015-2016 school year, a lower percentage of Centre County students are obese compared to the state and percentages meet or nearly meet Healthy People 2020 goals. Obesity percentages remained stable from the 2016 CHNA.

Approximately 14% of K-6 graders and 17% of 7-12 graders are obese, lower than the state and consistent with the 2016 CHNA

**Obesity among Students**  
(Green = Lower than State and National Benchmarks)

	2016 CHNA		2019 CHNA	
	K-6 Grade	7-12 Grade	K-6 Grade	7-12 Grade
Centre County	14.0%	16.9%	13.8%	16.9%
Pennsylvania	16.7%	17.7%	16.7%	19.1%
Healthy People 2020*	15.7%	16.1%	15.7%	16.1%

Source: Pennsylvania Department of Health, 2010-2011, 2015-2016

\*Healthy People 2020 goals reflect comparable age groups of 6-11 years and 12-19 years.

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 for Centre County, the state and the US since the 2016 CHNA, however, consistent with 2016 CHNA reporting, a higher percentage of Centre County residents are food insecure as compared to the state and the nation.

**Food Insecure Residents**  
(Red = Higher than State and National Benchmarks)

	2016 CHNA		2019 CHNA	
	All Residents	Children	All Residents	Children
Centre County	14.9%	19.0%	13.8%	15.0%
Pennsylvania	14.2%	20.4%	12.5%	16.9%
United States	15.1%	23.7%	12.9%	17.5%

Source: Feeding America, 2013 and 2016

Approximately 25% of children in Centre County are eligible for free or reduced price lunches at school compared to 50% across the state. 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.

### Children Eligible for Free or Reduced Price Lunch

	Percent
Centre County	25.3%
Pennsylvania	48.2%

Source: National Center for Education Statistics, 2015-2016

Data for Centre County community partners that provide food pantry or assistance services were assessed to further identify the potential for food insecurity among residents. During fiscal year (FY) 2017-2018, the eight food pantries sponsored by Centre County served 3,824 unique individuals through the State Food Purchase Program (SFPP) and the Temporary Emergency Food Assistance Program (TEFAP). In addition, the Centre Helps hotline received 431 calls related to food insecurity in 2017.

In FY2017-2018, 3,824 individuals were served by Centre County sponsored food pantries

In 2017, 431 calls to Centre Helps were related to food insecurity

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. The percentage of Centre County adults with access to physical activity venues declined from the 2016 CHNA (88%). However, the percentage of physically inactive adults remained stable and is lower than the state and the nation.

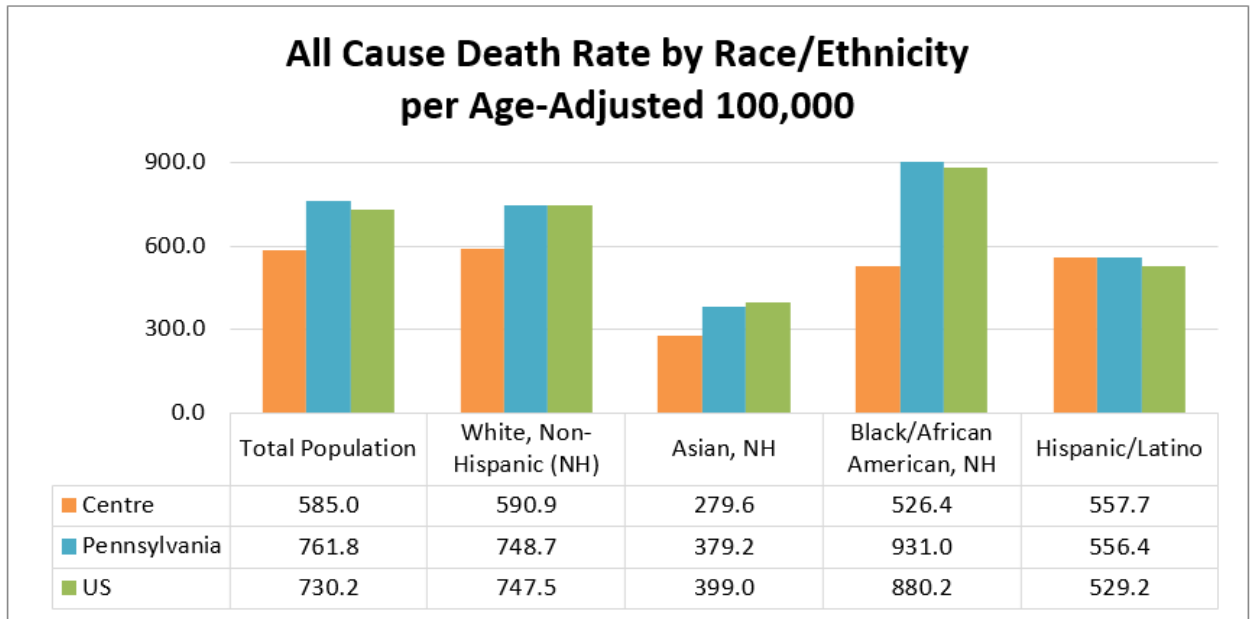
### Physical Activity (Green = Lower than State and National Benchmarks)

	Access to Physical Activity	Physically Inactive Adults
Centre County	74.2%	17.3%
Pennsylvania	67.8%	24.0%
United States	83.0%	23.0%

Source: Business Analyst, Delorme Map Data, ESRI, & US Census Tigerline Files, 2010 and 2016; Centers for Disease Control and Prevention, 2014

## Mortality

The following graph depicts the all cause age-adjusted death rate by race and ethnicity. The overall death rate for Centre County is lower than the state and the nation. Across the state and the nation, the death rate is highest among Blacks/African Americans compared to other racial and ethnic groups. The Centre County death rate is highest among Whites.

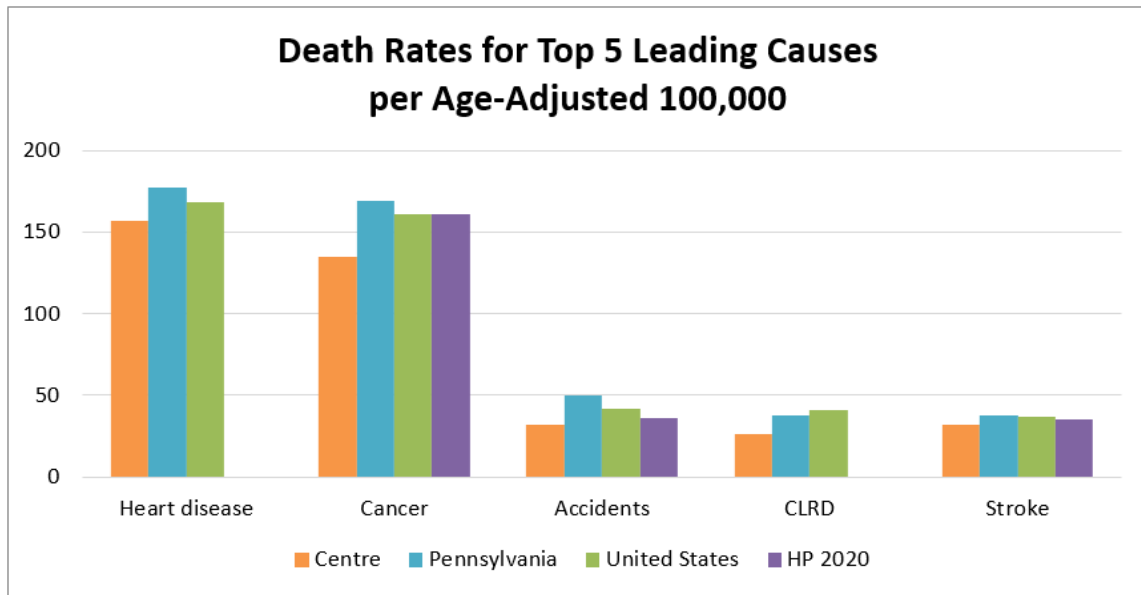


Source: Centers for Disease Control and Prevention, 2012-2016

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

Residents of Centre County have lower rates of death for all five causes compared to the state and the nation and meet Healthy People 2020 goals for cancer, accidents, and stroke. Trended death rates and chronic disease prevalence rates are shown in the following sections.

Death rates for the top 5 leading causes are lower in Centre County compared to the state and the nation



Source: Centers for Disease Control and Prevention, 2012-2016; Healthy People 2020

### Chronic Diseases

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

### Heart Disease and Stroke

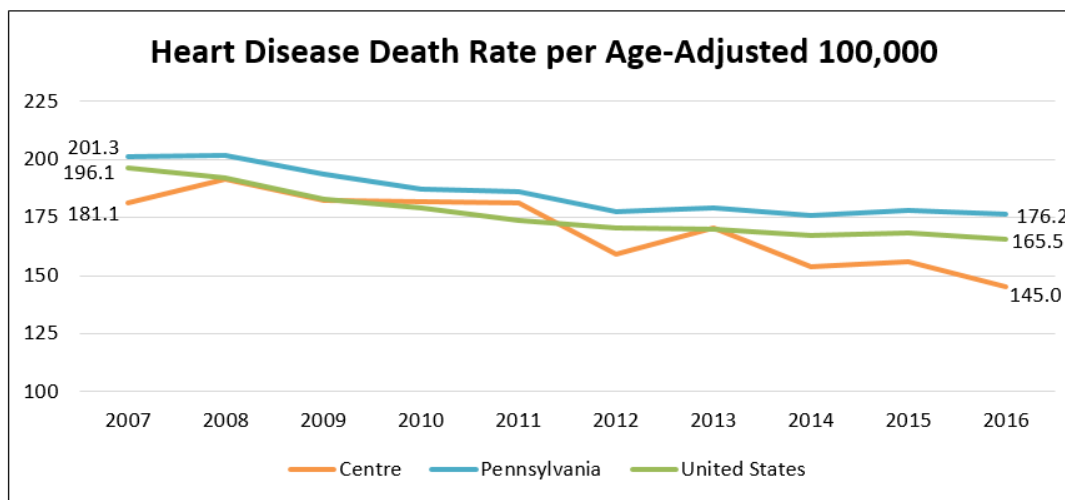
A similar percentage of adults in the region have been diagnosed with heart disease, heart attack, and/or stroke when compared to the state. The heart disease death rate is lower in Centre County compared to the state and the nation and declined 36 points from 2007 to 2016. Across the state and the nation, Blacks/African Americans have a higher heart disease death rate than Whites. Race and ethnicity data are not reported for the Centre County due to low death counts.

The heart disease death rate declined 36 points from 2007 to 2016

### Heart Disease Prevalence among Adults

	Heart Disease	Heart Attack	Stroke
BRFSS Reporting Region: Centre/ Columbia/ Montour/Northumberland/ Snyder/Union Counties	7%	6%	4%
Pennsylvania	7%	7%	5%

Source: Pennsylvania Department of Health, 2014-2016



Source: Centers for Disease Control and Prevention, 2007-2016

### Heart Disease Death Rates per Age-Adjusted 100,000 by Race and Ethnicity

	White, Non-Hispanic	Black/African American, Non-Hispanic	Hispanic/Latino
Pennsylvania	174.1	217.6	114.4
United States	170.9	212.6	118.2

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

Coronary heart disease (CHD) is characterized by the buildup of plaque inside the coronary arteries. Consistent with the 2016 CHNA, Centre County meets the Healthy People 2020 goal for death due to CHD. The current death rate is nearly half of the state rate.

Several types of heart disease, including coronary heart disease, are risk factors for stroke. Centre County continues to meet the Healthy People 2020 goal for death due to stroke.

Centre County meets the HP 2020 goals for CHD and stroke deaths

### Coronary Heart Disease and Stroke Death Rates (Green = Lower than State and National Benchmarks)

	Coronary Heart Disease Death per Age-Adjusted 100,000	Stroke Death per Age-Adjusted 100,000
Centre County	59.6	33.2
Pennsylvania	100.0	37.5
United States	96.8	37.2
HP 2020	103.4	34.8

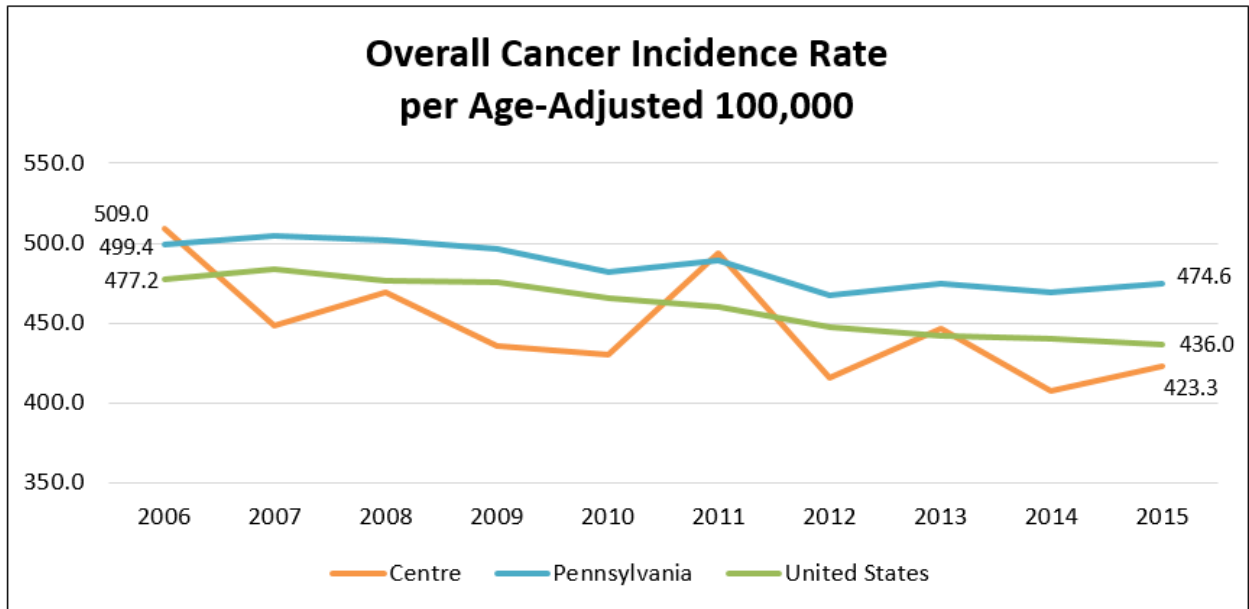
Source: Centers for Disease Control and Prevention, 2014-2016



## Cancer

The Centre County cancer incidence rate is lower than state and national rates and declined 86 points from 2006 to 2015. Cancer incidence is higher among Whites than Blacks/African Americans, contrary to state and national trends. Lower cancer incidence among Blacks/African Americans may be driven by a lower population count in Centre County.

Centre County has a lower overall cancer incidence and death rate than the state and the nation



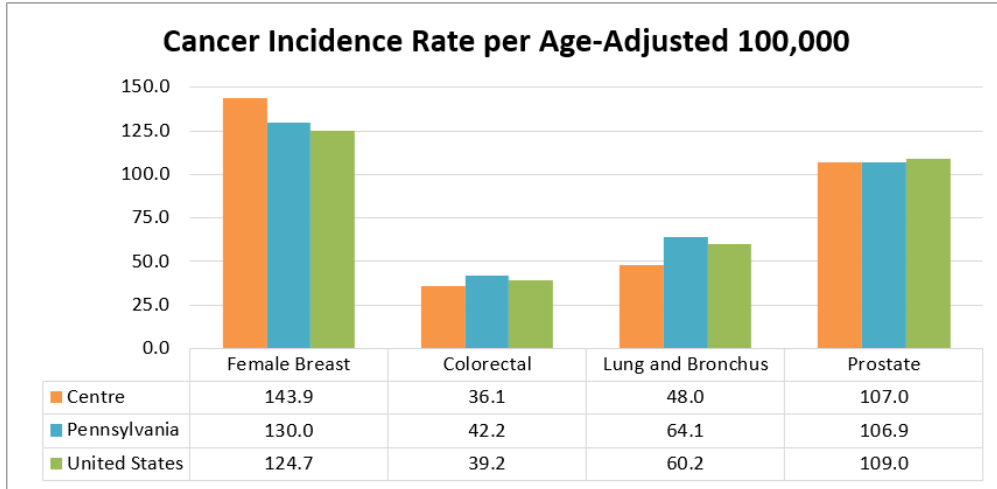
Source: National Cancer Institute, 2006-2015; Pennsylvania Department of Health, 2006-2015

### Cancer Incidence per Age-Adjusted 100,000 by Race and Ethnicity

	White (includes Hispanic)	Black/African American (includes Hispanic)	Hispanic/Latino
Centre County	439.9	273.4	254.9
Pennsylvania	475.9	492.7	353.5
United States	442.8	447.9	340.9

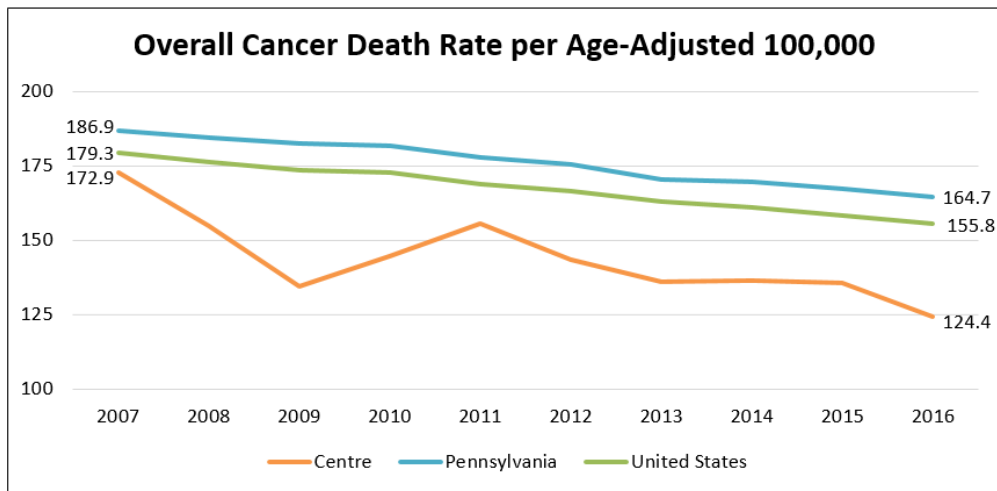
Source: National Cancer Institute, 2011-2015

Presented below are the incidence rates for the most commonly diagnosed cancers: breast (female), colorectal, lung, and prostate (male). Centre County has a higher rate of female breast cancer compared to the state and the nation, but lower or similar rates of all other reported cancers.



Source: National Cancer Institute, 2011-2015; Pennsylvania Department of Health, 2011-2015

The overall cancer death rate for Centre County is lower than state and national benchmarks and declined 49 points from 2007 to 2016. Across the state and the nation, Blacks/African Americans have a higher cancer death rate than Whites. Race and ethnicity data are not reported for the Centre County due to low death counts.



Source: Centers for Disease Control and Prevention, 2007-2016

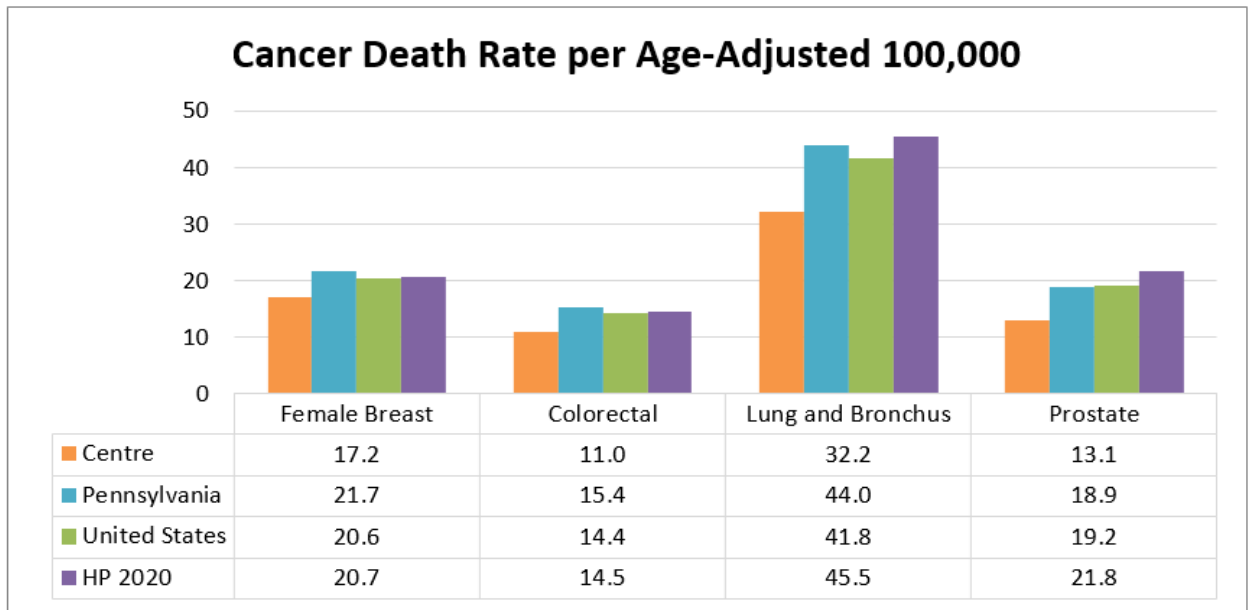
### Cancer Death Rates per Age-Adjusted 100,000 by Race and Ethnicity

	White, Non-Hispanic	Black/African American, Non-Hispanic	Hispanic/Latino
Pennsylvania	167.2	210.9	109.1
United States	165.7	190.0	112.6

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

Presented below are death rates for the four commonly diagnosed cancers. Centre County meets the Healthy People 2020 goals for all reported cancers. The county female breast cancer death rate is 3.5 points lower than the Healthy People 2020 goal despite a higher incidence rate. Higher incidence rates and lower death rates are indicative of early and adequate detection and treatment. Approximately 72% of Medicare Enrollees ages 67 to 69 in Centre County received a mammogram in the past two years compared to 64.8% across Pennsylvania and 63% across the nation.

Centre County meets the HP 2020 goals for all reported cancer types



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

### 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, all of which contribute to lower quality of life and increased risk of early death.

The percentage of students with an asthma diagnosis declined from the 2016 CHNA

Approximately 13% of adults in the region have been diagnosed with asthma, higher than the state. Among Centre County students, 7.9% have been diagnosed with asthma, lower than the state. The percentage of students with an asthma diagnosis declined from the 2016 CHNA report of 9.8%.

Centre County residents have a lower rate of CLRD death compared to the state and the nation. Across the state and the nation, Whites have a higher heart disease death rate than Blacks/African Americans. Race and ethnicity data are not reported for the Centre County due to low death counts.

#### CLRD Prevalence among Adults

	Asthma Diagnosis (Current)	COPD Diagnosis (Ever)
BRFSS Reporting Region: Centre/Columbia/Montour/Northumberland/Snyder/Union Counties	13%	6%
Pennsylvania	10%	7%

Source: Pennsylvania Department of Health, 2014-2016

#### Asthma among Students (Green = Lower than State and National Benchmarks)

	Count	Percentage
Centre County	1,106	7.9%
Pennsylvania	226,994	12.1%

Source: Pennsylvania Department of Health, 2015-2016

**CLRD Death Rates per Age-Adjusted 100,000 by Race and Ethnicity  
(Green = Lower than State and National Benchmarks)**

	Total Population	White, Non-Hispanic	Black/African American, Non-Hispanic	Hispanic/Latino
Centre County	26.4	26.4	NA	NA
Pennsylvania	38.0	38.7	34.0	19.4
United States	41.2	46.3	29.7	17.8

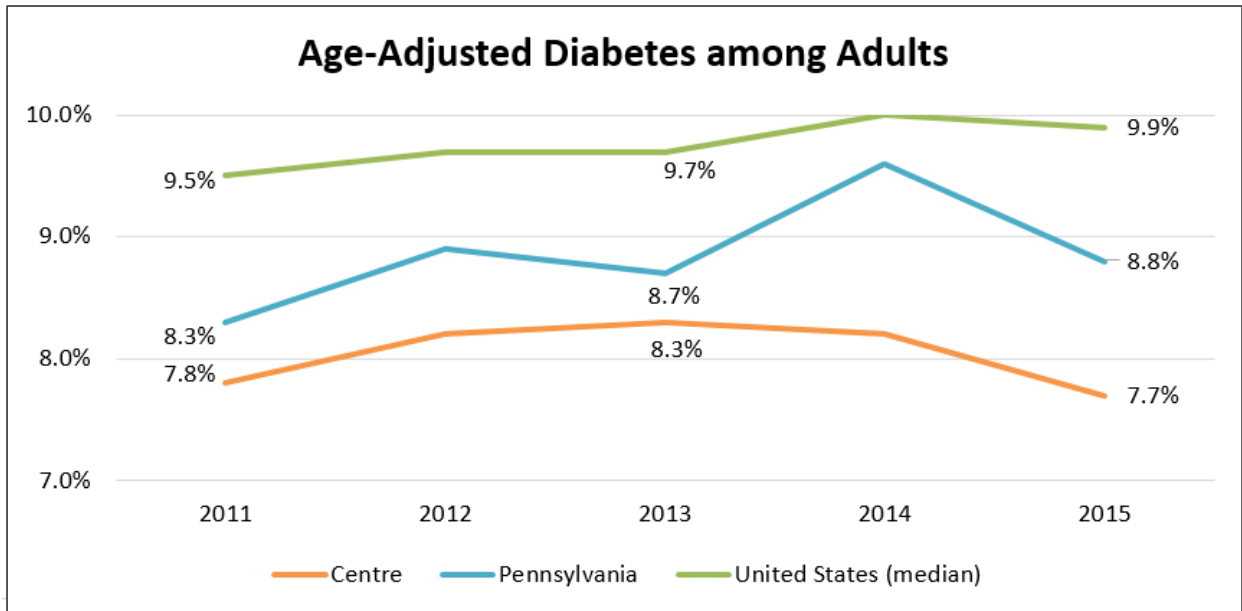
Source: Centers for Disease Control and Prevention, 2012-2016

**Diabetes**

Diabetes is among the top 10 causes of death in the nation. According to the American Diabetes Association, diabetes and prediabetes affect more than 110 million Americans and cost \$322 billion per year. Diabetes can cause a number of serious complications. Type II diabetes, the most common form, is largely preventable through diet and exercise.

