2022 Community Health Needs Assessment

Centre County

June 2022

MOUNT NITTANY HEALTH

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Our Commitment to Community Health

Originally established as a community hospital, Mount Nittany Health (MNH), based in State College, Pennsylvania, has been serving our community for 120 years. During this time, we have grown exponentially to add the healthcare services our community needs, where it needs them. We are also a top employer in the region, contributing to the economic growth, and good health, of the community. Mount Nittany Health employs 2,400 employees and 220 providers across 17 locations and 30+ medical specialties. Our commitment to community health is guided by our not-for-profit status and mission: Healthier People. Stronger Community.

Mount Nittany Health is proud to offer modern, comprehensive, award-winning healthcare. Our clinical excellence has earned us a 5-star health system rating by the Centers for Medicare & Medicaid Services, the 2021 Newsweek "World's Best Hospitals" ranking, and a "Best Hospitals for Maternity" ranking from U.S. News and World Report, among other recognitions.

We believe our community should receive a continuum of care, close to home, and with specialties like cardiology, orthopedics, oncology, urology, and more, we are committed to future growth. This commitment is also seen in investments in infrastructure projects, including a new Women and Children's Services Unit opened in April 2022, a new laboratory opened in May 2022, a new diagnostic pavilion opening late 2024, and a new outpatient center opening in Toftrees West in 2024.

As a trusted local healthcare leader, MNH is dedicated to understanding and addressing the most pressing health and wellness concerns for our community. Every three years, MNH conducts a Community Health Needs Assessment (CHNA) in partnership with community agencies and residents and creates a corresponding Implementation Plan to address the health priorities identified by the CHNA. The 2022 CHNA was guided by the input and leadership of a community Advisory Council, comprised of representatives from 36 Centre County organizations.

Prior CHNAs conducted by MNH have informed the work of countywide programs and partnerships, including the Centre County Mental Health Task Force, Centre County Heroin Opioid Prevention Education (HOPE), Communities that Care Coalition, and Centred Outdoors, among others. The CHNA also helps to guide healthcare advancement and innovation at MNH to better serve our patients. Over the past decade, MNH has developed clinical programs to enhance care delivery, including emergency department case management, psychiatric care coordination, oncology patient navigation, diabetes programming, and palliative care services.

***Centred Outdoors**, a community partnership providing free outings and activities open to the public*

The 2022 CHNA builds upon previous assessments and will continue to guide our community benefit and community health improvement efforts. Consistent with previous assessments, the 2022 CHNA focused on the health needs of all residents of Centre County. Based on the CHNA research and community insight, the following health issues were identified as priorities for Centre County:

- Behavioral Health
- Chronic Disease

As we strive every day to live our vision – “Our compassion, excellent clinical care, and extraordinary service make us the community's preferred choice," – we thank you for partnering with us to improve the health of our community. 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 Nena Ellis, Director of Brand & Community Engagement at Nena.Ellis@mountnittany.org.

2022 CHNA Executive Summary

Mount Nittany Health Service Area

For purposes of the CHNA, MNH defined its service area as Centre County, Pennsylvania, the residence for the majority of Mount Nittany Medical Center patients. Consistent with the 2019 CHNA, MNH aligned the CHNA process with the seven planning regions defined by the Centre County Planning and Community Development Office, shown in the map below. The regions are comprised of 35 municipalities, representing diverse urban and rural communities.

Centre County Planning Regions

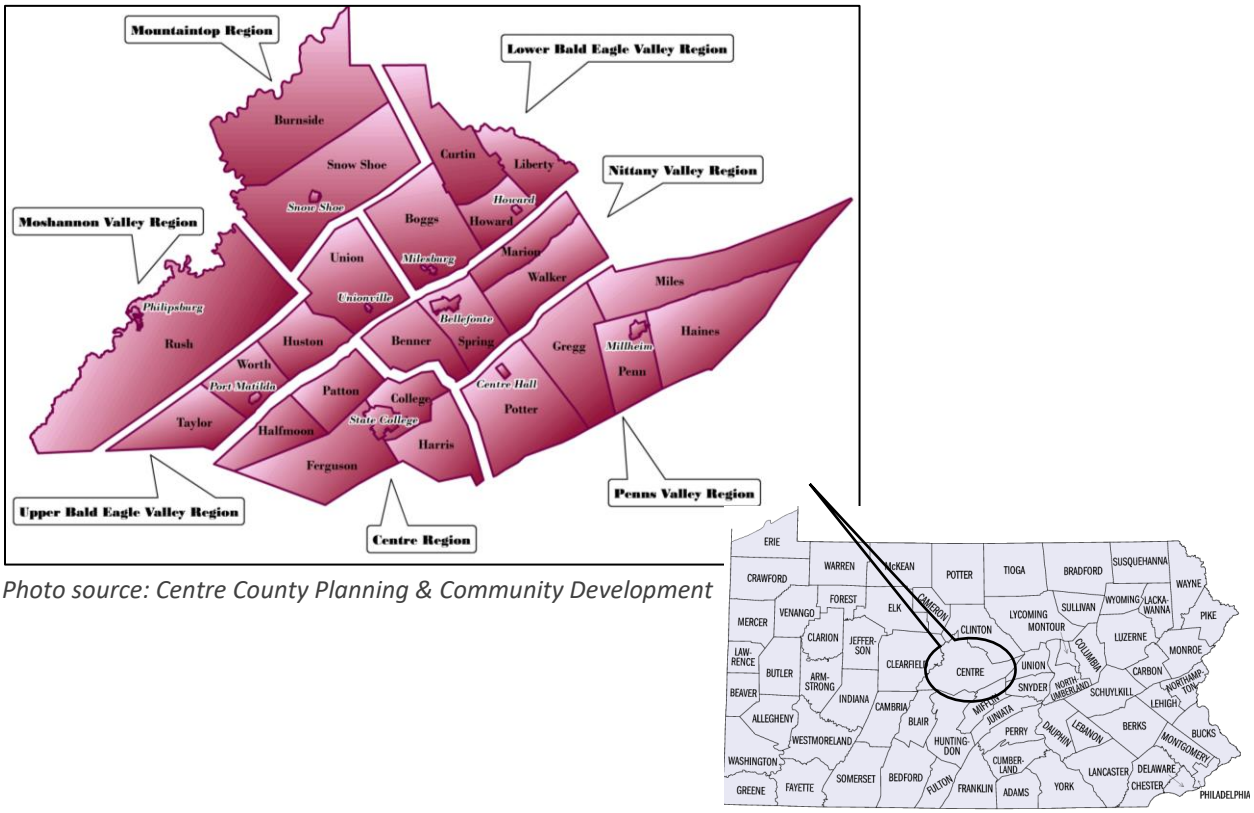


Photo source: Centre County Planning & Community Development

The Centre and Nittany Valley Regions, which include the boroughs of State College and Bellefonte, are home to nearly 78% of the Centre County population. State College Borough comprises 26% of the county population and is the largest designated borough in Pennsylvania and one of the densest cities of its population size in the nation. The Centre Region is home to Mount Nittany Medical Center and the Pennsylvania State University, the top employers for the county. The Historic Borough of Bellefonte, located approximately 20 minutes northeast of State College, is the county seat of government.

Other regions of Centre County are primarily rural and include state forestlands, Amish farmland, and small municipalities ranging in population size from less than 250 to approximately 4,000. The health and social needs of residents in each region vary widely and are a primary consideration for the CHNA.

CHNA Leadership

The 2022 CHNA was overseen by a Steering Committee of representatives from MNH, in partnership with a community Advisory Council comprised of representatives from 36 organizations across Centre County. The Advisory Council was led be an executive committee of community agency and MNH representatives. Mount Nittany Health contracted a public health consultant to assist in all phases of the CHNA, including project management, data collection and analysis, and report writing.

MNH CHNA Planning Committee

Tom Charles, Executive Vice President, System Development and Chief Strategy Officer
Nena Ellis, Director of Brand and Community Engagement
Jeannine Lozier, Manager Community Engagement

Advisory Council Executive Committee

Tiffany Cabibbo, Executive Vice President, Mount Nittany Health
Natalie Corman, Human Services Administrator, Centre County Government
Molly Kunkle, Executive Director, Centre Foundation
Leanne Lenz, Executive Director, Centre County United Way

Consultant

Catherine Birdsey, MPH, CHES

CHNA Methodology

The 2022 CHNA was conducted from August 2021 to May 2022. Quantitative and qualitative methods, representing both primary and secondary research, were used to illustrate and compare health and social trends and disparities across Centre County. The following research methods were used to determine community health needs:

CHNA Study Methods

- Statistical analysis of health and socioeconomic data indicators; a full listing of data references is included in Appendix A
- Electronic survey of key stakeholders, including experts in public health and individuals representing medically underserved, low-income, and minority populations; a list of key stakeholders and their respective organizations is included in Appendix B
- A review of Mount Nittany Medical Center utilization data to analyze how consumers are accessing care and where gaps in service exist
- Electronic MNH provider engagement survey to better understand and respond to the impact of social determinants of health on patient health outcomes and assess systemwide Diversity, Equity, and Inclusion initiatives
- A Partner Forum with community agency representatives to garner insight on existing health improvement efforts and opportunities for partnership

Community Engagement

Community engagement was an integral part of the 2022 CHNA. The CHNA Advisory Council guided the research process and provided ongoing feedback to inform findings and priority health needs. Mount Nittany Health thanks the following individuals for serving on the Advisory Council!

2022 CHNA Advisory Council Members	
Lydia Abdullah, Community Member	Scott Mitchell, YMCA of Centre County
Anne Ard, Centre Safe	Deb Nardone, ClearWater Conservancy
Kim Bahnsen, Nurse-Family Partnership / UPMC Home Healthcare Central PA	Andrew Naugle, Centre Care
Zach Barton, Leadership Centre County	Eric Norenberg, Centre Region Council of Government
Allayn Beck, State College Food Bank	Louwana Oliva, Centre Area Transportation Authority
Christine Bishop, Youth Service Bureau (YSB)	David Ostrich, Congregation Brit Shalom
Cathleen Brown, CentrePeace	Cindy Pasquinelli, Strawberry Fields Inc.
Randy Brown, State College Area School District	Brandy Reiter, Senator Jake Corman
Simon Corby, Mount Nittany Health Foundation	Pratiti Roy, Penn State College of Medicine
Natalie Corman, Centre County Government	Renae Schunk, St. Paul's United Methodist Church & Wesley Foundation
E. Carol Eicher, Community Diversity Group	Derek Sherman, CATA - Centre Area Transportation Authority
May Eicher, Community Diversity Group	Kimberly Snively, Center for Community Resources Crisis Intervention
Denise Feger, Crossroads Counseling Inc.	Denise Sticha, Centre County Library and Historical Museum
Jessica Foster, PA Health Access Network	Tiffany Treese, Pyramid Healthcare, Inc
William Hayes, Kish Bank	Robin Weagley, The Meadows Psychiatric Center
Cheryl Johnson, PICCC	Cheryl White, Centre Volunteers in Medicine
Molly Kunkle, Centre Foundation	Amy Wilson, Mid-State Literacy Council, Inc.
Leanne Lenz, Centre County United Way	Matt Wise, Senator Jake Corman
Olivia Luzier, James E. Van Zandt Altoona VA Medical Center	Kelly Wolgast, Penn State
Denise McCann, Centre Helps	Akshata Yalvigi, Penn State College of Medicine
Trish Meek, Centre Regional Planning Agency	Cynthia Zerbe, Centre Area Transportation Authority

The CHNA solicited and received input from individuals who represent the broad interests of the community, including underserved, low-income, and minority populations. These individuals provided wide perspectives on health trends, shared lived experiences among underserved populations, insights into service delivery gaps, and recommendations to advance community health. Opportunities for providing input included a Key Stakeholder Survey completed by 148 community representatives and a Partner Forum attended by 72 representatives of Centre County health and social service agencies.

As part of the 2022 CHNA, MNH also sought to engage different groups of individuals, including people of different ages, races and ethnicities, abilities and disabilities, genders, religions, cultures, gender and sexual orientations. Future assessments will be enriched by continuing to increase engagement and involvement from the BIPOC and LGBTQ+ communities.

Summary of Findings

Centre County is a uniquely diverse community, representing both urban and rural geographies that encompass a national and international university student population and growing Amish population. Consistent with the state and nation, Centre County has an increasingly diverse racial and ethnic makeup, although 88% of the population identifies as White.

Pennsylvania State University (PSU) students and staff continue to have a significant impact on Centre County demographics, including the median age and overall diversity. Nearly 1 in 4 Centre County residents is aged 18 to 24 compared to a statewide of 9%. Benner, Ferguson, Patton, and State College, the municipalities surrounding State College, have the most racial diversity within the county.

Centre County residents benefit from longer, healthier lives overall. Average life expectancy increased from prior needs assessments and continues to exceed the statewide average, at 83 years versus 78.4 years. Centre County's positive health outcomes are due in large part to positive social determinants of health. The county overall fares better than the state and nation on most socioeconomic indicators. The median household income increased from the 2019 CHNA, and the countywide percentage of residents and children living in poverty declined. Nearly half of residents have attained a bachelor's degree and more residents have health insurance when compared to the state and nation.

While Centre County overall is a healthier place to live, positive health outcomes are not shared across all communities, and differences are largely rooted in socioeconomic differences and racial disparities. Individuals living in rural Centre County communities, particularly in the western Moshannon Valley and Mountaintop regions, continue to report higher poverty, lower educational attainment, and overall life expectancy that is as much as five years less than other portions of the county. The Moshannon Valley and Mountaintop regions are home to a more diverse, non-White population. Minority residents have historically experienced inequitable socioeconomic opportunities and disparate health outcomes. Across Centre County, one-quarter to one-third of individuals of color live in poverty compared to less than 1 in 5 White residents. Statewide, Black residents live an average of 4 years less than White residents.

Socioeconomic risk factors that contribute to negative health outcomes were exacerbated by the COVID-19 pandemic. Of note, unemployment nearly doubled in 2020 and child food insecurity was projected to have increased 40%. Partner Forum participants shared that COVID-19 widened economic disparities among residents. While some families did better due to stimulus payments and lower household costs, others experienced severe hardship due to job loss and rising inflation.

Chronic conditions continue to be the leading cause of death and disability for Centre County residents, and the top reason for healthcare utilization. Heart disease is the leading cause of death, followed by cancer. Stroke, chronic lower respiratory disease, and diabetes are also among the top seven causes of death for residents. Centre County death rates due to chronic conditions have declined since prior assessments and are lower than state and national benchmarks, although risk factors remain prevalent. Approximately 27% of Centre County adults have obesity, a lower proportion that the state (33%), but an increase from prior years. Approximately 18.5% of adults are estimated to use tobacco, a slightly higher proportion than the state overall (17.9%).

Older adults are among the most likely to experience chronic conditions and have overall higher healthcare spending due to increased utilization of services. Approximately 71.9% of Centre County older adult Medicare beneficiaries have two or more chronic conditions, a slight increase from the 2019 CHNA (71.2%). Nearly 18% of Centre County older adult Medicare beneficiaries have six or more chronic conditions, a similar proportion as the state and nation overall.

The health needs of rural communities, particularly related to chronic disease, are amplified by declining population and an aging demographic. While the county population overall is growing, growth is largely centered in the Centre and Nittany Valley regions. The population in the western portion of the county declined by as much as 8%-14% since 2010. At the same time, the countywide proportion of seniors increased, and a higher proportion of seniors live in rural communities. These factors reinforce both increasing demand and challenges for providing healthcare services outside the Centre and Nittany Valley regions. Challenges to providing rural healthcare are demonstrated in a higher rate of emergency department (ED) utilization among older adult Medicare beneficiaries relative to the state and nation.

Behavioral health is also a growing community need for Centre County. It was identified as the most pressing concern for residents and the top missing community resource by Key Stakeholder Survey participants. Partner Forum participants shared that pandemic-related factors, including school interruptions and loss of social emotional learning, isolation, and economic stress, exacerbated behavioral health concerns.

Behavioral health is often measured by downstream outcomes, such as self-reported poor mental health and suicide. Centre County adults report an average of nearly five poor mental health days per month, a 50% increase from the 2016 CHNA report of three days. Centre County has historically averaged about 15 suicide deaths per year. While the rate of death due to suicide is lower than the state and nation, it increased 30% between 2013-2015 and 2015-2017 and has been stagnant since then. Preliminary data for 2022 indicate a potentially higher-than-average number of suicide deaths, with six suicide deaths occurring in January and February, including one death among a youth under age 18.

Centre County youth are among the most likely to experience behavioral health concerns. Nearly 30% of Centre County youth report feeling consistently sad or depressed and 7% attempted suicide. These findings were largely unchanged from prior years. An analysis of MNH ED utilization data found that anxiety, depression, and unspecified mood disorders were the top diagnoses among behavioral health-

related visits, and consistent with prior CHNA findings, youth and young adults comprised about one-third to one-half of visits for these conditions.

Behavioral health conditions can have a wide range of causes, but are often connected with upstream social risk factors, such as adverse childhood experiences and socioeconomic disadvantages. The impact of these risk factors is demonstrated in behavioral health outcomes for youth enrolled in State College Area School District (SCASD) versus rural county school districts. Historically, approximately 35% of students in rural areas reported feeling consistently sad or depressed compared to 23% of SCASD students; 8% of rural students had attempted suicide compared to 6% of SCASD students.

Despite increasing behavioral health needs, Centre County has a deficit of behavioral health providers. The Centre County behavioral health provider rate increased over the past five years but remains lower than state and national rates. Feedback from Key Stakeholder Survey participants identified service delivery gaps that span the spectrum of care, including inpatient and outpatient services, pediatric services, Medicare providers, partial hospitalization, prescribing psychiatrists, and case management.

Substance use disorder has historically been identified as a Centre County community need. While this need persists, it has generally improved in recent years. As of 2019, Centre County had a lower rate of hospitalization for all reported substances compared to the state. This finding is consistent with an overall small number of drug overdose deaths in Centre County, even during pandemic years. Alcohol use disorder also declined and is on par with the state. Mount Nittany Health will continue to support the efforts of agency partners in meeting the substance use disorder needs of residents, but guided by 2022 CHNA, including feedback from community partners, the system will prioritize resources and planning to address growing behavioral health needs.

Centre County community agencies, including MNH, have made significant progress in responding to the identified health and social needs. These efforts have included mobile outreach services, new access points for behavioral health service delivery, initiatives to address social determinants of health barriers, and cross-agency programming for chronic disease prevention and management. The 2022-2025 Implementation Plan developed by MNH in response to identified community health priorities will build upon these efforts, leveraging new and existing community partnerships for collective impact.

Community Health Priorities

To work toward health equity, it is imperative to prioritize resources and activities toward the most pressing and cross-cutting health needs within the community. Priorities were determined by the MNH CHNA Planning Committee considering research findings and feedback from community stakeholders.

The 2022 CHNA consistently identified Behavioral Health and Chronic Disease as the most significant health needs for Centre County residents. Underlying these needs were the cross-cutting issues of social determinants of health and rural disparities in access to care and overall health and wellness. In

developing the 2022-2025 Implementation Plan, MNH sought to prioritize strategies that address these underlying issues to promote an upstream, preventive approach to community health improvement.

2022-2025 Implementation Plan Guiding Goal and Health Priorities

Guiding Goal: Promote social, physical, and economic environments that aim to eliminate health disparities and achieve the full potential for health and well-being.

The CHNA also identified community needs related to substance use disorder and affordable housing. Mount Nittany Health recognizes the growing need for affordable housing in Centre County and will continue to support collective response efforts by the community, including promoting awareness and advocacy. Mount Nittany Health will also continue to work with its clinical practices and community partners to identify and respond to housing insecurity among patient populations.

The CHNA report is available to the public at https://www.mountnittany.org/about-us/community-health-needs-assessment.

A full summary of CHNA research findings follows.

Full Report of CHNA Research Findings

Secondary Data Profile

Background

Secondary data, including demographic, socioeconomic, and public health indicators, were analyzed for Centre County to measure key data trends and priority health issues identified in the 2019 CHNA, and to assess emerging health needs. Data were compared to Pennsylvania (PA) and United States (US) benchmarks and Healthy People 2030 (HP2030) goals, as available, to assess areas of strength and opportunity. Healthy People 2030 is a US Department of Health and Human Services health promotion and disease prevention initiative that sets science-based, 10-year national objectives for improving the health of all Americans.

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

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

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

Centre County Population Statistics

Demographics

The primary service area for MNH encompasses all of Centre County. The county is comprised of seven regions and 35 boroughs (boro) and townships (twp). Nearly 60% of Centre County residents live in the Centre Region, with the highest population count in State College Boro (42,275). The Nittany Valley Region is the second most populous region, home to approximately 18% of the county population. Nearly one-third of Nittany Valley Region residents live in Benner Twp.

The Centre County total population is growing at a consistent rate as the state overall, and slower than the nation. The population increased 2.7% from the 2010 to 2020 Census, compared to a nationwide increase of 7.4%. Most recent population counts for Centre County municipalities indicate that **all municipalities within the Centre and Nittany Valley regions experienced population growth**, but growth was higher in the Nittany Valley, particularly Benner Twp (+49.9%) and Marion Twp (+26.3%)**.** Nearly half (16) of the municipalities experienced population decline. Notably, **the population declined in all municipalities within the Lower and Upper Bald Eagle regions.**

Centre County's population continues to be greatly impacted by Pennsylvania State University (PSU) students and staff. The county has a significantly lower median age than both the state and nation. Nearly 1 in 4 Centre County residents is age 18 to 24 compared to 9% statewide and nationally.