The percentage of Centre County adults with a diabetes diagnosis is lower than the state and the nation. The percentage increased from 2011 to 2013, but declined through 2015. However, the current percentage indicates that nearly one in 10 adults have a diabetes diagnosis.

Fewer Centre County adults have been diagnosed with diabetes compared to the state and the nation



Source: Centers for Disease Control and Prevention, 2011-2015

Among Centre County students, 0.3% have been diagnosed with Type I diabetes and 0.1% have been diagnosed with Type II diabetes, consistent with the state. The percentage of students with a Type I or Type II diabetes diagnosis remained stable from the 2016 CHNA report of 0.4% and 0.1% respectively.

#### Diabetes among Students

	Type I Diabetes		Type II Diabetes	
	Count	Percentage	Count	Percentage
Centre County	43	0.31%	9	0.06%
Pennsylvania	6,259	0.33%	1,077	0.06%

Source: Pennsylvania Department of Health, 2015-2016

Centre County has a lower diabetes death rate than the state and the nation. Across Pennsylvania and the nation, the diabetes death rate is highest among Blacks/African Americans and Hispanics/Latinos. Race and ethnicity data are limited for Centre County due to low death counts.

Across the state and the nation, Blacks/African Americans and Hispanics/Latinos have a higher rate of diabetes death than Whites

**Diabetes Death Rates per Age-Adjusted 100,000 by Race and Ethnicity  
(Green = Lower than State and National Benchmarks)**

	Total Population	White, Non-Hispanic	Black/African American, Non-Hispanic	Hispanic/Latino
Centre County	10.8	10.6	NA	NA
Pennsylvania	21.9	20.7	33.7	24.3
United States	21.1	18.6	38.6	25.6

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

The testing of blood sugar levels is essential to diabetes management. Diabetics should receive a hemoglobin A1c (hA1c) test, a blood test measuring blood sugar levels, annually from a health professional. The percentage of Centre County Medicare enrollees age 65-75 receiving an annual hA1c screening is higher than the state and the nation, but decreased from the 2016 CHNA report.

A higher percentage of diabetics receive hA1c screenings, but the percentage declined from the 2016 CHNA

**Annual hA1c Screenings among Medicare Enrollees 65-75 Years  
(Green = Higher than State and National Benchmarks)**

	2016 CHNA	2019 CHNA
Centre County	88.4%	87.7%
Pennsylvania	85.8%	86.3%
United States	86.4%	85.0%

Source: Dartmouth Atlas of Health Care, 2014

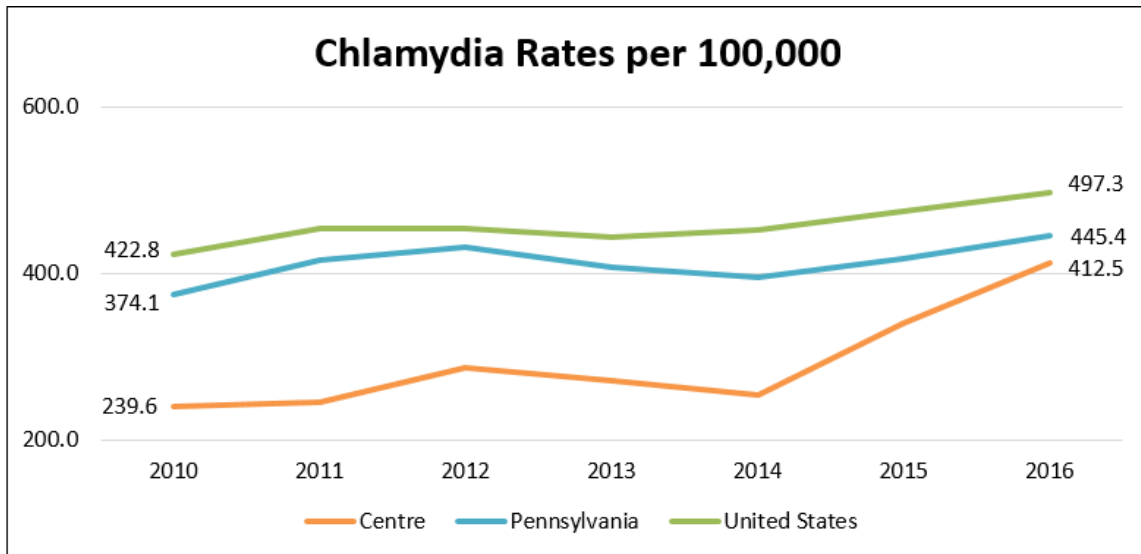
## Notifiable Diseases

### Sexually Transmitted Infections

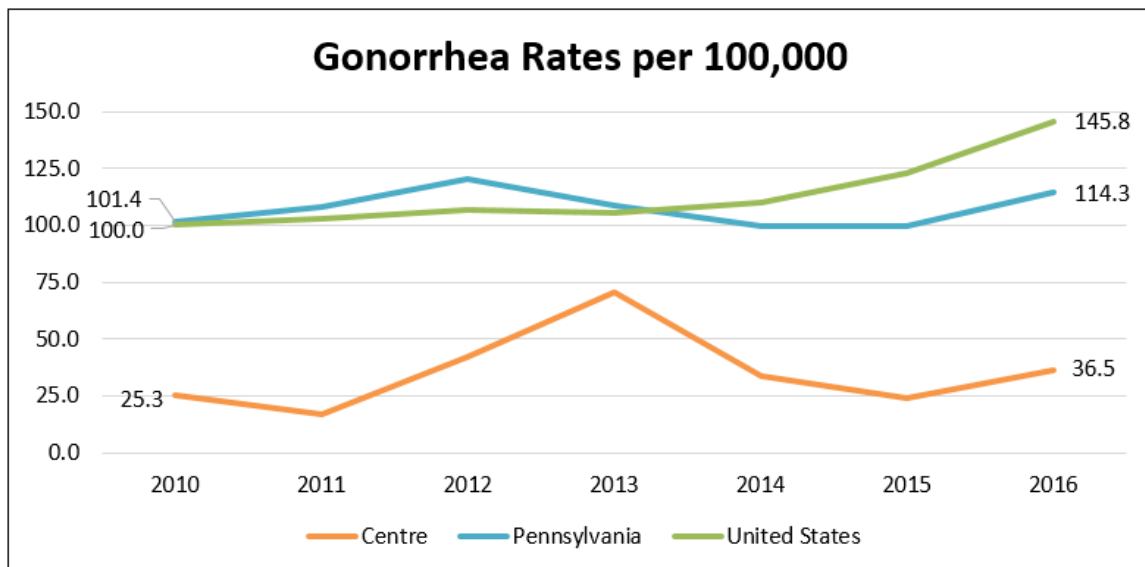
Sexually transmitted diseases (STDs) that require reporting to the CDC and state and local health bureaus upon detection include chlamydia, gonorrhea, and HIV.

Pennsylvania has a lower rate of chlamydia and gonorrhea infections than the nation. Centre County has lower rates of infection than both the state and the nation, but the chlamydia incidence rate increased 159 points from 2014 to 2016. The gonorrhea incidence rate peaked in 2013, declined through 2015, and is currently on the rise.

The Centre County chlamydia incidence rate increased 159 points from 2014 to 2016



Source: Centers for Disease Control and Prevention, 2010-2016; Pennsylvania Department of Health, 2010-2016



Source: Centers for Disease Control and Prevention, 2010-2016; Pennsylvania Department of Health, 2010-2016

Centre County also has a lower incidence of HIV compared to the state and the nation. A total of 33 cases occurred in the county between 2013 and 2016.



**HIV Incidence Rate**  
(Green = Lower than State and National Benchmarks)

	2015 Crude Incidence Rate per 100,000	Cumulative 2013-2016 Incidence Count
Centre County	5.0	33
Pennsylvania	9.1	4,705
United States	12.4	159,586

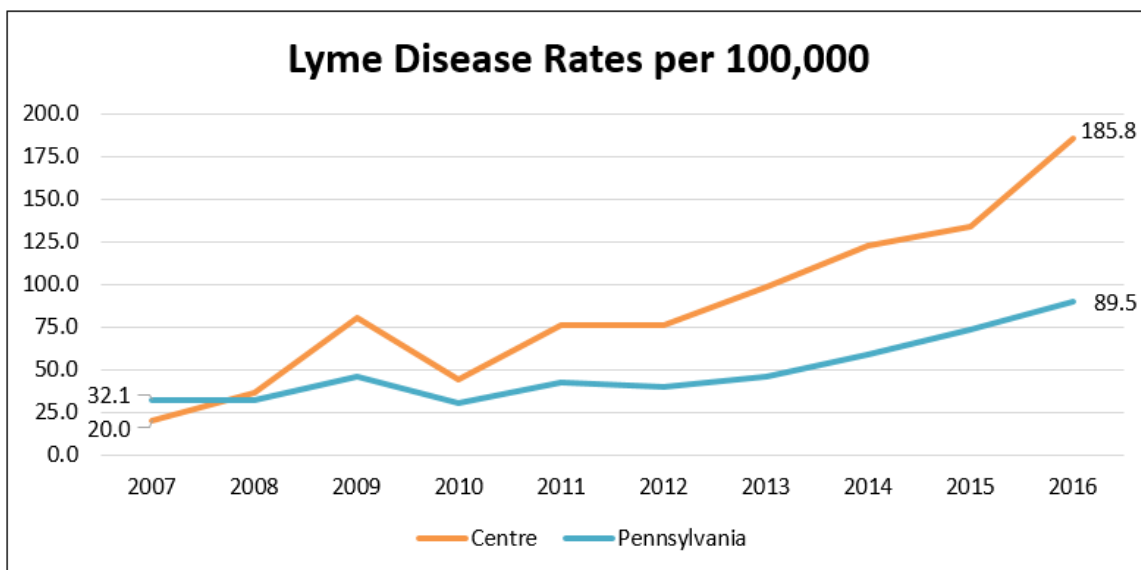
Source: Centers for Disease Control and Prevention, 2015-2016; Pennsylvania Department of Health, 2013-2016 and 2015

**Lyme Disease**

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

The incidence of Lyme disease increased across Pennsylvania and Centre County from 2010 to 2016. However, the Centre County rate increased 142 points compared to the state increase of 60 points. The 2016 Centre County rate exceeds the state rate by nearly 100 points.

The Lyme disease rate increased 142 points from 2010 to 2016 and exceeds the state rate by 100 points



Source: Pennsylvania Department of Health, 2007-2016

## 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 ( $\mu\text{g}/\text{dL}$ ) or higher to 5  $\mu\text{g}/\text{dL}$  of blood or higher. The Pennsylvania Department of Health reports blood lead levels based on the original measure. The following table depicts children between 0 and 6 years who have been tested for blood lead levels and who have lead poisoning.

Fewer Centre County children are tested for lead poisoning, but among those who are tested, 0% test positive

Children in Centre County are less likely to be tested for lead poisoning when compared to the state. Among children who are tested, 0% test positive for high levels of lead exposure.

**Lead Screening and Poisoning among Children 0 to 6 Years of Age  
(Red = Lower than State and National Benchmarks)**

	Age Group	Percent Tested for Lead Poisoning	Percent with Blood Lead Levels $\geq 10$ $\mu\text{g}/\text{dL}$
Centre County	0-2 years	20.8%	0.0%
	3-6 years	0.8%	0.0%
Pennsylvania	0-2 years	27.4%	1.2%
	3-6 years	4.4%	1.9%

Source: Pennsylvania Department of Health, 2015

## Behavioral Health and Substance Use Disorder

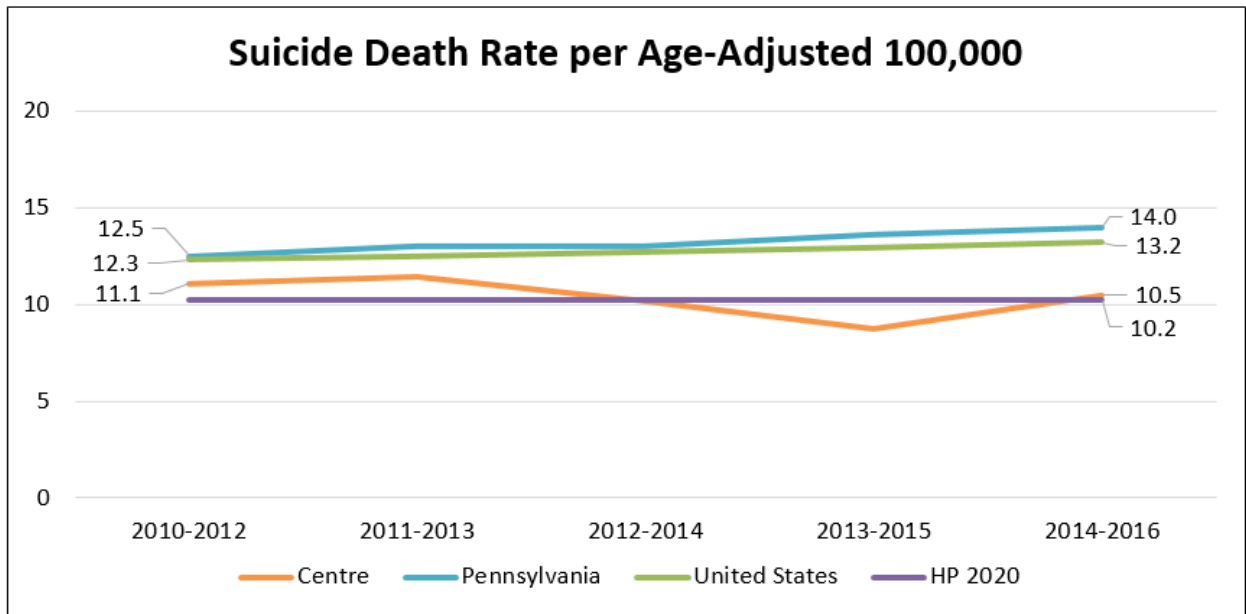
### Behavioral Health

Centre County adults report an average of four poor mental health days per month. The average is consistent with the nation and lower than the state, but increased from the 2016 CHNA reported average of three days. Poor mental health can have a negative impact on quality of life and can increase risk for death due to suicide. Centre County had 54 suicide deaths between 2014 and 2016 for a rate of 10.5 per 100,000. The death rate is lower than the state and the nation and nearly meets the Healthy People 2020 goal. The rate declined from 2011-2013 to 2013-2015, but increased through 2014-2016.

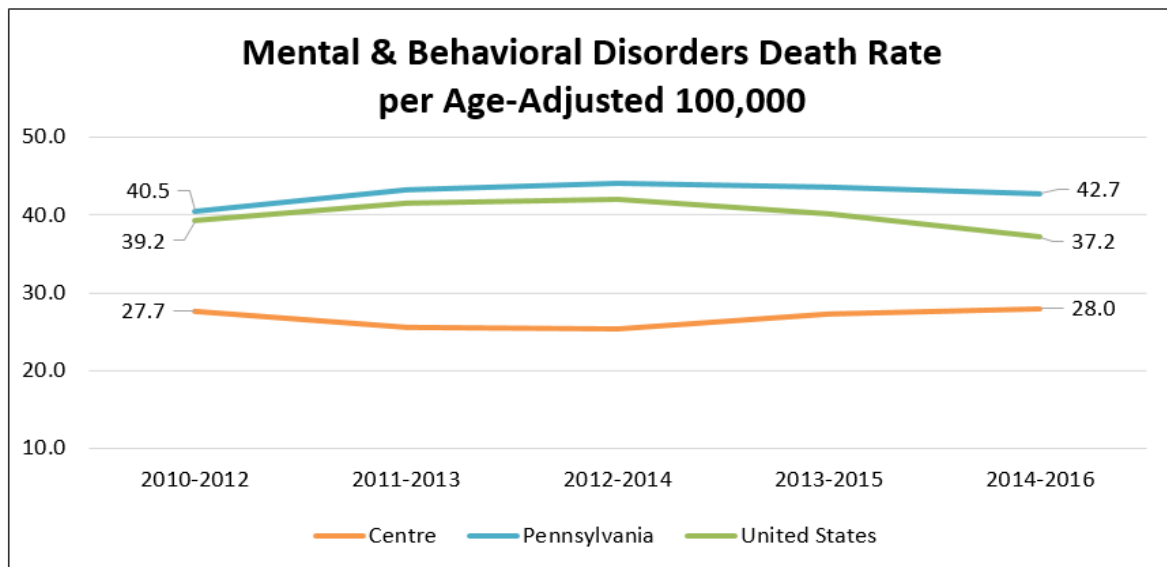
The Centre County suicide death rate nearly meets the HP 2020 goal, but accounts for 54 deaths

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 use disorder. Centre County has a lower mental and behavioral disorders death rate compared to the state and the nation. The rate remained stable over the past five reporting periods.

The mental and behavioral disorders death rate is lower than the state and the nation



Source: Centers for Disease Control and Prevention, 2010-2012 – 2014-2016



Source: Centers for Disease Control and Prevention, 2010-2012 – 2014-2016

### Substance Use Disorder

Excessive drinking includes heavy drinking (two or more drinks per day for men and one or more drinks per day for women) and binge drinking (five or more drinks on one occasion for men and four or more drinks on one occasion for women). Nearly 25% of adults in Centre County report excessive drinking, higher than the state and the nation. The percentage of driving deaths attributed to driving under the influence (DUI) is equal to the percentage of adults who report excessive drinking, but lower than the state and the nation. The percentage of DUI-related deaths declined from the 2016 CHNA report of 29%.

Nearly 1 in 4 adults in Centre County report drinking excessively, higher than the state and the nation

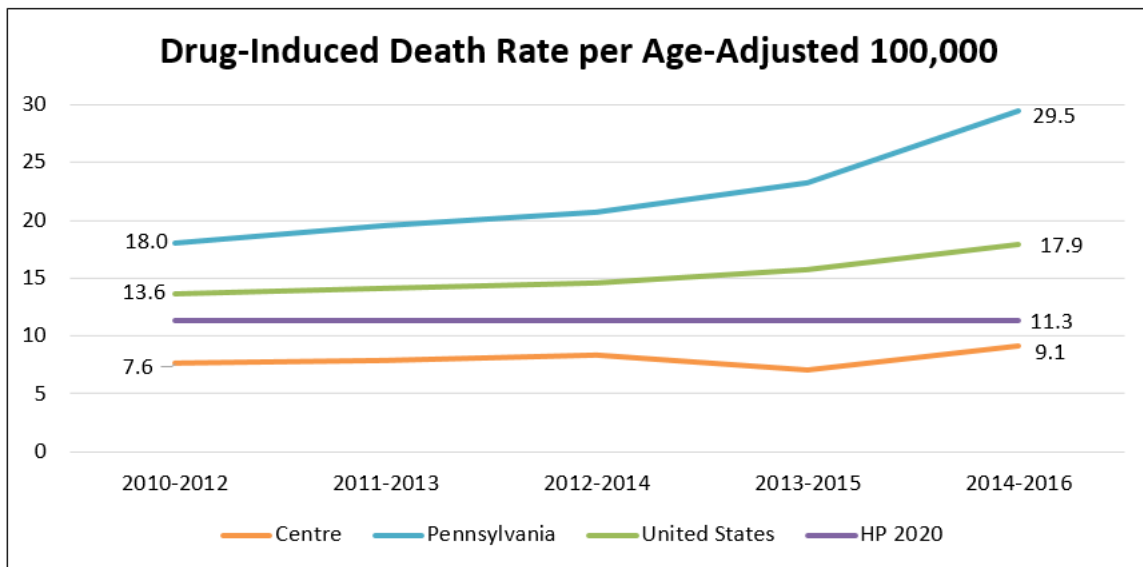
**Substance Use Disorder Measures**  
**(Red = Higher than State and National Benchmarks)**

	Excessive Drinking (Adults)	Percent of Driving Deaths due to DUI
Centre County	23.3%	23.3%
Pennsylvania	20.5%	30.1%
United States	18.0%	29.0%

Source: Centers for Disease Control and Prevention, 2016; National Highway Traffic Safety Administration, 2012-2016

Drug-induced deaths include all deaths for which drugs are the underlying cause, including drug overdoses and deaths from medical conditions resulting from chronic drug use. Pennsylvania has a higher drug-induced death rate than the nation; the death rate increased 11.5 points over the past five reporting periods. Centre County had 44 drug-induced deaths between 2014 and 2016 for a rate of 9.1 per 100,000. The death rate is lower than the state and the nation and meets the Healthy People 2020 goal, but it is slowly increasing.

The Centre County drug-induced death rate is approximately one-third of the state rate and meets the HP 2020 goal



Source: Centers for Disease Control and Prevention, 2010-2012 – 2014-2016

OverdoseFreePA, operated by the Pennsylvania Overdose Prevention 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 for Centre County, as reported by OverdoseFreePA.

Centre County experienced 11 drug-related overdose deaths in 2017 compared to 20 deaths in 2016, a 45% decrease. However, from 2017 to 2018, the number of deaths doubled. A total of 22 deaths occurred in 2018, approximately half the number of deaths that occurred in the three-year span of 2015 to 2017.

46 overdose deaths occurred in Centre County from 2015-2017; 22 deaths occurred in 2018 alone

### Centre County Drug-Related Overdose Deaths and Rates per 100,000

2015		2016		2017		2018	
Rate per 100,000	Count	Rate per 100,000	Count	Rate per 100,000	Count	Rate per 100,000	Count
9.3	15	13.0	20	7.0	11	NA	22

Source: OverdoseFreePA, 2015-2018

A total of 68 overdose deaths occurred in Centre County from 2015 to 2018. The majority of deaths were among males (62%) and individuals between the ages of 18-34 (53%).

### Overdose Death Demographics 2015-2018

	Centre County
Total Deaths	68
Gender	
Male	42
Female	26
Age Group	
0-17 years	0
18-24 years	15
25-34 years	21
35-44 years	12
45-54 years	12
55 years or over	8

Source: OverdoseFreePA, 2015-2018

According to OverdoseFreePA reporting for 2017, 9.6% of Centre County residents received a prescription for an opioid compared to 13.2% of residents statewide. A total of 2,497,920 opioid pills were dispensed to Centre County residents for an average of 15.6 pills per person. The statewide average was 32 per person. Centre County also had a lower rate of pills per patient per year (163) compared to the state (235).

Centre County residents received fewer opioid prescriptions compared to the state average

### Opioid Prescriptions among Centre County Patients

	2015	2016	2017
Patients	18,146	17,896	15,344
Prescriptions (filled)	48,833	44,263	39,196
Pills dispensed	2,914,160	2,878,378	2,497,920

Source: OverdoseFreePA, 2015-2017

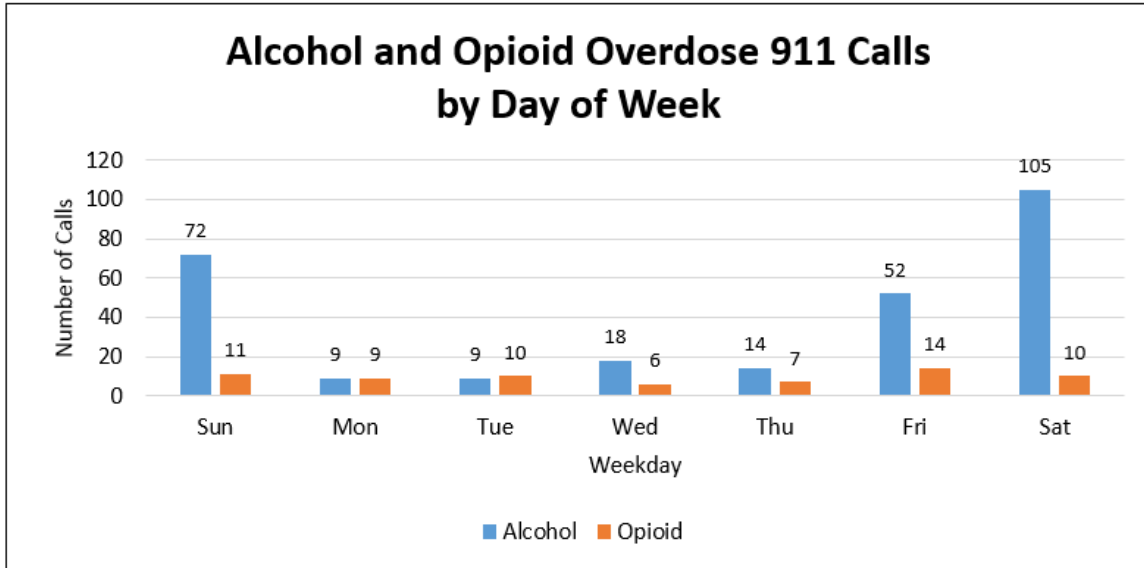
Medication Assisted Treatment (MAT), according to the Substance Abuse and Mental Health Services Administration (SAMHSA) is “the use of FDA- approved medications, in combination with counseling and behavioral therapies, to provide a ‘whole-patient’ approach to the treatment of substance use disorders.” Medication Assisted Treatment is recognized as a gold standard of care for treating opioid use disorder. There are 21 MAT providers in Centre County with an available 1,295 treatment slots.

### Medication Assisted Treatment Providers

	Centre County	Pennsylvania
MAT Providers	21	2,094
Treatment Slots	1,295	168,450

Source: OverdoseFreePA, 2015-2017

From January 2017 to April 2018, Centre County residents made 279 alcohol overdose calls and 67 opioid overdose calls to 911. Approximately 38% of alcohol-related calls were made on Saturdays. Opioid overdose calls were more evenly distributed across the week.



Source: OverdoseFreePA, January 2017 to April 2018

The majority of alcohol overdose-related 911 calls were made by State College residents. State College and Bellefonte residents had an equal number of opioid overdose-related 911 calls. Alcohol overdose patients were primarily between the ages of 19 and 24. A higher number of opioid overdose patients were between the ages of 25 and 34 indicating the calls were more likely for permanent county residents.