While Centre County has an overall younger population, consistent with the state and nation, it is an aging community with an increasing proportion of residents age 65 or over. Older adults are more likely to live in rural areas of the county, including areas of declining population. This trend will continue to challenge health and social service providers to meet the needs of older adults and deliver timely, accessible care.

2020 Total Population

	Centre County	Pennsylvania	United States
Total Population	158,172	13,002,700	331,449,281
Percent Change Since 2010	+2.7%	+2.4%	+7.4%

Source: US Census Bureau, Decennial Census

2015-2019 Total Population by Municipality

Red = Declining population; Green = Higher population growth than the state and nation

	Total Population	Percent Change Since 2010
Centre County Municipalities		
Benner Twp	9,273	+49.9%
Marion Twp	1,546	+26.3%
Harris Twp	5,770	+18.4%
Miles Twp	2,288	+15.4%
Haines Twp	1,796	+14.8%
Ferguson Twp	19,390	+9.6%
Snow Shoe Boro	835	+9.2%
Centre Hall Boro	1,373	+8.5%
College Twp	10,102	+6.1%
Walker Twp	4,700	+6.0%
Spring Twp	7,838	+4.9%
Burnside Twp	459	+4.6%
Halfmoon Twp	2,782	+4.3%
Patton Twp	15,828	+3.4%
Penn Twp	1,220	+3.3%
Potter Twp	3,588	+2.0%
Bellefonte Boro	6,282	+1.5%
State College Boro	42,275	+0.6%
Rush Twp	4,018	+0.2%
Curtin Twp	615	-0.5%
Snow Shoe Twp	1,724	-1.3%
Philipsburg Boro	2,719	-1.8%
Huston Twp	1,333	-2.0%
Port Matilda Boro	593	-2.1%
Boggs Twp	2,918	-2.2%
Gregg Twp	2,346	-2.5%
Taylor Twp	829	-2.8%
Liberty Twp	2,045	-3.4%
Union Twp	1,333	-3.6%
Howard Boro	683	-5.1%
Worth Twp	776	-5.8%
Howard Twp	896	-7.1%
Milesburg Boro	976	-13.1%
Unionville Boro	242	-16.8%
Millheim Boro	569	-37.1%

Source: US Census Bureau, American Community Survey

Centre County has a lower median age than the state and nation, primarily due to a high proportion of college age students or Generation (Gen) Z. The county overall has a low proportion of youth under age 18 (15%) compared to the state (21%) and nation (23%). This finding is consistent with an overall lower and declining birth rate compared to the state. Other age group proportions are generally consistent with the state and/or nation.

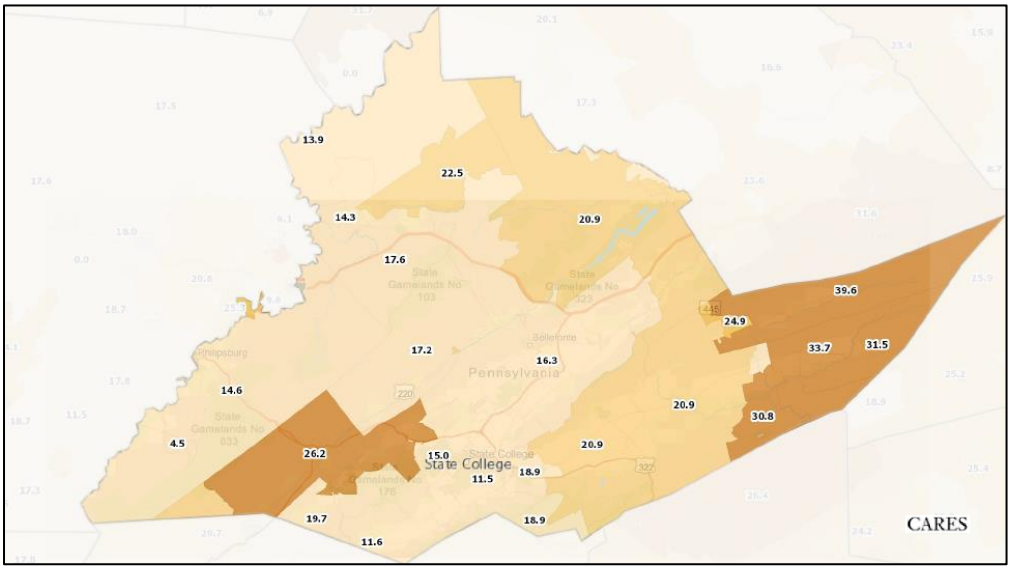
2015-2019 Population by Age

	Gen Z/ Gen C	Gen Z	Millennial	Millennial / Gen X	Gen X	Boomers	Boomers/ Silent	Median Age
	Under 18 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and over	
Centre County	15.0%	23.9%	14.1%	10.7%	11.2%	11.4%	13.8%	32.3
Pennsylvania	20.8%	9.2%	13.1%	11.7%	13.2%	14.1%	17.8%	40.8
United States	22.6%	9.4%	13.9%	12.6%	13.0%	12.9%	15.6%	38.1

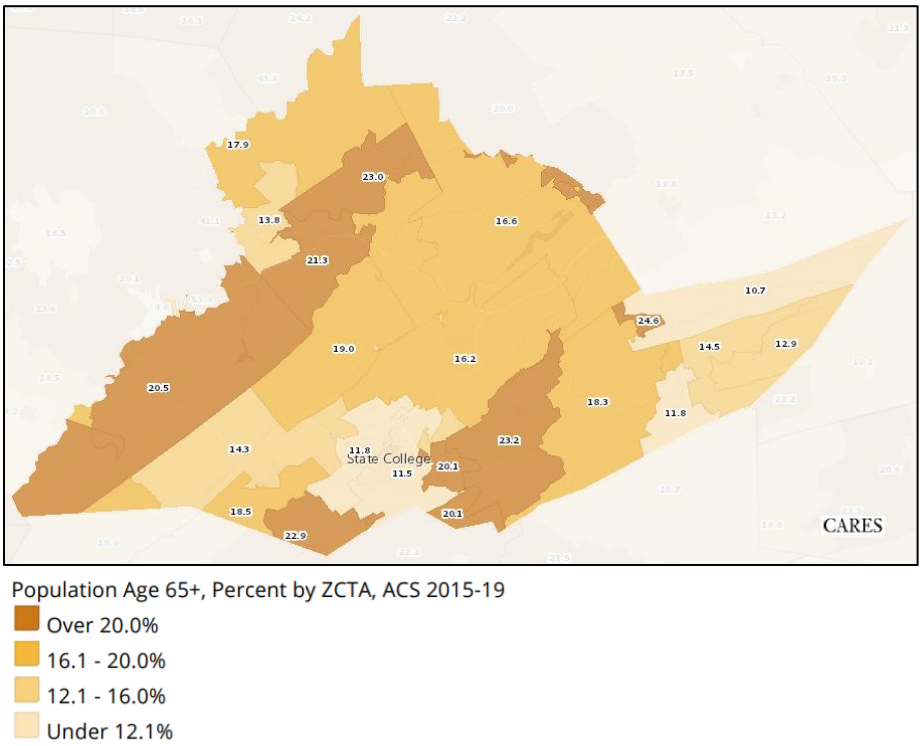
Source: US Census Bureau, American Community Survey

The following maps illustrate the proportion of youth and older adult populations by Centre County zip code. The youth population age 0-17 comprises less than 20% of the total population in most zip codes. A higher proportion of youth live in the Penns Valley Region, as well as zip code 16870, Port Matilda. **Higher youth concentration in the Penns Valley Region is likely impacted by Amish families, which typically average five or more children.**

2015-2019 Youth Population Age 0-17 by Zip Code



2015-2019 Older Adult Population Age 65 or Over by Zip Code



The Amish are a prominent population group in Centre County. **From 2017 to 2020, the estimated Amish population grew from 3,110 to 3,317 or 6.7%, a higher growth rate than the overall county population.**

Estimated Amish Population

Settlements	2017	2020	% Change
Centre County: Aaronsburg, Brush Valley / Rebersburg, Penns Valley, Nittany Valley / Howard*	3,110	3,317	6.7%
Pennsylvania	74,251	81,499	9.8%

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

*The Nittany Valley/Howard settlement includes portions of both Centre and Clinton counties.

The PA population as a whole is less racially diverse than the population nationwide. Residents of Centre County are less racially diverse than the state, excluding a higher proportion of Asian residents. Across Centre County, approximately 88% of residents identify as White compared to 80.5% statewide and 72.5% nationally. Greater population diversity is seen in portions of the Centre and Nittany Valley regions. Notably, approximately 1 in 10 residents in Ferguson, Patton, and State College identify as Asian, and 1 in 5 residents in Benner Twp identify as Black or African American.

While the Centre County population is less diverse, consistent with the 2019 CHNA, diversity is slowly increasing. From the 2010 Census, the White population as a percentage of the total population declined nearly one percentage point. Marginal growth was seen among the Asian (0.6%) and Latinx (0.2%) populations.

2015-2019 Population by Race and Ethnicity

Municipalities with notable racial and ethnic diversity are also shown

	White	Asian	Black or African American	Some Other Race	Two or More Races	Latinx origin (any race)
Centre County	87.6%	6.1%	3.8%	2.5%	1.8%	2.9%
Benner Twp	72.3%	0.1%	21.8%	5.8%	2.6%	8.3%
Ferguson Twp	75.8%	15.5%	4.7%	4.0%	3.1%	3.7%
Patton Twp	83.6%	9.3%	5.2%	1.9%	1.5%	3.5%
State College Boro	82.4%	10.9%	3.9%	2.8%	2.3%	4.2%
Pennsylvania	80.5%	3.4%	11.2%	4.9%	2.5%	7.3%
United States	72.5%	5.5%	12.7%	9.3%	3.3%	18.0%

Source: US Census Bureau, American Community Survey

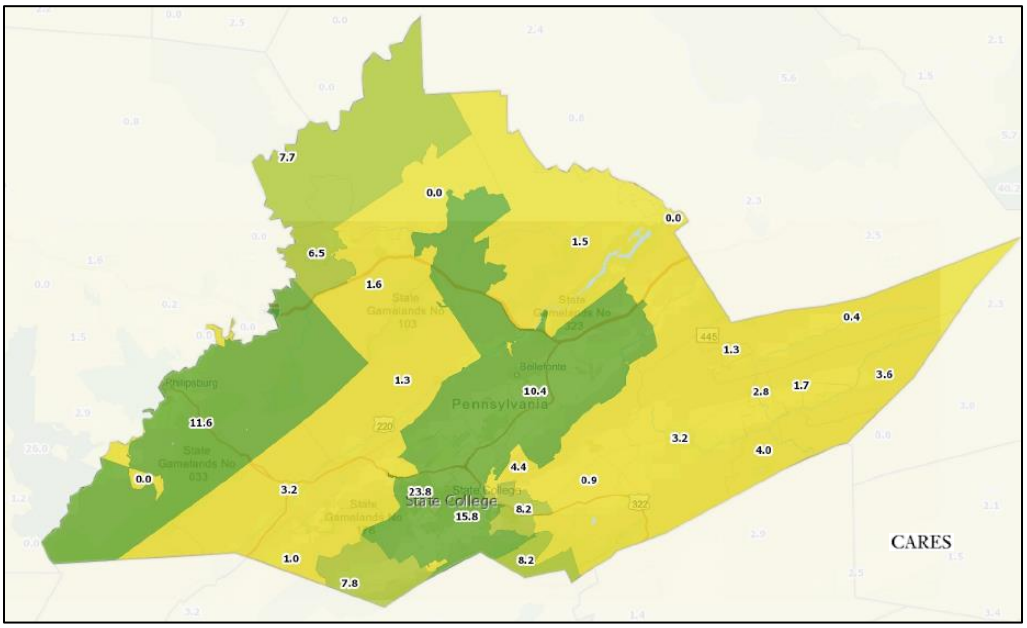
Centre County Trended Change in Population by Race and Ethnicity

	White	Asian	Black or African American	Latinx origin (any race)
2011-2015	88.4%	5.5%	3.8%	2.7%
2012-2016	88.0%	5.8%	3.8%	2.8%
2013-2017	87.8%	6.0%	4.0%	2.8%
2014-2018	87.5%	6.3%	4.0%	2.9%
2015-2019	87.6%	6.1%	3.8%	2.9%
Net Change 2011-2015 to 2015-2019	-0.8% ↓	0.6% ↑	0.0%	0.2% ↑

Source: US Census Bureau, American Community Survey

Minority (non-White) populations are largely concentrated in the Centre and Nittany Valley regions, impacted by the presence of PSU. **A higher proportion of minority populations also live in the Moshannon Valley Region. The Moshannon Valley was home to a correctional institution through March 2021, which likely impacted local demographics.** Nationwide, people of color, particularly Black and Latinx, are disproportionately incarcerated.

2015-2019 Minority (non-White) Population by Zip Code



Consistent with an overall younger and healthier population, fewer Centre County residents experience disability compared to PA and the US. Approximately 9% of the total population and 28% of older adults report a disability, a lower proportion than the state (14%, 34%) and nation (13%, 34.5%). Among older adults, the most prevalent disabilities include walking and hearing.

2015-2019 Population by Disability Status

	Centre County	Pennsylvania	United States
Total population	9.2%	14.0%	12.6%
Under 18 years	4.3%	5.4%	4.2%
65+ years	28.0%	33.6%	34.5%
Ambulatory (walking)	16.2%	21.0%	21.9%
Hearing	12.4%	13.9%	14.3%
Independent living	10.9%	14.1%	14.2%
Cognitive	5.4%	8.0%	8.6%
Vision	4.1%	5.6%	6.3%

Source: US Census Bureau, American Community Survey

Socioeconomics

Centre County continues to be a more affluent area in comparison to other PA communities and the nation. The median household income increased from the 2016 and 2019 CHNAs, and the percentage of residents living in poverty declined. While a higher proportion of Centre County residents are reported to live in poverty than the state and nation, this indicator is inflated by university students who report little or no income. Child poverty is a more accurate measure of economic stability for Centre County. **The percentage of Centre County children living in poverty declined from the 2019 CHNA (14%) and is reported at 10.7% compared to state and national averages of approximately 18%.** Note, these data reflect pre-COVID-19 findings, and likely do not demonstrate economic hardship experienced by individuals and families during the pandemic. Unemployment and food insecurity data for 2020 and 2021 provide insight into the impact of the pandemic on the local economy and residents.

COVID-19 had a significant impact on unemployment rates across the nation. **Near the onset of the pandemic in April 2020, the Centre County unemployment rate was 9.7%, nearly four times higher than the April 2019 rate of 2.6%.** While unemployment has since declined, reaching 5.5% as of July 2021, pandemic-level rates will likely have a lasting economic and social impact on the community.

Food insecurity is defined as not having reliable access to a sufficient amount of nutritious, affordable food. Food insecurity is associated with lower household income and poverty, as well as poorer overall health status. Similar to unemployment rates, COVID-19 had a profound impact on food insecurity, particularly among children. **From 2019 to 2020, the percentage of food insecure children was projected to increase from 9.6% to 13.3%.** Consistent with Centre County's overall economic strength, food insecurity levels were lower, both before and during the pandemic, than the state and nation.

Economic Indicators

	Centre County	Pennsylvania	United States
Income and Poverty (2015-2019)			
Median household income	$60,403	$61,744	$62,843
All people in poverty	18.2%[1]	12.4%	13.4%
White	16.4%[1]	9.7%	11.1%
Asian	38.6%[1]	13.9%	10.9%
Black	31.9%[1]	26.0%	23.0%
Latinx, any race	28.2%[1]	28.1%	19.6%
Children in poverty	10.7%	17.6%	18.5%
Older adults in poverty	4.4%	8.1%	9.3%
Households with SNAP[2] Benefits	6.8%	13.3%	11.7%
Unemployment			
July 2021 (most recent available)	5.5%	6.7%	5.7%
2020 average	5.8%	9.1%	8.1%
2019 average	3.4%	4.5%	3.7%

Source: US Census Bureau, American Community Survey & US Bureau of Labor Statistics

[1]Percentages are likely skewed by PSU students.

[2]Supplemental Nutrition Assistance Program.

Food Insecurity

	Centre County	Pennsylvania	United States
All Residents			
2021 (projected)	10.1%	12.0%	12.9%
2020 (projected)	11.4%	13.8%	13.9%
2019	9.3%	10.6%	10.9%
2018	8.8%	10.9%	11.5%
Children			
2021 (projected)	10.6%	16.8%	17.9%
2020 (projected)	13.3%	20.4%	19.9%
2019	9.6%	14.6%	14.6%
2018	10.9%	15.1%	15.2%

Source: Feeding America

Economic Trends by CHNA

	Centre County		
	2016 CHNA	2019 CHNA	2022 CHNA
Median household income	$50,633	$54,407	$60,403
All people in poverty	20.9%	19.1%	18.2%
Children in poverty	15.1%	13.6%	10.7%
Food insecure children	19.0%	15.0%	10.9%
Households with SNAP Benefits	6.7%	6.8%	6.8%

Source: US Census Bureau, 2011-2013, 2012-2016, 2015-2019

Compared to PA and the US, Centre Country adults are generally very well educated. The proportion of adults who have completed a bachelor's degree or graduate or professional degree far exceeds both the national and statewide benchmarks. **Fewer than 6% of residents have not finished high school, less than half the national average.**

2015-2019 Population (Age 25 or Over) by Educational Attainment

	Centre County	Pennsylvania	United States
Less than high school diploma	5.7%	9.5%	12.0%
High school graduate (includes equivalency)	29.4%	34.7%	27.0%
Some college or associate's degree	19.5%	24.4%	28.9%
Bachelor's degree	23.7%	19.0%	19.8%
Graduate or professional degree	21.8%	12.4%	12.4%

Source: US Census Bureau, American Community Survey

Penn State's University Park campus enrolls approximately 46,000 undergraduate and 14,000 graduate students, who comprise a significant portion of the Centre County population. In 2021, the university conducted a Food and Housing Needs Survey to better understand and respond to the prevalence and

nature of student needs in the areas of food and housing security. The survey was emailed to a random sample of undergraduate and graduate/professional students and generated 2,051 responses.

The survey confirmed that a need exists among students on the University Park campus, with 24.1% of respondents indicating they have some trouble securing food daily and 16.8% indicating they have some trouble securing adequate housing. Results show heightened impacts among respondents who self-identified as members of an underrepresented minority group, international students, students who have disabilities, or students who self-identified as sexually diverse or gender diverse.

Socioeconomic Inequities

Centre County overall has a strong socioeconomic composition, but it is not shared equally by all residents. **Racial and ethnic disparities exist countywide**, although findings should be interpreted with caution due to low population counts and the impact of PSU students. Most notably, poverty among non-White residents is approximately double or more than poverty among White residents. Black residents are also less likely to attain higher education, with approximately 26% completing a bachelor's degree compared to 44% of White residents and 84% of Asian residents. The percentage of Black residents completing a bachelor's degree declined from the 2019 CHNA.

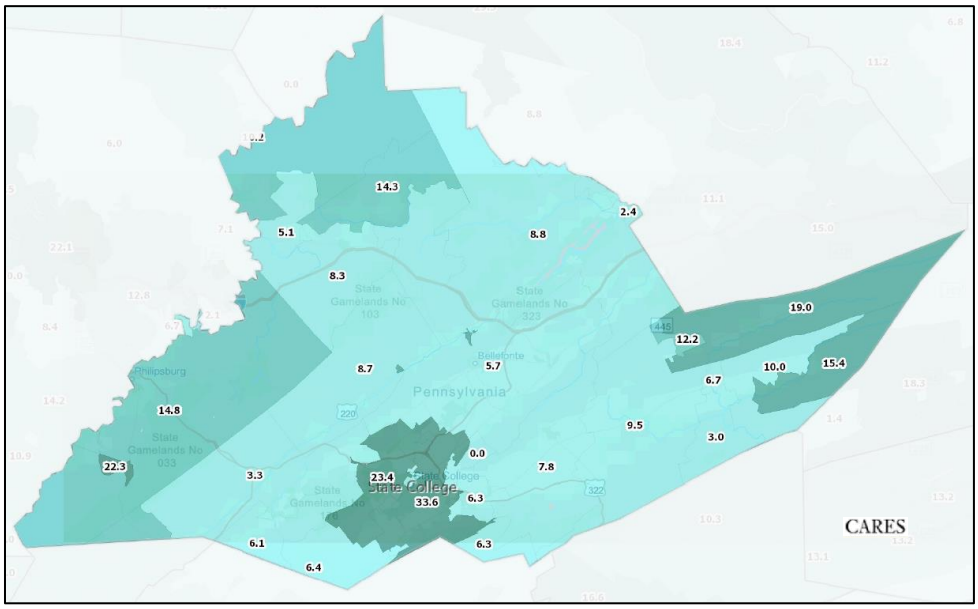
Socioeconomic Disparity Trends by Race and Ethnicity and CHNA

	Centre County	
	2019 CHNA	2022 CHNA
Poverty		
Asian	39.0%	38.6%
Black	35.5%	31.9%
White	17.4%	16.4%
Latinx (any race)	26.7%	28.2%
Bachelor's degree or higher		
Asian	72.5%	83.6%
Black	33.0%	25.7%
White	41.4%	44.3%
Latinx (any race)	38.4%	41.5%

Source: US Census Bureau, 2012-2016, 2015-2019

Similarly, wide differences in poverty and educational attainment exist across geographic areas within Centre County. **Individuals living on the outskirts of the county, including portions of the Penns Valley, Moshannon Valley, and Mountaintop regions report higher poverty and lower educational attainment.** Notable demographic trends within these areas contribute to these findings. Penns Valley is home to a prominent Amish population, which typically embraces a plain lifestyle and is less likely to seek higher education. Consistent with historic inequities among people of color, areas of the Moshannon Valley and Mountaintop regions that report lower socioeconomic status are home to a more diverse, non-White population.