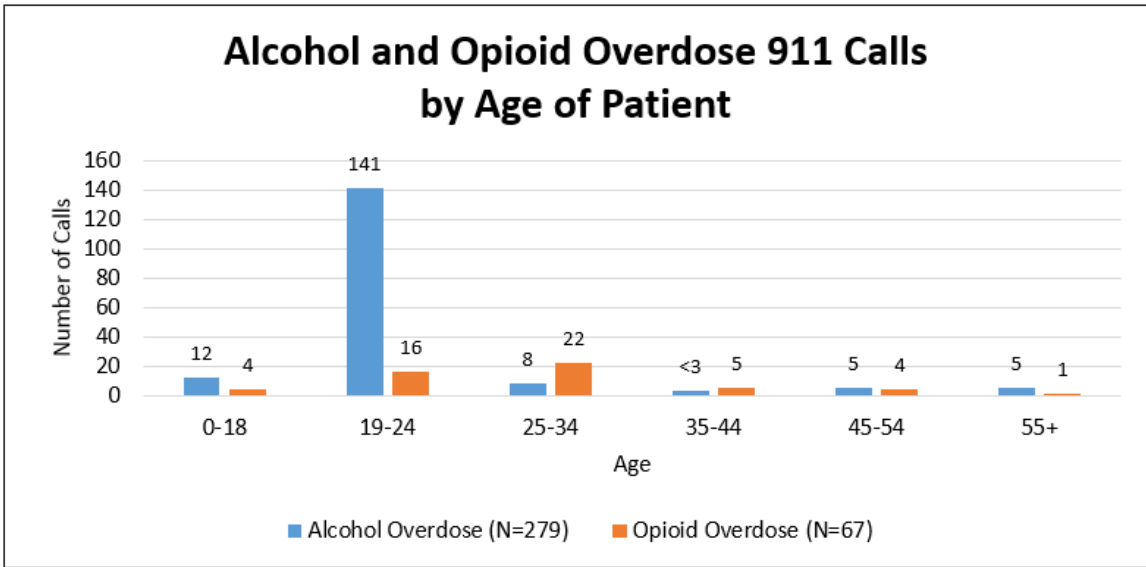
The majority of 911 calls for alcohol overdoses were made by young adults 19-24 years, while the majority of calls for opioid overdoses were made by adults 25-34 years

**Alcohol and Opioid Overdose 911 Calls by Top 3 Municipality of Residence**

Alcohol Overdose		Opioid Overdose	
Municipality	Totals	Municipality	Totals
State College	156	Bellefonte	11
Penn State Campus	85	State College	11
College Township	13	Benner Township	8

Source: OverdoseFreePA, January 2017 to April 2018

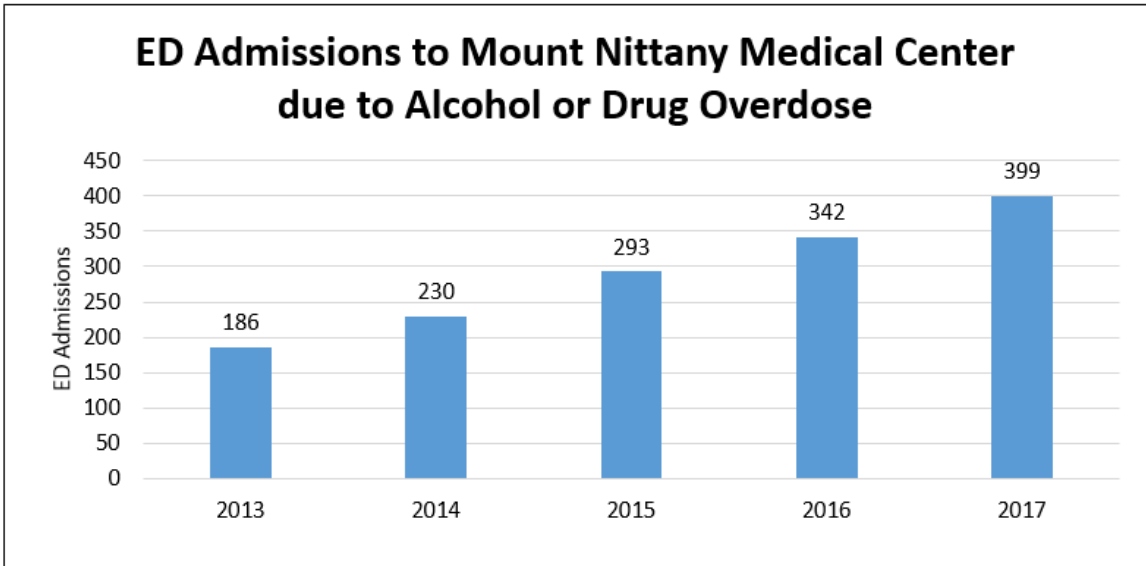




Source: OverdoseFreePA, January 2017 to April 2018

\*Note: Data are provided as available; the age of 38% of alcohol overdose patients and 22% of opioid overdose patients was unknown or unspecified.

From January 2013 to March 2018, a total of 1,518 ED admissions to Mount Nittany Medical Center were due to alcohol or drug overdoses. The number of admissions increased annually as shown in the graph below.



### Youth Behavioral Health and Substance Use Disorder

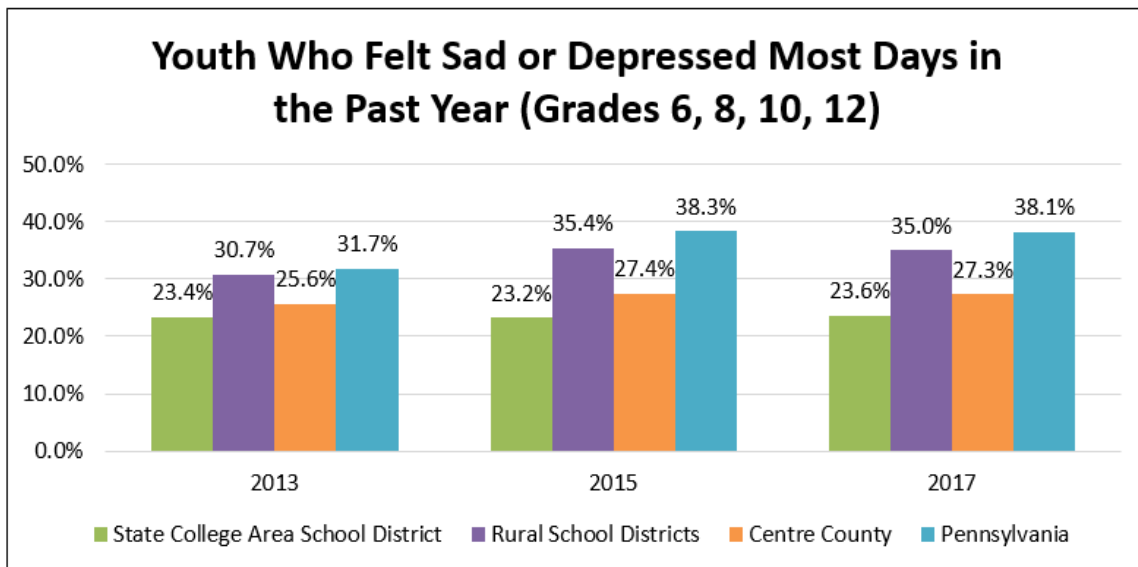
Young people who consistently feel depressed or sad may be at risk for self-harm and risky behaviors. The following figures depict the percentage of students who felt sad or depressed on most days during the past year. Across all grade levels, a lower percentage of Centre County students feel consistently sad or depressed compared to the state. However, the percentage of rural school district students who feel consistently sad or depressed is nearly 10 percentage points higher than the county overall and increased 5 percentage points from 2013 to 2017.

The percentage of rural school district students who consistently feel sad or depressed is nearly 10 points higher than the county average

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

	6 <sup>th</sup> Grade	8 <sup>th</sup> Grade	10 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Centre County	22.2%	26.7%	29.2%	31.9%
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. Alcohol and marijuana use is highest among students in grades ten and twelve compared to students in grades six and eight. The percentage of Centre County tenth grade students using alcohol or

Approximately 1 in 3 twelfth grade students report using alcohol; 1 in 5 report using marijuana

marijuana is lower than the state benchmark, but the percentage of twelfth grade students using these substances is on par with the state.

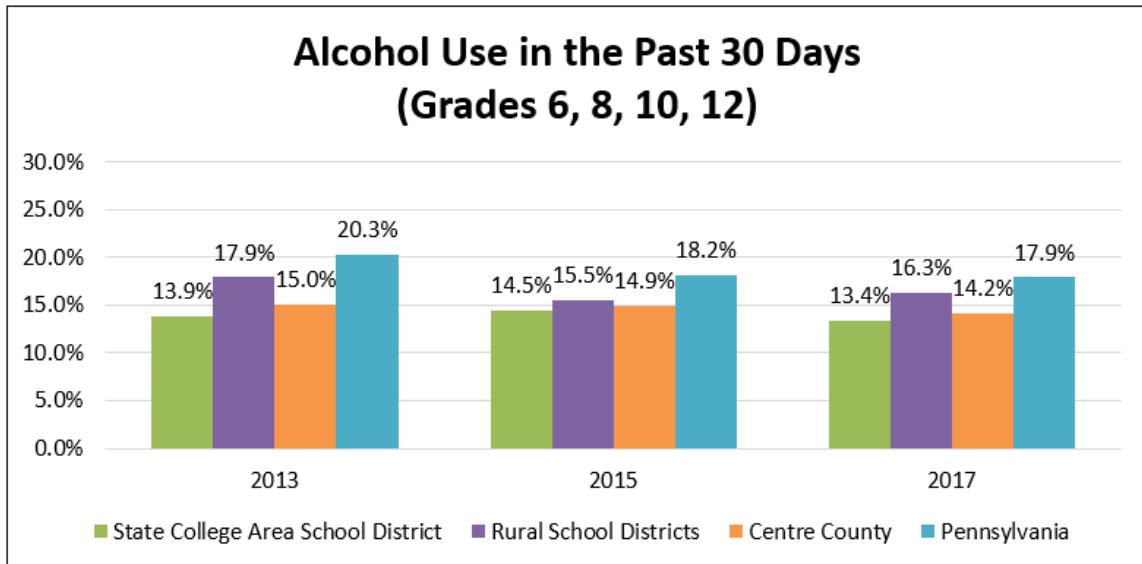
The percentage of State College Area School District students who report using alcohol is lower than county and statewide percentages and decreased from 2015 to 2017. The percentage of rural school district students who report using alcohol is higher than the county percentage and increased from 2015 to 2017. Students from both State College Area School District and rural school districts are just as likely to report using marijuana compared to the county overall.

A higher percentage of rural school district students report using alcohol compared to the county overall

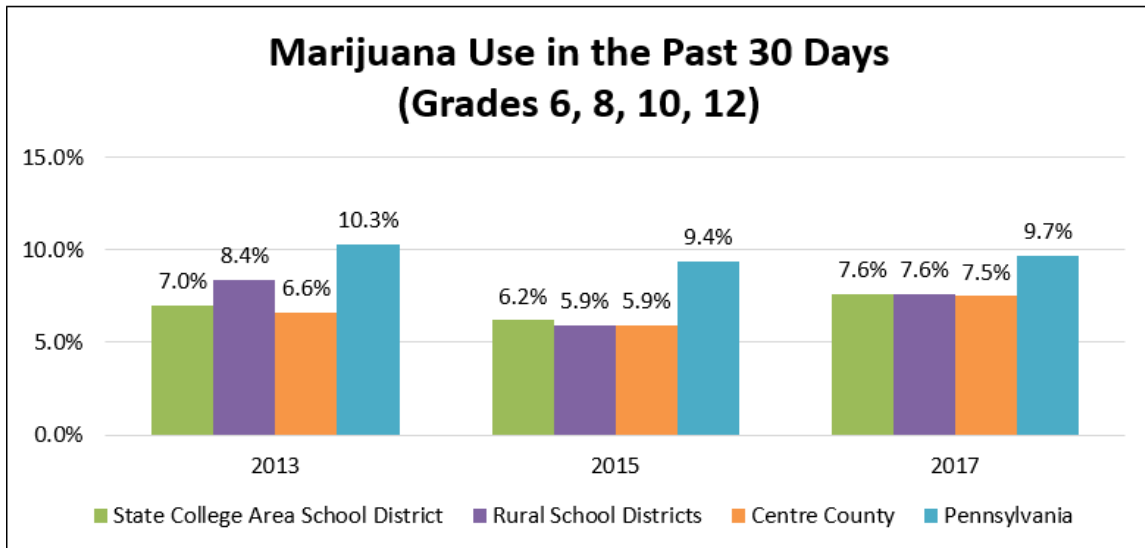
**Youth Substance Use Disorder Measures**

	6 <sup>th</sup> Grade	8 <sup>th</sup> Grade	10 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>Used Alcohol in the Past 30 Days</b>				
Centre County	1.3%	8.8%	16.8%	34.0%
Pennsylvania	3.3%	9.3%	22.3%	35.9%
<b>Used Marijuana in the Past 30 Days</b>				
Centre County	0.2%	3.2%	9.4%	19.3%
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

### Children's Advocacy Center

The mission of the Children's Advocacy Center of Centre County, MNH, is to meet the needs of the children and families in our community by providing a community-based, child-focused center that facilitates a compassionate, multi-disciplinary approach to the prevention, identification, intervention, and treatment of child abuse. The Children's Advocacy Center is a safe and comfortable place where children come to talk with a specially trained interviewer about possible abuse or crimes they may have witnessed. The Children's Advocacy Center receives referrals from child protective services or law enforcement if there is concern that a child is an alleged victim or witness of a crime.

The table below shows the total number of Children's Advocacy Center cases by fiscal year, including the number of interviews and physical exams conducted as they relate to physical or sexual abuse. The Children's Advocacy of Centre County fully opened on February 21, 2014, and saw 75 cases in its first few months of operation. The number of cases increased to over 400 in FY 2015 and FY 2016, but declined through FY 2018. In all fiscal years, the majority of cases and resulting interviews and/or exams were related to sexual abuse.

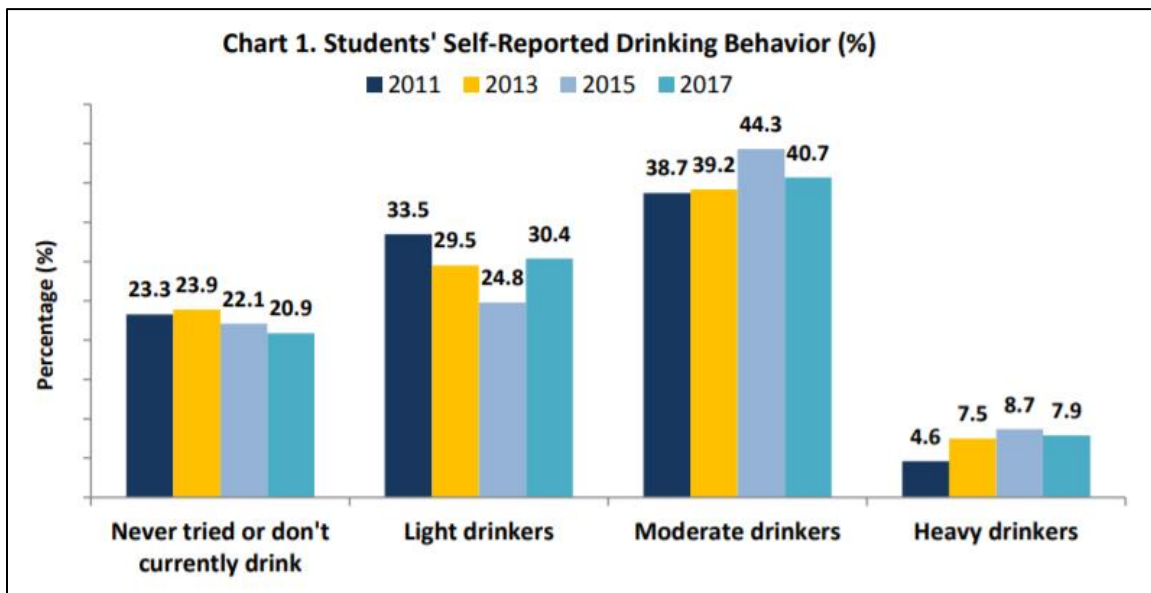
### Children's Advocacy Center Cases by Fiscal Year

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2014 - FY 2018 Total
Cases	75	405	404	350	249	1,483
Interview Total	60	368	369	293	205	1,295
Sexual Abuse Interview	52	306	299	239	156	1,052
Physical Abuse Interview	8	56	65	54	49	232
Physical Exam Total	41	264	286	226	182	999
Sexual Abuse Exam	35	228	240	183	139	825
Physical Abuse Exam	6	36	46	43	43	174
Colposcopy Totals	0	97	100	62	40	299

**Penn State University**

The Penn State University enrolls approximately 46,000 undergraduate students. Every two years, The Partnership – Campus and Community Against Dangerous Drinking conducts a survey of drinking behaviors among Penn State students. According to the 2017 report, 79% of students drink alcohol, an increase from 2015. Approximately 41% of students are moderate drinkers and 8% are heavy drinkers. Approximately 70% of students reported drinking on Friday and/or Saturday nights. On both nights, students consumed an average of four drinks.

79% of Penn State students report drinking alcohol, an increase from 2015



Source: The Partnership – Campus and Community Against Dangerous Drinking, 2011-2017

**Nightly Alcohol Use During a Typical Week**

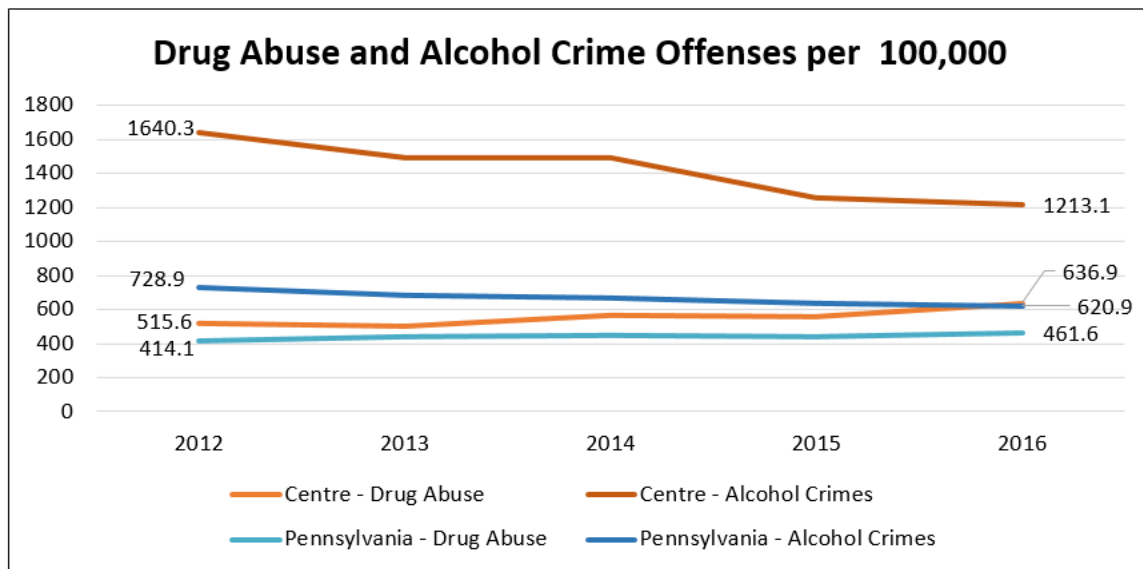
	2011	2013	2015	2017
Friday	69.6%	66.3%	70.0%	70.5%
Saturday	69.2%	66.6%	70.0%	67.4%

Source: The Partnership – Campus and Community Against Dangerous Drinking, 2011-2017

## Crime

The following graph depicts the rate of drug and alcohol offenses in Centre County over the past five years compared to the state. Centre County has a higher rate of offenses for both drug abuse and alcohol crimes compared to the state. The alcohol offense rate is nearly double the state rate, but declined from 2012 to 2016. The drug abuse offense rate increased nearly 50 points. Note: Alcohol crimes include DUI, drunkenness, and liquor laws. Liquor laws include all offenses related to alcohol, including unlawful manufacturing or sales and consumption by a minor.

Centre County has a higher rate of drug and alcohol offenses than the state; the drug offense rate increased



Source: Pennsylvania Uniform Crime Reporting System, 2012-2016

\*Alcohol crimes include DUI, drunkenness, and liquor laws.

## Centre County Community Partner Data

### Centre Helps

The Centre Helps 24-hour hotline received 7,033 calls in 2017. Of the total calls, 685 were related to substance use disorder and 889 were related to mental/emotional health. In October 2018, Centre Helps became a call center for the National Suicide Prevention Lifeline, accepting calls directly from Centre County residents. The National Suicide Prevention Lifeline received approximately 60 calls per month by Centre County residents.

### Centre County Can Help

Centre County Can Help is a collaboration between Centre County Mental Health and The Meadows Psychiatric Center to meet the Pennsylvania Department of Human Services expectations that the county provide mental health hotline services and intervention to meet the needs of residents. This collaboration began in 1994 and consists of a 24/7 crisis line, community mobile intervention, and walk-in services.

Crisis Intervention's role is to provide supportive counseling, triage and referral, as well as mental health and/or drug and alcohol education and prevention. The volume of calls and interventions provided by the service fluctuates based on community supports. The following table reflects the access point of the services. The majority of cases were served via telephone, but need for community-based mobile services increased. In 2017, of the total mobile/walk-in cases, 12.8% were Pennsylvania State University students.

**Crisis Intervention Volume by Access Point and Year**

	Telephone Volume	Walk-In Volume	Mobile Volume
2013	81.9%	2.0%	16.1%
2014	77.8%	1.4%	20.8%
2015	80.3%	1.3%	18.4%
2016	72.8%	1.5%	25.7%
2017	74.7%	1.1%	24.2%

The following table represents the age breakdown of individuals accessing Can Help services. The majority of individuals accessing services are between the ages of 18-59, but over the last two years, there was an increase in utilization by individuals ages 6-13 and 13-18.

**Crisis Intervention Volume by Age**

	Mobile Unit	Walk-In
5 years or younger	1.0%	2.8%
6-13 years	13.8%	12.6%
13-17 years	19.4%	12.6%
18-59 years	56.2%	63.3%
60 years or over	9.3%	8.4%

The following table depicts whether clients seen via mobile or walk-in services were admitted to inpatient mental health treatment or referred to outpatient levels of care to include therapy, partial hospitalization, substance use disorder services, family based



treatment, etc. Referral to outpatient care is typically indicative of the need for less intensive service.

**Crisis Intervention Volume by Need for Inpatient vs. Outpatient Care**

	Mobile Unit	Walk-In
Inpatient Admits	38.6%	50.6%
Outpatient Deflections	61.4%	49.4%

Centre County Crisis Intervention Team (CIT)

The goals of CIT are:

- To improve interactions between law enforcement and persons with mental illness;
- To prevent the inappropriate restraint, incarceration, and stigmatization of persons with mental illness;
- To reduce injury to officers, family members, and individuals in crisis; and
- To link individuals with mental illness to appropriate treatment and resources in the community.

In 2017, CIT trained officers tracked 677 crisis-related calls. Of the 677 calls, 265 or 39% were related to suicide, including 78 suicide attempts. The following table depicts the demographics of the individuals served by CIT officers.

**2017 CIT Response Demographics**

	Centre County
Total Crisis-Related Calls	677
Gender	
Male	55.5%
Female	44.5%
Population	
Penn State Student	28.5%
Homeless	11.5%
Juvenile	7.5%
Veteran	2%
Age	
Under 14 years	2%
14-17 years	5%
18-25 years	41%
26-30 years	12%
31-40 years	16%
41-50 years	6%
51-60 years	11%
61 years or over	6%

Centre County Mental Health

Centre County Mental Health, a department of the county government, received a total of 738 resident calls in FY2017-2018 for mental health services, an average of 62 calls per month. The department serves residents ages three or older. Approximately 15% of the service calls were for youth, 70% were for adults ages 18 to 59, and 15% were for adults ages 60 or over. The department serves approximately 215 people in Targeted Case Management and about 300 people in Administrative Case Management. Both units provide service linkage, coordination, monitoring, and support.

Centre County Drug & Alcohol Planning Council Single County Authority

The Centre County Single County Authority (SCA) conducted a needs assessment estimating the number of individuals in the county who may have a substance use disorder. The following table includes an estimate by age based on data available from the 2015 and 2016 National Survey on Drug Use and Health (NSDUH).

**Estimates of the Prevalence of Substance Use Disorders**  
**Based on 2015 and 2016 National Survey on Drug Use and Health (NSDUH),**  
**2016 County Population Estimates**

	Total 2016 Population	Age 12+	Age 12-17	Age 18-25	Age 26+
		Prevalence (Rate=7.44%)	Prevalence (Rate=3.55%)	Prevalence (Rate=16.61%)	Prevalence (Rate=6.42%)
Centre County	161,464	10,811	298	9,552	6,102
Pennsylvania	12,784,227	821,502	33,034	363,120	561,628

The SCA identified the following emerging substance use disorder issues:

- For individuals seeking inpatient treatment services of the SCA, heroin/opiates continue to surpass alcohol as the drug of choice. In 2017, 44% of individuals seeking residential treatment reported heroin or opiates as their drug of choice, 27% reported alcohol as drug of choice, and 29% reported other drugs. Other drug use includes marijuana and methamphetamines.
- For individuals seeking outpatient treatment services of the SCA, alcohol continues to be the drug of choice though all three outpatient treatment providers continue to see more individuals reporting drug use as primary.
- Student Assistance screenings have continued to be high at 98% for all five school districts. Liaisons report an increase in the number of students who are being referred on for further mental health assessment. This adds to the concerns seen in the PAYS data specific to patterns of depression. Centre County continues to struggle to engage parents in the student assistance process, which suggests that there may be even more students who are in need of services who are not being referred.

During 2017, the SCA completed 337 assessments at the request of the Centre County Court of Common Pleas and the Centre County Probation and Parole office. This number has held steady for the past several years. Of those assessed, 91% met Pennsylvania Client Placement Criteria for either inpatient or outpatient treatment. While the number of assessments completed is comparable to previous reports, the number of individuals meeting criteria for substance use disorder treatment has gone up from the previous period (up from 86%).

## 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 the region’s senior population.

### Chronic Conditions

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 Centre County Medicare Beneficiaries who have been diagnosed with a chronic condition.

Approximately 70% of Centre County Medicare beneficiaries 65 years or over have two or more chronic conditions, similar to the state percentage. The most commonly diagnosed chronic condition among Medicare beneficiaries is hypertension, followed by high cholesterol and arthritis. Consistent with the 2016 CHNA, Centre County Medicare beneficiaries have a higher prevalence of asthma and depression when compared to state and national benchmarks. Other conditions are on par or lower than the state and nation.

Approximately 70% of senior Medicare beneficiaries manage 2 or more chronic conditions

**Number of Chronic Conditions among Medicare Beneficiaries 65 Years or Over**

	Centre County	Pennsylvania	United States
0 to 1 condition	28.8%	28.5%	32.3%
2 to 3 conditions	31.5%	31.1%	30.0%
4 to 5 conditions	22.2%	22.9%	21.6%
6 or more conditions	17.5%	17.6%	16.2%

Source: Centers for Medicare & Medicaid Services, 2015

**Chronic Condition Diagnoses among Medicare Beneficiaries 65 Years or Over  
(Red = Higher than State and/or National Benchmarks by Two or More Points)**

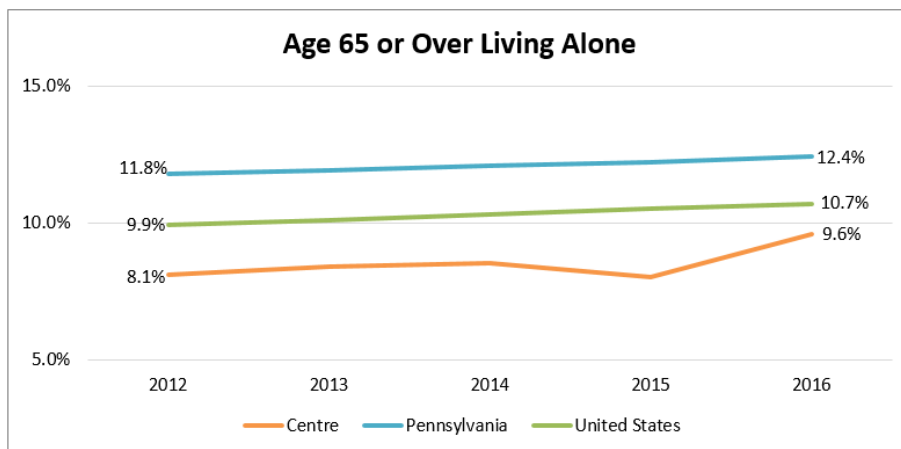
	Centre County	Pennsylvania	United States
Alzheimer’s Disease	11.0%	11.8%	11.3%
Arthritis	32.7%	33.5%	31.3%
Asthma	9.9%	7.8%	7.6%
Cancer	10.0%	9.8%	8.9%
COPD	10.8%	11.0%	11.2%
Depression	16.1%	14.9%	14.1%
Diabetes	25.7%	26.5%	26.8%
Heart Failure	13.4%	14.7%	14.3%
High Cholesterol	51.5%	53.0%	47.8%
Hypertension	58.5%	61.0%	58.1%
Ischemic Heart Disease	25.8%	30.2%	28.6%
Stroke	4.0%	4.9%	4.2%

Source: Centers for Medicare & Medicaid Services, 2015

**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. In Pennsylvania, seniors are more likely to live alone than seniors across the nation, and the percentage is increasing. A lower percentage of Centre County seniors live alone compared to the state and the nation, but the percentage is also increasing.

Fewer seniors live alone compared to the state and the nation, but the percentage is increasing



Source: US Census Bureau, 2012-2016

### Assistance with Activities of Daily Living (ADL)

Chronic conditions and related disabilities can lead to limitations in activities of daily living. Approximately 5% of older adults in Pennsylvania have difficulty dressing or bathing, 25% have difficulty walking or climbing steps, and 5% have difficulty with vision. Older adults in the Centre County reporting region are less likely to have these limitations, as demonstrated in the table below.

#### Adults 65 Years or Over Requiring Assistance with ADLs

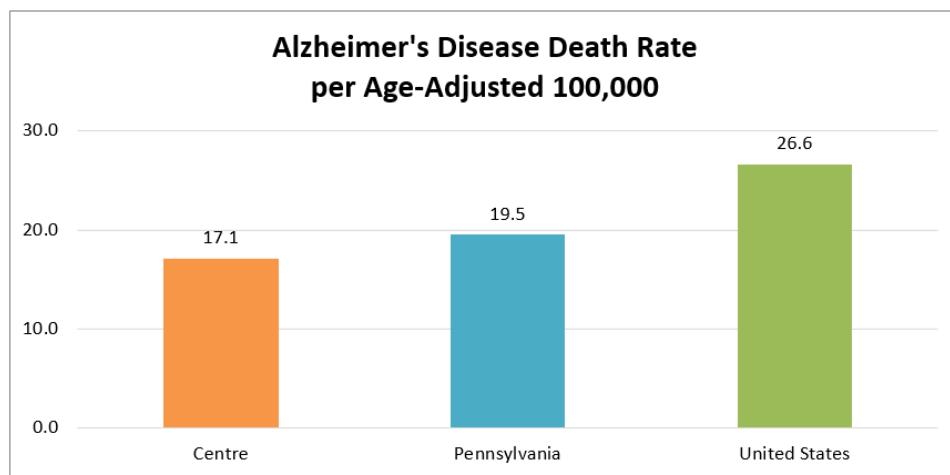
	Have Difficulty Dressing or Bathing	Have Serious Difficulty Walking or Climbing Stairs	Blind or Serious Difficulty Seeing, Even with Glasses
BRFSS Reporting Region: Centre/ Columbia/ Montour/ Northumberland/ Snyder/Union	3%	22%	4%
Pennsylvania	5%	25%	5%

Source: Pennsylvania Department of Health, 2014-2016

### Alzheimer's Disease

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

Approximately 11% of Centre County Medicare beneficiaries have an Alzheimer's disease diagnosis, consistent with the state and the nation. The Centre County age-adjusted death rate due to Alzheimer's disease is lower than state and national rates.



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

## 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. Approximately 78% of people aged 65 and older in Centre County received a pneumonia vaccine, exceeding the state average.

### Adults 65 Years or Over Who Received a Pneumonia Vaccination

	Ever Received a Pneumonia Vaccination
BRFSS Reporting Region: Centre/Columbia/Montour/Northumberland/Snyder/Union	78%
Pennsylvania	72%

Source: Pennsylvania Department of Health, 2014-2016

## Nursing Home Facilities

The availability of nursing home facilities in Centre County remained largely unchanged from the 2016 CHNA. The county has six nursing homes with a combined 715 licensed beds. All of the licensed beds are Medicare-certified and 517 beds (three nursing homes) are Medicaid-certified. The rate of licensed beds per 1,000 population age 65 years or over decreased slightly from the 2016 CHNA report, while the average occupancy rate increased.

### Centre County Nursing Home Availability

	2016 CHNA	2019 CHNA
Total Nursing Homes	6	6
Licensed Beds	706	715
Average Occupancy Rate	88.2%	92.5%

Source: Pennsylvania Department of Health Department of Health, 2012 and 2016

## Maternal and Infant Health

### Total Births

The birth rate for Centre County is nearly six points lower than the state rate. The majority of births in the county are to White mothers, however, a larger percentage of births are to Asian/Pacific Islander mothers. Less than 3% of births are to Black/African American or Hispanic/Latino mothers.

10% of Centre County births are to Asian/Pacific Islander mothers compared to 5% statewide

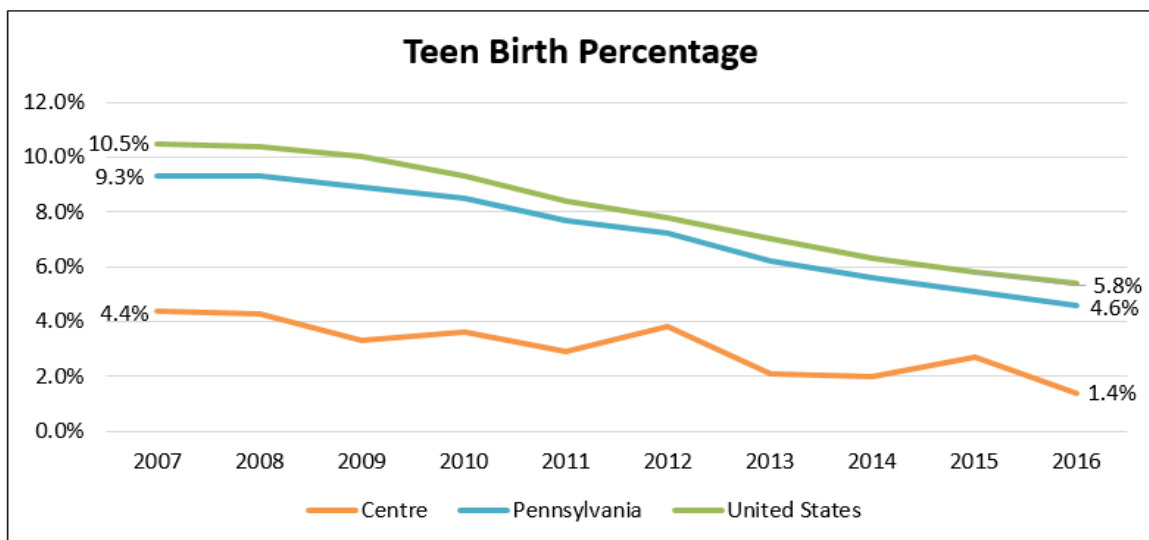
**2016 Centre County Births by Race and Ethnicity**

	Total Births	Birth Rate per 1,000	White Birth Percentage	Asian/Pacific Islander Birth Percentage	Black/African American Birth Percentage	Hispanic/Latino Birth Percentage
Centre County	1,210	15.8	85.0%	10.0%	2.1%	2.7%
Pennsylvania	139,356	21.4	70.3%	4.6%	13.7%	11.0%

Source: Pennsylvania Department of Health, 2016

### Teen Births

The percentage of births to teenagers declined across the state and in Centre County. The county has a lower teenage birth percentage compared to the state and the nation.



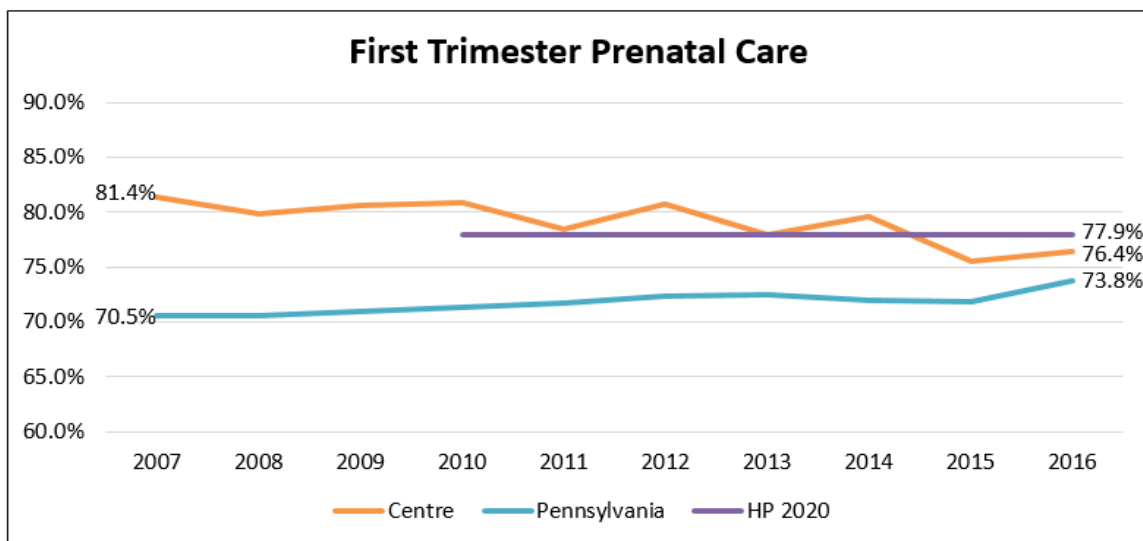
Source: Centers for Disease Control and Prevention, 2007-2016; Pennsylvania Department of Health, 2007-2016



## 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. Centre County nearly meets the Healthy People 2020 goal for mothers accessing early prenatal care, but the percentage declined five percentage points from 2007 to 2016.

The percentage of mothers accessing care in the first trimester declined five percentage points from 2007 to 2016



Source: Pennsylvania Department of Health, 2007-2016; Healthy People 2020

The following municipalities within Centre County do not meet the Healthy People 2020 goal for mothers receiving first trimester prenatal care by more than five percentage points. Municipalities are presented in ascending order by percentage of mothers receiving first trimester prenatal care. All municipalities except Unionville Borough were also identified during the 2016 CHNA.

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

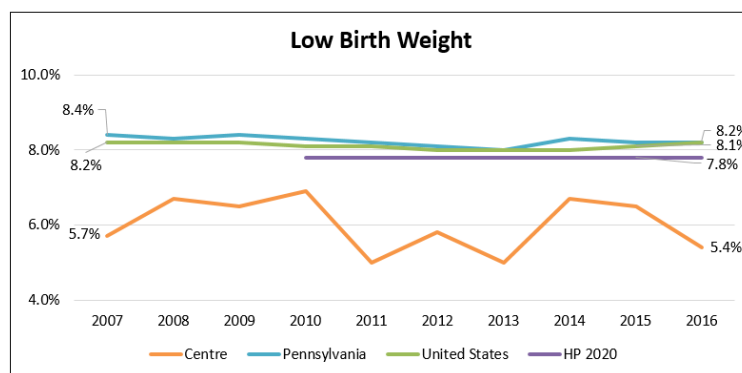
Municipality	First Trimester Prenatal Care	Total Births
Haines Township	26.4%	145
Miles Township	29.4%	192
Howard Borough	51.4%	38
Penn Township	57.6%	88
Marion Township	62.9%	63
Unionville Borough	63.6%	22
Gregg Township	65.3%	121
Curtin Township	66.7%	15

Source: Pennsylvania Department of Health, 2012-2016

### Low Birth Weight

Low birth weight is defined as a birth weight of less than 5 pounds, 8 ounces. Low birth weight is often a result of premature birth, fetal growth restrictions, or birth defects and can be associated with a variety of negative birth outcomes. Centre County meets the Healthy People 2020 goal for low birth weight infants. The percentage of low birth weight babies has been variable over the past decade, but consistently lower than state and national benchmarks.

The percentage of low birth weight babies born in Centre County meets the HP 2020 goal



Source: Pennsylvania Department of Health, 2007-2016; Healthy People 2020

The following municipalities within Centre County do not meet the Healthy People 2020 goal for low birth weight babies by more than three percentage points. Municipalities are presented in descending order by percentage of low birth weight babies. All municipalities except Unionville Borough and Worth Township were also identified during the 2016 CHNA.

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

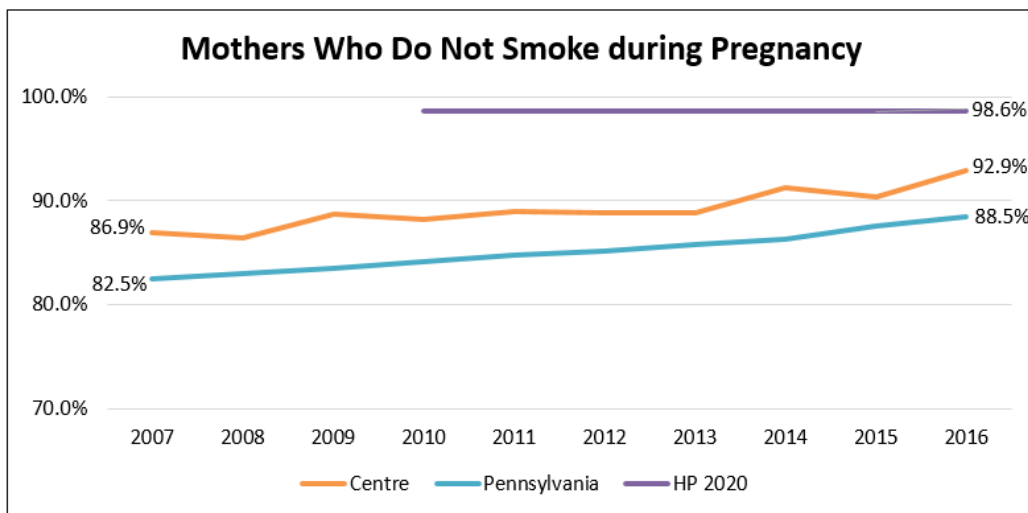
Municipality	Low Birth Weight	Total Births
Unionville Borough	13.6%	22
Port Matilda Borough	13.5%	52
Worth Township	13.2%	38
Huston Township	13.1%	84
Snow Shoe Township	11.9%	67
Snow Shoe Borough	11.8%	34

Source: Pennsylvania Department of Health, 2012-2016

**Smoking during Pregnancy**

Smoking during pregnancy is associated with a variety of negative birth outcomes, including low birth weight. Healthy People 2020 set a goal of reducing the number of pregnant women who smoke to 1.4%. Centre County does not meet the Healthy People 2020 goal, but the percentage of smoking mothers is less than the statewide percentage and decreased from 2007 to 2016.

The percentage of pregnant mothers who do not smoke increased six percentage points from 2007 to 2016

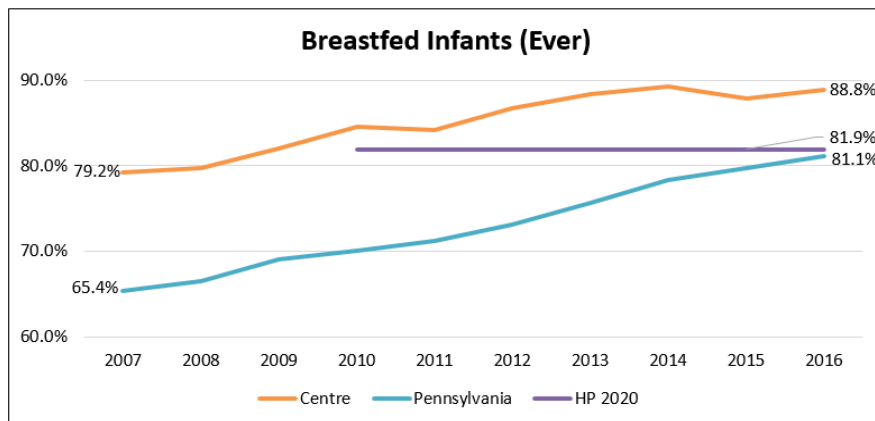


Source: Pennsylvania Department of Health, 2007-2016; Healthy People 2020

## Breastfeeding

Breastfeeding is recommended to ensure healthy nutritional intake for babies and to promote bonding between mother and child. Healthy People 2020 set a target for 81.9% of all infants to have initiated breastfeeding at the time of delivery discharge. Centre County meets the Healthy People 2020 target; the percentage of breastfeeding mothers increased nearly 10 percentage points from 2007 to 2016.

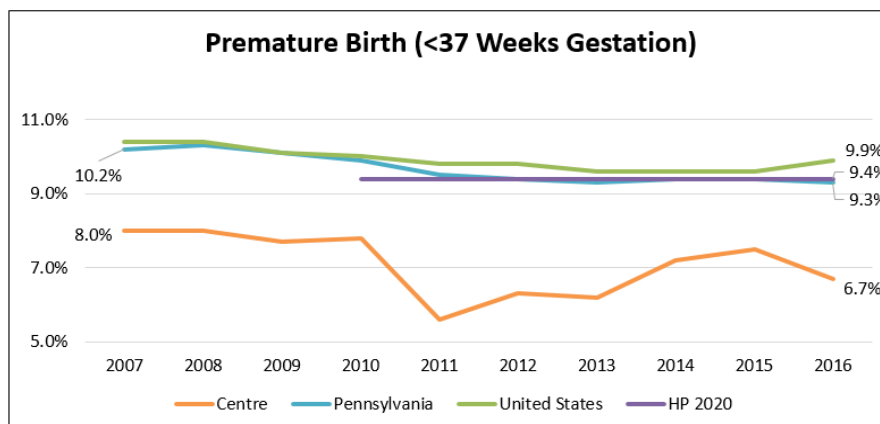
The percentage of mothers who initiated breastfeeding increased 10 percentage points from 2007 to 2016



Source: Pennsylvania Department of Health, 2007-2016; Healthy People 2020

## Preterm Birth

Preterm birth is defined as birth before 37 weeks of pregnancy, and can contribute to infant death or disability. Centre County has historically met the Healthy People 2020 goal for preterm birth. The percentage of preterm births declined 1.3 points from 2007 to 2016.



Source: Centers for Disease Control and Prevention, 2007-2016; Pennsylvania Department of Health, 2007-2016; Healthy People 2020

## Maternal and Child Health Disparities

Maternal and child health indicators are presented in the table below by race and ethnicity. In Centre County, the percentage of Black/African American and Hispanic/Latina mothers receiving first trimester prenatal care is 10-13 points lower than the percentage for White mothers receiving care. However, a similar or higher percentage of Black/African American and Hispanic/Latina mothers abstain from smoking during pregnancy and initiate breastfeeding. Birth outcomes related to low birth weight and preterm birth are not reported due to low counts.

The percentage of Black/African American and Hispanic/Latina mothers receiving first trimester care is 10-13 points lower than the percentage among White mothers

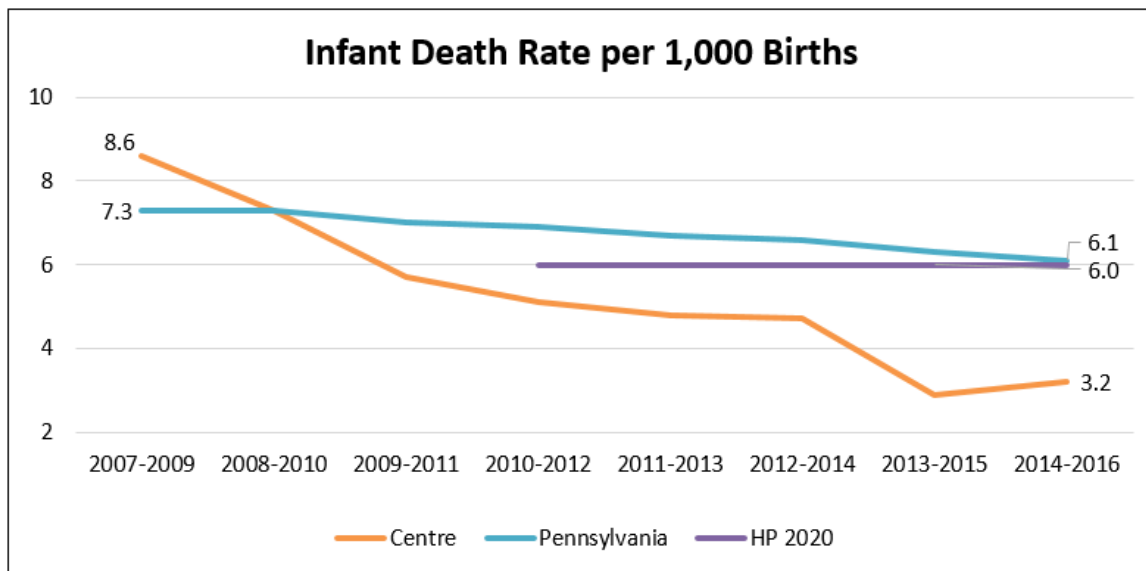
### Maternal and Child Health Indicators by Race and Ethnicity

	Centre County	Pennsylvania
<b>Mothers Who Receive First Trimester Care</b>		
Total Population	76.4%	73.8%
White	76.8%	77.5%
Asian/Pacific Islander	76.5%	72.8%
Black/African American	65.4%	63.0%
Hispanic/Latina	63.6%	64.7%
<b>Low Birth Weight Infants</b>		
Total Population	5.4%	8.2%
White	5.3%	6.9%
Asian/Pacific Islander	NA (n=5)	8.7%
Black/African American	NA (n=3)	13.9%
Hispanic/Latina	NA (n=5)	9.0%
<b>Mothers Who Do Not Smoke During Pregnancy</b>		
Total Population	92.9%	88.5%
White	92.0%	86.8%
Asian/Pacific Islander	100.0%	99.1%
Black/African American	92.3%	90.9%
Hispanic/Latina	93.5%	93.7%
<b>Mothers Who Breastfeed</b>		
Total Population	88.8%	81.1%
White	87.7%	81.7%
Asian/Pacific Islander	98.1%	91.4%
Black/African American	84.6%	74.8%
Hispanic/Latina	90.9%	80.1%
<b>Preterm Births</b>		
Total Population	6.7%	9.3%
White	6.9%	8.5%
Asian/Pacific Islander	NA (n=5)	8.3%
Black/African American	NA (n=3)	13.2%
Hispanic/Latina	NA (n=3)	9.9%

Source: Pennsylvania Department of Health, 2016; Healthy People 2020

Maternal and child health indicators and disparities impact infant death rates. Centre County meets the Healthy People 2020 goal for infant death. The county death rate declined more than five points from 2007-2009 to 2014-2016.

Death rates by race and ethnicity are not reported for Centre County due to low counts. Across the state for 2014-2016, death rates were highest among Blacks/African Americans (13.6 per 1,000 live births) and Hispanics/Latinas (7.0 per 1,000 live births) compared to Whites (4.6 per 1,000 live births).