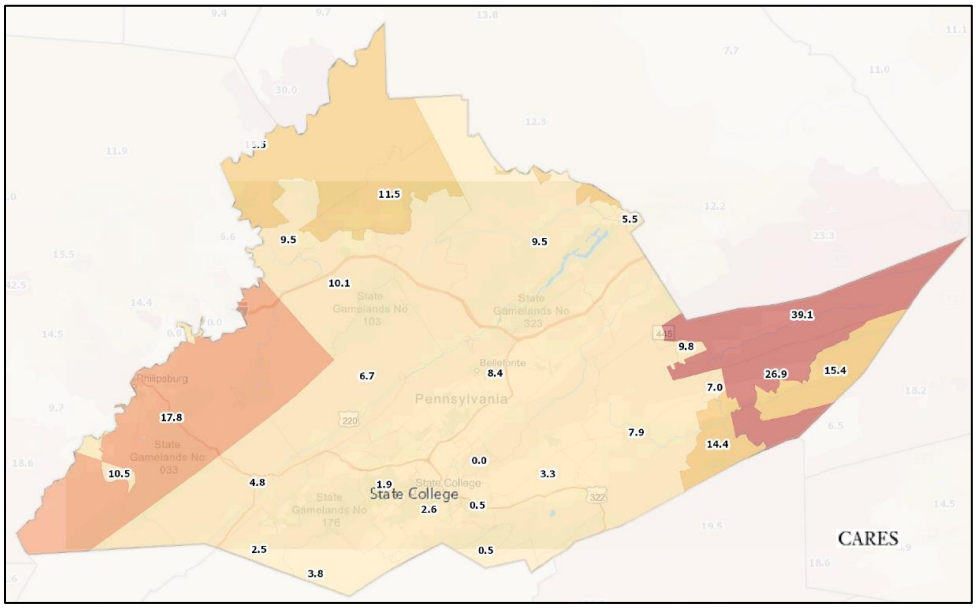
2015-2019 Population in Poverty by Zip Code



Population Below the Poverty Level, Percent by ZCTA, ACS 2015-19

- Over 20.0%
- 15.1 - 20.0%
- 10.1 - 15.0%
- Under 10.1%

2015-2019 Population with No High School Diploma by Zip Code



Population with No High School Diploma (Age 25+), Percent by ZCTA, ACS 2015-19

- Over 21.0%
- 16.1 - 21.0%
- 11.1 - 16.0%
- Under 11.1%

Housing

Pennsylvania's housing stock is older and generally more affordable than the nation's housing stock. **Centre County differs from statewide trends with overall newer and more expensive housing. Despite these differences, fewer Centre County homeowners are considered housing cost burdened compared to the state.** Home ownership within the county increased from the 2016 and 2019 CHNAs, while the percentage of cost burdened homeowners declined.

Many PSU students rent housing in and around State College, contributing to a high percentage of reported renters and rent cost burden countywide. When considered by age group, rent cost burden is high among college age students, but lower than the state and nation for adults age 35 or older.

While fewer permanent Centre County residents are considered housing cost burdened, it is a growing concern within State College and the surrounding communities. Median home values exceed $300,000 in the areas of Lemont and Boalsburg and nearly one-quarter of homeowners in these areas are housing cost burdened. The Moshannon Valley and Penns Valley regions also have higher housing cost burden despite lower overall median home values.

2015-2019 Housing Indicators

	Centre County	Pennsylvania	United States
Renters	38.5%	31.1%	36.0%
Median monthly rent	$1,000	$938	$1,062
Cost burdened[1], householder age 15-24	72.6%	55.3%	55.2%
Cost burdened[1], householder age 25-34	45.0%	37.9%	41.8%
Cost burdened[1], householder age 35-64	38.3%	42.0%	44.0%
Cost burdened[1], householder age 65+	48.6%	51.8%	54.2%
Owners	61.5%[1]	68.9%	64.0%
Median home value	$234,900	$180,200	$217,500
Cost burdened[1]	21.6%	25.0%	27.8%
Housing built before 1980	53.0%	69.6%	53.6%

Source: US Census Bureau, American Community Survey

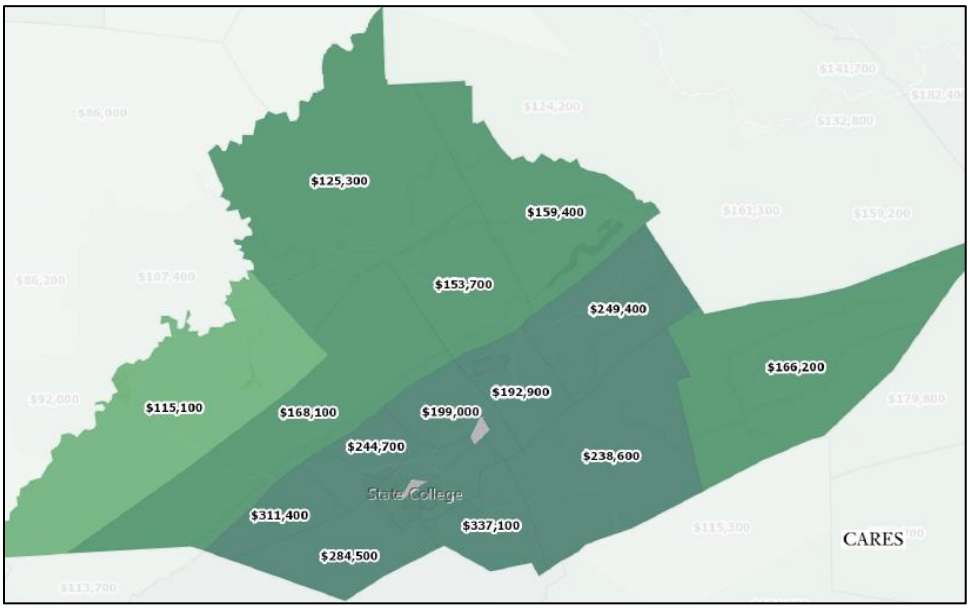
[1]Defined as spending 30% or more of household income on rent or mortgage expenses.

Housing Indicator Trends by CHNA

	Centre County		
	2016 CHNA	2019 CHNA	2022 CHNA
Renter-Occupied	39.9%	39.0%	38.5%
Median Monthly Rent	$876	$930	$1,000
Cost burdened, all renters	61.3%	56.8%	57.1%
Owner-Occupied	60.1%	61.0%	61.5%
Median Home Value	$191,400	$206,000	$217,500
Cost burdened	25.8%	24.1%	21.6%

Source: US Census Bureau, 2011-2013, 2012-2016, 2015-2019

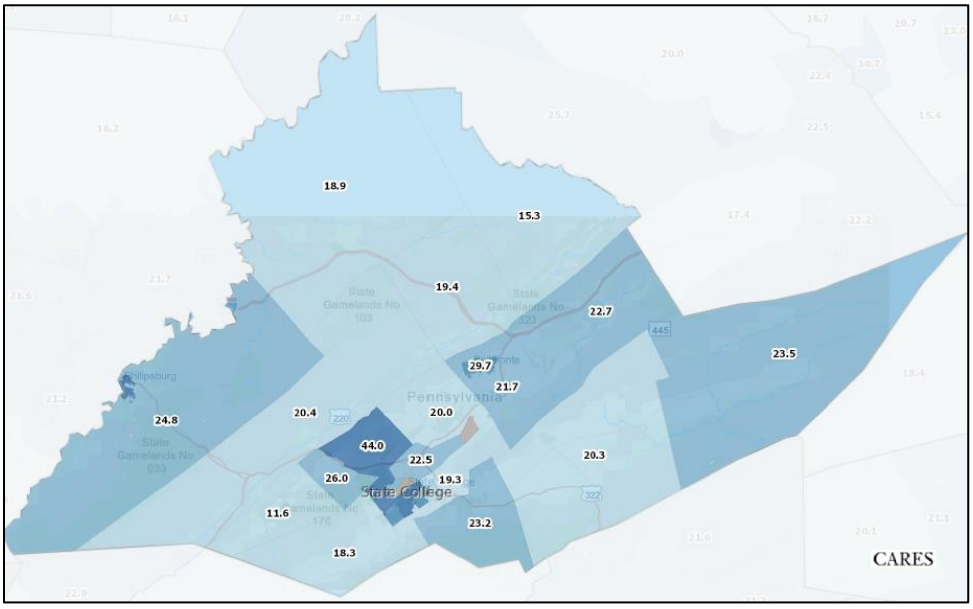
2015-2019 Median Housing Value by Census Tract



Housing Unit Value, Median by Tract, ACS 2015-19

- Over $180,000
- $120,001 - $180,000
- $90,001 - $120,000
- $70,001 - $90,000
- Under $70,001

2015-2019 Housing Cost Burden by Census Tract



Cost Burdened Households (Housing Costs Exceed 30% of Household Income), Percent by Tract, ACS 2015-19

- Over 35.1%
- 28.1 - 35.0%
- 21.1 - 28.0%
- Under 21.1%

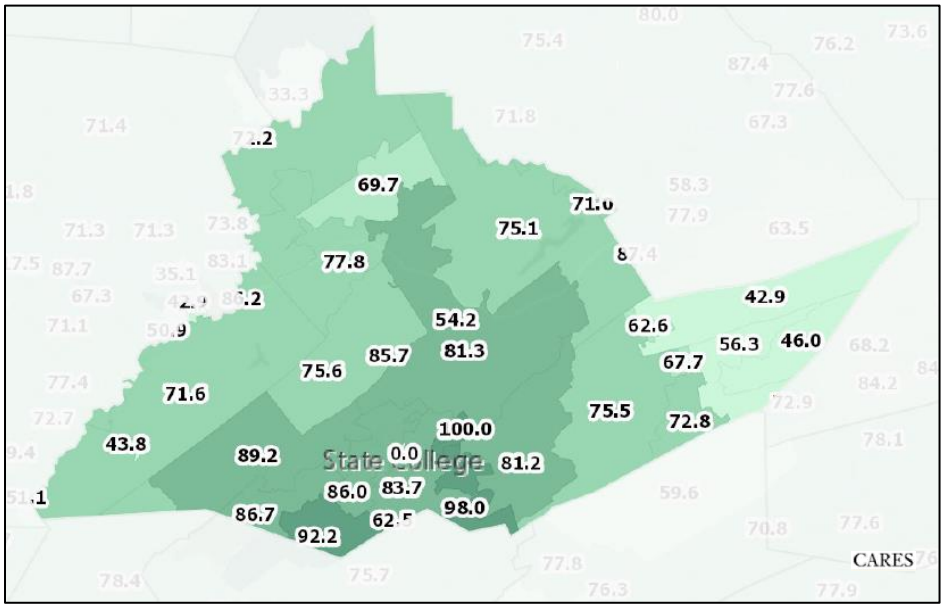
More than 90% of Centre County households have a computer device (e.g., desktop/laptop, smartphone), a higher percentage than the state and nation. A similar percentage of households have broadband internet (82%) as the state and nation. Digital access is higher within the Centre and Nittany Valley regions, likely impacted by PSU students and staff and other socioeconomic indicators. **Within select zip codes in the Penns Valley and Moshannon Valley regions, fewer than 50% of households have broadband internet access.**

2015-2019 Households by Digital Access

	Centre County	PA	US
With a computer device (1+)	91.4%	88.0%	90.3%
Desktop/laptop	85.2%	76.4%	77.8%
Smartphone	79.1%	75.0%	79.9%
With an internet subscription	82.5%	82.1%	83.0%
Broadband	82.1%	81.5%	82.7%

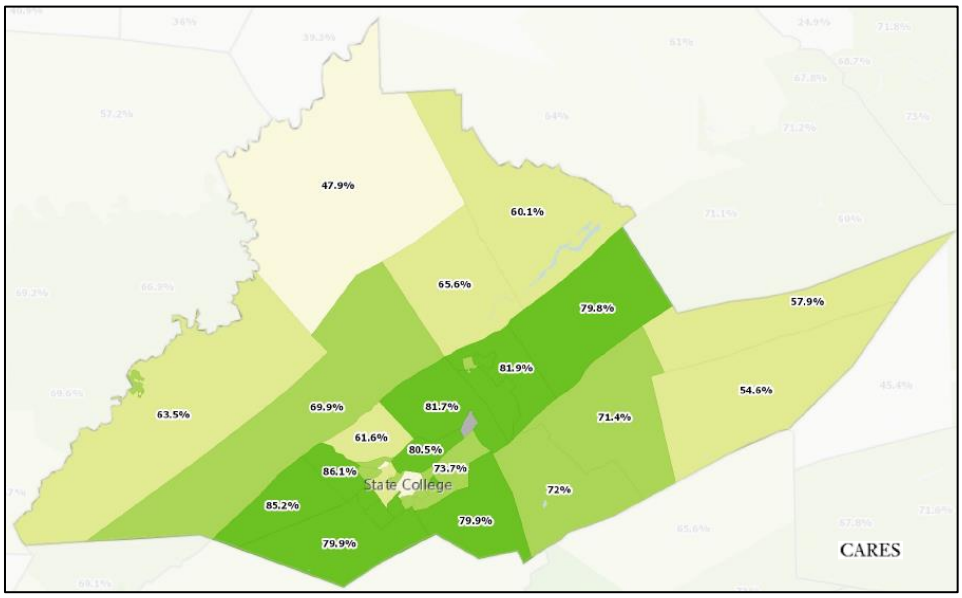
Source: US Census Bureau, American Community Survey

2015-2019 Households with any Broadband Internet by Zip Code



Response to the 2020 Census was lower in rural communities across the nation. **In Centre County, average 2020 Census response ranged from 47.9% to 65.6% in rural communities compared to 80% or higher in the Centre and Nittany Valley regions.** Low response has been attributed to a number of factors, including lack of internet connectivity and COVID-19. The 2020 Census relied heavily on digital distribution, with limited in-person distribution due to the pandemic. Low response among rural communities may have significant implications for future resource allocation, including lower federal funding.

2020 Census Response by Census Tract



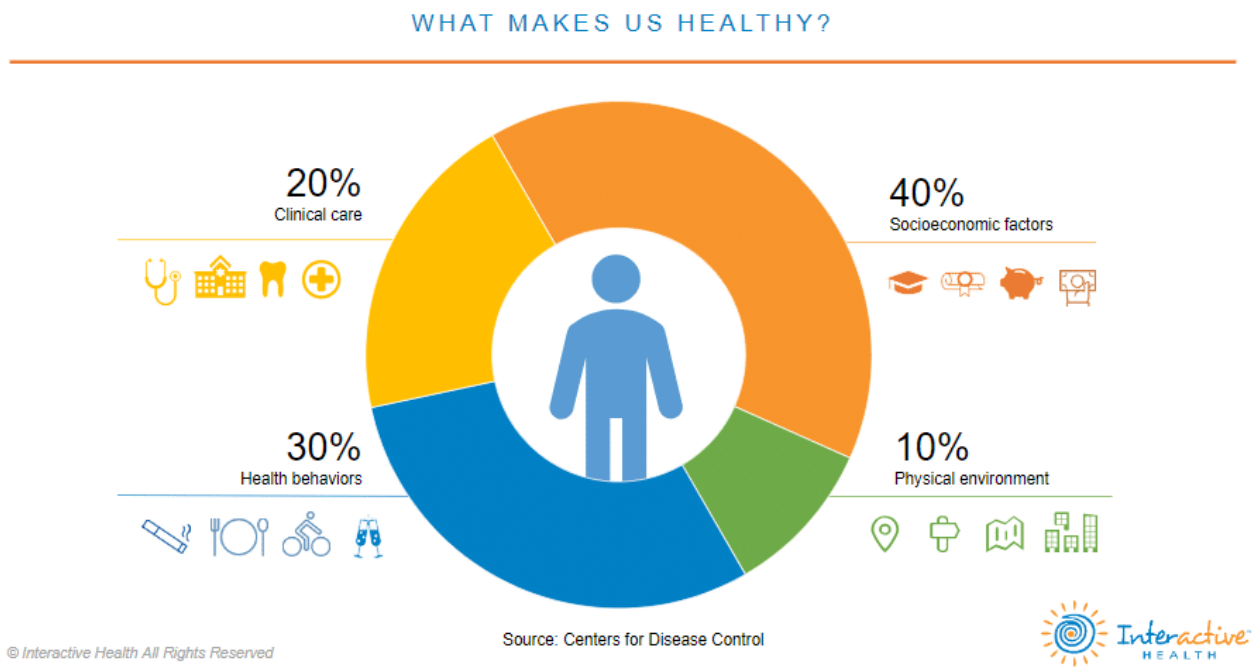
Census 2020 Response Rate, US Census Oct 28, 2020

- Over 78.0%
- 66.1 - 78.0%
- 52.1 - 66.0%
- Under 52.1%

Social Determinants of Health: The connection between our communities and our health

Social determinants of health (SDoH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health risks and outcomes. Healthy People 2030, the CDC's national benchmark for health, recognizes SDoH as central to its framework, naming "social and physical environments that promote good health for all" as one of the four overarching goals for the decade. Healthy People 2030 outlines five key areas of SDoH: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context.

The mix of ingredients that influence each person's overall health profile include individual behaviors, clinical care, environmental factors, and social circumstance. While health improvement efforts have historically targeted health behaviors and clinical care, as this graph shows, **50% of every person's health profile is determined by a combination of socioeconomic factors and physical environment.** Therefore, the portions of our communities that have positive socioeconomic factors and a health-promoting physical environment tend to be healthier than those who have negative socioeconomic factors and a poor physical environment. This difference results in disparity.



Health inequities refer to the systematic differences in opportunities that population groups have to achieve optimal health, which lead to unfair and avoidable differences in health outcomes. Without addressing inequities and supporting initiatives aimed at providing a healthy start, access to opportunity for improvement, and a tangible pathway to a better life, interventions focused only on individual behavior change often do not have enough social and environmental soil to take root and create lasting

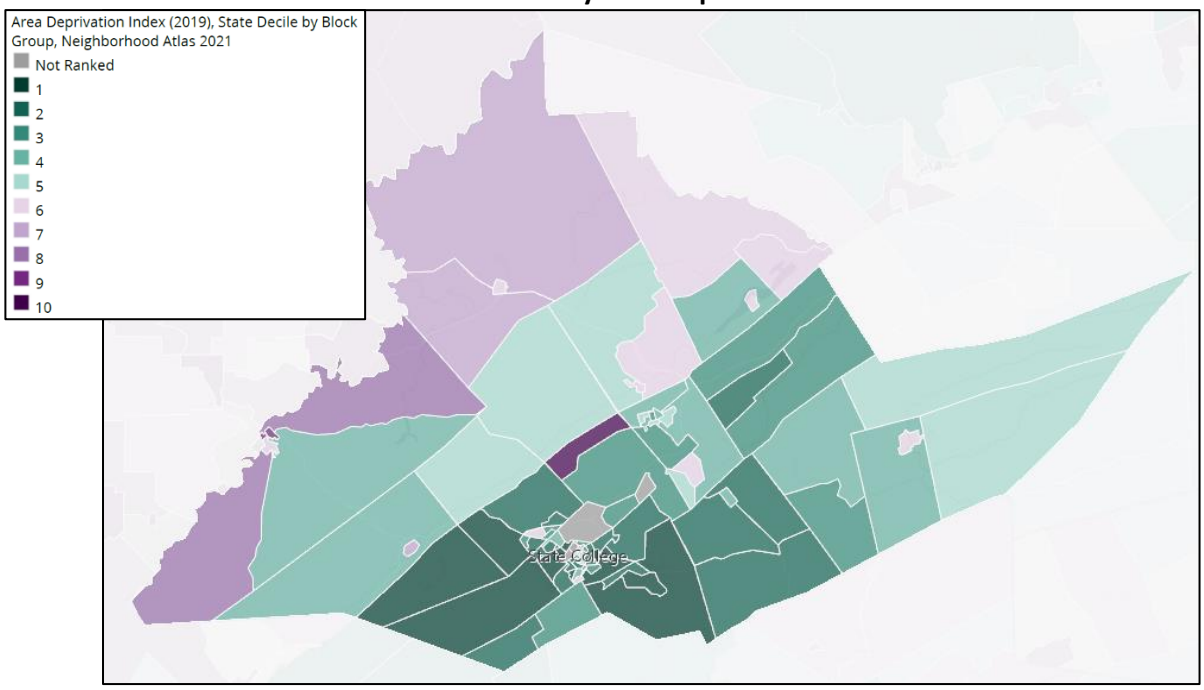
positive change. By addressing inequities in our communities, we can more effectively work towards a healthier community for all people now and in the future.