Source: Pennsylvania Department of Health, 2007-2016; Healthy People 2020

Secondary data findings were analyzed as part of the 2019 CHNA to inform health priorities for Centre County. Secondary data is valuable for tracking and benchmarking community health status indicators, as well as for identifying emerging community needs. The following sections analyze primary data findings for Centre County, as well as utilization data for Mount Nittany Medical Center, taking into account broad stakeholder input.

## Key Informant Survey

### Background

A Key Informant Survey was conducted to solicit information about community health needs. A total of 98 individuals responded to the survey, including health and social service providers; community and public health experts; civic, religious, and social leaders; community planners; policy makers and elected officials; and others representing diverse populations including minority, low-income, and other underserved or vulnerable populations.

These “key informants” were asked a series of questions about their perceptions of community health including health drivers, barriers to care, community infrastructure, and recommendations for community health improvement.

### Survey Participants

Nearly three-quarters of key informants indicated that they served residents of all ages. Among informants who served specific age groups, young and middle-age adults were the most commonly served. A list of the represented community organizations and the key informants’ respective roles/titles are included in Appendix A. Key informant names are withheld for confidentiality.

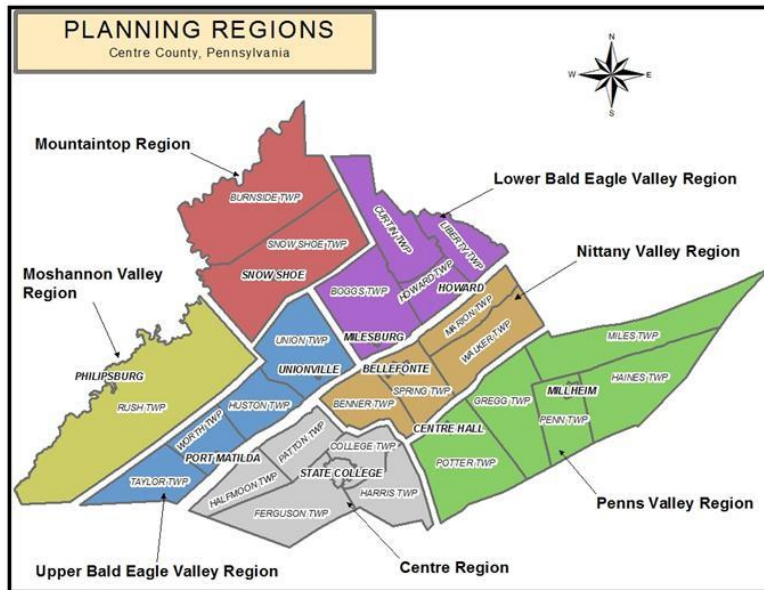
**Age Groups Served by Key Informants**

	Percent of Informants*	Number of Informants
Serve all ages	71.4%	70
Young adults (ages 18-35)	21.4%	21
Middle-age adults (ages 36-55)	21.4%	21
Older adults (ages 56 or over)	20.4%	20
Teenagers (ages 13-17)	13.3%	13
Young children (ages 4-12)	10.2%	10
Infants or toddlers (ages 0-3)	2.0%	2

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

## Health Perceptions

Key informants were asked to rate the overall health status of residents for all of Centre County and by county region using a scale of (1) “poor” to (5) “excellent.” Centre County is comprised of seven planning regions, as shown on the map below.

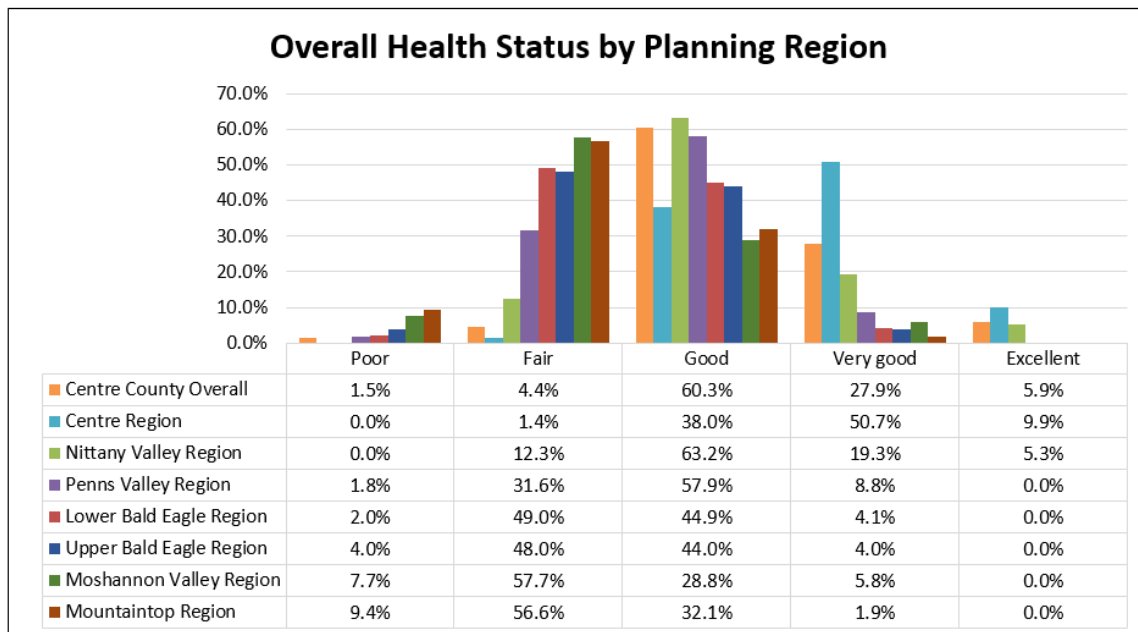


Approximately 60% of informants indicated that Centre County residents have “good” health status, and 34% indicated that residents have “very good” or “excellent” health status. Perceived health status by region varied widely with better outcomes observed in the Centre Region compared to other rural regions. Nearly 61% of informants indicated that residents of the Centre Region have “very good” or “excellent” health status compared to 25% or fewer of informants when asked about other regions. The Moshannon Valley and Mountaintop Regions received the lowest mean scores for overall health; 65% of informants indicated that residents of these regions have “poor” or “fair” health status.



**Overall Health Status of Centre County Planning Regions  
in Descending Order by Mean Score**

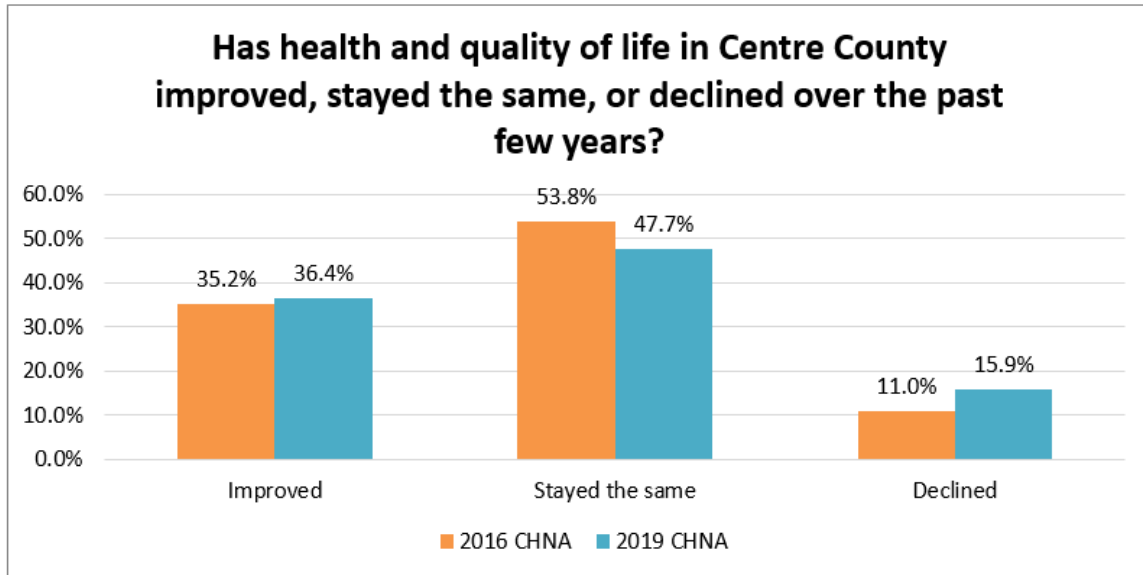
<b>Planning Region</b>	<b>Mean Score</b>
Centre Region	3.69
Nittany Valley Region	3.18
Penns Valley Region	2.74
Lower Bald Eagle Region	2.51
Upper Bald Eagle Region	2.48
Moshannon Valley Region	2.33
Mountaintop Region	2.26
<b>Centre County Overall</b>	<b>3.32</b>



Key informants acknowledged the impact of social determinants — particularly poverty — as key underlying factors to health disparities across the county. Informants stated that Centre Region residents generally have higher incomes and higher educational attainment than rural residents. Health and social services are also concentrated in the Centre Region. Lack of local support and transportation to the Centre Region prevent rural residents from accessing services. Key informants’ specific comments are included below.

- *“Centre region residents have more means. Bellefonte residents often work in Centre, but don’t want cost of living in Centre. Pennsylvania valley is largely farming. Other areas are more rural/depressed. I’ve worked in Philipsburg and find significant gaps in how folks care for themselves.”*
- *“If you don’t have transportation and live in one of the outlying areas, it is hard to access healthcare for our families.”*
- *“Those living in poverty or on the margins of financial stability tend to live in Bald Eagle, Moshannon Valley and Mountaintop Regions. Many have no healthcare coverage, poor access to healthcare systems, and poor inter-generational attitudes regarding healthy eating habits and exercise. I rank Centre and Nittany Valley Region as very good simply as a result of their higher socio-economic and educational demographics. I give no area a ranking of excellent because I believe our society could all use some work in this area.”*

When asked if health and quality of life in Centre County has changed over the past few years, 48% of key informants indicated it has “stayed the same.” In comparison to the 2016 CHNA, a greater percentage of informants indicated that health and quality of life “declined,” (16% versus 11%).



Among key informants who indicated that health and quality of life improved, many noted greater community emphasis on preventative health behaviors and increased access to health and social service providers. Specific comments by informants included:

- *“There are many non-profit groups that serve as intermediate resources for people in need. Many of the groups are supported (financially and through in-kind donations) by local businesses and governments.”*
- *“Centre County has seen an increase in health-related organizations that provide healthy opportunities for its residents.”*
- *“Overall healthcare has improved. More providers including providers that are difficult to see.”*

Among informants who indicated that health and quality of life declined, many noted an increase in obesity rates and resulting chronic conditions, unmet behavioral health needs, and the inability to meet basic needs due to rising cost of living. Specific comments by informants included:

- *“Behavioral health needs are not being met. There are minimal inpatient BH services for children/adolescents, only one inpatient facility that I am aware of. These kids are housed in our ED for 24-96 hours awaiting placement for inpatient care. Diabetes providers are limited and weight management services are practically non-existent, affecting obesity, heart disease/stroke, and depression.”*
- *“Increase in substance abuse/addiction/mental health needs and lack of availability of providers and services. Also, it is very difficult to get in to see a specialist (provider) without having to wait months (especially if a new patient).”*
- *“The inability for families to sufficiently provide for their family’s basic needs has grown over the past several years. The number of individuals facing eviction and homelessness is growing. Folks struggle to find affordable housing, and especially struggle to find affordable housing that offers transportation options. We see this through our Basic Needs Case Management program.”*

Among informants who indicated that health and quality of life stayed the same, many noted the disparities that still exist among geographic regions of the county and subpopulations. Others noted the continued lack of specialty services, particularly behavioral healthcare. Specific comments by informants included:

- *“Issues of access to the full complement of healthcare in the rural areas of the county have not been addressed. Access to providers who accept Medicaid has not increased. Access to prenatal care for low-income and uninsured has not increased, except for those services provided by CVIM which is overwhelmed with addressing healthcare needs in the county.”*
- *“Overall quality of life for most residents in Centre County is good/excellent. I think it has stayed the same because there continue to not be enough services for our most vulnerable populations when it comes to meeting dental and mental health needs. Also, while we have transportation options, it still isn’t sufficient to meet all of our residents’ transportation needs.”*
- *“In my opinion, the Centre County area has a large amount of resources and great networks of individuals working to ensure a high quality of life. However, many of the services are located in the State College area, leaving the outlying areas to fend a little more for themselves or with limited access to some of the services.”*

Choosing from a list of specified health issues, key informants were asked to rank order what they perceived as the top three health concerns impacting the population(s) they serve. An option for “other” was also provided. The informants were then asked a second question to similarly rank order what they saw as the top three contributing factors to those health concerns. The top 10 responses for each question are depicted in the tables below. The tables are rank ordered by the number of informants that selected the issue as #1. The number of informants that selected each option within their top three choices is also shown.

Correlation between the percent of informants selecting an issue as #1 and the percent of informants selecting an issue within their top three choices demonstrates consistent perspectives regarding the top community health concern: mental health conditions. Approximately one-third of informants saw mental health conditions as the #1 health concern in the community and 66% chose it among their top three community health concerns.

Overweight/obesity and substance use disorder were selected as the top health concerns for the community by approximately one in five informants. Nearly 54% of informants selected substance use disorder within their top three choices, while 42% selected overweight/obesity within their top three choices.

A similar Key Informant Survey was conducted as part of the 2016 CHNA. The top three health concerns identified by 2016 survey respondents were diabetes (22%), overweight/obesity (16%), and mental health (14%). Substance use disorder was the fifth ranked health concern (9%). The 2019 survey results reflect greater perceived community concern for mental health and substance use disorder conditions over chronic conditions, and continued recognition of the impact of overweight/obesity.

### Top Health Concerns Affecting Residents\*

Ranking	Health Concern	Informants Selecting as the Top (#1) Health Concern		Informants Selecting as a Top Three Health Concern	
		Percent	Count	Percent**	Count
1	Mental health conditions	34.5%	29	65.5%	55
2	Overweight/obesity	19.0%	16	41.7%	35
3	Substance use disorder	17.9%	15	53.6%	45
4	Cancers	13.1%	11	31.0%	26
5	Diabetes	6.0%	5	21.4%	18
6	Other***	3.6%	3	13.1%	11
7	Disability	2.4%	2	7.1%	6
8	Dental problems	2.4%	2	7.1%	6
9	Motor vehicle crash injuries	1.2%	1	1.2%	1

\*Note: Only nine conditions were selected as a top health concern for community residents.

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

\*\*\*Other responses: Trauma, poverty, comorbidities, care coordination, alcohol abuse, stress, aging, Medicaid/sliding scale fee providers, and coordination of existing services.

Key informants' responses were more divided on their perceptions of factors that most contribute to the health concerns they chose in the previous question. Approximately 18% of informants considered "ability to afford healthcare" and "health habits" as the #1 top contributing factors to health concerns, followed by "number of healthcare providers available in the community" (17%), and "drug/alcohol use" (13%).

The percentage of informants that chose the #1 contributing factor to health concerns was 16 points lower than the percentage that chose the #1 health concern, and there were fewer percentage points between the most selected #1 choice (ability to afford healthcare) and the third selected #1 choice (number of healthcare providers). This variation in perception suggests less consensus among informants in what factors most contribute to community health concerns. However, "ability to afford healthcare" was largely recognized by informants with nearly 50% selecting it within their top three choices.

Consistent with the top identified health concerns, the top contributing factors identified by 2016 survey respondents related to health habits and lack of behavioral health services. It is worth noting that “inability to afford care” was the fourth ranked contributing factor among 2016 survey respondents, selected by 11% of respondents within their top three choices.

### Top Contributing Factors to Community Health Concerns

Ranking	Contributing Factor	Informants Selecting as the Top (#1) Contributor		Informants Selecting as a Top Three Contributor	
		Percent	Count	Percent*	Count
1	Ability to afford healthcare (doctor visits, prescriptions, deductibles, etc.)	18.1%	15	49.4%	41
2	Health habits (diet, physical activity)	18.1%	15	38.6%	32
3	Number of healthcare providers available in the community	16.9%	14	28.9%	24
4	Drug/alcohol use	13.3%	11	28.9%	24
5	Stress (work, family, school, etc.)	8.4%	7	26.5%	22
6	Poverty	4.8%	4	15.7%	13
7	Cultural beliefs/preferences	3.6%	3	7.2%	6
7	Lack of preventive healthcare (screenings, annual check-ups)	3.6%	3	15.7%	13
9	Health literacy (ability to understand health information)	2.4%	2	9.6%	8
9	Inadequate or no health insurance	2.4%	2	15.7%	13
9	Other**	2.4%	2	14.5%	12

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

\*\*Other responses: Aging/caregiver needs, affordable housing, health as a priority, behavioral health stigma, awareness of resources, lack of specialty providers (gerontology, mental health), and victim blaming mentality.

To expand upon the quantitative responses, informants' verbatim comments are included below by overarching theme.

#### Access to Care

- *"Dental services are expensive. Dental insurance covers very little treatment services. Medical costs can be prohibitive. Maintenance pharmaceuticals can be cost prohibitive. Assistance is limited and needs to be expanded."*
- *"Poor health insurance coverage and/or high copays/deductibles preventing people from taking prescribed medicine as ordered. Many will take less of the drug to make it last longer or will just not pick it up at the pharmacy because it costs too much."*
- *"Transportation is also a significant barrier to obtaining services. I frequently hear from patients that they don't want to return for a follow-up appointment to me or other clinicians due to high copays and the cost of gas to travel to and from the appointment."*

#### Mental Health/Substance Use Disorder

- *"I believe we are living in such a fast-paced society leading to much stress, overeating, bad habits, which leads to poor health, in more ways than one."*
- *"Mental health providers are difficult to get into for geriatrics and getting providers to come to facilities is difficult."*
- *"Stigma and the resulting discrimination against patients as well as providers who serve persons with mental health and substance use issues."*
- *"There are not enough providers or programs/help for mental health and substance abuse. Our community needs an "in-between service" for mental health. Something to bridge the gap between inpatient and outpatient such as intensive outpatient services. Our county does a fairly good job of getting people into treatment for addiction/ substance abuse but does not follow up after the treatment which makes relapse a huge issue in this county."*

#### Overweight/Obesity and Chronic Disease

- *"Cultural beliefs around what is healthy to eat and the relative expense of healthy foods contribute to obesity among our clients. Many also do not live in areas with sidewalks, where it can be hard to walk with an infant or small child."*
- *"I can only relate the experience with my own workforce, but there seems to be an overall lack of understanding about what diseases such as diabetes, high blood pressure, etc. can do long term. I am seeing employees having to leave the*



*workforce well before they can access social security because they don't seem to understand how serious their issues are, or how to control or improve."*

- *"Lack of appropriate places to walk/exercise in a rural community setting."*

### Social Determinants of Health

- *"For families making minimum wage, they are often unable to afford stable housing, medical/dental care and other basic needs. There are a lot of families who work and can't afford basic needs but make too much money for any additional support."*
- *"While jobs may be plentiful in Centre County, wages seem to be low. Many people we visit are juggling a couple of part-time jobs with few or no benefits while trying to arrange and afford childcare. They often have long, expensive commutes to work. Despite working hard, they are often one car repair or medical bill away from financial hardship. Many of those who do have insurance have high deductible plans that also create financial hardship."*

### Healthcare Access

Key informants were asked to rate their agreement to statements pertaining to access to care using a scale of (1) "strongly disagree" to (5) "strongly agree."

More than half of informants "agreed" or "strongly agreed" that residents can access a regular primary care provider when they need care. However, access to care in general is perceived to be lower among low-income individuals. Approximately 41% of informants "disagreed" or "strongly disagreed" that there are a sufficient number of providers that accept Medicaid/Medical Assistance.

Perceptions were divided on cultural sensitivities and competencies among providers. Cultural sensitivity received the second highest mean score (3.37), while access to appropriate bilingual resources received a lower mean score (2.99).

Availability of transportation for medical appointments and other services is also a top concern for the county. Approximately 38% of informants "disagreed" or "strongly disagreed" that residents have available transportation; 30% "neither agreed nor disagreed."

**Resident Healthcare Access in Descending Order by Mean Score**

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean Score
- Residents have a regular primary care provider/doctor/practitioner that they go to for healthcare.	- 1.2%	- 8.1%	- 24.4%	- 61.6%	- 4.7%	- <b>3.60</b>
- Providers in Centre County are culturally sensitive to race, ethnicity, cultural preferences, etc. of patients.	- 2.3%	- 17.2%	- 29.9%	- 42.5%	- 8.0%	- <b>3.37</b>
- Health and social service providers have access to appropriate bilingual resources to serve diverse Centre County residents.	- 3.5%	- 24.4%	- 45.3%	- 23.3%	- 3.5%	- <b>2.99</b>
- Residents have available transportation (public, personal, or other service) for medical appointments and other services.	- 5.7%	- 32.2%	- 29.9%	- 28.7%	- 3.4%	- <b>2.92</b>
- There are a sufficient number of providers that accept Medicaid/ Medical Assistance in Centre County.	- 8.1%	- 32.6%	- 29.1%	- 25.6%	- 4.7%	- <b>2.86</b>

Key informants were asked to rate their agreement to statements pertaining to the availability and accessibility of primary and specialty care providers using a scale of (1) “strongly disagree” to (5) “strongly agree.”

Mental health and substance use disorder services were identified by informants as the least available and accessible resources to residents. Approximately 70% of informants “disagreed” or “strongly disagreed” that residents receive mental healthcare or substance use disorder care when they need it. Dental care and specialty care services also received lower overall mean scores.

### Healthcare Provider Availability and Accessibility

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean Score
<b>Primary Care Services</b>						
Residents receive care when they need it.	0.0%	16.7%	26.2%	53.6%	3.6%	<b>3.44</b>
There are a sufficient number of providers in Centre County.	3.7%	25.9%	23.5%	43.2%	3.7%	<b>3.17</b>
<b>Specialty Care Services</b>						
Residents receive care when they need it.	4.8%	29.8%	27.4%	34.5%	3.6%	<b>3.02</b>
There are a sufficient number of providers in Centre County.	5.0%	33.8%	27.5%	31.3%	2.5%	<b>2.93</b>
<b>Dental Care Services</b>						
Residents receive care when they need it.	14.6%	29.3%	23.2%	30.5%	2.4%	<b>2.77</b>
There are a sufficient number of providers in Centre County.	11.4%	17.7%	24.1%	44.3%	2.5%	<b>3.09</b>
<b>Vision Care Services</b>						
Residents receive care when they need it.	3.7%	15.9%	32.9%	45.1%	2.4%	<b>3.27</b>
There are a sufficient number of providers in Centre County.	3.8%	10.0%	28.7%	56.3%	1.3%	<b>3.41</b>
<b>Mental Healthcare Services</b>						
Residents receive care when they need it.	32.9%	39.0%	17.1%	11.0%	0.0%	<b>2.06</b>
There are a sufficient number of providers in Centre County.	39.2%	35.4%	11.4%	12.7%	1.3%	<b>2.01</b>
<b>Substance Use Disorder Services</b>						
Residents receive care when they need it.	28.9%	41.0%	26.5%	3.6%	0.0%	<b>2.05</b>
There are a sufficient number of providers in Centre County.	35.4%	38.0%	22.8%	3.8%	0.0%	<b>1.95</b>

Choosing from a list of specified reasons, key informants were asked to rank order what they perceived as the top three reasons that individuals who have health insurance do not receive regular care. An option for “other” was also provided. The top five responses are depicted in the table below and rank ordered by the number of informants that selected the reason as #1.

Consistent with the top contributing factor to community health concerns, “unable to afford care” was selected as the #1 reason that insured individuals do not receive regular care. Approximately 28% of informants saw it as the #1 reason and 65% chose it among their top three reasons. A similar percentage of informants (26%) selected “feel healthy” as the top reason that insured individuals do not receive regular care. Approximately one-third of informants selected “awareness/emphasis of preventive health measures,” “challenges of navigating the healthcare system,” and “fear of diagnosis, treatment” within their top three choices.

#### Top Five Reasons Individuals with Health Insurance Do Not Receive Regular Care

Ranking	Reason	Informants Selecting as the Top (#1) Reason		Informants Selecting as a Top Three Reason	
		Percent	Count	Percent*	Count
1	Unable to afford care (copays, deductibles, prescriptions, etc.)	28.2%	22	65.4%	51
2	Feel healthy (“Don’t need to go to the doctor”)	25.6%	20	59.0%	46
3	Awareness/emphasis of preventive health measures	14.1%	11	30.8%	24
4	Challenges of navigating the healthcare system	9.0%	7	32.1%	25
5	Fear of diagnosis, treatment	7.7%	6	33.3%	26

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

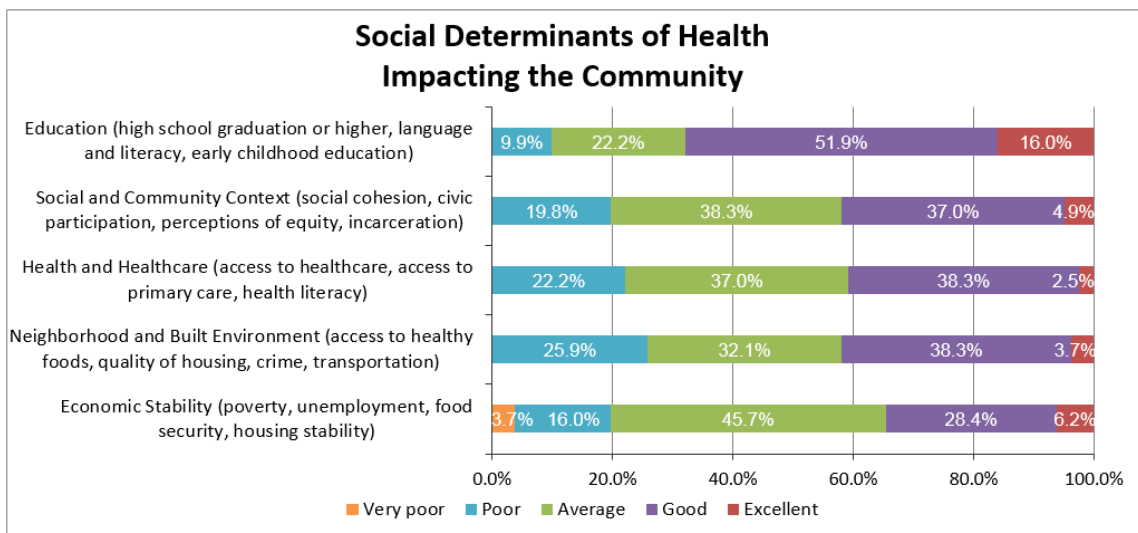
## Social Determinants of Health

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 social determinants of health across five different dimensions: economic stability; education; health and healthcare; neighborhood and built environment; and social and community context using a scale of (1) “very poor” to (5) “excellent.”

The mean scores for each dimension are listed in the table below in rank order, followed by a graph showing the scoring frequency. Mean scores fell between 3.17 (economic stability) and 3.74 (education), indicating an overall “average” to “good” rating for all dimensions. The findings are consistent with 2016 Key Informant Survey results.

**Social Determinants of Health Rating in Descending Order by Mean Score**

Ranking	Social Determinant of Health	Mean Score
1	Education	3.74
2	Social and Community Context	3.27
3	Health and Healthcare	3.21
4	Neighborhood and Built Environment	3.20
5	Economic Stability	3.17



Key informants' comments related to the social determinants of health are included below. Many of the comments acknowledged the difference in health status between the Centre Region and rural communities. Affordable housing was also a key theme among informants.

- *“Cost of housing (affordable housing) is a major problem in Centre County, particularly in the State College area. “Working poor” are unable to live within the community they work in. State College area is very unique with a much higher quality of life (financial security, education, housing, low crime) than more rural/outer areas served within our medical community.”*
- *“The majority of the time the treatment plan I recommend for my patient population (mental health and substance use disorder treatment) is not able to be implemented due to some combination of lack of adequate transportation, inability to pay copays, under-insurance (provider does not take the insurance, copay or coinsurance is beyond the means of the patient, or the insurance won't pay for recommended service), the service simply doesn't exist in the area, or the service that is an option is not of adequate quality to provide evidence-based care.”*
- *“In pockets of the county, the built environment supports quality social determinants of health, but in a lot of the new, sprawling areas, this is not the case. Where people are alone, isolated, and must drive to see other people, to access any services or amenities, and to even enjoy a safe walk outside, this is not the case.”*
- *“Weakest item here is probably any real sense of “community.” People used to find community in local neighborhoods. Now people typically have to drive or find other ways to create their own sense of being part of and supported by a community -- sometimes faith communities, sometimes sports, sometimes school-based, but many believe it's harder to feel connected to others in the area.”*

## Community Resources

Key informants were asked what resources are missing in the community that would help residents optimize their health. Respondents could choose as many options as they thought applied. More than three-quarters of informants chose mental health services as a missing resource within the community. Approximately 60% included substance use disorder services and transportation, and nearly half checked community clinics/federally qualified health centers. Nearly 40% of informants selected housing as a missing resource within the community; informants clarified their selection as “affordable housing.”

**Top 10 Missing Resources within the Community to Optimize Health**

Ranking	Resource	Percent of Informants	Number of Informants
1	Mental health services	81.3%	61
2	Substance use disorder services	62.7%	47
3	Transportation options	58.7%	44
4	Community Clinics/Federally Qualified Health Centers (FQHCs)	44.0%	33
5	Housing	38.7%	29
6	Dental care	34.7%	26
7	Health and wellness education and programs	30.7%	23
8	Healthy food options	28.0%	21
9	Specialty care services	28.0%	21
10	Child care providers	26.7%	20

Specific comments related to mental health are included below.

- *“I see the lack of mental health - counseling, wellness and psychiatry services as our largest systematic failure. There simply are not options available in a timely and consistent manner to support those who need these services.”*
- *“We also need more mental health services for children, partial programs, child psychiatrists, therapists specializing in children, etc.”*
- *“...It’s almost impossible to find a psychiatrist willing to accept new patients -- and the effort is compounded by insurance companies who have “in network” psychiatrists, none of whom accept new patients at all. Those who are ready and willing to seek help (physical, mental or substance abuse related), find a road block of unavailable providers and complicated phone systems to navigate. I would argue, most give up before they see someone regarding their issues.”*

Other specific insights related to missing resources are shown below.

- *“Child care providers who provide care during non-traditional hours - e.g., evening care/ night care; dental providers who accept medical assistance for adults...”*
- *“In the Penns Valley region there is no public transportation so access to healthcare is made even harder. We do not have emergency care in the Penns Valley Region.”*
- *“Two specialty care services that are needed in this community (more providers): neurology and dermatology.”*
- *“Wages are not keeping pace with costs. Housing being built is mainly for students, including the affordable housing units - not for working households. As drains on municipal and emergency response resources continue to increase, everyone suffers as a result. Balance and diversity would improve the quality of life and positive outcomes.”*
- *“What happens to the elderly widow/widower who cannot afford the exorbitant entry fee and \$4,000+ per month for a retirement community but might not be able to live 100% on their own?”*

When asked how local and regional healthcare providers can better engage community members to achieve optimal health outcomes, respondents made recommendations for community collaboration, increased focus on prevention, and improved healthcare access. They encouraged providers to partner with community and social service organizations and integrate services within the community. Specific recommendations from informants included:

- Advocate for affordable housing options
- Advocate for more affordable healthcare; engage other providers, insurance companies
- Communicate healthcare challenges and engage local representatives in the solutions
- Encourage further partnership with community-based organizations to share resources, increase prevention efforts, and engage community members
- Encourage better provider-patient relationships through sensitivity training



- Improve healthcare access (evening/weekend hours, shorter wait times, local clinics, specialty care providers)
- Improve patient navigation within and across major health systems; utilize patient navigators
- Increase awareness of available services; engage primary and specialty care providers in community outreach
- Integrate physical and mental health services and provide behavioral health screenings at primary care visits
- Integrate social service providers in the healthcare system to address social needs
- Invest in behavioral health treatment options at the hospital and in the community
- Invest in built environment changes to increase physical activity (e.g., bikeable community)
- Provide more health education, mobile health services in rural regions

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

# Mount Nittany Medical Center Utilization Data

## Background

As part of the 2019 Community Health Needs Assessment (CHNA), utilization data were analyzed for Mount Nittany Medical Center to determine patient usage trends related to key community health needs. The data were analyzed by zip code and payer type, as available, and correlated with public health and socio-economic measures to identify utilization patterns among high risk populations and to improve patient outcomes. It is important to consider public health data with utilization data, as in a given year much of the population will not have contact with any of the medical center's departments. Therefore, their health concerns are not measured by health provider data.

The utilization data was provided by Mount Nittany Medical Center and all analyses were performed by Baker Tilly. Data are reported for calendar year 2017 and are analyzed across all hospital settings. The total case counts by inpatient and emergency department setting are shown in the table below.

**2017 Patient Visit Counts by Inpatient and Emergency Department Setting for Mount Nittany Medical Center**

Inpatient	Emergency Department
15,216	54,703

## Summary of Utilization Data Findings

Mount Nittany Medical Center utilization data findings continue to be driven primarily by residents in three zip codes: 16801, State College; 16803, State College; and 16823, Bellefonte. These zip codes comprise more than half of the county population. However, the impact of more rural zip codes is increasing. At the time of the 2016 CHNA, 50%-60% of all IP, OP, and ED visits with a chronic condition noted on the patient record were driven by residents from zip codes 16801, 16803, and 16823. The percentage decreased to approximately 40%-45% for the current analysis. Visits by 16866, Philipsburg residents accounted for approximately 5% of chronic condition prevalence for nearly all conditions. Philipsburg residents also had the highest readmission rate among all Centre County zip codes with at least five patient readmissions.

The prevalence of 10 ambulatory care sensitive (ACS) conditions was analyzed in the IP and ED settings. Mental health was the most prevalent ACS condition in both settings.

Substance use disorder was the second most prevalent condition in the ED. Collectively, mental health and substance use disorder accounted for approximately 4% of IP visits and 5% of ED visits. Within the ED, the top mental health diagnoses were depression, anxiety (excluding phobia), and unspecified mood disorder. Youth and young adults age 24 or younger comprised about 36%-50% of visits due to these conditions. Among ED visits due to substance use disorder, alcohol accounted for 89% of the visits. Approximately 69% of alcohol-related visits occurred among patients age 18 to 24, while 60% of drug-related visits occurred among patients age 25 or over.

Mental health and substance use disorder conditions can also present as comorbidities and impede disease management efforts, particularly among patients with chronic conditions. Mental health comorbidities were most prevalent in the inpatient setting, affecting 37% of patients with a chronic condition as their primary diagnosis. Approximately 20% of IP and ED visits due to a primary chronic condition had a substance use disorder comorbidity. Patients diagnosed with Chronic Obstructive Pulmonary Disorder (COPD) were among the most likely to have a mental health and/or substance use disorder comorbidity. A study published in the National Center for Biotechnology Information (NCBI) found that approximately 40% of COPD patients are affected by severe depressive symptoms due to quality of life impairments. Patients seen for a primary COPD diagnosis also had one of the highest inpatient readmission rates.

Insurance coverage is an indicator of healthcare utilization, particularly in the ED. Approximately 2% of patients who visited the ED in 2017 were uninsured, but 23% of uninsured patients were readmitted to the ED at least once within 90 days. Across all payer types in the ED, approximately 21% of patients were readmitted to the ED within 90 days. Medicare patients were the most likely to be readmitted at least once (30%), followed by Medicaid patients (25%).

Mount Nittany Medical Center utilization data are considered in conjunction with other CHNA research initiatives to determine health priorities and to inform community health improvement efforts. Utilization data is valuable in informing population health management, patient engagement, value-based performance practices and strategic partnership initiatives.

## Chronic Condition Prevalence

Chronic conditions are among the most common health problems affecting Americans. According to the CDC, approximately half of all adults have one or more chronic health conditions. One in four adults have two or more chronic health conditions. Heart disease and cancer, two of the most common chronic conditions, account for nearly 46% of all deaths.

The following table illustrates the top zip codes of residence for patients served by Mount Nittany Medical Center who are managing a chronic condition. Patients from the zip codes account for 50% or more of all visits with a chronic condition listed on the patient record. Data are analyzed across nine chronic conditions: Asthma, Cancer, Chronic Obstructive Pulmonary Disorder (COPD), Congestive Heart Failure (CHF), Coronary Artery Disease (CAD), Diabetes, Hypertension, Mental Health, and Substance Use Disorder (SUD). The data are presented in order of zip codes with the highest percentages of chronic disease prevalence. Note: The condition may not be the primary reason for the visit or the primary diagnosis code.

Recognizing the relationship between social determinants of health and health status, socioeconomic measures for the top originating zip codes for chronic condition prevalence are analyzed to identify the potential for high risk patients and health disparity.

More than half of the visits with a chronic condition noted on the patient record were driven by residents who live in eight zip codes. The top three zip codes accounting for the highest volume of visits are consistent with those identified during the 2016 CHNA: 16823, 16801, and 16803. The zip codes comprise the majority of the Centre County population, which will influence prevalence rates.

More than 50% of visits with a chronic condition noted on the patient record were driven by residents who live in eight zip codes

At the time of the 2016 CHNA, only three zip codes were identified as driving 50% or more of visits with a chronic condition listed on the patient record. The identification of five additional, primarily rural zip codes, suggests greater patient volumes and/or higher chronic conditions within these areas. Among the five, rural zip codes, visits by patients living in zip code 16866, Philipsburg had the highest prevalence of chronic disease listed on the patient record. Zip code 16866 has the highest Community Need Index (CNI) score in the county, indicating higher overall socioeconomic need.

**Zip Codes Accounting for 50% or More of Chronic Condition Prevalence  
Across Inpatient, Outpatient, and Emergency Department Settings**

Zip Code	Asthma	Cancer	COPD	CHF	CAD	Diabetes	Hyper-tension	Mental Health	SUD
16823, Bellefonte	22.9%	17.6%	25.4%	22.8%	20.7%	21.2%	19.5%	21.2%	22.8%
16801, State College	15.6%	14.2%	11.7%	21.3%	12.6%	13.3%	12.9%	17.1%	11.0%
16803, State College	8.0%	10.4%	5.2%	--	6.7%	5.5%	6.8%	9.0%	6.2%
16866, Philipsburg	--	4.6%	6.2%	7.0%	5.3%	4.2%	4.1%	4.6%	5.1%
16828, Centre Hall	--	--	4.6%		4.5%	3.7%	3.8%	--	--
17044, Lewistown	--	--	--	--	3.6%	4.7%	5.1%	--	--
16870, Port Matilda	4.6%	4.6%	--	--	--	--	--	--	3.4%
16875, Spring Mills	--	--	--	--	--	--	--	--	3.1%
<b>Percentage of all Diagnoses (sum of above zip codes)</b>	<b>51.0%</b>	<b>51.4%</b>	<b>53.1%</b>	<b>51.0%</b>	<b>53.4%</b>	<b>52.6%</b>	<b>52.0%</b>	<b>51.9%</b>	<b>51.7%</b>

**Social Determinants of Health Indicators by Zip Code**

	Black/ African American	Hispanic/ Latino	English Speaking (only)	HHs in Poverty	Unemploy- ment	Less than HS Diploma	Without Health Insurance	CNI Score
<b>Centre County</b>	<b>3.9%</b>	<b>3.1%</b>	<b>89.6%</b>	<b>17.1%</b>	<b>4.3%</b>	<b>6.0%</b>	<b>6.6%</b>	<b>2.5</b>
16823 (Bellefonte)	5.4%	2.2%	95.0%	8.2%	3.5%	7.5%	6.5%	2.4
16801 (State College)	3.2%	3.7%	86.0%	27.4%	5.0%	2.7%	4.4%	3.0
16803 (State College)	7.0%	4.3%	81.0%	23.0%	3.7%	3.3%	6.6%	2.8
16866 (Philipsburg)	3.4%	12.4%	89.0%	18.4%	5.2%	14.2%	9.3%	3.4
16828 (Centre Hall)	0.5%	1.2%	95.3%	7.6%	2.5%	6.9%	4.7%	1.8
17044 (Lewistown)**	1.2%	2.3%	96.5%	16.4%	6.6%	11.8%	7.9%	3.6
16870 (Port Matilda)	0.9%	1.8%	95.9%	6.3%	2.6%	3.4%	4.9%	1.2
16875 (Spring Mills)	0.4%	1.5%	91.0%	10.0%	3.4%	12.6%	13.4%	2.0

\*Cells highlighted in yellow represent a data point that is more than 2% points *higher* than the county average. Exception: English speaking cells are more than 2% point *lower* than the county average.

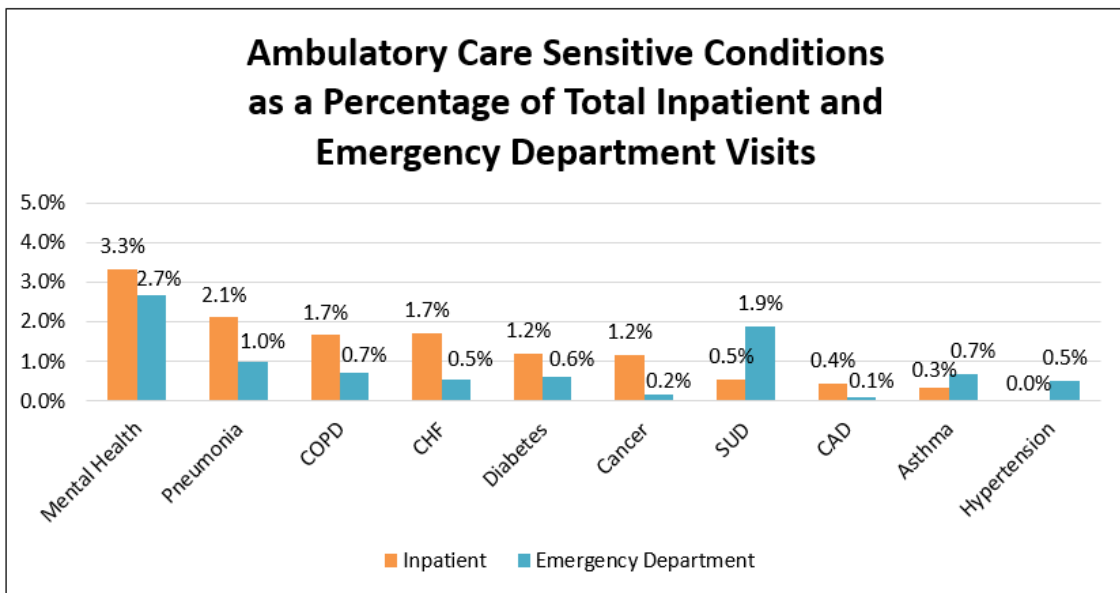
\*\*Note: Lewistown is located outside of Centre County in neighboring Mifflin County.

## Ambulatory Care Sensitive Conditions

Ambulatory care is care provided on an outpatient basis and includes diagnosis, observation, consultation, treatment, intervention, etc. Ambulatory care sensitive (ACS) conditions are conditions that if effectively treated and managed in an outpatient setting, should not be the primary reason for a hospital visit. Ambulatory care sensitive utilization trends can identify access to care barriers and inform the need for community health management resources.

The following graph depicts the prevalence of select ACS conditions as primary diagnoses in the IP and ED settings. In 2017, ACS conditions accounted for 12.5% of all IP visits and 8.8% of all ED visits. Mental health was the most prevalent condition in either setting. Substance use disorder was the second most prevalent condition in the ED.

ACS conditions accounted for 12.5% of all IP visits and 8.8% of all ED visits



## Mental Health and Substance Use Disorder

Mental health and SUD diagnoses accounted for approximately 4% of IP visits and 5% of ED visits (i.e., they were the primary reason for the visit or the primary diagnosis) in 2017. The percentage of IP and ED visits due to a mental health diagnosis was similar, but mental health diagnoses accounted for nearly 1,500 ED visits compared to 500 IP visits. Substance use

Behavioral health conditions accounted for nearly 2,500 ED visits in

disorder conditions were most prevalent in the ED setting and accounted for approximately 1,000 visits.

**Mental Health and Substance Use Disorder Primary Diagnoses  
as a Percentage of Total Inpatient and Emergency Department Visits**

	Mental Health Diagnosis	Substance Use Disorder Diagnosis
<b>Inpatient Setting</b>		
Total Primary Diagnoses	506	81
Percentage of All Inpatient Cases	3.3%	0.5%
<b>Emergency Department Setting</b>		
Total Primary Diagnoses	1,469	1,023
Percentage of All Emergency Cases	2.7%	1.9%

The following table depicts ED visits due to a mental health condition by patient age for the top three primary diagnoses: depression, anxiety disorders, excluding phobia, and unspecified mood disorders. The top three diagnoses accounted for 72% of all ED visits due to a mental health diagnosis. Youth and young adults age 24 or younger comprised about half of all depression- and unspecified mood disorder-related visits and 36% of anxiety-related visits. Adults age 25 to 34 accounted for the next highest percentage of visits.

**Mental Health Emergency Department Visits by Top Three Diagnoses and Patient  
Age**

	Depression		Anxiety, Excluding Phobia		Unspecified Mood Disorder	
	Count	Percent	Count	Percent	Count	Percent
Under 18 years	47	10.9%	15	3.7%	52	23.6%
18 – 24 years	177	41.1%	131	32.1%	55	25.0%
25 – 34 years	69	16.0%	101	24.8%	33	15.0%
35 – 44 years	34	7.9%	47	11.5%	28	12.7%
45 – 54 years	47	10.9%	33	8.1%	25	11.4%
55 years or over	57	13.2%	81	19.9%	27	12.3%
<b>Total Visits</b>	431		408		220	

The following table depicts ED visits due to SUD by primary substance (drug or alcohol) and patient age. Visits with alcohol as the primary substance accounted for 89% of the 1,023 ED visits due to substance use disorder. Approximately 69% of alcohol-related

visits occurred among patients age 18 to 24, while 60% of drug-related visits occurred among patients age 25 or over. The findings are consistent with the 2016 CHNA.

**Substance Use Disorder Emergency Department Visits  
by Primary Substance and Patient Age**

	Alcohol Visits		Drug Visits	
	Count	Percent	Count	Percent
Under 18 years	23	2.5%	4	3.7%
18 – 24 years	627	68.5%	39	36.1%
25 – 34 years	93	10.2%	28	25.9%
35 – 44 years	50	5.5%	17	15.7%
45 – 54 years	73	8.0%	10	9.3%
55 years or over	49	5.4%	10	9.3%
<b>Total Visits</b>	915		108	

Mental health and SUD conditions can also present as comorbidities, particularly among patients with chronic conditions. Mental health comorbidities affected 37% of IP visits due to a primary chronic condition diagnosis and 28% of ED visits due to a primary chronic condition diagnosis. Substance use disorder comorbidities affected a similar percentage (20%-22%) of IP and ED visits due to a primary chronic condition diagnosis.

Among IP and ED visits due to a chronic condition diagnosis, more than 1 in 4 had a mental health comorbidity and 1 in 5 had a SUD comorbidity

**Mental Health and Substance Use Disorder Secondary Diagnoses among  
Inpatient and Emergency Department Visits due to a Chronic Condition\***

	Mental Health Comorbidities		Substance Use Disorder Comorbidities	
	Count	Percent	Count	Percent
Inpatient Setting	483	36.7%	286	21.7%
Emergency Department Setting	652	27.8%	478	20.4%

\*Chronic conditions include Asthma, Cancer, COPD, CHF, CAD, Diabetes, Hypertension, and Pneumonia

Chronic conditions can be more difficult to manage if a patient has a mental health and/or SUD comorbidity. The following charts examine the prevalence of behavioral health comorbidities among IP and ED visits due to a chronic condition. Note: the

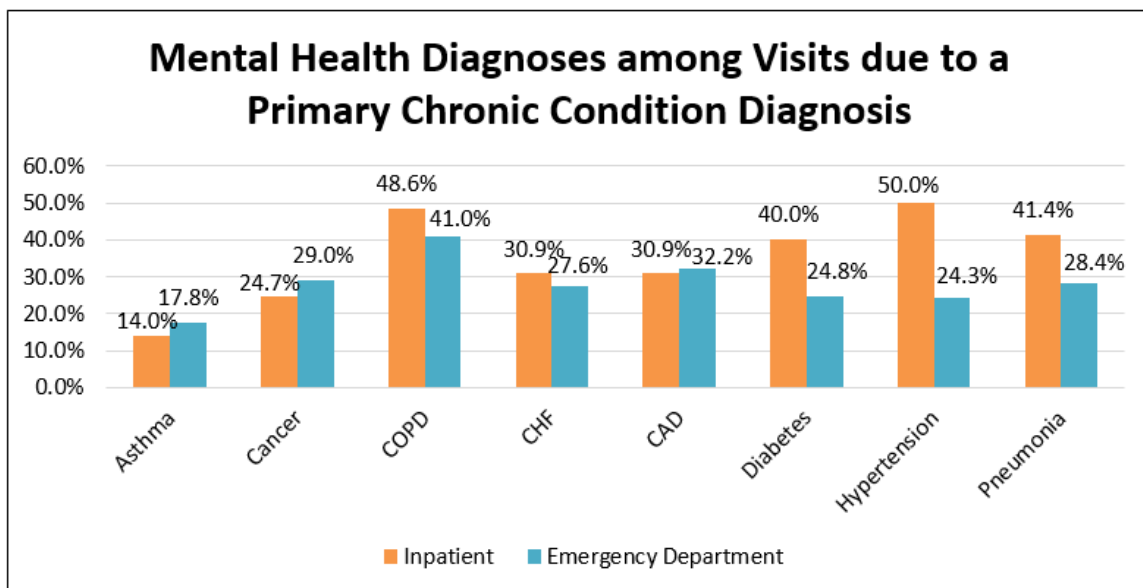


chronic condition was the primary diagnosis or reason for the visit, while mental health and SUD diagnoses were secondary conditions.

Mental health comorbidities were most prevalent among IP visits, particularly visits due to COPD, pneumonia, and diabetes. In the ED, visits due to a COPD diagnosis also had the highest prevalence of mental health comorbidities, followed by visits due to CAD. A study published in the

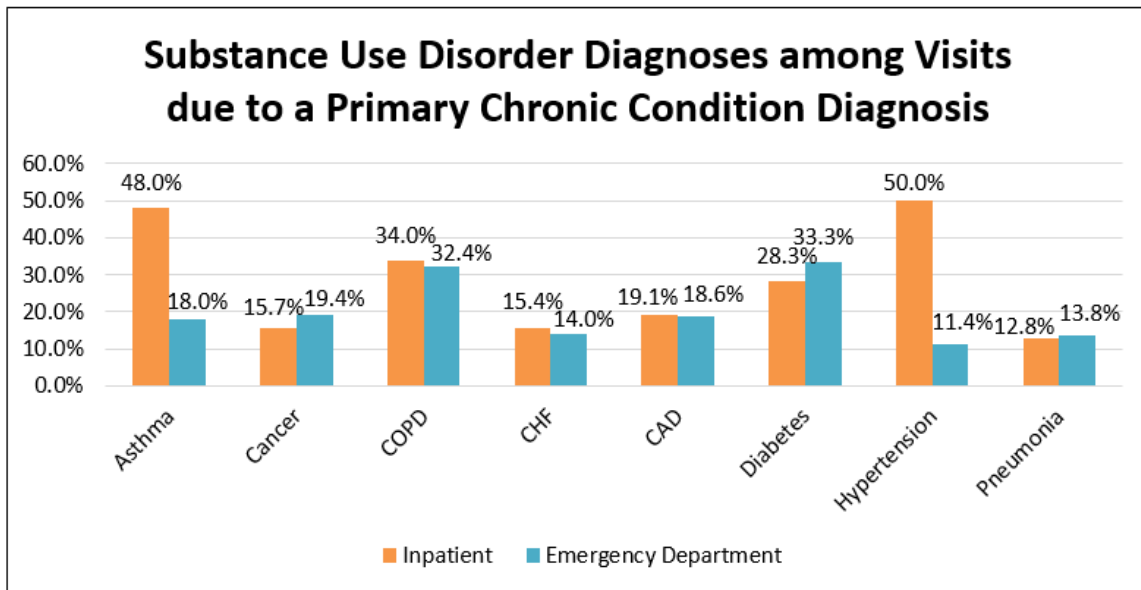
Patients seen for a COPD diagnosis were the most likely to have a mental health comorbidity in the IP and ED settings

National Center for Biotechnology Information (NCBI) found that approximately 40% of COPD patients are affected by severe depressive symptoms due to quality of life impairments. Note: A higher percentage of IP visits due to hypertension also had a mental health comorbidity, but the percentage is based on less than five visits.