Tools for Identifying Disparity

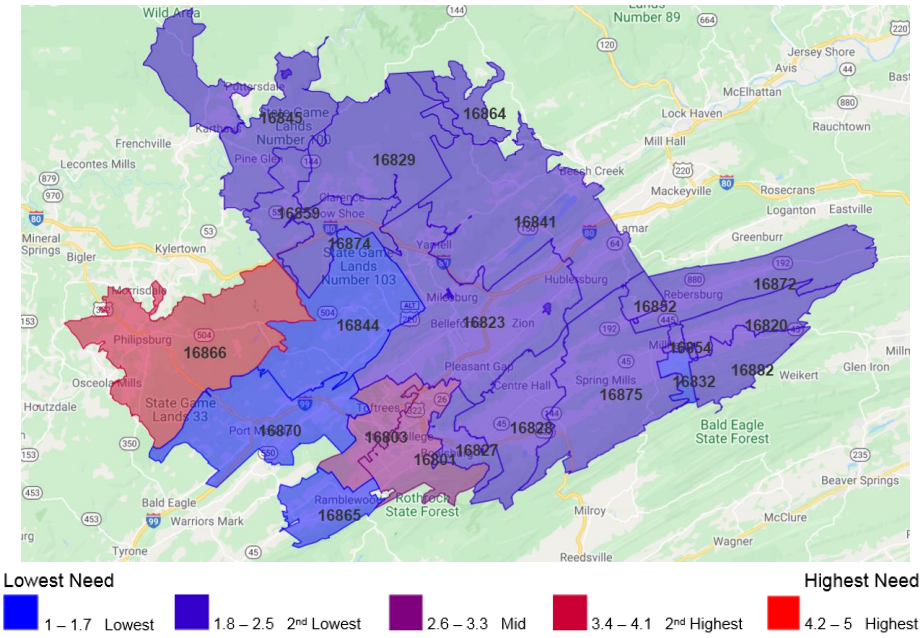
The following data visualizations illustrate the potential for health disparities and inequities at the community-level based on social determinants of health barriers. A description of each data visualization tool is provided below:

- **Area Deprivation Index (ADI)**: The ADI provides a census block group measure of socioeconomic disadvantage based on income, education, employment, and housing quality. ADI scores are displayed at the block group level on a scale from 1 (least disadvantaged) to 10 (most disadvantaged). A block group is a subdivision of a census tract and typically contains between 250 and 550 housing units.
- **Community Need Index (CNI)**: The CNI scores zip codes on a scale of 1.0 to 5.0, with 1.0 indicating a zip code with the least need and 5.0 indicating a zip code with the most need compared to the US national average of 3.0. The CNI is a zip code-based index of community need calculated nationwide, regarding healthcare. The CNI is weights, indexes and scores zip codes by socioeconomic barriers, including income, culture, education, insurance, and housing.

Centre County Area Deprivation Index



Centre County Community Need Index



Centre County Community Need Index, 2019 vs. 2022 CHNA

Highest Need

Lowest Need

	2022 CHNA	2019 CHNA	Trend
16866, Philipsburg	3.6	3.4	↑
16801, State College	3.2	3.0	↑
16803, State College	3.0	2.8	↑
16820, Aaronsburg	2.4	2.6	↓
16882, Woodward	2.4	2.6	↓
16823, Bellefonte	2.4	2.4	--
16845, Karthaus	2.4	2.2	↑
16854, Millheim	2.4	2.0	↑
16852, Madisonburg	2.2	2.0	↑
16827, Boalsburg	2.2	2.0	↑
16872, Rebersburg	2.2	2.0	↑
16829, Clarence	2.2	1.4	↑
16875, Spring Mills	2.0	2.0	--
16859, Moshannon	2.0	2.0	--
16874, Snow Shoe	2.0	1.6	↑
16864, Orviston	1.8	2.0	↓
16828, Centre Hall	1.8	1.8	--
16841, Howard	1.8	1.6	↑
16865, Pennsylvania Furnace	1.6	1.4	↑
16844, Julian	1.6	1.2	↑
16832, Coburn	1.4	2.2	↓
16870, Port Matilda	1.2	1.2	--

The weighted average CNI score for Centre County is 2.7 out of 5. The CNI score indicates moderate overall community need, but an increase from the 2019 CHNA score of 2.5. Across the county, CNI scores increased in 13 out of 22 reported zip codes, with the largest increase (0.8 points) in zip code 16829, Clarence, located in the Mountaintop Region.

Centre County zip code-level CNI scores range from 1.2 (Port Matilda) to 3.6 (Philipsburg). While these differences are indicative of socioeconomic disparities, it is worth noting that Philipsburg is the only area to score in a higher need category. This finding is consistent with the county's overall socioeconomic strength.

Area Deprivation Index scores correlate with the CNI scores, demonstrating disadvantage in Philipsburg, and to a lesser degree in the Mountaintop Region. **Of note, the southwest portion of Bellefonte, zip code 16823, has a maximum ADI score of 10, indicating the most disadvantaged.** This finding should continue to be explored to better understand socioeconomic differences and potential inequities.

2015-2019 Social Determinants of Health by Geography*

	Population in Poverty	Children in Poverty	Primary Language Other Than English	Less than HS Diploma	Without Health Insurance	CNI Score
16866, Philipsburg	14.8%	18.7%	14.0%	17.8%	4.9%	3.6
16801, State College**	33.6%	12.8%	15.8%	2.6%	3.9%	3.2
16803, State College**	23.4%	10.9%	21.9%	1.9%	4.7%	3.0
16820, Aaronsburg***	10.0%	12.2%	32.7%	26.9%	37.5%	2.4
16823, Bellefonte	5.7%	6.6%	5.8%	8.4%	4.7%	2.4
16845, Karthaus	10.2%	20.7%	1.1%	15.5%	3.0%	2.4
16854, Millheim	6.7%	0.0%	5.4%	7.0%	7.8%	2.4
16882, Woodward***	15.4%	13.4%	7.7%	15.4%	10.6%	2.4
16827, Boalsburg	6.3%	8.8%	9.2%	0.5%	1.3%	2.2
16829, Clarence	14.2%	25.0%	0.5%	11.5%	1.9%	2.2
16852, Madisonburg***	12.1%	26.3%	19.4%	9.8%	11.8%	2.2
16872, Rebersburg***	19.0%	31.2%	54.6%	39.1%	55.5%	2.2
16859, Moshannon	5.1%	0.0%	2.5%	9.5%	3.7%	2.0
16874, Snow Shoe	8.3%	10.4%	2.1%	10.0%	2.1%	2.0
16875, Spring Mills	9.5%	8.6%	8.1%	7.9%	11.7%	2.0
16828, Centre Hall	7.8%	10.2%	1.8%	3.2%	5.6%	1.8
16841, Howard	8.8%	20.0%	7.6%	9.5%	10.5%	1.8
16844, Julian	8.7%	13.9%	2.6%	6.7%	5.5%	1.6
16865, Pennsylvania Furnace	6.4%	0.9%	1.1%	3.8%	5.9%	1.6
16832, Coburn***	3.0%	0.0%	20.0%	14.4%	23.2%	1.4
16870, Port Matilda	3.3%	1.8%	3.3%	4.7%	2.4%	1.2
Pennsylvania	12.4%	17.6%	11.4%	9.5%	5.7%	NA
United States	13.4%	18.5%	21.6%	12.0%	8.8%	NA

Source: US Census Bureau, American Community Survey
*Data are not available for zip code 16864, Orviston.
**Data are likely impacted by PSU students.
***Data are likely impacted by the Amish population.

Comparing health indicators with population statistics demonstrates the adverse impact of social determinants on populations that historically and continually experience inequities. While Centre County is a less racially and ethnically diverse community overall, areas with more socioeconomic barriers, notably Philipsburg and Bellefonte, are among the most diverse populations in the county. In this way we can begin to see how inequities perpetuate persistent disparities in health and social outcomes.

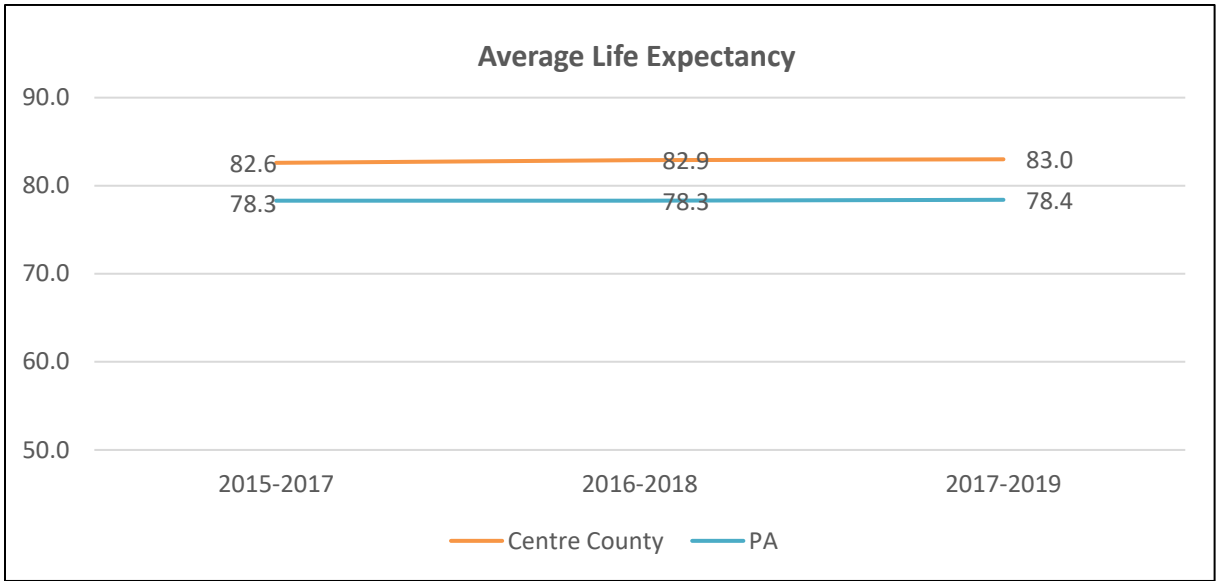
2015-2019 Population by Prominent Racial and Ethnic Groups
In order of most diverse communities

	White	Black or African American	Asian	Two or More Races	Latinx origin (any race)
16803, State College**	76.2%	5.6%	15.3%	2.4%	3.8%
16801, State College**	84.2%	3.4%	9.3%	2.5%	3.7%
16866, Philipsburg	88.4%	7.2%	1.7%	2.4%	9.4%
16823, Bellefonte	89.6%	7.7%	0.3%	1.4%	3.3%
16827, Boalsburg	91.8%	1.0%	1.8%	1.0%	2.6%
16845, Karthaus	92.3%	7.1%	0.0%	0.6%	3.0%
16865, Pennsylvania Furnace	92.3%	5.3%	0.0%	0.2%	0.0%
16859, Moshannon	93.5%	0.0%	0.0%	0.0%	6.5%
16832, Coburn	96.0%	0.6%	0.2%	3.2%	4.2%
16882, Woodward	96.4%	0.0%	2.1%	1.6%	11.6%
16875, Spring Mills	96.8%	0.9%	0.0%	2.2%	2.3%
16870, Port Matilda	96.8%	0.1%	2.1%	0.9%	1.3%
16854, Millheim	97.2%	0.0%	0.0%	2.8%	0.7%
16820, Aaronsburg	98.3%	0.0%	0.3%	1.4%	0.1%
16874, Snow Shoe	98.4%	0.0%	0.7%	0.9%	0.0%
16841, Howard	98.5%	0.2%	0.1%	1.1%	0.3%
16844, Julian	98.7%	0.3%	0.1%	0.9%	0.1%
16852, Madisonburg	98.8%	0.0%	0.0%	1.2%	1.2%
16828, Centre Hall	99.1%	0.9%	0.0%	0.0%	0.2%
16872, Rebersburg	99.6%	0.0%	0.4%	0.0%	0.6%
16829, Clarence	100.0%	0.0%	0.0%	0.0%	0.0%
Pennsylvania	80.5%	11.2%	3.4%	2.5%	7.3%
United States	72.5%	5.5%	12.7%	3.3%	18.0%

Source: US Census Bureau, American Community Survey

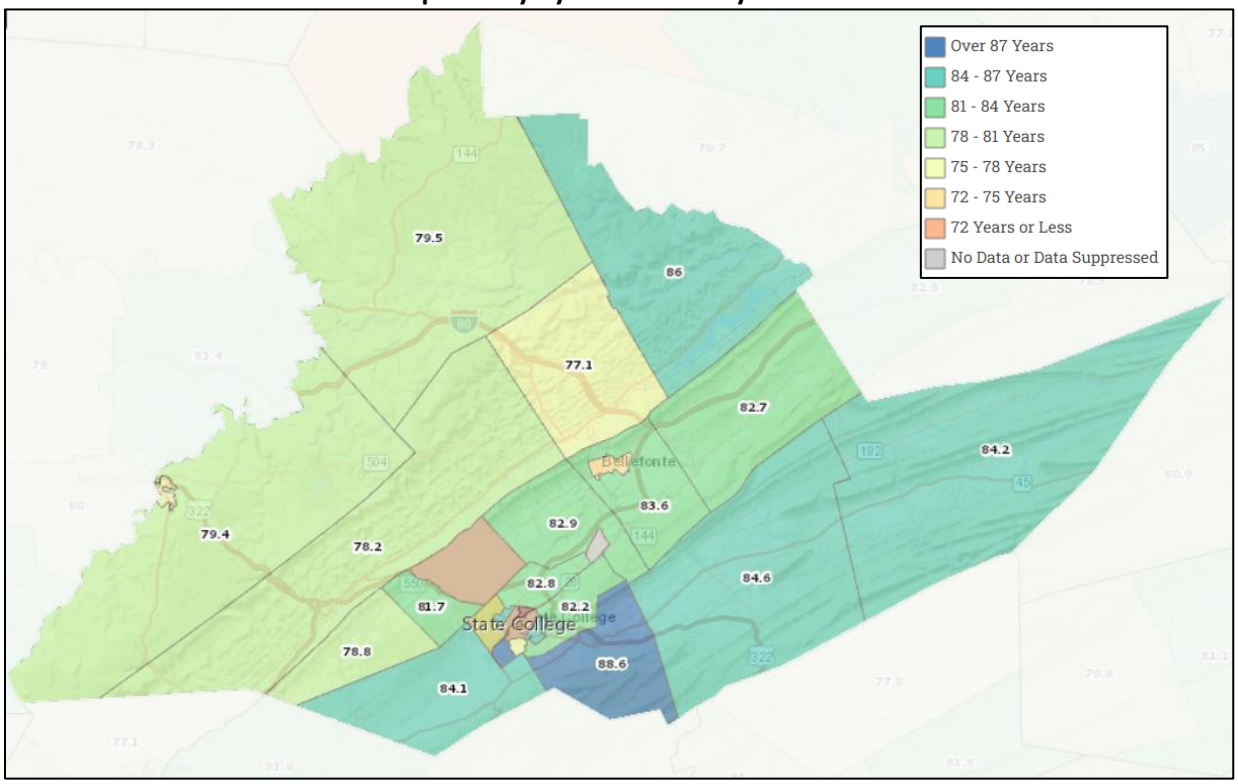
Life expectancy is another measure of the impact of social determinants of health. Centre County residents overall continue to benefit from longer, healthier lives. Average life expectancy is higher than the state and increasing. At the community-level, differences in life expectancy are consistent with existing socioeconomic barriers. Moshannon Valley and Mountaintop regions, including Philipsburg, have lower average resident life expectancy of 77.1-79.5 years compared to 81.7 years or higher in other regions. Portions of downtown Bellefonte report the lowest average life expectancy in the county at 73.5 years, although this finding should be further explored as it does not align with areas of socioeconomic disadvantage.

Note: Census tract-level data is reported for 2010-2015, based on most recent data availability, and should be interpreted with caution.



Source: County Health Rankings

Life Expectancy by Centre County Census Tract



Source: Centers for Disease Control and Prevention, 2010-2015

COVID-19 Impact on Communities

COVID-19 is the name of the disease caused by the SARS-CoV-2 virus. "CO" stands for corona, "VI" for virus, and "D" for disease. The number "19" refers to the year 2019 when the first case of COVID-19 was identified. Some refer to COVID-19 as simply “COVID.”

COVID infection is typically measured by case incidence, which looks at the number of daily new cases per 100,000 to get an accurate estimate of COVID in a community. When calculating case incidence, an important part of understanding how COVID is affecting certain communities is to analyze the demographics of the community. The COVID pandemic has highlighted health disparities along racial, ethnic, and economic lines in the United States:

- Black and Latinx people are much more likely than others to be infected with COVID and to die from the disease.
- Although data is still sparse, early findings indicate Indigenous people and other people of color are also infected at much higher rates.

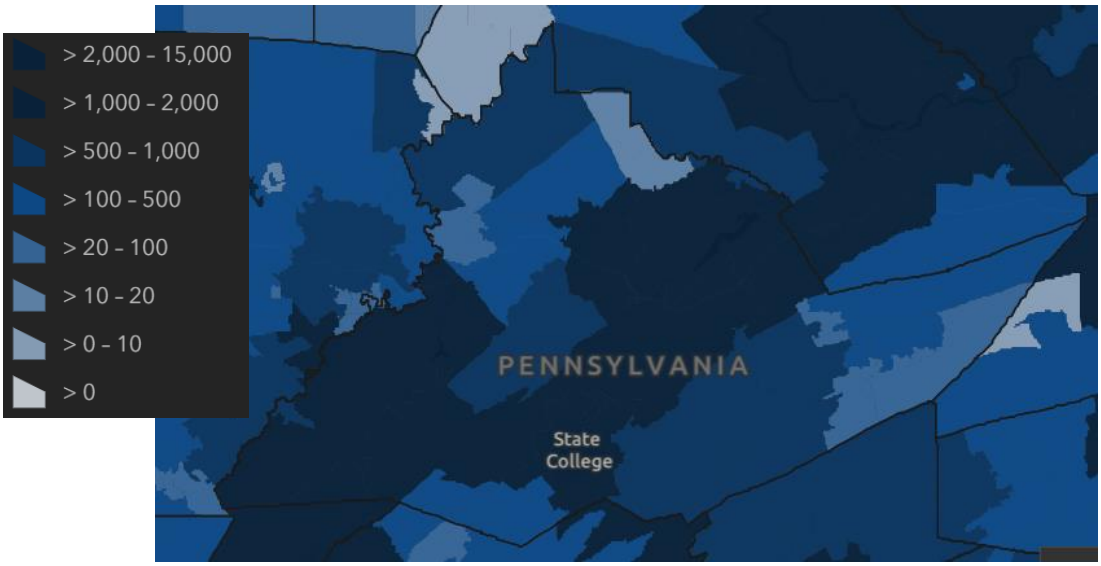
As of April 11, 2022, Centre County had 31,286 confirmed COVID-19 cases and 348 related deaths. Pennsylvania overall had 2,313,103 confirmed cases and 44,442 deaths. **The Centre County case rate per 100,000 residents was similar to the statewide rate, but the death rate was lower, potentially indicating either milder disease cases and/or better access to early and appropriate care.** Centre County cases were largely concentrated in more populous regions, including the Centre and Nittany Valley regions, as well as the Moshannon Valley Region.

COVID-19 Cases and Deaths (as of April 11, 2022)

	Centre County	Pennsylvania
Total Cases	18,522	2,791,018
Confirmed	31,286	2,313,103
Probable	3,959	477,915
Cases per 100,000	**21,704.6**	**21,801.4**
Total Deaths	348	44,442
Deaths per 100,000	**214.3**	**347.1**

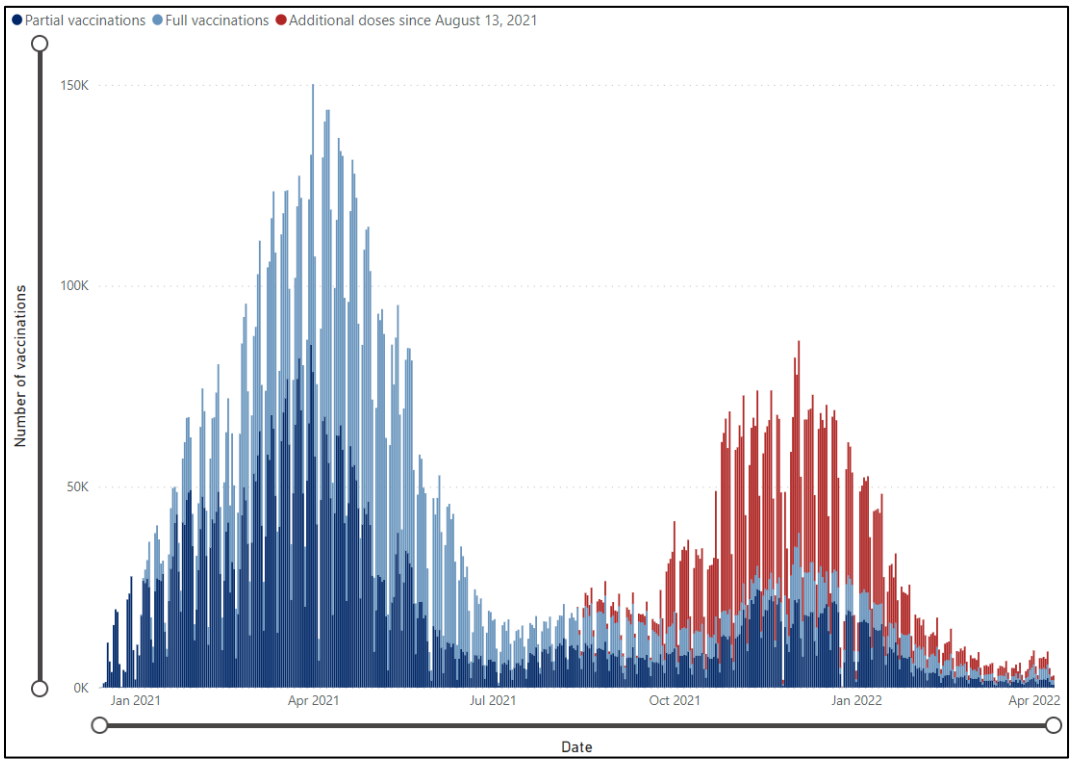
Source: Pennsylvania Department of Health

COVID-19 Cases by Centre County Zip Code



Source: Pennsylvania Department of Health

COVID-19 vaccination will be essential to managing the pandemic. The following graph shows the number of vaccinations administered in Pennsylvania by full or partial vaccination. Consistent with the nation, the state saw a large uptake of the initial vaccine in spring and early summer 2021 and additional booster vaccines in fall 2021 and winter 2022.