Substance use disorder comorbidities were equally prevalent in the IP and ED settings among all specified diagnoses except asthma. Approximately 50% of IP visits with asthma as the primary diagnosis had a SUD comorbidity. Visits due to COPD and diabetes had the second highest prevalence of SUD comorbidities in both the IP and ED settings. Note: A higher percentage of IP visits due to hypertension had a SUD comorbidity, but the percentage is based on less than five visits.

50% of IP visits due to asthma (24 out of 50 visits) had a SUD comorbidity



### Emergency Department Utilization

Mount Nittany Medical Center had 54,703 visits to its ED in 2017, representing 35,277 unique patients. Patients with commercial insurance comprised the largest percentage of unique ED patients and total ED visits, followed by Medicare patients. Uninsured patients accounted for 2% of all ED visits.

2% of ED patients in 2017 were uninsured

### Emergency Department Usage by Payer Type

	Unique ED Patients		Percentage of Total ED Visits
	Count	Percentage	
Commercial	24,958	70.7%	67.7%
Medicare	6,194	17.6%	21.4%
Other (e.g., workers comp, self-pay)	2,895	8.2%	7.3%
Uninsured	756	2.1%	2.2%
Medicaid	474	1.3%	1.4%

The ED is often the primary source of care for high risk patients. These patients typically have unmet primary care needs, co-occurring physical and behavioral health conditions, and adverse social determinants of health impeding proactive disease management efforts. The following table depicts the number of patients who were readmitted to the ED at least once during a 90-day timeframe. Results are shown for all patients and by payer type.

Approximately 21% of all ED patients were readmitted within 90 days. The majority of patients (62%) were readmitted once, but 5% were readmitted more than five times. Medicare patients were the most likely to be readmitted at least once, followed by Medicaid patients and uninsured patients.

21% of ED patients were readmitted within 90 days

**Emergency Department Readmissions within 90-Days as a Percentage of Total Unique Patients (Pts.)**

Readmits within 90 Days	Commercial		Medicare		Uninsured		Medicaid		Total Patients	
	Pts.	% of Total Unique Pts.	Pts.	% of Total Unique Pts.	Pts.	% of Total Unique Pts.	Pts.	% of Total Unique Pts.	Pts.	% of Total Unique Pts.
1	3028	65.2%	986	53.3%	115	67.3%	70	58.3%	4490	62.2%
2	785	16.9%	403	21.8%	28	16.4%	27	22.5%	1317	18.2%
3	366	7.9%	183	9.9%	15	8.8%	9	7.5%	610	8.4%
4	171	3.7%	106	5.7%	5	2.9%	5	4.2%	295	4.1%
5	89	1.9%	54	2.9%	1	0.6%	4	3.3%	159	2.2%
More than 5	207	4.5%	119	6.4%	7	4.1%	5	4.2%	351	4.9%
<b>Total Readmitted Patients</b>	<b>4,646</b>	<b>18.6%</b>	<b>1,851</b>	<b>29.9%</b>	<b>171</b>	<b>22.6%</b>	<b>120</b>	<b>25.3%</b>	<b>7,222</b>	<b>20.5%</b>

The following table analyzes the top zip codes of residence for unique patients readmitted to the ED five or more times within a 90-day period. The identified zip codes are consistent with those identified at the time of the 2016 CHNA

**Top Zip Codes of Residence for Patients Readmitted to the Emergency Department 5 or More Times within 90-days**

	Number of Patients Readmitted 5 or More Times	Percent of Total Patients Readmitted 5 or More Times
16823, Bellefonte	153	30.0%
16801, State College	87	17.1%
16803, State College	44	8.6%

## Neonatal Abstinence Syndrome

Neonatal abstinence syndrome (NAS) occurs when babies experience addiction and withdrawal symptoms as a result of being exposed to drugs in the mother's womb. Neonatal abstinence syndrome is typically caused by exposure to opiate drugs, but may also be caused by antidepressants and sleeping pills. Opiate drugs are pain relievers and include both prescribed drugs (codeine, morphine, etc.) and illegal drugs (heroin).

Neonatal abstinence syndrome can lead to a number of infant health concerns, including low birth weight, breathing and feeding issues, seizures, and birth defects. In 2017, six infants at Mount Nittany Medical Center were diagnosed with NAS. However, the diagnosis was not made at the time of birth and therefore cannot be calculated as a percentage of the total 1,338 births that occurred in 2017. The infants may have been born at a different hospital, but diagnosed at Mount Nittany Medical Center.

Mount Nittany Medical Center utilization data was considered in conjunction with other CHNA research initiatives, including secondary data, Key Informant Surveys, Focus Groups, and Community Partner Forum feedback, to determine health priorities and to inform community health improvement efforts. Utilization data is valuable in informing population health management, patient engagement, value-based performance practices, and strategic partnership initiatives.

## Focus Groups Summary

### Background

As part of the MNH 2019 CHNA, three Focus Groups were conducted in February and March 2019 within Centre County rural planning regions. Focus Groups were conducted with residents and healthcare consumers at local YMCA program facilities. The objectives of the Focus Groups were to engage individuals outside of the Centre Region to collect perspectives on community health issues, barriers and assets to accessing healthcare, preferences for healthcare delivery, and existing or needed community resources. A total of 30 people participated in the Focus Groups. The following is a breakdown of the focus group locations and participants by location.

### **Focus Group Locations**

Moshannon Valley Region

Moshannon Valley YMCA, Philipsburg, PA

11 Attendees

Penns Valley Region

Penns Valley YMCA Program Center, Spring Mills, PA

8 Attendees

Nittany Valley Region

Bellefonte Family YMCA, Bellefonte, PA

11 Attendees

## Unique Findings by Region

### Moshannon Valley Region

- Participants described Philipsburg as a small community, where most people know their neighbors, feel safe, and can call on each other for assistance. Participants saw these attributes as community strengths to leverage for health improvement.
- Philipsburg once prospered as a lumber and coal-mining town, but has since declined economically. Participants stated that there are no jobs to keep young people in the area. Similarly, there are few activities or recreational facilities for residents to engage in. These factors contribute to a decreased quality of life and declining population.
- The police barracks in Philipsburg was consolidated with the Rockview barracks in 2018 and moved out of Philipsburg. Participants felt that the loss of a local police presence will lead to higher crime rates and drug use in the community.
- All participants had health insurance, and 10 out of 11 participants had a regular healthcare provider. Of the participants with a regular provider, the majority utilized Geisinger (n=6), followed by Penn Highlands (n=2), MNH (n=1), and private providers (n=1).
- Participants described community residents as proud individuals, who may be embarrassed to seek assistance with basic needs or medical care. Additionally, individuals in need of services often mistrust licensed professionals, like social workers, out of fear that they will be involuntarily

placed in the social service system. Participants recommended community advocates and word of mouth through trusted individuals to share resource information.

- Recommendations by participants to improve health and wellness in the community included improved communication of available medical and social services; access to medical transportation; and utilizing university students to fill gaps in behavioral healthcare.

### Penns Valley Region

- Participants described their community similar to Philipsburg participants. Penns Valley is a small, close-knit community, where people feel safe and are able to call on their neighbors for assistance. There is permanence in the community, with multiple generations of the same family living in the area.
- Participants identified more community resources in their area than Philipsburg participants, including local businesses, farmer's markets, and social clubs. The community was seen as active and engaged with involved churches, youth, and families.
- Penns Valley has also experienced economic distress. One participant noted that there used to be four grocery stores in the area and now there are none. Other participants noted a lack of community infrastructure to support health, including sidewalks and bike lanes.
- All participants had health insurance, and 7 out of 8 participants had a regular healthcare provider. Of the participants with a regular provider, the majority utilized MNH (n=4); Geisinger, Penn State Health, and Veterans Health Administration were used by one participant each.
- Printed materials as a source of information are generally on the decline, as more people rely on word of mouth, social media, or the internet. However, the Penns Valley Region actively utilizes The GrapeVine, a free newsletter locally published by a community resident.
- Recommendations by participants to improve health in the community included access to health education (e.g., nutrition, mental health); greater awareness of available services; and more support for local emergency medical services (EMS). Participants saw EMS as an underfunded, but crucial resource as transport to the hospital may take up to one hour.

## Nittany Valley Region

- Participants described the Nittany Valley as more resource rich than the other regions. It is still a rural community, but it has access to local services and community and cultural events through the university. “It has all of the amenities, but it’s still small and safe.”
- Participants also described the Nittany Valley as a giving community with individuals who are willing to give of their time and money to support causes and identified needs.
- Contrary to the other regions, Nittany Valley participants felt that there is a lack of community connection among residents. People are more isolated from their neighbors.
- All participants had health insurance and a regular healthcare provider. The majority of participants utilized MNH (n=6), followed by Geisinger (n=3) and Penn State Health (n=2).
- Participants were generally well informed about community resources, as well as their own healthcare options, including insurance coverage and stretching their healthcare dollars.
- Recommendations by participants to improve health and wellness in the community included a greater focus on prevention (e.g., nutrition); advocacy for all individuals, regardless of their economic status; and better communication of resources.

## Common Discussion Themes

Participant feedback revealed eight overarching themes across the three Focus Groups. Themes addressed both clinical care, as well as community strengths and opportunities.

### Theme #1: After Hours, Weekend Care and Telehealth

Primary care services were largely seen as available in each of the three communities, but services are limited to weekdays and working hours. After-hours and weekend primary care services, as well as urgent care facilities, are only available in the Centre Region. Lack of local options for flexible care limits access for working individuals and families and promotes unnecessary use of the ER. The issue is compounded by lack of public transportation options between the Centre Region and rural communities.

Participants recommended expanding the hours of operations for local primary care offices and expanding urgent care options. They also recommended telehealth as an alternative to care outside of normal business hours or for individuals who cannot travel to an office location. Telehealth was seen as convenient, cheaper option that alleviated transportation concerns.

Most participants were open to using telehealth, if they were not already, primarily for minor ailments or common colds. Others said they would use it for specialty care if the service was not available in Centre County and required long travel time. Concerns with using telehealth included having someone to assist with technology needs and not being able to be physically examined by a provider if necessary.

*“Telehealth is great when you’re sick. You don’t have to dig yourself out to get to an appointment. We use it whenever possible for less serious situations.”*

*“Office appointment hours are convenient for me because I’m retired. When I worked, being open 7-5pm didn’t help me.”*

*“When I was on vacation, it was so useful to be able to go to a late night urgent care, because otherwise it would have been a \$1,000 ER bill.”*

### Theme #2: Behavioral Healthcare

Participants acknowledged that mental health and substance use disorder issues are growing concerns for the community. A few participants talked openly of their experience with mental health issues, most commonly citing depression. Others acknowledged the opioid epidemic, stating that while they haven’t experienced it personally, “Its here.” Participants primarily saw the opioid epidemic in the breakdown



of families with children. They recommended structured programs for affected and at-risk youth to provide a positive environment and coping strategies.

Behavioral healthcare providers were overwhelmingly seen as missing or lacking in the community. Several participants shared that “unless you’re suicidal or homicidal,” it’s difficult to receive care. One participant described her struggle to find appropriate medical care and specialized activities for her autistic son. Others described the lack of inpatient and outpatient behavioral health services, particularly drug rehab beds. Hospital case managers were seen as helpful in identifying needed services, but limited by what is available in the community.

Participants felt that the medical community is only focused on physical health, and underlying behavioral health issues are not being addressed. Depression and other behavioral health issues are often not talked about due to stigma or lack of awareness of symptoms.

*“Case managers are helpful for finding [behavioral health] services, but when the service isn’t there, it doesn’t matter.”*

*“I know people who detox family members at home because there is no rehab bed for them.”*

*“We need to be preventative, not reactive in addressing mental health.”*

### Theme #3: Healthcare Advocacy

Participants in all three sessions identified the need for patient advocates within the hospital and primary care settings. These advocates may or may not be licensed professionals, but would have extensive knowledge of the community and available services, and be trusted resources for residents. Advocates would be available to connect individuals with both medical and social service needs, including food, transportation, and follow-up care. Participants recommended the ideal advocate as someone from the community, and who reflects the individuals they will serve.

Participants identified health insurance education as one of the top needs for residents to be informed advocates. Many individuals do not know what their insurance covers and/or have high deductible plans, and are uncertain of their out-of-pocket costs. Participants saw opportunity for hiring liaisons at hospitals to help patients navigate their coverage and appeal denied claims.

Participants identified screenings as an area requiring patient advocacy. The majority of participants valued screenings and followed through on doctor recommendations to receive them. Some participants felt that their provider did not place the same value on screenings, only providing them when asked. Participants appreciate patient record systems that provide automated reminders for screenings and other preventive appointments or well visits.

*“I worry about people in the community who don’t know about resources and don’t have family members to ask. There are a lot of people who can’t advocate for themselves.”*

*“We need a community resource for everyone, regardless of insurance.”*

*“We need someone who will work with people to identify small, basic needs, and address them one at a time.”*

#### Theme #4: Healthcare Consumerism

Despite all participants having health insurance, some still struggled to afford healthcare costs. Prescription costs are particularly hard to afford. Participants used a number of tools to reduce their healthcare costs and be smart healthcare consumers, including the following:

- Ask their providers to prescribe cheaper, generic prescriptions when possible
- Compare prescription drug prices across pharmacies and find coupons (e.g., GoodRx)
- Contribute higher monthly amounts to Health Savings Accounts (HSAs)
- Order prescriptions from other countries (e.g., Canada, Israel)
- Request sample medications, when available
- Self-medicate with over-the-counter medicine versus prescriptions
- Use mail-order, bulk shipments for medications

### Theme #5: Provider Availability

No participants indicated that they have trouble finding a primary care provider who will accept their insurance. When asked how quickly they can get a medical appointment when they are sick, nearly all participants agreed that they are seen within one business day. However, they are almost always seen by an advanced practitioner versus a physician.

Nearly all participants were willing to see an advanced practitioner versus a physician and had good experiences with these providers. They described advanced providers as “more thorough,” “better listeners,” and “more engaged.” Advanced practitioners were also viewed as more accessible and able to spend more time at appointments.

Participants shared that it can take months to get an appointment with their regular physician, and that once scheduled, they may later be rescheduled with an advanced practitioner. Participants are concerned that they lack continuity of care by not seeing their regular physician. Participants will often see a different provider at each of their visits. Provider inconsistency limits participants’ ability to develop a relationship with a provider or build trust.

Access to specialty care was seen as improving, but less readily available than primary care. Philipsburg participants stated that there are no specialty services in the local community, and residents travel to State College or Danville for care. Penns Valley is served by a few specialists, but providers are only available a few days per month and appointments are difficult to obtain in a timely manner. In all three communities, participants cited shortages and long wait times for select specialties, including cancer, cardiology, dermatology, endocrinology, family planning, neurology, nutrition counseling, OB/GYN, pediatric specialists, and/or pulmonology.

*“I don’t mind seeing a PA, but I’d like to see my doctor at least once a year.”*

*“It was nothing for my old doctor to spend 30 minutes with me. Now, with my new doctor, my appointment has been cancelled twice and rescheduled with a PA.”*

*“We went to the ED three times because we couldn’t get an appointment with a doctor that handles complex patients (pulmonary).”*

## Theme #6: Provider Relationships

All but two of the participants had a regular healthcare provider that they see.

Participants without a regular healthcare provider did not have one either by choice or because their provider recently left the area. The need to change doctors when local practices closed or doctors left was a common theme among participants.

Among participants with a regular provider, the majority had been with their doctor for several years and had a good relationship with him/her. Most chose their primary provider based on word of mouth from friends or family members or referral by another provider. Participants described positive attributes of their provider as someone who listens, explains the reasoning behind instructions or prescribed medications, and asks and answers questions. Participants also named the ability to get a timely appointment as a positive characteristic of a provider.

Negative perceptions of providers included difficulty scheduling appointments, rushed appointments, and lack of eye contact or engagement during appointments. Providers who were seen as only “pushing medications” versus counseling patients on their health also negatively impacted participants’ perceptions.

*“Every time I meet with a provider, they’re gone the next time I have an appointment. I don’t have a PCP right now.”*

*“I like my doctor. He admits when he is unsure of an answer and needs to consult someone else.”*

*“Providers only look at their computer when they’re in the exam room.”*

## Theme #7: Social Determinants of Health

In addition to rising healthcare costs, participants noted rising cost of living as a barrier to good health. The Centre Region was seen as the driver of rising costs, particularly related to housing. The need for homeless shelters and programs like Out of the Cold were seen as growing.

Individuals who cannot afford to live in the Centre Region reside in rural outlying areas. These areas offer more affordable housing, but do not have adequate social services in place to serve residents in need. Social services are primarily located within the Centre Region. Lack of public transportation within rural areas limits access to these resources.

Lack of awareness of available social services also limits access. Participants stated that local churches are still central conveners and community hubs, and should be utilized to disseminate information. Participants also recommended increasing awareness of organizations like Centre Helps, offering a 24-7 hotline, and Happy Valley Moms Group.

*“The smaller, rural food banks do not get the same donations as bigger ones in State College and Bellefonte.”*

*“We need to bring the silos together and let people know where they can get resources, not just medical resources.”*

### Theme #8: Transportation

Residents who do not drive rely on public transportation and/or friends and family members to drive them. The Centre Area Transportation Authority (CATA) is the public transportation provider within Centre County, but its services are limited to State College and select surrounding municipalities. Participants shared that lack of county-wide transportation options contributes to missed medical appointments, isolation, and misuse of ambulance services for non-emergency transport.

CATA also offers senior rideshares through CATARIDE. Reservations for CATARIDE must be scheduled no later than 7pm the previous day and can be made up to two weeks in advance. The pick-up time may be scheduled up to 60 minutes earlier or later than the requested time depending on other riders. Participants agreed that CATARIDE is an inexpensive and helpful service for seniors, but thought it was inconvenient and strenuous due to the need for advanced scheduling and long wait times for pick-ups or drop-offs.

Participants felt that access to transportation should be assessed as part of the patient medical history. “Just ask the question. Do you have transportation?” They recommended a service to connect individuals without transportation to available options, however, they recognized that these options may not be currently in place. Participants suggested a volunteer driver system or additional funding to expand CATA services to fill existing transportation gaps.

*“My husband (disabled) is going back to work in a few weeks and won’t be able to drive. I’m trying to figure out now how we’ll handle it. We’re going to have to change his work schedule.”*

*“Seniors who use the county van (CATARIDE) have a 9am appointment and are still waiting to go home in the afternoon. It’s an all-day event. It’s too taxing on them.”*

*“There are no specialties in Philipsburg. People cancel their appointments because they don’t have transportation outside of Philipsburg.”*

Focus group findings were reviewed with the CHNA Steering Committee and correlated with other CHNA research initiative to inform priority health needs and community health improvement strategies.

## Community Partner Forum Summary

### Background

Mount Nittany Health held a Community Partner Forum on Friday, March 15, 2018 at Mount Nittany Medical Center in State College. A total of 52 people attended representing MNH, health and social service agencies, senior services, local government, and civic organizations. The objective of the forum was to share data from the CHNA and garner feedback on community health priorities, as well as opportunities for collaboration among partner agencies.

Research from the CHNA was presented at the session. Small group dialogue was facilitated to discuss research findings, existing resources and initiatives to address priority areas, and new or innovative opportunities for cross-sector collaboration.

A summary report of the outcomes of the small group dialogue follows.

### Small Group Discussion

Following a presentation of the CHNA research, participants were asked to reflect on the findings to share takeaways and key insights for addressing priority needs. A common discussion guide was used to facilitate conversation and capture participant feedback.

The discussion guide was comprised of a four-part facilitation that asked the following questions:

- 1) What are some of the striking findings from the CHNA research? Do the findings reflect what you witness in the community? Why or why not.

- 2) How have you or your organization been successful in improving outcomes related to the priority health areas? List specific programs, initiatives, partnerships, etc.
- 3) What are new or innovative programs that you or your organization have or plan to implement to address the priority health areas? What programs are you aware of in other communities that Centre County should explore?
- 4) Based on your conversation, where do you see potential for further cross-agency or cross-sector work to improve the health of Centre County residents?

### Key Themes

The CHNA data reaffirmed for participants that Centre County as a whole is one of the healthiest counties in the state. Community and zip code level data highlighted areas within the county where residents experience greater socioeconomic distress and potential for health disparity. Participants will use this local level data to plan for targeted health improvement initiatives.

Social determinant of health indicators within Centre County are generally positive. Participants identified opportunity for improvement in the areas of childcare, housing, and transportation. Childcare is a challenge for underserved and low-income families. Participants recommended partnerships with current childcare providers to offer free services for individuals looking for work and extended hours for individuals working non-day shifts. Housing cost burden among home owners is lower in the county compared to the state, but impacts 1 in 4 households. Participants shared that the proportion is likely higher in the Centre Region. Transportation improvements have been made within the county, but it continues to be a challenge due to the rural setting outside of the Centre Region.

Many of the small groups highlighted the disparity in health outcomes between Centre Region and rural communities, particularly among youth. Rural youth are more likely to experience feelings of depression and use substances, but are less likely to have access to prevention and treatment services. These services, including behavioral health screenings, Straight Talk, and Strengthening Families Program, are primarily only offered in the State College Area School District (SCASD). Participants recommended partnering with rural school districts and organizations like the Youth Services Bureau and Communities That Care to expand services across the county.

Food insecurity was also seen as a key driver of health disparity and poor health outcomes among residents. Centre County has a number of programs to address food insecurity, including the Backpack Weekend Food Program and Travelin' Table Mobile Feeding Program. Participants saw opportunity for additional services through programs like the Fresh Food Farmacy currently offered by Geisinger, and partnerships between Penn State University Nutritional Sciences, Penn State Extension, Taste Buds Kitchen, and others.

Centre County is ahead of the curve in developing cross-sector, evidence-based initiatives to address priority health needs. Participants shared examples, including Zero Suicide, the Crisis Intervention Team, and various partnerships like HOPE, Community Safety Net, Reentry Coalition, SafeCare, and Suicide Prevention Task Force. Opportunities for continued cross-sector work include joint funding initiatives and data sharing. Participants shared that partners should collaborate on funding opportunities to draw down more community dollars and collectively impact community needs. Partners should also work to streamline and share program-level data to better identify gaps in services and leverage existing resources.

Participants identified the need to increase awareness of available services and programs among community partners. "We are great at collaborating with each other in this region, but we're not great at knowing what agencies and resources exist. How do we get this information to each other in an engaging forum?"

A full report of participant feedback is detailed below by facilitation question.

### Participant Feedback

The following section includes detailed insight by Partner Forum participants in response to the facilitation questions.



Question 1: What are some of the striking findings from the CHNA research?

Striking Finding	Feedback by Participants
Alcohol-related crime rates	Centre County has higher alcohol-related crime rates than the state. Participants shared that the rates validated their lived experience in the community and reinforced their perception that the community, particularly the Centre Region, has become numb to the issue.
Behavioral health services	Behavioral health data findings reaffirmed for participants that it is a growing need in the community, impacting individuals of all ages. Participants agreed that there is a lack of behavioral health resources county-wide, but particularly among rural residents and seniors.
Children in poverty	Participants agreed that children in poverty is a better indicator of overall poverty experienced by county residents due to the impact of university students. Rural residents were seen as the most impacted by poverty.
Dental health and nutrition	Poor nutrition and lack of nutrition education among new parents were identified as key drivers of poor dental health. Participants also saw behavioral health issues as contributing to poor dental health outcomes.
Education	Educational attainment across Centre County is high with more individuals earning at least a bachelor’s degree. However, participants shared that education is not an accurate indicator of literacy or employment skill sets.
Housing	Participants shared that housing cost burden data does not reflect the experience of their clients. Affordable housing, particularly within the Centre Region, continues to be a challenge for underserved residents.
Mental health and substance use disorder concerns among youth	<p>Participants were concerned by the prevalence of depression and substance use among students, particularly in rural school districts. Within the rural areas, participants identified a lack of youth and family engagement activities, as well as fewer services and a general resistance to discuss mental health. Participants recommended offering mental health screenings currently offered in the SCASD to rural school districts. They also recommended exploring the impact of university students and events as contributors to early alcohol access among underage youth.</p> <p>Vaping affects State College and rural school district students at a similar rate. Participants were concerned that 1 in 10 youth are impacted, but expected the proportion to be higher.</p>
Substance use disorder prevalence	Substance use disorder was known as a community issue by participants, but the degree of prevalence and wide-sweeping impact were striking. Participants particularly highlighted adult excessive drinking rates and the increasing number of opioid deaths.
Transportation	Centre County has made improvements to public transportation services, but it continues to be a challenge, particularly in rural areas.

Question 2: How have you or your organization been successful in improving outcomes related to the priority health areas?