Source: Pennsylvania Department of Health

In Centre County, a total of 109,265 people or 69.9% of residents had received at least one vaccine dose as of April 8, 2022. Centre County ranked 20 out of 67 counties in PA for the percentage of residents with at least one vaccine dose. Centre County has a slightly lower percentage of residents vaccinated than the state (excluding Philadelphia County).

COVID-19 Vaccination (as of April 8, 2022)

	Centre County	Pennsylvania
Total People Vaccinated	109,265	8,850,705
Fully vaccinated	95,042	7,338,879
Percent fully vaccinated	60.8%	62.9%
Partially vaccinated	14,223	1,511,826
Percent partially vaccinated	9.1%	10.7%
Percent of all people with at least one vaccine dose**	**69.9%**	**73.6%**

Source: Pennsylvania Department of Health

** The Pennsylvania percentage excludes Philadelphia County.

The CDC has prioritized vaccine equity, defined as preferential access and administration to those who have been most affected by COVID-19, including racial and ethnic minorities. Wide disparities in vaccine coverage exist across racial and ethnic groups in PA, primarily affecting Black/African American and Native American residents. These disparities are due in part to health inequities and barriers, such as vaccination site locations, transportation and other planning and access issues, and lack of information. **Centre County differed from the state with generally higher vaccination rates among non-White residents and lower vaccination among White residents.**

Centre County has been successful in administering vaccines to older adults, averaging 99.9% vaccination among adults aged 70 or older as of April 8, 2022. **In comparison to the state, Centre County had lower vaccination rates for adolescent and young adult age groups aged 15-24.** Of note, only 34.4% of youth aged 15-19 had been vaccinated compared to a statewide average of 58.6%. The 15–24-year-old age cohort represents nearly 27% of the county population.

Residents with At Least One COVID-19 Vaccine Dose by Race and Ethnicity

	All Residents	White	Black or African American	Asian / Pacific Islander	Native American	Latinx (any race)
Centre County	69.9%	53.1%	60.5%	59.0%	67.0%	59.7%
Pennsylvania	73.6%	59.6%	51.9%	57.3%	30.7%	64.2%

Source: Pennsylvania Department of Health, April 8, 2022

Residents with At Least One COVID-19 Vaccine Dose by Age Group

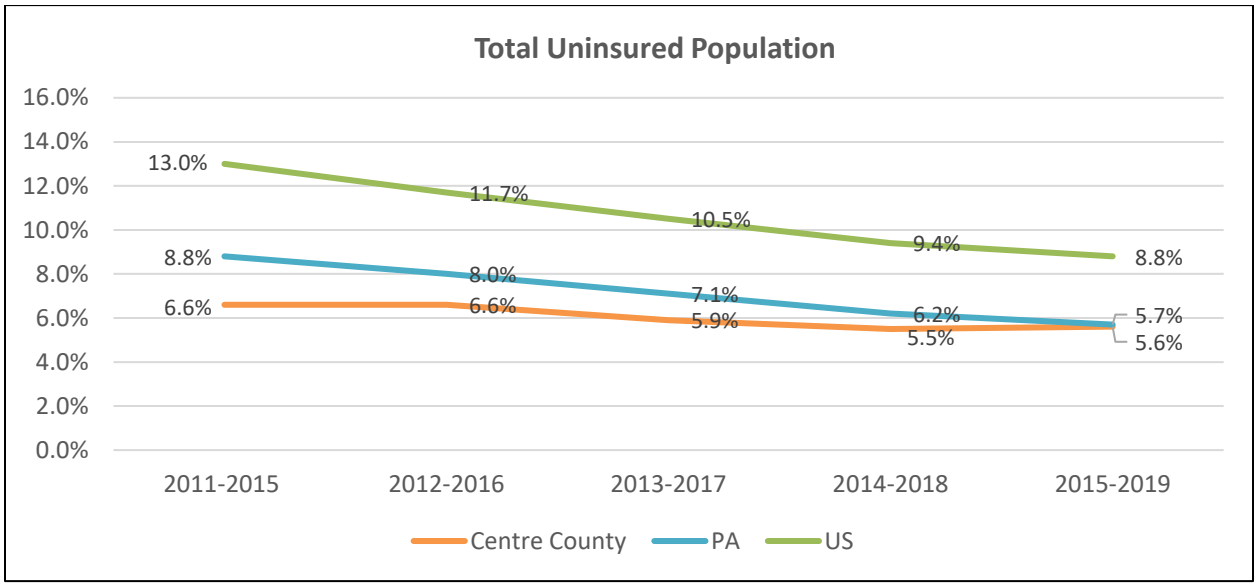
	Centre County	Pennsylvania
10-14 years	48.5%	43.3%
15-19 years	34.4%	58.6%
20-24 years	55.9%	66.3%
25-29 years	78.0%	62.9%
30-34 years	76.8%	69.8%
35-39 years	76.8%	74.0%
40-44 years	78.1%	78.6%
45-49 years	69.9%	69.7%
50-54 years	76.1%	76.2%
55-59 years	76.1%	76.8%
60-64 years	80.8%	86.1%
65-69 years	94.1%	97.1%
70-74 years	99.9%	99.9%
75-79 years	99.9%	99.9%
80-84 years	99.9%	99.9%
85 years or over	99.9%	99.9%

Source: Pennsylvania Department of Health, April 8, 2022
*Pennsylvania percentages exclude Philadelphia County.

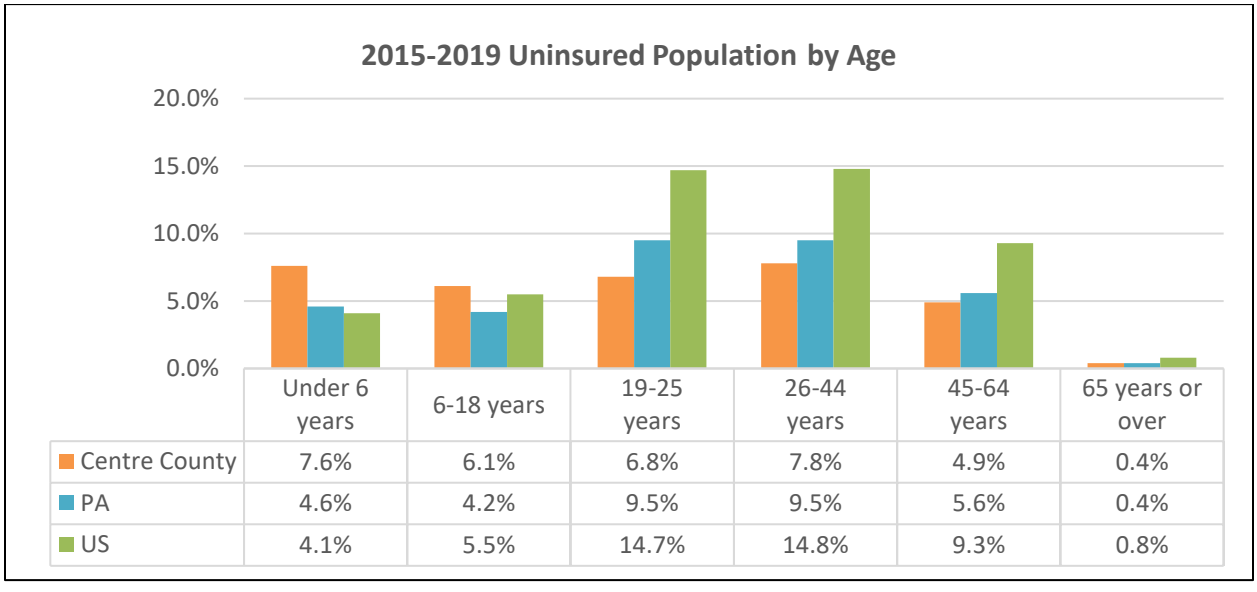
Statistical Health Data Analysis

Healthcare Access

The Centre County uninsured population declined over much of the last decade, before stagnating in recent years. **The current uninsured population is consistent with the state, lower than the nation, and meets the HP2030 goal of 92.1% insured residents.** When considered by age group, Centre County has fewer uninsured adults age 19 or over, but more uninsured youth. The majority of uninsured youth reside in the Penns Valley Region, likely due in part to the Amish population that is less likely to participate in insurance programs.



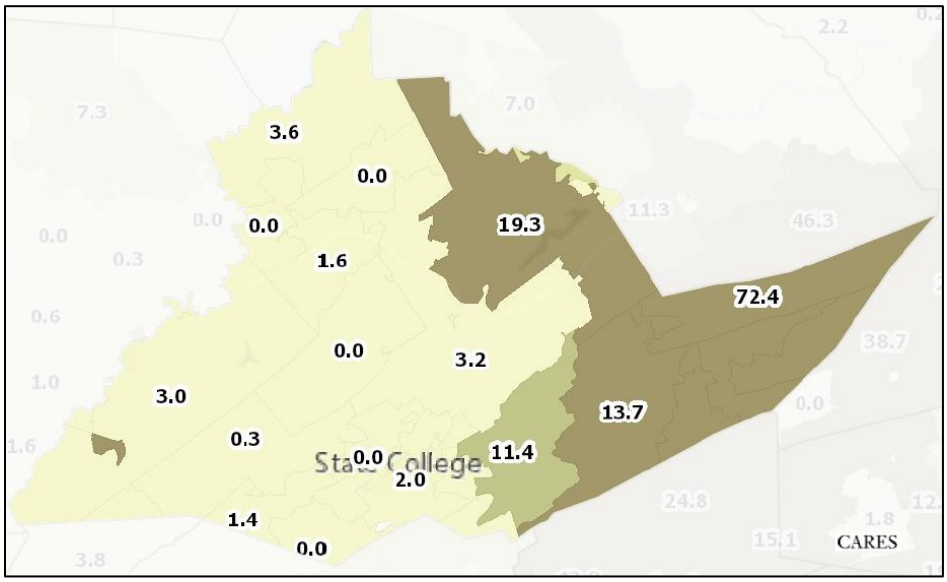
Source: US Census Bureau, American Community Survey



	Under 6 years	6-18 years	19-25 years	26-44 years	45-64 years	65 years or over
Centre County	7.6%	6.1%	6.8%	7.8%	4.9%	0.4%
PA	4.6%	4.2%	9.5%	9.5%	5.6%	0.4%
US	4.1%	5.5%	14.7%	14.8%	9.3%	0.8%

Source: US Census Bureau, American Community Survey

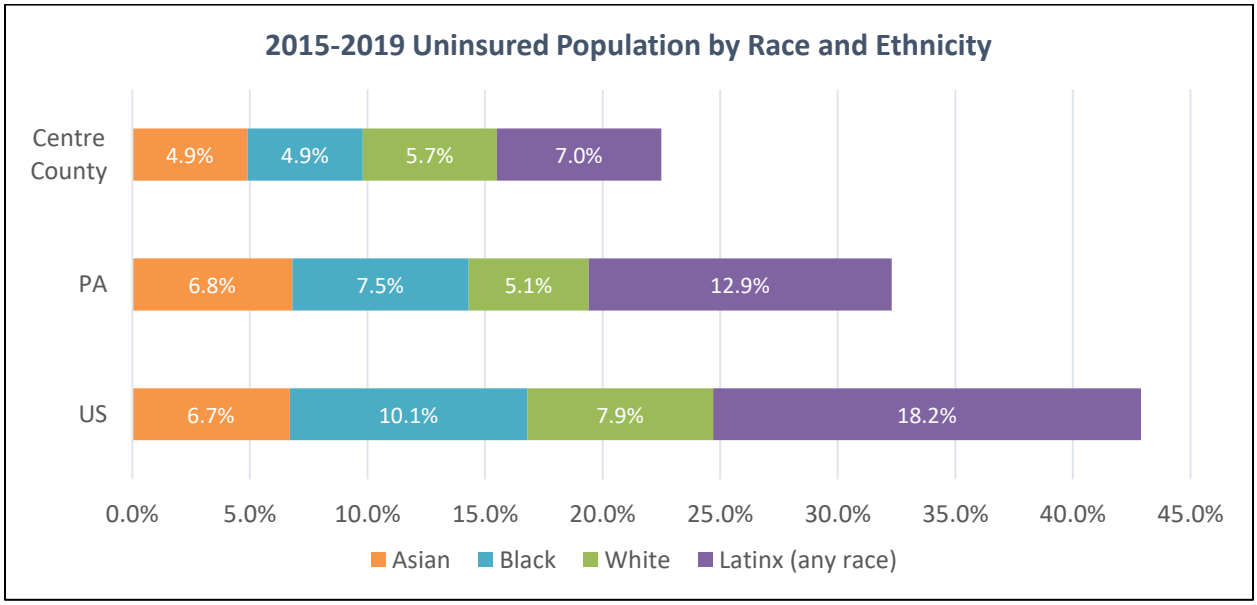
2015-2019 Uninsured Youth (Age 0-17) Population by Zip Code



Uninsured Population, Age 0-17, Percent by ZCTA, ACS 2015-19

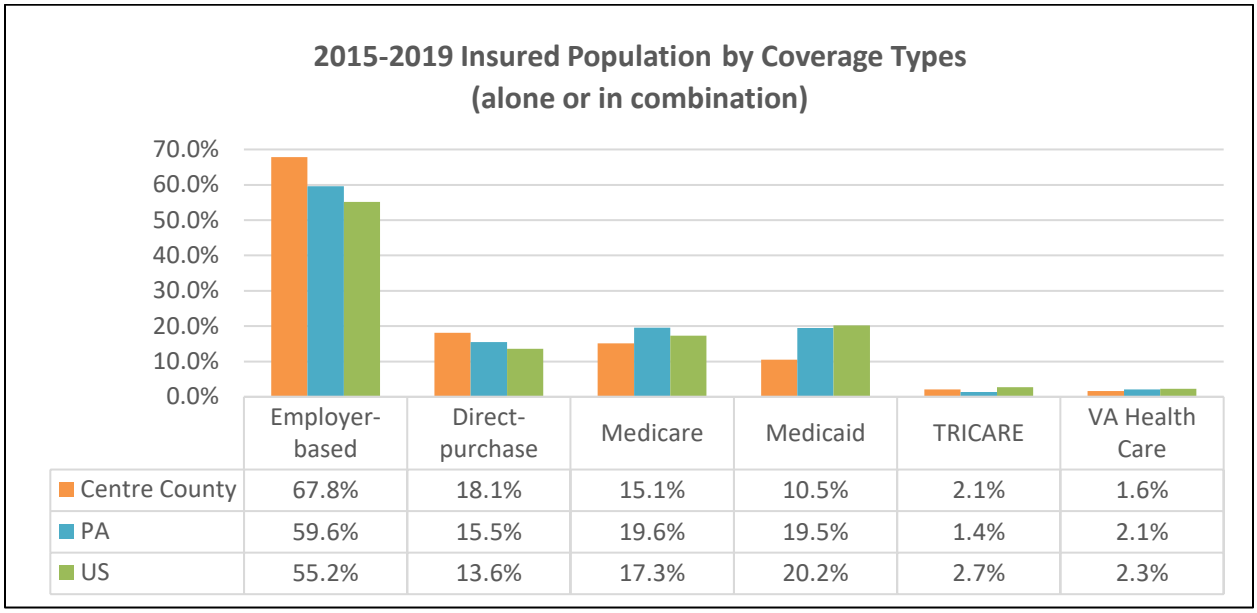
- Over 12.0%
- 8.1 - 12.0%
- 4.1 - 8.0%
- Under 4.1%
- No Population Age 0-17 Reported

Uninsured rates among Black and Latinx residents declined statewide and nationally, but continue to be disproportionately higher compared to Whites. **Centre County differs from the state and nation with a similar proportion of uninsured residents across racial and ethnic groups.** County-level results should be interpreted with caution due to small population counts.



Source: US Census Bureau, American Community Survey

Employer-based insurance continues to be the majority coverage type among Centre County residents, and coverage increased from the 2019 CHNA. **The percentage of Medicaid insured residents also nearly doubled from the 2019 CHNA from 5.9% to 10.5%.**



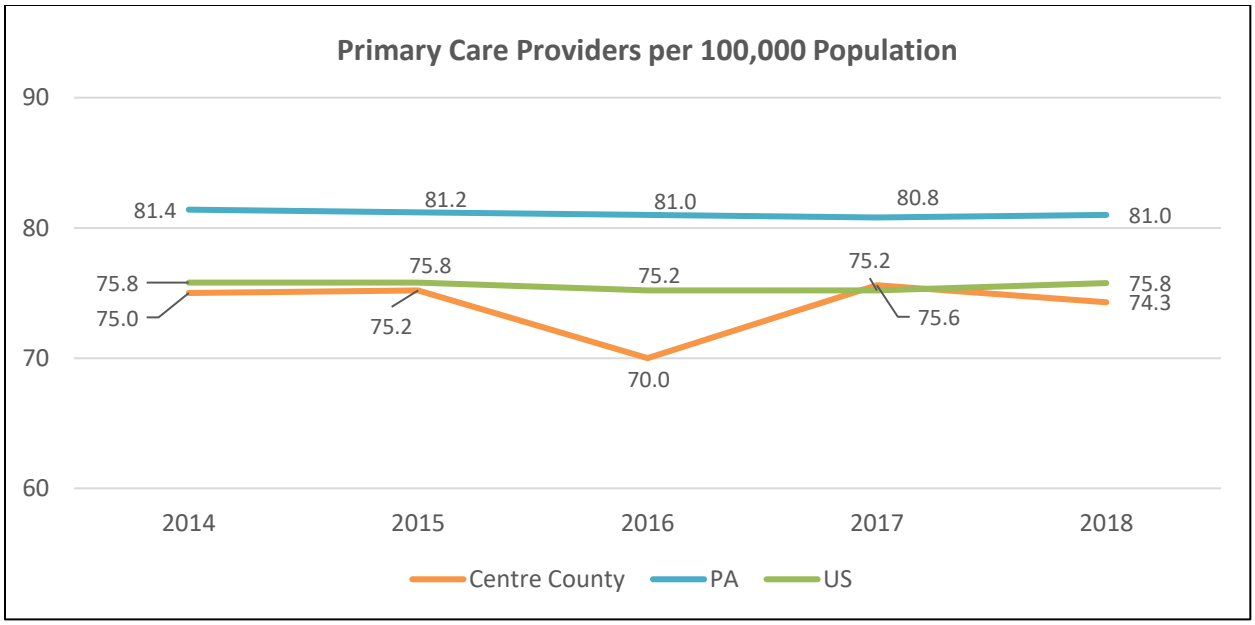
	Employer-based	Direct-purchase	Medicare	Medicaid	TRICARE	VA Health Care
Centre County	67.8%	18.1%	15.1%	10.5%	2.1%	1.6%
PA	59.6%	15.5%	19.6%	19.5%	1.4%	2.1%
US	55.2%	13.6%	17.3%	20.2%	2.7%	2.3%

Source: US Census Bureau, American Community Survey

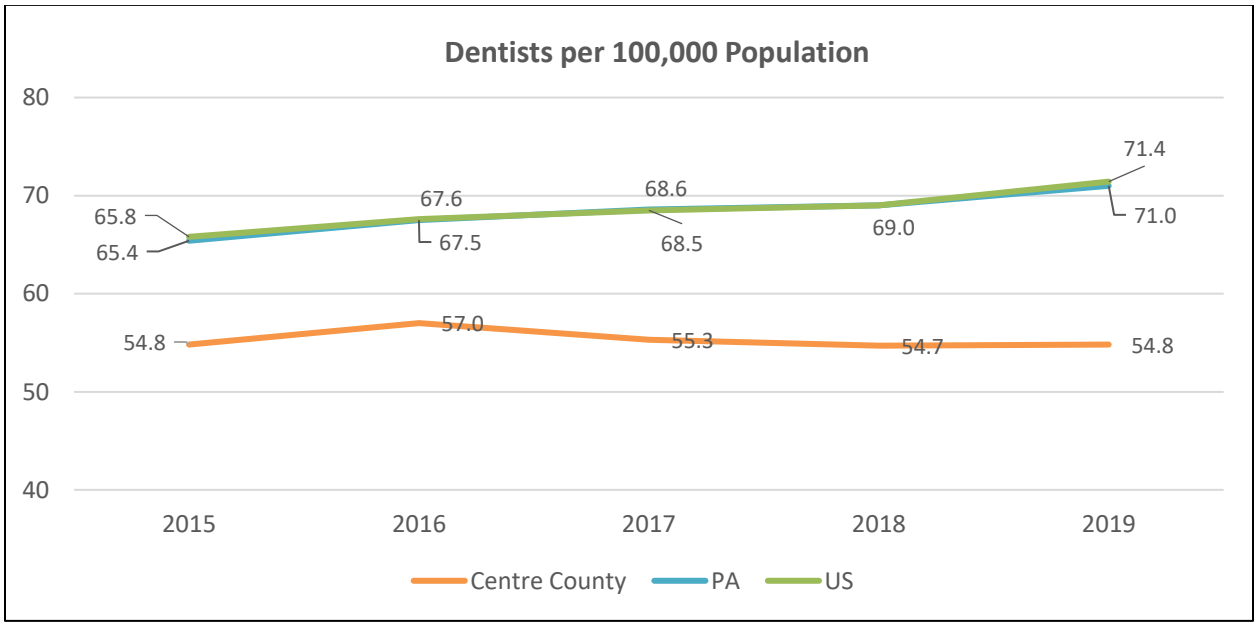
With few exceptions, the Centre County primary care provider rate has been largely stable over the past five years, mirroring the national provider rate. Providers are largely concentrated in the Centre and Nittany Valley regions. Consistent with prior CHNA cycles, the northern and western portions of the county, including the Moshannon Valley, Mountaintop, Lower Bald Eagle, and Upper Bald Eagle regions are primary care Health Professional Shortage Areas (HPSAs).

Centre County has fewer dentists than the state and nation, and the entire county is a designated dental HPSA for low-income residents. Rural populations, particularly in the Moshannon Valley, Mountaintop, and Penns Valley regions, experience greater difficulty in accessing dental care, with fewer than 62% of adults reporting a recent dental visit compared to 72% or more of adults in the Centre Region.

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

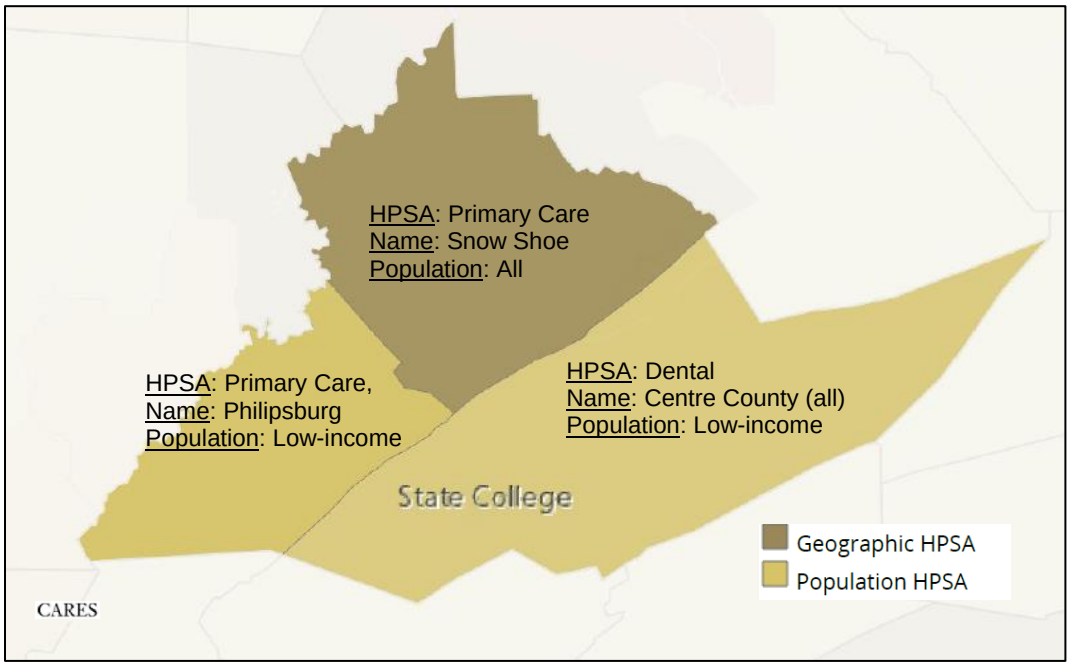


Source: Health Resources & Services Administration



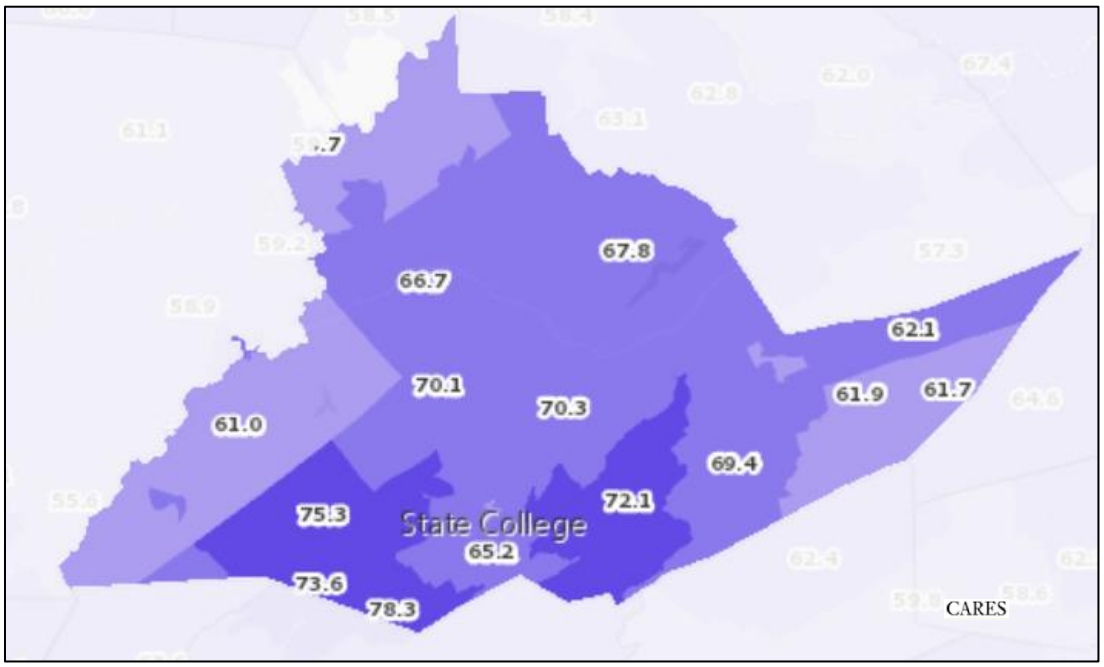
Source: Health Resources & Services Administration

Primary Care and Dental Health Professional Shortage Areas (HPSAs)



Source: Health Resources & Services Administration

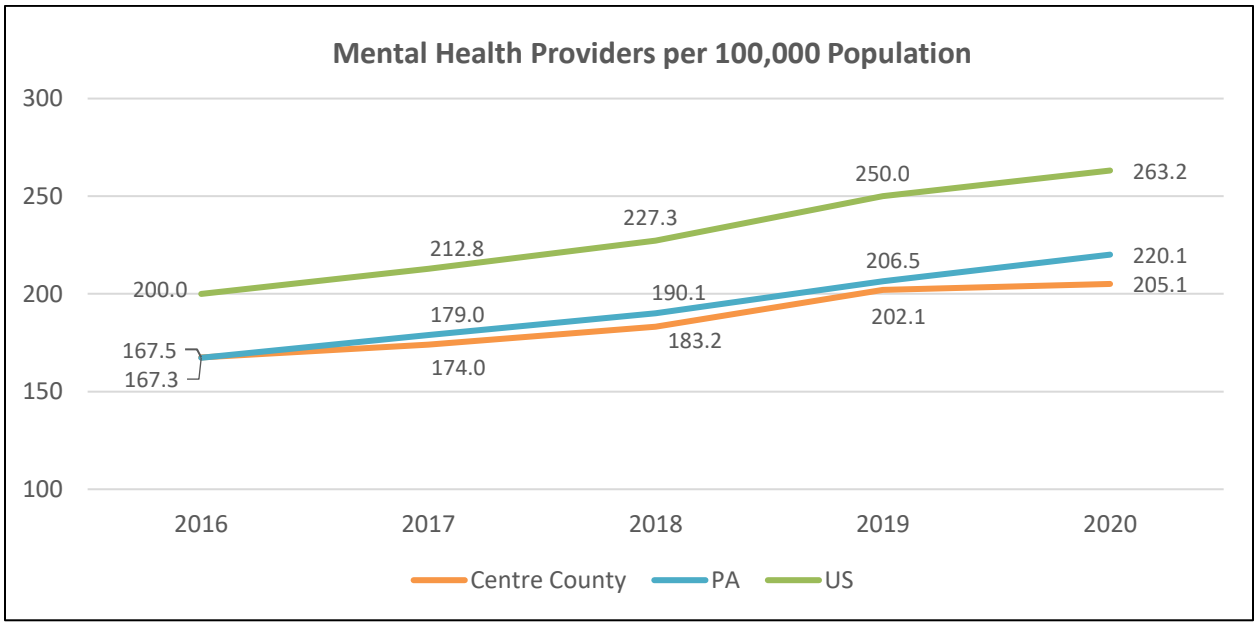
Adults with a Dental Care Visit within the Past Year by Zip Code



Dental Care Visit, Percent of Adults Seen in Past 1 Year by ZCTA, CDC BRFSS PLACES Project 2018

- Over 72.0%
- 62.1% - 72.0%
- 50.1% - 62.0%
- Under 50.1%

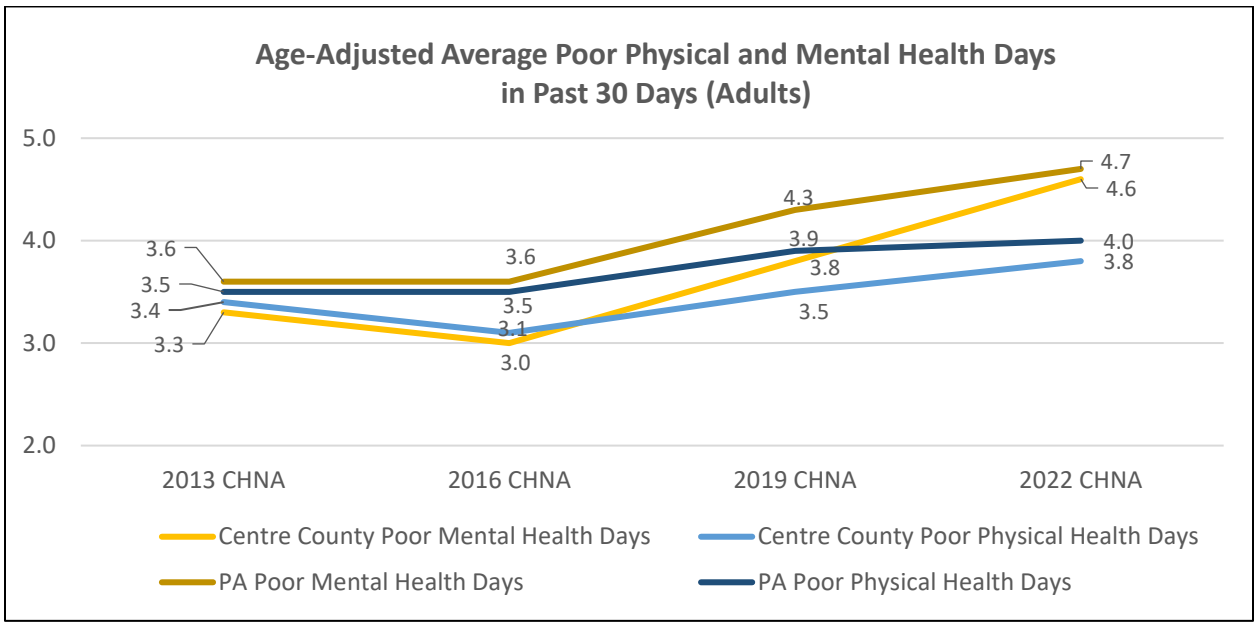
The mental health provider rate increased across Centre County, the state, and the nation from 2016 to 2020. Centre County has a similar mental health provider rate as the state, but both fall below the national rate. Mental health providers include psychiatrists, psychologists, licensed clinical social workers, counselors, and mental health providers that treat substance use disorder, among others.



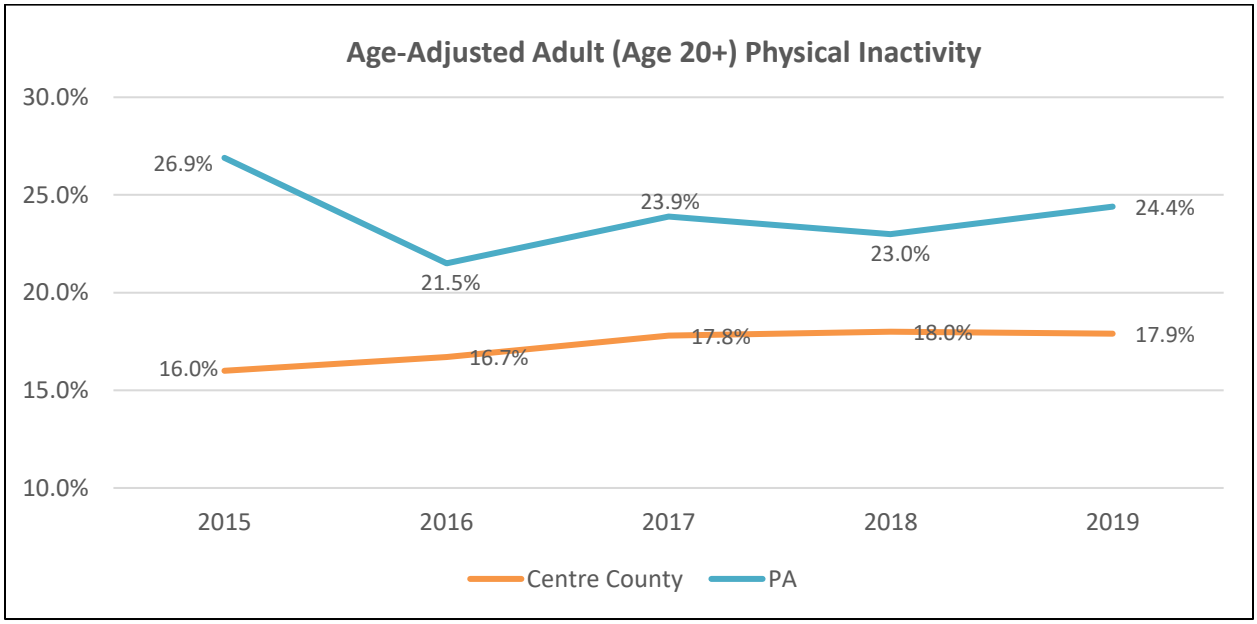
Source: Centers for Medicare and Medicaid Services

Health Risk Factors and Chronic Disease

Centre County adults are generally healthier than their peers statewide and nationally, but poor physical and mental health day averages increased from prior CHNAs. **The average number of poor mental health days per month increased from 3.0 to 4.6 from the 2016 to 2022 CHNAs.** Consistent with an increase in poor physical health days, physical inactivity also increased.



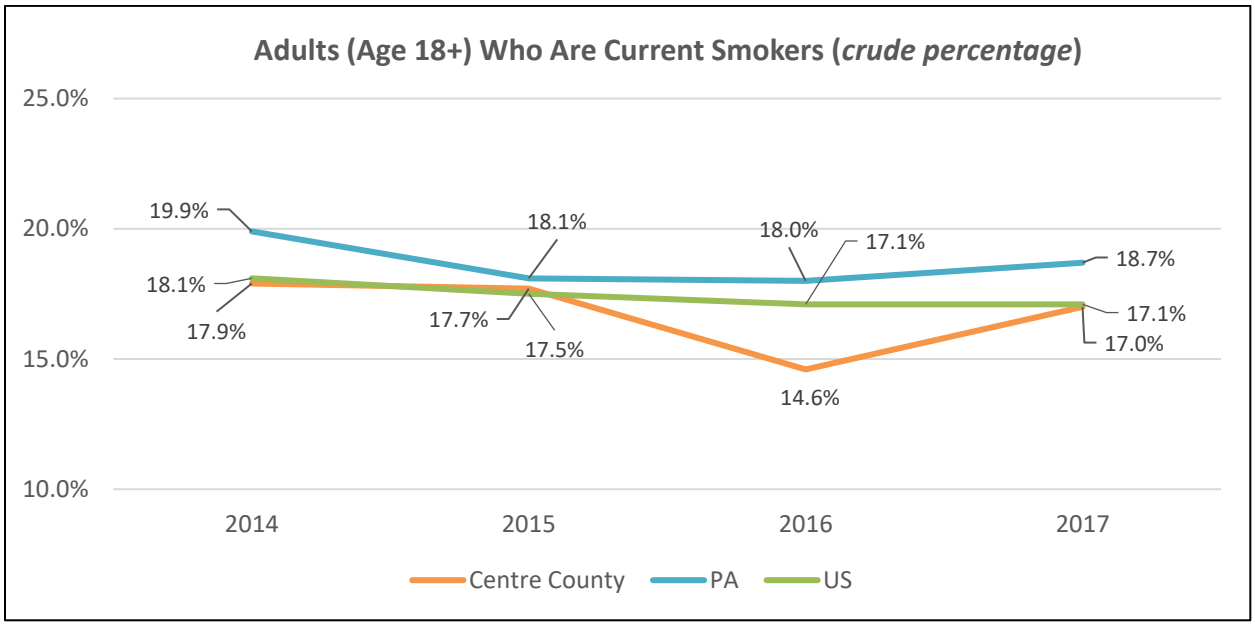
Source: Centers for Disease Control and Prevention, 2004-2010, 2006-2012, 2016, 2018



Source: Centers for Disease Control and Prevention

*State data are reported as a percentage of adults age 18+ for comparison purposes only.