Program/Initiative	Brief Description
<b>Chronic Disease Prevention</b>	
Backpack Weekend Food Program	A YMCA program that provides a backpack containing a weekend supply of meals and snacks each Friday during the school year to participating students.
Mid-State Literacy Council	The Council offers health literacy classes that focus on communicating with doctors, understanding medicine labels, nutrition and more. A women's and men's health literacy curriculum allows one-to-one tutors to communicate vital health information to their students.
Penn State Extension	Penn State Extension offers a number of community programs related to nutrition, diet, and health, including Dining with Diabetes.
<b>Behavioral Health</b>	
Centre Safes (Therapist on Staff)	The on-staff therapist provides support groups and training for staff to better help constituents who are dealing with mental health issues. The trainings emphasize referrals and advocating on behalf of Centre Safe clients.
Crisis Intervention Team	A community partnership of mental health professionals, law enforcement, first responders, individuals living with a mental illness, family members, and advocates to provide de-escalation training and promote community resources.
Medicaid Provider Access	Centre County mental health providers dedicate a percentage of their patient panel to Medicaid patients, increasing access to services for this population.
Nurse Family Partnership	An empowerment program that assigns specially trained nurses to visit young, first-time moms-to-be, starting early in the pregnancy, and continuing through the child's second birthday. New mothers develop a close relationship with a nurse who becomes a trusted resource they can rely on for advice.
Question Persuade Refer (QPR)	The program is a national initiative to reduce suicidal behaviors by providing suicide prevention training. The program has expanded across Centre County.
Straight Talk Task Force / Series	The Straight Talk Series offers educational programs that help residents to recognize, understand, and deal with potential problems that can surface during developmental years. The program is currently offered by SCASD.
Suicide Prevention Task Force	The initiative, led by Centre County Government, has been successful in building county-wide partnerships and expanding case manager services.
<b>Substance Use Disorder</b>	
Drug Court	The initiative, established by Centre County Government, is in its second full year. The program continues to evolve based on identified process improvement measures, including eligibility.
HOPE	HOPE does a variety of outreach, education, and awareness events each year throughout the county. Events are presented at Town Halls, Grange Fair, Heritage Days, Drug Take Back Days, etc.
Strengthening Families Program	A program of the Youth Service Bureau offering a national parenting and family strengthening framework to reduce drug and alcohol abuse in youth and

	improve social competencies, school performance, and family bonding. The program is currently offered in State College and Bellefonte.
Too Good for Drugs	A program of the Youth Service Bureau offering a national, evidence-based substance use prevention curriculum for students K-12.
Youth Engagement Programs	Programs like Big Brothers Big Sisters and Boys Circle/Girls Circle are available in Centre County, and are opportunities to engage youth in meaningful activities that promote mental health and prevent substance use disorder.

Question 3: What are new or innovative programs that you or your organization have or plan to implement to address the priority health areas? What programs are you aware of in other communities that Centre County should explore?

Program/Initiative	Brief Description
<b>Chronic Disease Prevention</b>	
Fresh Food Farmacy	The Fresh Food Farmacy is an initiative by Geisinger to address food insecurity and nutrition education needs among diabetic patients. Participants saw potential for offering this program in Centre County.
Oral Health Risk Assessments	Participants recommended that these assessments be implemented in primary care offices for patients of all ages to assess oral health and promote dental care education and access.
Rec On The Go	A planned initiative by Penn State University to promote physical activity.
Sustainable Food Systems Program	The program is part of the Penn State campus food system, and provides nutrition classes, nutrition and cooking programs for kids, fresh produce for local food pantries, etc.
Travelin' Table Mobile Feeding Program	YMCA partnered with CenClear Child Services to create the Travelin' Table, a mobile feeding bus for children affected by food insecurity. The bus travels to communities served by YMCA. Participants recommended expanding the program to include mental health services.
<b>Behavioral Health</b>	
Centre Helps: Lifeline	A crisis center hotline service that has been shown to be an effective safety net for those in mental health crisis. Participants recommended that the Lifeline be expanded to include opioid services. They also recommended increasing awareness of the service within schools.
Jam Fest	The program is presented by the Jana Marie Foundation and was offered May 18, 2019 in downtown State College. The event is intended to increase well-being, build connections, and foster self-expression.
Vulnerable Population Literacy and Education Programs	Participants recommended a literacy and networking program specifically targeting stress management among low-income individuals. They also recommended education programs addressing economic issues, available to all residents, but targeted by age group
Zero Suicide Pilot Project	The project is planned to launch in fall 2019 as a partnership between Centre County Government, Can Help, Universal Community Behavioral Health,

	physicians, and the MNH Emergency Department. Zero Suicide is a national framework for system-wide transformation toward safer suicide care.
Substance Use Disorder	
Case Management Services	Case managers assist individuals experiencing substance use disorder connect to both medical and social resources, including housing and employment. The service, offered by Centre County Drug & Alcohol, expanded starting in April 2019.
Co-Responder Model	The grant-funded program is a partnership between Centre County Government, first responders, and service providers. The program is intended to intervene on mental health-related police calls to deescalate situations that have historically resulted in arrest.

Question 4: Based on your conversation, where do you see potential for further cross-agency or cross-sector work to improve the health of Centre County residents?

Opportunity	Feedback by Participants
Centralized screening/eligibility for services	Many community partners have individual screening and eligibility forms that potential clients must fill out to receive service. Participants recommended a uniform screening tool that is completed once by clients at a central location, and used by all community partners. Based on screening responses, clients would automatically receive a referral to available resources. Community partners would have access to a database of screened individuals and their referrals.
Food security and healthy eating	Participants saw potential for partnership between Taste Buds Kitchen, grocery stores, and PSU Nutrition Services to offer free or low-cost nutrition and cooking classes for families and children.
Funding	Participants recommended that county agencies work collaboratively to draw down funding for priority areas, share resources, and collectively address community needs.
Mental health stigma	“Mental health” has become a label for children and adults. There is a need for a county-wide campaign to destigmatize mental health and make it a comfortable topic for discussion.
Local level data sources	Community health and social service partners are generally each collecting their own client and program data. Partners recommended a joint initiative to share data across agencies to identify gaps in services and at-risk residents, and leverage available resources.
Young adult career development	Participants saw opportunity to create more internship experiences for university students, exposing them to community services and agencies, so that they can, in turn, be advocates and resources.

Community Partner Forum feedback further defined health priorities for Centre County and opportunities for cross-agency and cross-county collaboration to address identified health needs. The results of the forum informed community health improvement strategies as part of the 2019 Implementation Plan.

# Evaluation of Impact from 2016 CHNA Implementation Plan

## Background

In 2016, MNH completed a CHNA and developed a supporting three-year Implementation Plan to address identified health priorities. The strategies implemented to address the health priorities reflect MNH's mission and commitment to make people healthier.

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

- Behavioral Health
- Substance Abuse
- Chronic Disease

## 2016 CHNA Implementation Plan and Evaluation of Impact

Mount Nittany Health's 2016 Implementation Plan outlined specific goals, objectives, and strategies to address the identified priority health needs. The plan leveraged resources across the health system and the community, drawing on existing and potential partnerships. The following sections highlight MNH's approach to addressing priority needs, and outcomes from the implemented action items.

### Behavioral Health

Goal: Improve access to screening, support, education, and treatment for behavioral health disorders in order to achieve optimal health outcomes. Reduce the stigma associated with behavioral health disorders to increase access to care and utilization of support services and systems.

Objective #1: Increase the use of evidence-based tools to identify potential mental health concerns.

### Strategies:

1. Developed an ED case management program to coordinate care and services for patients with behavioral health disorders.

- a. A Psychiatric Liaison position was created in the ED in 2016 to streamline processes and enhance the accuracy of care delivery strategies for patients with behavioral health disorders. Services were expanded to 24/7 coverage in 2018 as a result of reported improved patient care outcomes, including:
  - Consistent and quality psychiatric assessments
  - Coordinated care, referrals, and appointments within the MNH system and with community-based partners
  - Decreased wait time in transition from the ED to the next level of care
  - Improved patient and provider care satisfaction
2. Implemented a psychiatric pilot program in 2018 in partnership with the MNH Foundation, and under the leadership of Dr. Tim Derstine.
  - a. The pilot was modeled after the work of the AIMS Center at the University of Washington’s IMPACT (Improving Mood – Promoting Access to Collaborative Treatment) study. Under the program, a licensed clinical social worker (LCSW) was embedded in the primary care practice to identify patients in need of behavioral health services and coordinate treatment along with a collaborating psychiatrist. The LCSW also breaks down barriers that patients may have in receiving intervention and treatment, working as an advocate or navigator for the patient in seeking needed services. A total of 157 patients have been served by the pilot program.

Objective #2: Increase the number of residents identified as having a behavioral health condition who receive treatment or counseling.

Strategies:

1. Collaborated with community-based partners to leverage existing resources to promote behavioral health awareness.
  - a. A free bi-monthly provider spotlight webinar series was launched in partnership with the Mental Health Community Committee. The webinars featured local behavioral health providers detailing their services, eligibility criteria, and referral process.
  - b. The website [mhccentre.com](http://mhccentre.com) was created in partnership with the Mental Health Community Committee to promote mental health awareness, enhance community partnerships, educate the community about mental health

services and supports, and provide training opportunities. The site features an interactive community calendar focused on promoting and increasing attendance at various community programs dedicated to behavioral health.

2. Provided education to facilitate improved communication between consumers and providers, development of care plans, and ongoing treatment for individuals who have identified behavioral health issues.
  - a. Educational training sessions were hosted with healthcare professionals to promote The SHARE Approach to shared, patient-provider decision making. The SHARE Approach is a five-step process that includes exploring and comparing the benefits, harms, and risks of treatment options through meaningful dialogue with patients. The SHARE Approach is proven to increase patient satisfaction and compliance with care plans and improve care outcomes. As a result of the training sessions, 75% of attendees committed to implementing The SHARE Approach in their practice.

Objective #3: Increase awareness of psychological distress symptoms and risk factor for suicide.

Strategies:

1. In partnership with the Penn State University Sustainability Institute, developed an integrated marketing communications plan for suicide prevention based on key messages and target audiences.
2. Provided financial, technical, or material support to community organizations focused on suicide prevention, to provide accurate and relevant information related to suicide, suicide risk, and identifying at-risk individuals. Supported community organizations included:
  - American Foundation for Suicide Prevention Program
  - Centre County Suicide Prevention Task Force
  - Jana Marie Foundation
3. Started the development of the Zero Suicide Pilot Program in partnership with Centre County Government Mental Health Office, Crisis Intervention Team, Oasis Life Care, Crossroads Counseling, The Meadows Psychiatric Center (Universal Community Behavioral Health). The pilot program continues to develop, but a localized implementation toolkit and resource asset kit have been built.



4. Partnered with the Veteran’s Administration to provide education and resource identification for veterans and their families.

Objective #4: Focus on reducing stigma associated with behavioral health through community programs and education.

Strategies:

1. Conducted and supported community education programs focused on behavioral health stigma reduction.
  - a. Provided financial and material support for the Centre County Suicide Prevention Task Force and the Suicide Prevention monthly programs.
  - b. Provided financial, technical, and material support to the Mental Health Community Committee and its programs, including: Provider Spotlight; [www.mhccentre.com](http://www.mhccentre.com); Community Wellness Day; and Mental Health Awareness Month programs and events.

### Substance Abuse

Goal: Improve access to screening, support, and treatment for substance abuse disorders in order to achieve optimal health outcomes. Increase public awareness about the scope and severity of substance abuse issues within Centre County to reduce the stigma associated with substance abuse disorder.

Objective #1: Increase the number of residents, identified as having a substance abuse disorder who receive treatment or counseling.

Strategies:

1. Collaborated with community-based partners to leverage existing resources to promote substance abuse awareness.
  - a. Partnered with Centre County Heroin Opioid Prevention Education (HOPE) initiative to provide material and technical assistance for the following community programs:
    - Series of Town Hall events with law enforcement, healthcare providers, treatment professionals, and prevention experts to increase awareness of community substance abuse related issues.

- A resource fair to connect individuals to information, available resources, and treatment options.
  - Development of [centrecountyhope.org](http://centrecountyhope.org), an online resource for residents to find accurate and relevant information and local treatment options.
- b. Mount Nittany Health emergency department physicians provided oversight of local law enforcement Naloxone programs.
2. Provided education to facilitate improved communication between consumers and providers, development of care plans, and ongoing treatment for individuals who have identified substance abuse disorders.
- a. Educational training sessions were hosted with healthcare professionals to promote The SHARE Approach to shared, patient-provider decision making.
  - b. Hosted the following substance abuse continuing education programs for Mount Nittany Medical Center clinical staff, including physicians, medical students, and residents, as part of the Family Medicine Seminar Series:
    - Basic Principles of Addictions in Primary Care, presented by Dr. Tim Derstine.
    - Pennsylvania’s Prescription Drug Monitoring Program: What You Need to Know, presented by Lauren Hughes, MD, MPH, MSc, FAAFP, Deputy Secretary for Health Innovation, Pennsylvania Department of Health

Objective #2: Increase public education and awareness for preventing prescription drug opioid, misuse, and overdose.

Strategies:

1. Developed substance abuse prevention resources for use in community, prevention, and treatment settings, targeting at-risk populations. Partnered with Centre County HOPE initiative to disseminate resources, information, and education via the [centrecountyhope.org](http://centrecountyhope.org) website, social media, and community events.
2. Provided technical and resource assistance to the Communities that Care Coalition, an evidence-based model for prevention, to promote programs and initiatives that boost protective factors for abstaining from drug use. The coalition has identified the protective and risk factors for Centre County residents, and is working to identify and align community resources and seek financial support to provide new programs to address these needs.
3. Reduced access to prescriptions drugs for misuse and abuse through promotion and support of the 11 prescription drop boxes within Centre County. Mount Nittany Health also provided assistance for the Take Back Day program held annually in April in Centre County regions not served by a prescription drop box. Between August 2016 and December 2018, a total of 4,215 pounds of prescriptions medications were collected across Centre County.

## Chronic Disease

Goal: Decrease overweight and obesity among adults and youth.

Objective #1: Increase prevention and education programs that encourage healthy lifestyles for adults and youth.

Strategies:

1. Increased available prevention and education programs that encourage healthy lifestyles for adults and youth.
  - a. Continued financial, material, and technical support for Centre Moves, a community coalition with the vision that all Centre County residents will adopt healthy habits. The Centre Moves website was utilized by approximately 3,800 unique individuals. Programs provided by Centre Moves included:

- Fit Families Challenge (Community-wide physical activity challenge), reaching a total of 710 families and 2,522 individuals in 2016-2018.
  - Push the Pedal (Community-wide biking challenge), reaching a total of 50 participants in 2019.
  - Healthy Eating Initiatives: Fall in Love with Veggies Campaign / Healthy Eating Scavenger Hunt
  - Community Garden Program, offering a seed swap and community garden information event; beginner gardener work shop; and community garden food reclamation pilot project
- b. Supported Centred Outdoors in partnership with the Clearwater Conservancy. Centred Outdoors engages residents in the protection of the county's natural resources, while encouraging them to participate in an outdoor "adventure." Between 2017 and 2018, the program hosted 41 adventures that reached 2,683 participants. Participants reported improved physical and mental wellbeing after their adventure.
  - c. Supported the Prescription PARx program in partnership with Centre Moves and the Clearwater Conservancy. As part of the program, participating healthcare providers wrote patients a prescription to explore the natural resources of Centre County.
2. Provided education about healthy lifestyles and chronic disease prevention at community events and through local media.
    - a. Developed games, activities, and healthy plate incentives for local health fairs, events, and programs.
    - b. Launched a three-year Open Streets program in downtown Bellefonte to encourage physical activity and community wellness. The first program was held on May 18, 2019 with over 1,000 attendees.
  3. Educated primary care patients and the general public on the prevention of chronic disease and weight loss, through the following programs:
    - a. Healthy Weight for Life Class: Offered three classes reaching 27 participants. Participants reported the following outcomes: weight loss (70%); met exercise goals (60%); met nutrition goals (94%); and met health goals (75%).

- b. Life with Diabetes Class: Offered three classes reaching 27 participants. Participants reported the following outcomes: improved A1c value (80%); improved cholesterol level (100%); met A1c monitoring goals (66%); met nutrition goals (87%); and met exercise goals (52%).

Objective #2: Improve care coordination for individuals managing chronic disease.

Strategies:

1. Implemented the Mount Nittany Physician Group Care Coordinator Program in 2016 to improve care outcomes for high-risk patients or patients seen in the inpatient setting for a respiratory illness. The program offered appointment management, medication reconciliation, and linkages to community and medical resources. A total of 285 unique patients were served by the program since 2016.
2. Supported the Oncology Patient Navigation and Oncology Breast Navigation Programs to remove barriers to care for cancer patients and improve health outcomes. The program was available to any cancer patient or their family members. Since 2016 the program has served a total of 428 patients, providing 1,258 interventions on their behalf.
3. Supported the Lung Nodule Program, a program dedicated to improving quality of life for adults by providing early detection of lung cancer; best practices in lung nodule care; avoidance of surgical procedures; and thorough follow-up care based on current evidence-based treatment recommendations. Since its inception, the programs has served a total of 2,100 patients. Outcomes from the program included the following:
  - Completed 200 baseline lung cancer screening exams, with a 90% return rate among patients eligible for ongoing screening
  - Detected three instances of early stage lung cancer
  - Decreased wait time between patient screening and diagnosis
  - Received Center of Excellence designation from the Lung Cancer Alliance and UPMC Health Plan
  - Established a multi-specialty council to determine appropriate care plans and methods for diagnosing and monitoring complex patients
  - Received grant funding from the American Lung Association to host Freedom from Smoking clinics. Clinics served 15 individuals; four

individuals were smoke free by the end of the clinic and six-months post-program.

4. Received the American Heart Association/American Stroke Association's Get With The Guidelines® – Stroke Gold Plus Achievement Award with Target: Stroke<sup>SM</sup> Honor Roll Elite Plus. The award recognizes the hospital's commitment and success in ensuring that stroke patients receive the most appropriate treatment according to nationally recognized, research-based guidelines based on the latest scientific evidence.
5. Received the Joint Commission Advanced Certification for Primary Stroke Centers Gold Seal of Approval® and the American Heart Association/American Stroke Association Heart-Check mark for Advanced Certification for Primary Stroke Center
6. Participated in 42 stroke prevention and education programs. A total of 1,358 individuals received blood pressure or stroke screenings or health education, and 551 individuals received stroke information.

In addition to offering the above listed programs to address identified priority health needs, Mount Nittany Health continued to provide financial, technical, and material assistance to Centre Volunteers in Medicine, providing free medical care to uninsured individuals living and working in Centre County.

Mount Nittany Health is dedicated to improving quality of life for residents of Centre County. Responding to the health needs of our community, as outlined in our 2016-2019 Implementation plan, is central to our mission of making people healthier. We will continue to invest in the health of our community through collaboration with community partners and residents, and as outlined in our 2019-2022 Implementation Plan.

## Thank You

Mount Nittany Health thanks our community partners for their valuable contributions in support of the 2019 CHNA. We welcome your continued collaboration to improve the health of all residents of Centre County. For additional information about the CHNA or to learn more about the Implementation Plan, please contact Jeannine Lozier, Community Outreach Coordinator at [jlozier@mountnittany.org](mailto:jlozier@mountnittany.org).

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## Appendix B: Key Informant Survey Participants

A Key Informant Survey was conducted with 98 community representatives. The organizations represented by key informants, and their respective roles/titles, included:

Key Informant Organization	Key Informant Title/Role
Bald Eagle Area School District	School Nurse
Bellefonte Area School District	Certified School Nurse
Bellefonte YMCA	Branch Director
Bob Perks Fund	Founder
Boggs Township	Secretary/Treasurer
Cancer Care Partnership	Physician
Cancer Care Partnership	CRNP
Centre Area Transportation Authority	General Manager
Catholic Charities, Inc. of the Diocese of Altoona-Johnstown	Executive Director
Centre County Government	Commissioner
Central Pennsylvania Community Action, Inc.	Executive Director
Central Pennsylvania Community Action, Inc.	Family Service Center Coordinator
Centre County Sheriff's Office	Sheriff
Centre County Women's Resource Center	Executive Director
Centre County Children and Youth Services	Agency Liaison
Centre County Drug and Alcohol	Program Administrator
Centre County Government	Director, Office of Adult Services
Centre County Government	Risk Manager
Centre County Mental Health	Assistant Administrator for Mental Health Services
Centre County MH/ID	Administrator
Centre County MH/ID/EI-D&A	Assistant Administrator
Centre County Office of Transportation	Director
Centre County United Way	Executive Director
Centre County Youth Service Bureau	Associate Director
Centre Crest	Admissions Director
Centre Hall Library	Branch Manager
Centre Helps	Executive Director
Centre Pathology Associates	Pathologist
Centre Regional Planning Agency	Transportation Planner
Centre Volunteers in Medicine	Executive Director
Commonwealth Prevention Alliance	Physician
Crisis Intervention Team (CIT)	CIT Coordinator
Crossroads Counseling	Office Manager
Communities That Care	Chairperson

Foxdale Village	Director of Health Services
Gregg Township	Secretary/Treasurer
Halfmoon Township Board of Supervisors	Supervisor
Jana Marie Foundation	President
MidPenn Legal Services	Regional Manager
Mid-State Literacy Council, Inc.	Executive Director
Moshannon Valley Branch of the YMCA of Centre County	Director
Mount Nittany Health	Many
Mount Nittany Health	Diabetes Educator
Mount Nittany Health	Director, System Decision Support
Mount Nittany Health	Vice President, Marketing, Communications & Community Outreach
Mount Nittany Health	System Director Program & Service Development
Mount Nittany Health	Administrative Director for Pain Management and Wound Care
Mount Nittany Health	Director
Mount Nittany Health	Vice President, Quality
Mount Nittany Health	Director
Mount Nittany Health	Director, Community Health & Outreach
Mount Nittany Health	Executive Vice President, Patient Care Services & Chief Nursing Officer
Mount Nittany Health	Director, Volunteer Resources
Mount Nittany Health	Director of Rehabilitation
Mount Nittany Health	Director
Mount Nittany Health	System Director of Clinical Innovation
Mount Nittany Health	CDE
Mount Nittany Health	CCO
Mount Nittany Medical Center	Practice Manager/Hospitalist, Intensivist, Pulmonary
Mount Nittany Medical Center	Psychiatric Case Manager
Mount Nittany Medical Center	Admin Director Laboratory
Mount Nittany Medical Center	Director of Case Management
Mount Nittany Medical Center	Stroke Nurse Coordinator
Mount Nittany Medical Center	Oncology Navigator
Mount Nittany Medical Center	Physician
Mount Nittany Medical Center	Director of Quality
Mount Nittany Medical Center	Oncology Patient Navigator
Mount Nittany Medical Center	Director
Mount Nittany Medical Center	Director of Education
Mount Nittany Medical Center	Radiology Administration
Mount Nittany Medical Center	Director of Behavioral Health
Mount Nittany Physician Group	Chief Physician Executive
Mount Nittany Physician Group	COO

Mount Nittany Physician Group	Practice Administrator
Mount Nittany Physician Group	Nurse Leader
Mountaintop Elementary School	Health Room Assistant/LPN
Nurse-Family Partnership	Supervisor, Centre County
Oasis LifeCare	Office Manager
Patton Township	Township Manager
Penn State Health	Resident
Penn State Health	Resident Physician
Penn State Health	Associate Dean/Professor
Penn State University	Executive Director, MHA Programs
Penn State University Ambulance Service	EMS Manager
Pennsylvania Office of Rural Health	Director
Pennsylvania Recreation and Park Society	Director of Training and Get Outdoors PA
St. Paul's United Methodist Church & Wesley Foundation	Director of Community & Congregational Care
School District	School Nurse
State College Area School District	Counselor
State College Borough	Community Engagement Specialist

Key Informant Organization	Key Informant Title/Role
State College Community Land Trust	Board President
State College Community Land Trust	Outreach and Development Coordinator
Strawberry Fields, Inc.	CEO
Sunpointe Health	Psychiatrist
The Arc of Centre County	CEO
The Meadows & Universal Community Behavioral Health	Director of Business Development
YMCA of Centre County	CEO
Centre County Youth Service Bureau	Associate Director

## Appendix C: Community Partner Forum Participants

A Partner Forum was conducted with 52 community representatives. Partner Forum attendees included:

Name	Organization
Allayn Beck	State College Food Bank
Kelly Braun	Pennsylvania Office of Rural Health
Cindy Brock	Foxdale
Steve Dershem	Centre County Commissioner
Douglas Erickson	Patton Township
Anna Kochersperger	Affordable Housing Coalition
Michelle Melius	Strawberry Fields
Meghan O'Brien	Foxdale
Rebecca Romig	Out of the Cold
Amy Wilson	Mid State Literacy
Catherine Arbogast	Centre County Drug and Alcohol
Rick Arnold	Centre Volunteers in Medicine (CVIM)
Melissa Aungst	Mount Nittany Health
Sarah Ayers-Cook	Foxdale
Kim Bahnsen	Home Nursing Agency Nurse - Family Partnership
Rich Barrickman	State College Food Bank (Board)
Christine Bishop	Youth Service Bureau
Melissa Bottorf	PA Link to Aging and Disability Resources
Stacey Budd	Friends and Farmers
Autumn Busbee	State College Borough
Tom Charles	Mount Nittany Health
Meg Clouser	Foxdale
Brent Frank	Mid Penn Legal Services
Richard Gadsby	Strawberry Fields
Tammy Gentzel	Centre County United Way
Tirzah Gibboney	Bridge of Hope
Margaret Gray	Centre County Government Administrator
Dee Hall	Centre Safe
Michelle Henry	Centre County MH/ID/EI-D&A
Jessica Herron	Centre County Criminal Planning and Justice
Mark Higgins	Centre County Commissioner
Kari Hull	Centre County Criminal Planning and Justice
Katie Kensinger	Juniper Village at Brookline

Molly Kunkle	Centre Foundation
Leanne Lenz	Centre Helps
Jeannine Lozier	Mount Nittany Health
Denise McCann	Youth Service Bureau
Scott Mitchell	YMCA
Nichole Monica	Mount Nittany Health
Michael Pipe	Centre County Commissioner
Hope Roaten	American Red Cross
Faith Ryan	Centre County Government Office of Adult Services
Marsha Sackash	Communities that Care (CTC)
Pamela Salokangas	Centre Region Parks and Recreation
Jamie Sanfilippo	YMCA
Rena Schunk	St. Paul's United Methodist Church (State College)
Kristen Sides	Mount Nittany Health
Meredith Thompson	Mount Nittany Health
Christine Tyler	Meals on Wheels
Marisa Vicere	Jana Marie Foundation/Suicide Prevention Task Force
Morgan Wasikonis	Housing Transitions
Cheryl White	Centre Volunteers in Medicine (CVIM)