Adult smoking increased sharply in Centre County from 2016 to 2017, bringing it in line with the nation. In 2018, a change in methodology occurred providing age-adjusted smoking rates. **According to 2018 age-adjusted data, 18.5% of Centre County adults smoke, a higher percentage than both the state (17.9%) and nation (15.9%).**



Source: Centers for Disease Control and Prevention

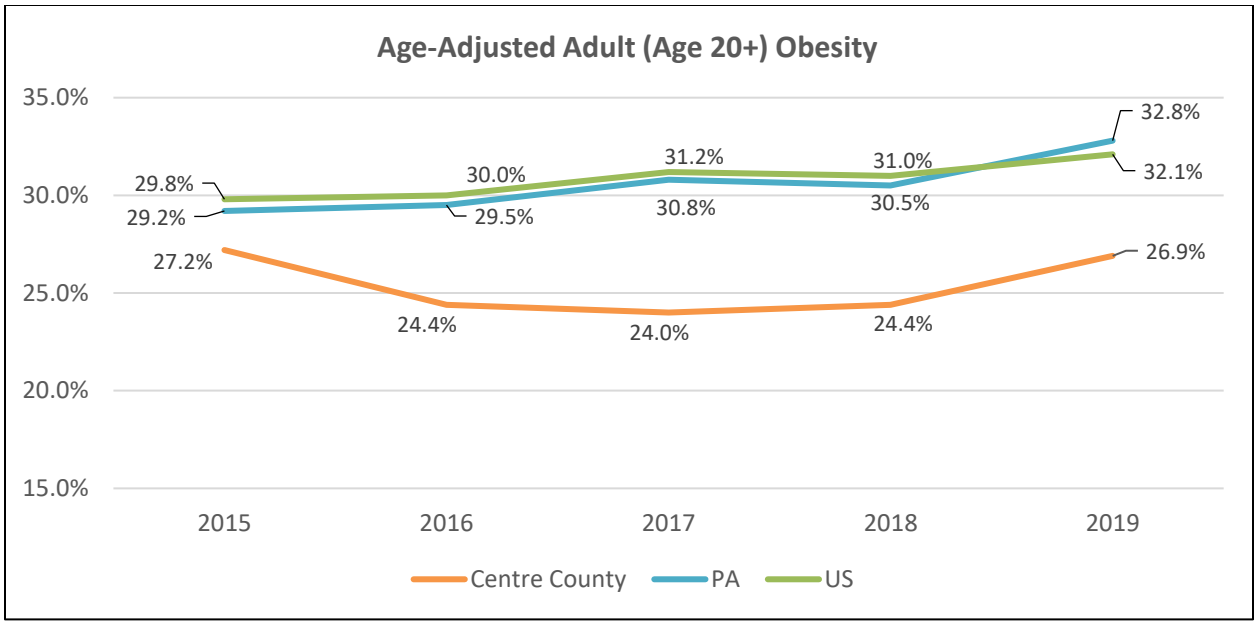
2018 *Age-Adjusted* Adults (Age 18+) Who Are Current Smokers

Centre County	Pennsylvania	United States
18.5%	17.9%	15.9%

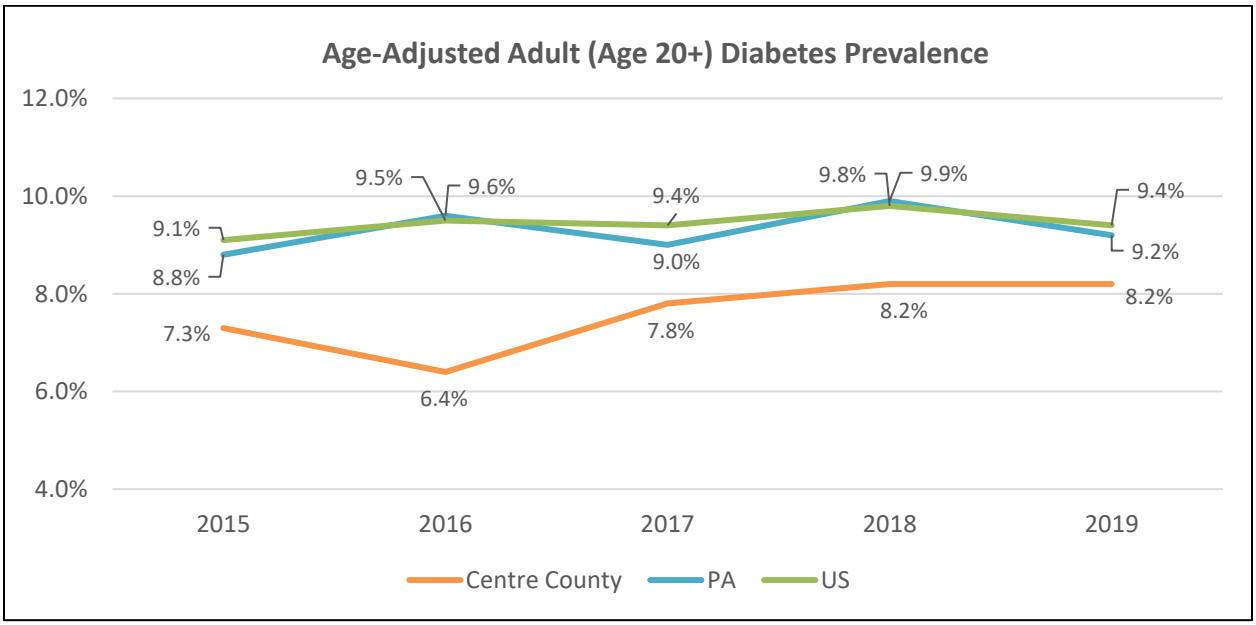
Source: Centers for Disease Control and Prevention

Fewer Centre County adults have obesity or diabetes compared to the state and nation, but prevalence increased in recent years. About 27% of adults had obesity in 2019 compared to 24% in 2017; 8.2% of adults had diabetes in 2019 compared to 6.4% in 2016.

Further analysis of obesity and diabetes prevalence at the zip code-level reveals disparities across Centre County. PLACES, a data collaboration between the CDC, Robert Wood Johnson Foundation, and CDC Foundation, provides 2018 obesity and diabetes estimates for adults age 18 or over at the zip code-level. According to PLACES findings, and **consistent with other reported health and socioeconomic disparities, obesity and diabetes prevalence are higher in rural portions of the county.** In the Moshannon Valley, including Philipsburg, adult obesity and diabetes are reported as 35.2% and 12.1% respectively.

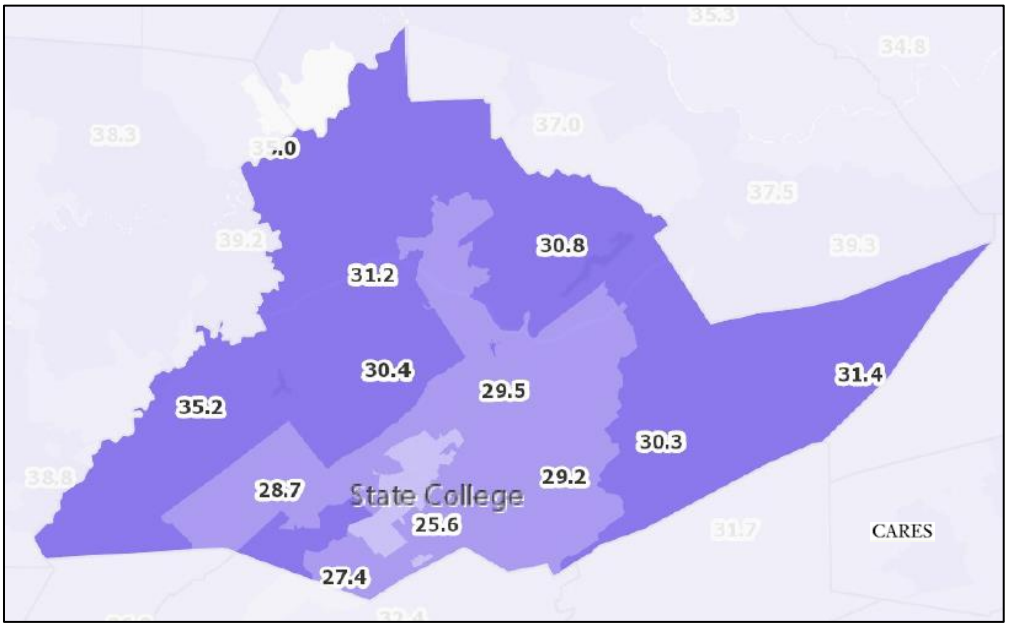


Source: Centers for Disease Control and Prevention, US Diabetes Surveillance System & BRFSS
*State and national data are reported as a percentage of adults age 18+ for comparison purposes only.



Source: Centers for Disease Control and Prevention, US Diabetes Surveillance System & BRFSS
*State and national data are reported as a percentage of adults age 18+ for comparison purposes only.

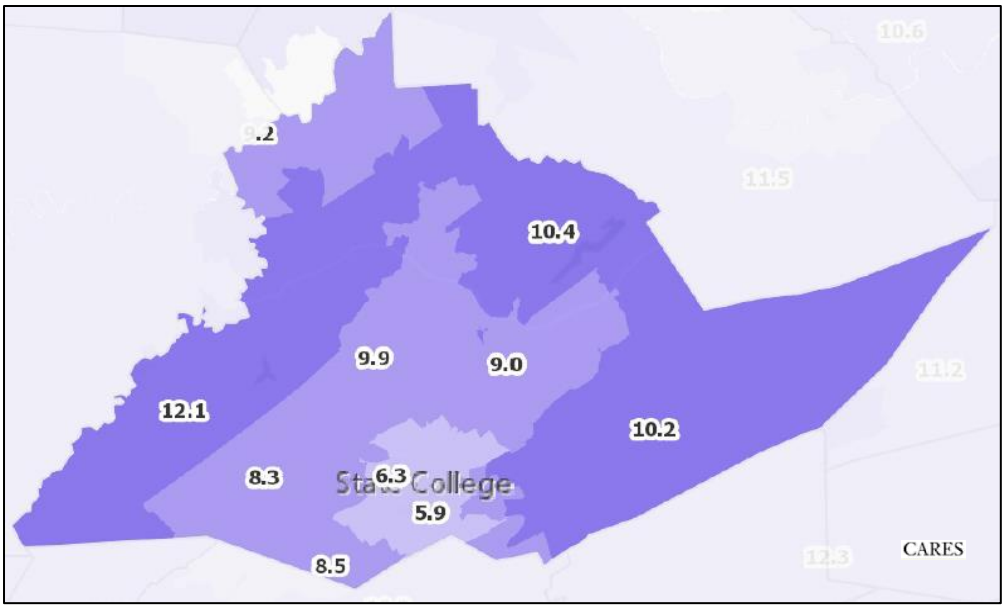
Adult Obesity Prevalence by Zip Code



Obese (BMI >= 30), Prevalence Among Adults Age 18+ by ZCTA, CDC BRFSS PLACES Project 2018

- Over 37.0%
- 30.1% - 37.0%
- 25.1% - 30.0%
- Under 25.1%

Adult Diabetes Prevalence by Zip Code



Diabetes, Prevalence Among Adults Age 18+ by ZCTA, CDC BRFSS PLACES Project 2018

- Over 13.0%
- 10.1% - 13.0%
- 8.1% - 10.0%
- Under 8.1%

Heart disease and cancer continue to be the leading causes of death across the US, but death rates are declining. **Centre County has lower rates of death due to heart disease and cancer, as well as other leading chronic diseases, compared to the state, nation, and HP2030 goals.** While racial and ethnic death data are not available for Centre County, state and national trends indicate Black residents have disproportionately higher death rates.

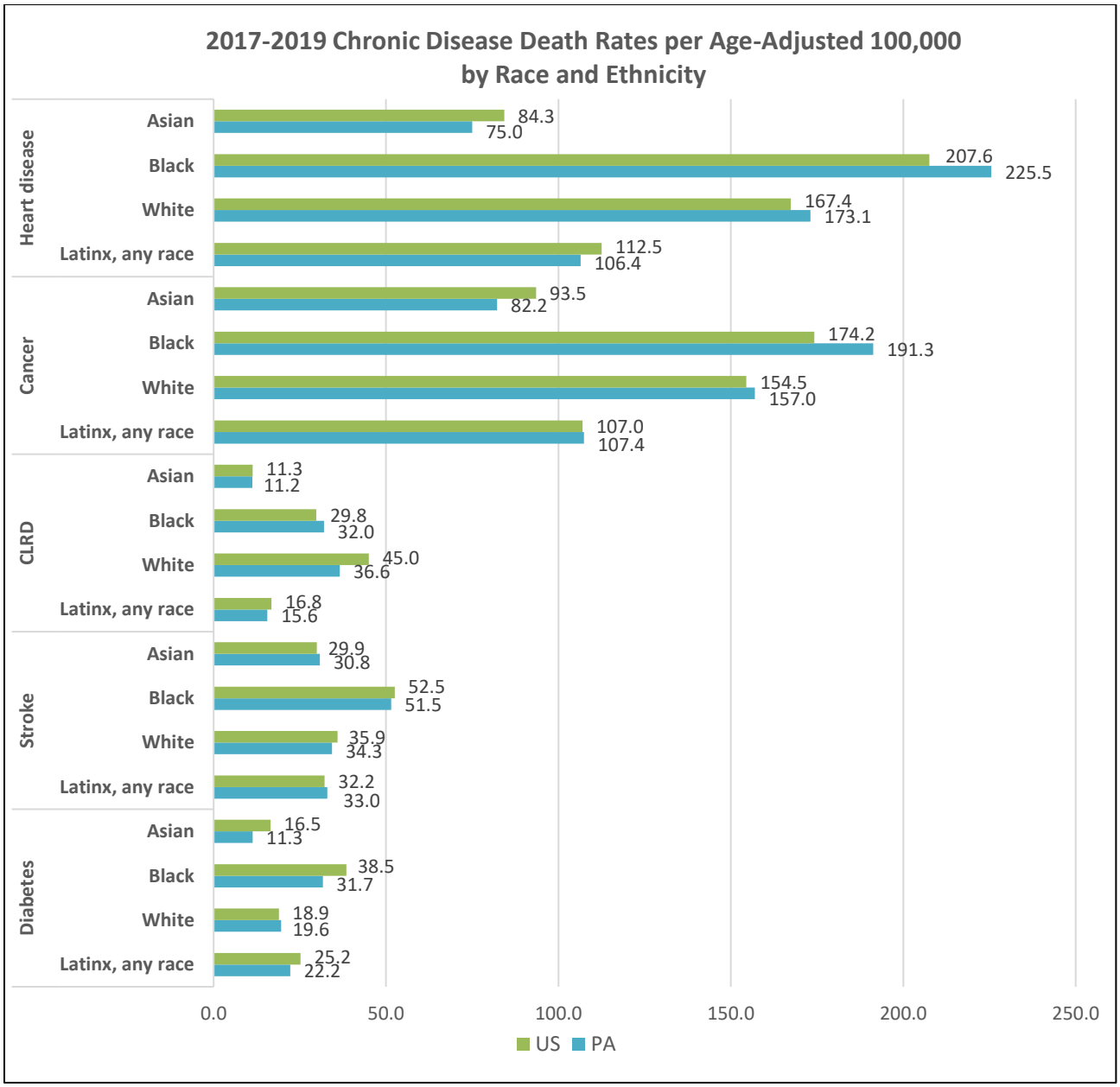
Leading Chronic Disease Causes of Death, Age-Adjusted Death Rates per 100,000

Green = Lower rate of death than the state and nation

	Centre County	Pennsylvania	United States	HP2030 Goal
Heart Disease	Trend			
	Decreasing	Decreasing	Decreasing	
2019	139.0	172.9	161.5	NA
2018	156.5	176.1	163.6	
2017	154.2	176.0	165.0	
2016	145.0	176.2	165.5	
2015	155.7	177.8	168.5	
Cancer	Trend			
	Decreasing	Decreasing	Decreasing	
2019	116.8	153.5	146.2	122.7
2018	114.2	156.6	149.1	
2017	121.6	161.0	152.5	
2016	124.4	164.7	155.8	
2015	135.7	167.2	158.5	
Chronic Lower Respiratory Disease*	Trend			
	Stagnant	Decreasing	Decreasing	
2017-2019	25.3	35.4	39.6	NA
2016-2018	24.9	36.3	40.4	
2015-2017	26.1	37.3	41.0	
2014-2016	24.7	37.3	40.9	
Stroke*	Trend			
	Decreasing	Decreasing	Stagnant	
2017-2019	26.8	35.7	37.2	33.4
2016-2018	31.1	36.2	37.3	
2015-2017	32.9	37.4	37.5	
2014-2016	33.2	37.5	37.2	
Diabetes*	Trend			
	Stagnant	Decreasing	Increasing	
2017-2019	10.0	20.5	21.5	NA
2016-2018	10.9	20.5	21.3	
2015-2017	9.6	21.1	21.2	
2014-2015	9.7	21.5	21.1	

Source: Centers for Disease Control and Prevention

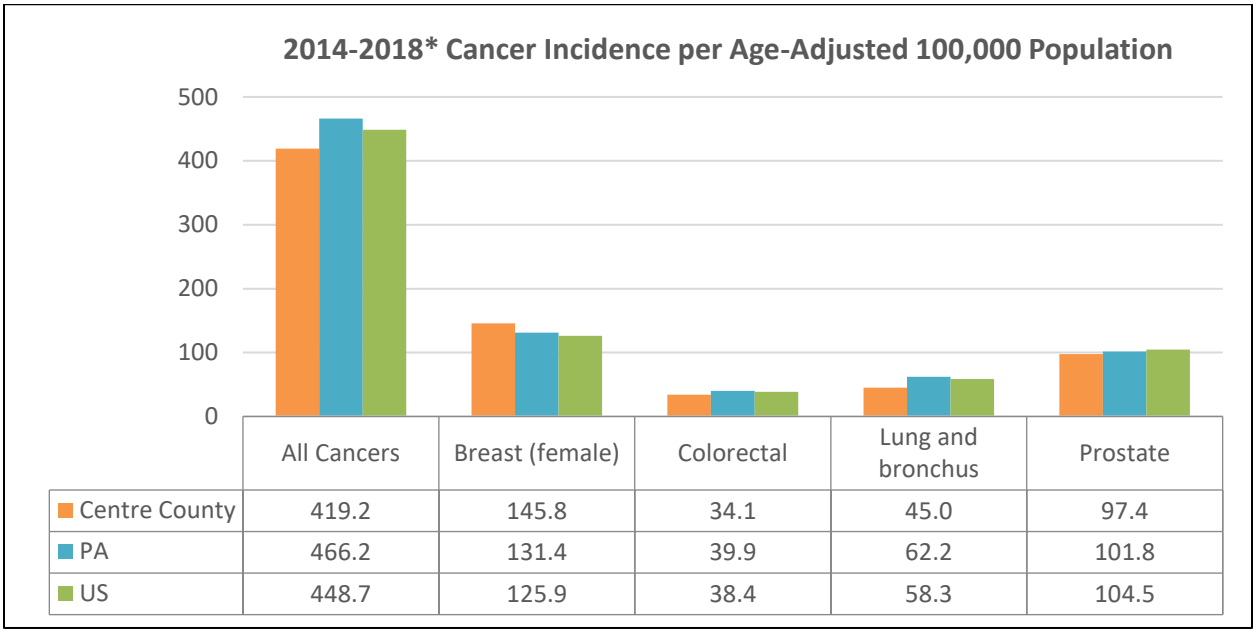
*Death rates are shown as a 3-year aggregate due to lower death counts.



Source: Centers for Disease Control and Prevention

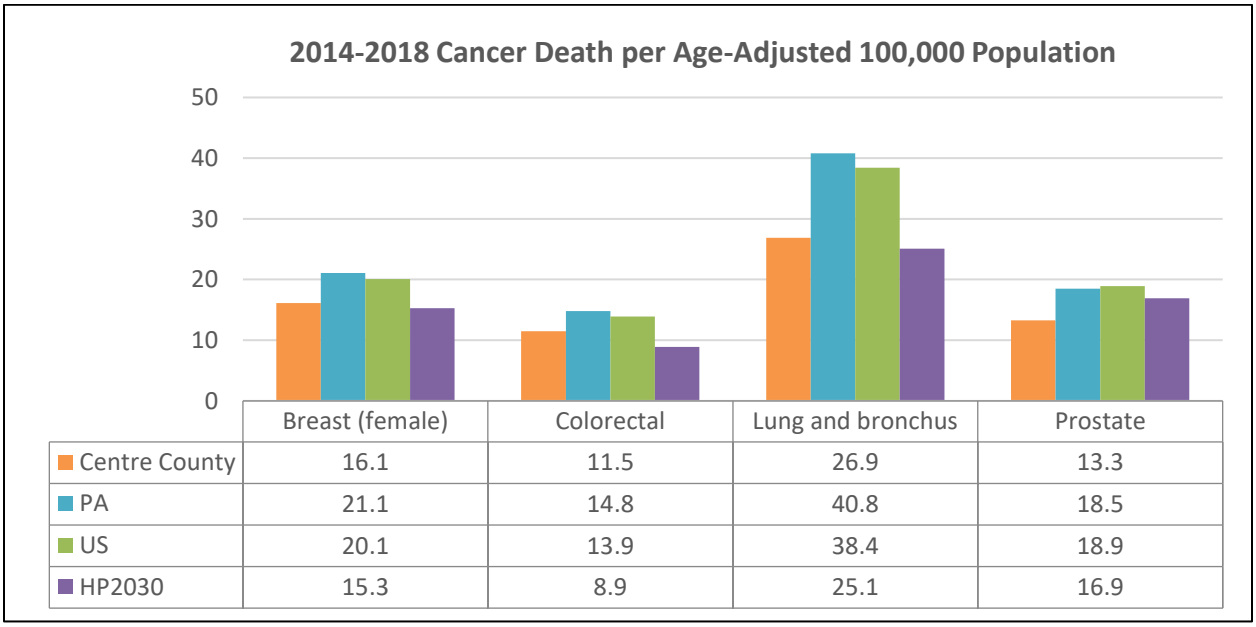
*Data for Centre County are not reported due to low death counts.

The following graphs depict cancer incidence and death rates for four of the most common types of cancer: Breast (female), colorectal, lung, and prostate. Centre County has a lower overall incidence of cancer, as well as lower incidence of colorectal, lung, and prostate cancers. The county has a higher incidence of female breast cancer, but a lower death rate when compared to the state and nation. This finding is indicative of positive screening practices for early detection and treatment. Centre County meets or nearly meets HP2030 cancer death rate goals for each of the four types.



	All Cancers	Breast (female)	Colorectal	Lung and bronchus	Prostate
Centre County	419.2	145.8	34.1	45.0	97.4
PA	466.2	131.4	39.9	62.2	101.8
US	448.7	125.9	38.4	58.3	104.5

Source: Pennsylvania Department of Health & Centers for Disease Control and Prevention,
*US cancer incidence data is reported for 2013-2017 (most recent available).



	Breast (female)	Colorectal	Lung and bronchus	Prostate
Centre County	16.1	11.5	26.9	13.3
PA	21.1	14.8	40.8	18.5
US	20.1	13.9	38.4	18.9
HP2030	15.3	8.9	25.1	16.9

Source: Centers for Disease Control and Prevention

Aging Population

Consistent with the state and nation, Centre County is an aging population with an increasing proportion of residents age 65 or over. **Older adults in Centre County are generally healthier than their peers statewide and nationally, benefiting from overall stronger socioeconomic status and social supports.** Approximately 4.4% of Centre County older adults live in poverty compared to 8.1% across PA and 9.3% across the US. Centre County older adults are less likely to experience disability and/or multiple chronic conditions compared to PA and the US.

Approximately 71.9% of Centre County older adult Medicare beneficiaries have two or more chronic conditions (comorbidities), a slight increase from the 2019 CHNA (71.2%). The percentage of Centre County older adult Medicare beneficiaries with comorbidities is comparable to the state and nation, although beneficiaries are more likely to have two or three conditions and less likely to have six or more conditions.

2018 Chronic Condition Comorbidities among Medicare Beneficiaries 65 Years or Over

	Centre County	Pennsylvania	United States
2 to 3 Conditions	31.7%	31.0%	29.4%
4 to 5 Conditions	22.9%	24.1%	22.8%
6 or More Conditions	17.3%	18.7%	18.2%

Source: Centers for Medicare & Medicaid Services

Older adults spend more money on healthcare than any other age group, and spending increases with a higher reported number of chronic conditions. **Centre County older adult Medicare beneficiaries with six or more chronic conditions average more than $27,000 in annual Medicare expenses, a slightly lower amount than the state and nation.**

2018 Per Capita Standardized Spending* for Medicare Beneficiaries Age 65 Years or Over

	Centre County	Pennsylvania	United States
0 to 1 Condition	$1,981	$1,930	$1,944
2 to 3 Conditions	$5,557	$5,183	$5,502
4 to 5 Conditions	$10,605	$10,124	$10,509
6 or More Conditions	$27,534	$28,954	$29,045

Source: Centers for Medicare & Medicaid Services

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

There is opportunity in Centre County to better manage older adult health in the primary care setting to avoid emergency department (ED) visits. **Centre County older adult Medicare beneficiaries have a higher rate of ED visits than the state and nation, regardless of the number of diagnosed chronic conditions.**

2018 ED Visits per 1,000 Medicare Beneficiaries Age 65 Years or Over

	Centre County	Pennsylvania	United States
0 to 1 Condition	130.7	117.0	122.6
2 to 3 Conditions	330.0	285.1	318.4
4 to 5 Conditions	681.8	578.7	621.1
6 or More conditions	1,738.2	1,666.8	1,719.1

Source: Centers for Medicare & Medicaid Services

Centre County older adult Medicare beneficiaries generally have a lower or similar prevalence of chronic conditions as beneficiaries across the state and nation, with the exception of asthma, cancer, chronic kidney disease, and depression. The prevalence of these conditions exceeds state and national averages.

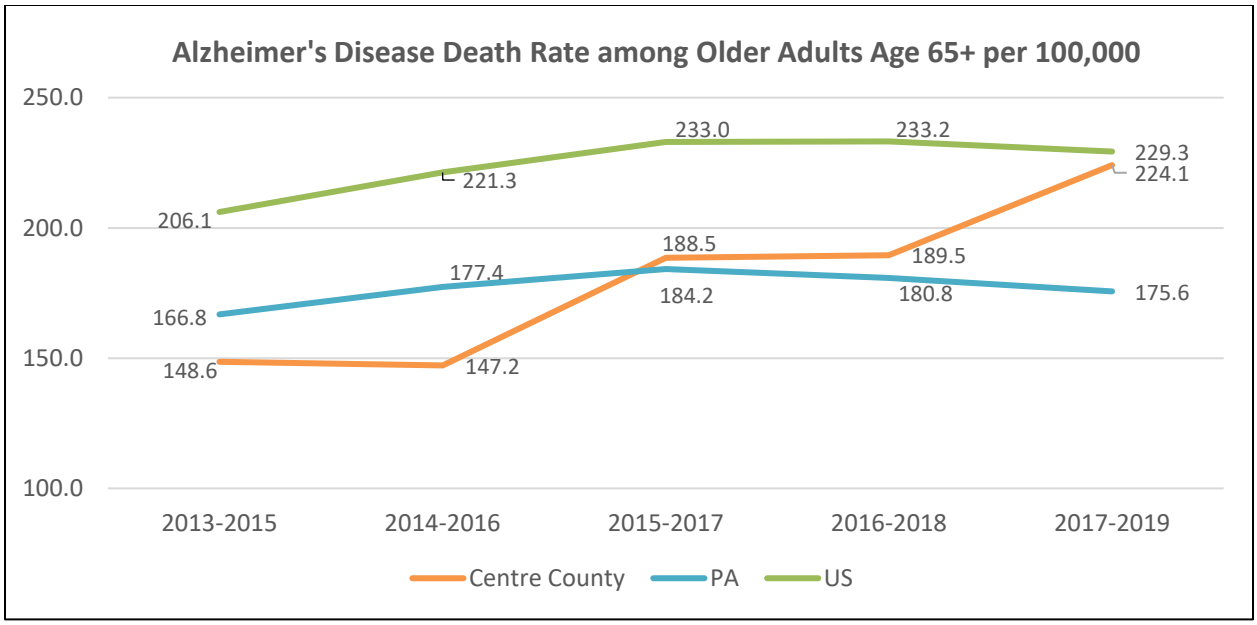
2018 Chronic Condition Prevalence among Medicare Beneficiaries Age 65 Years or Over

Green = Lower burden of disease than state and national benchmarks;
Red = Higher burden of disease than state and national benchmarks

	Centre County	Pennsylvania	United States
Alzheimer's Disease	11.3%	11.8%	11.9%
Arthritis	35.5%	36.6%	34.6%
Asthma	6.1%	4.8%	4.5%
Cancer	10.7%	10.1%	9.3%
Chronic Kidney Disease	27.2%	25.4%	24.9%
COPD	10.5%	10.9%	11.4%
Depression	17.5%	16.5%	16.0%
Diabetes	24.0%	26.2%	27.1%
Heart Failure	13.2%	14.2%	14.6%
High Cholesterol	53.0%	56.2%	50.5%
Hypertension	58.6%	61.9%	59.8%
Ischemic Heart Disease	24.7%	29.3%	28.6%
Stroke	3.3%	4.5%	3.9%

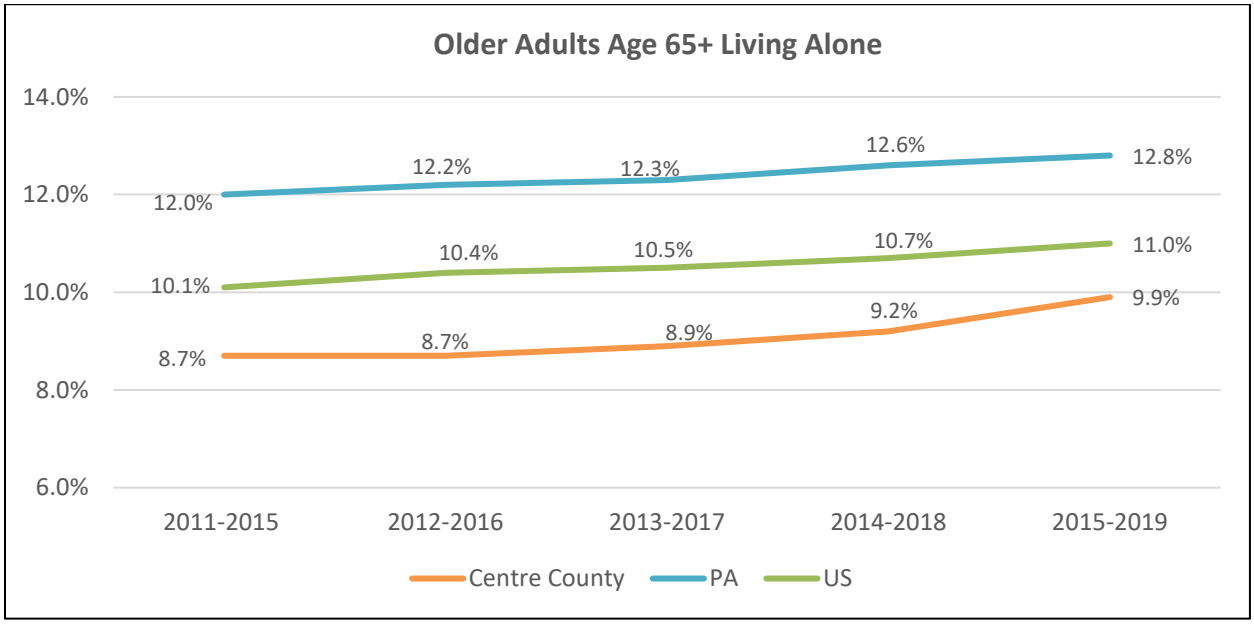
Source: Centers for Medicare & Medicaid Services

The Centre County Alzheimer's disease death rate among individuals age 65 or over increased markedly from 2014-2016 to 2017-2019, rising nearly 80 points. Some of the increase may be due to the reclassification of Alzheimer's disease as the primary cause of death. Death certificates for individuals with Alzheimer's disease often list acute conditions (e.g., pneumonia, heart failure) as the primary cause of death rather than Alzheimer's. Alzheimer's disease death rates should continue to be monitored in Centre County to assess actual increases in the number of deaths.



Source: Centers for Disease Control and Prevention

As older adults age, they are at risk for isolation due to physical limitations and decreasing social circles. One indicator of isolation is the percentage of older adults who live alone. The percentage of older adults living alone increased statewide and nationally with a higher percentage in PA versus the US. **While Centre County older adults are less likely to live alone than their peers statewide and nationally, the percentage is on the rise.**



Source: US Census Bureau, American Community Survey

Youth Health

Vaping and e-cigarette use, particularly among youth, is contributing to an increase in traditional cigarette use. **While Centre County youth are less likely to vape or use e-cigarettes compared to their peers statewide, the percentage increased more than four percentage points from 2017 to 2019.** Historically, vaping and e-cigarette use has been higher among rural school district youth compared to State College Area School District youth.

Youth obesity is increasing statewide. **Centre County has lower youth obesity than PA overall, but obesity among middle and high school students increased more than two percentage points over the past five years.** Nearly 1 in 5 Centre County students in grades 7-12 is obese.

Youth Tobacco Use within Past 30 Days (Grades 6, 8, 10, 12)

Green = Lower percentage than the state; Red = Higher percentage than the state

	Centre County Overall	State College Area School District	Rural County School Districts	Pennsylvania
Cigarette use				
2019	2.5%	0.8%	NA	3.5%
2017	4.5%	3.0%	5.9%	5.6%
2015	5.2%	3.3%	7.2%	6.4%
Vaping / E-cigarette use				
2019	14.4%	9.5%	NA	19.0%
2017	10.2%	9.9%	10.6%	16.3%
2015	12.1%	9.6%	14.5%	15.5%

Source: Pennsylvania Commission on Crime and Delinquency

Youth Obesity by School Year

Green = Lower percentage than the state

	Centre County	Pennsylvania
Grades K-6		
2017-2018	12.9%	16.8%
2016-2017	14.6%	16.4%
2015-2016	13.8%	16.7%
2014-2015	13.7%	16.5%
2013-2014	13.7%	16.3%
Grades 7-12		
2017-2018	17.0%	19.5%
2016-2017	17.9%	18.9%
2015-2016	16.9%	19.1%
2014-2015	15.7%	18.6%
2013-2014	14.8%	18.2%

Source: Pennsylvania Department of Health

Despite increasing health risk factors, Centre County youth continue to have a lower prevalence of chronic disease when compared to their peers statewide. The percentage of youth with diagnosed asthma is slowing decreasing and nearly four percentage points lower than the statewide average. Fewer than 10 students countywide have a type II diabetes diagnosis.

Youth Chronic Disease Prevalence by School Year

Green = Lower percentage than the state

	Centre County	Pennsylvania
Asthma		
2017-2018	7.5%	11.3%
2016-2017	7.8%	11.9%
2015-2016	7.9%	12.1%
Type II Diabetes		
2017-2018	0.06% (n=9)	0.06%
2016-2017	0.05% (n=7)	0.08%
2015-2016	0.06% (n=9)	0.06%

Source: Pennsylvania Department of Health

Centre County youth report better mental health and lower substance use than youth statewide. **The percentage of youth who reported feeling sad or depressed most days has generally been stable, while use of substances like alcohol has declined.** It is still of note that more than one-quarter of youth feel consistently sad or depressed and nearly 7% have attempted suicide. Historically, youth in rural school districts have reported poorer mental health than youth in the State College Area School District.

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

Green = Lower percentage than the state

	Centre County Overall	State College Area School District	Rural County School Districts	Pennsylvania
Sad or Depressed Most Days in the Past Year				
2019	28.4%	23.6%	NA	38.0%
2017	29.3%	23.6%	35.0%	38.1%
2015	29.2%	23.2%	35.4%	38.3%
Attempted Suicide				
2019	6.7%	4.4%	NA	9.7%
2017	7.0%	5.9%	8.4%	10.0%
2015	6.5%	5.6%	7.6%	9.5%

Source: Pennsylvania Commission on Crime and Delinquency

Youth Substance Use Disorder within the Past 30 Days (Grades 6, 8, 10, 12)

Green = Lower percentage than the state

	Centre County Overall	State College Area School District	Rural County School Districts	Pennsylvania
Alcohol Use				
2019	12.9%	9.6%	NA	16.8%
2017	14.9%	13.4%	16.3%	17.9%
2015	15.0%	14.5%	15.5%	18.2%
Marijuana Use				
2019	5.9%	4.8%	NA	9.6%
2017	7.6%	7.6%	7.6%	9.7%
2015	6.0%	6.2%	5.9%	9.4%

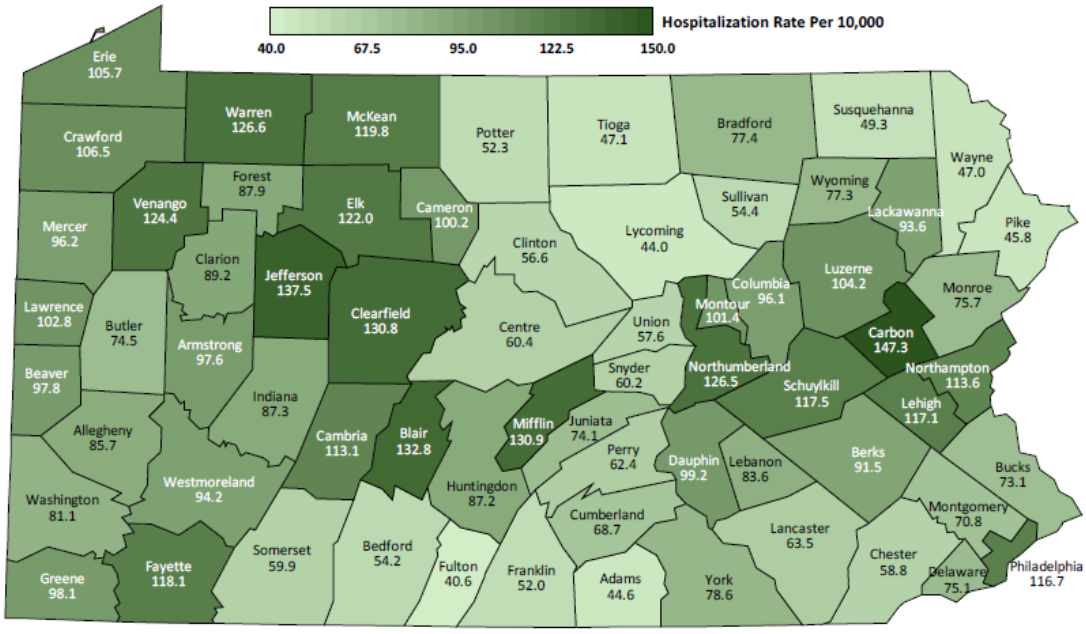
Source: Pennsylvania Commission on Crime and Delinquency

Behavioral Health and Substance Use Disorder

Across the state in 2018, there were 113,704 hospital stays for mental disorders for a rate of 88.8 per 10,000 residents. Centre County overall had a lower hospitalization rate than the state at 60.4 per 10,000, but mental distress should be evaluated on a community-by-community basis, as statewide hospitalization rates were approximately three times higher in areas of high poverty and low educational attainment. Statewide, the top diagnosis among individuals treated for a mental disorder was depression (44%), followed by schizophrenia (20.7%) and bipolar (20.2%). The majority of patients were between the ages of 18 to 44 (50.8%).

2018 Hospitalizations for Mental Disorders per 10,000 Residents

Statewide Rate: 88.8 per 10,000 Residents



Source: Pennsylvania Health Care Cost Containment Council (PHC4)

2018 Mental Disorders Hospitalizations per 10,000 by Socioeconomic Factors

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

Source: Pennsylvania Health Care Cost Containment Council (PHC4)

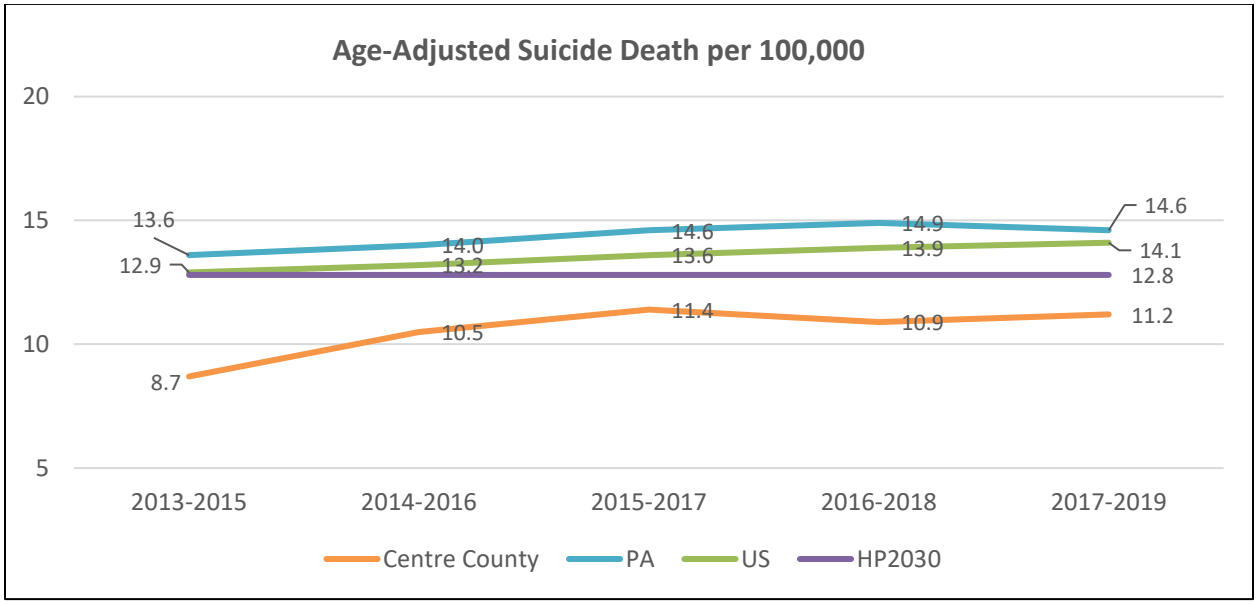
2018 Mental Disorders Hospital Stay Characteristics

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

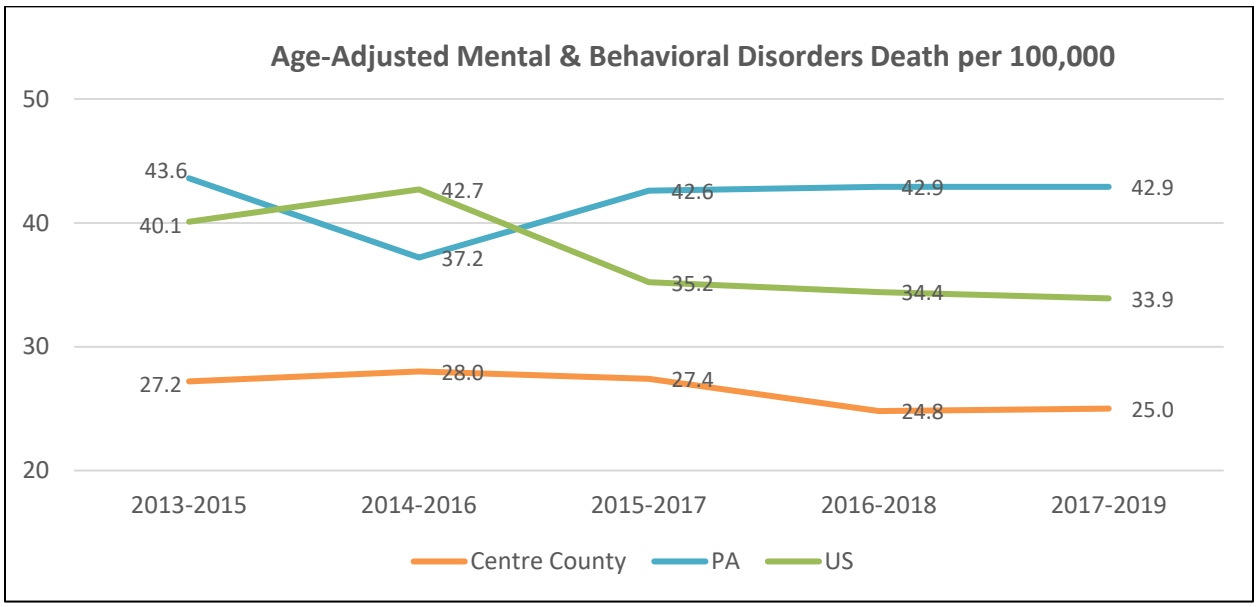
Source: Pennsylvania Health Care Cost Containment Council (PHC4)

Deaths due to suicide and mental and behavioral disorders are indicators of mental distress and access to care barriers. The Centre County suicide death rate per 100,000 increased from 8.7 in 2013-2015 to 11.4 in 2015-2017. **The suicide death rate has since stabilized, remaining lower than the state and**

nation and meeting the HP2030 goal of 12.8. The mental and behavioral disorders death rate declined and remains lower than state and national rates.



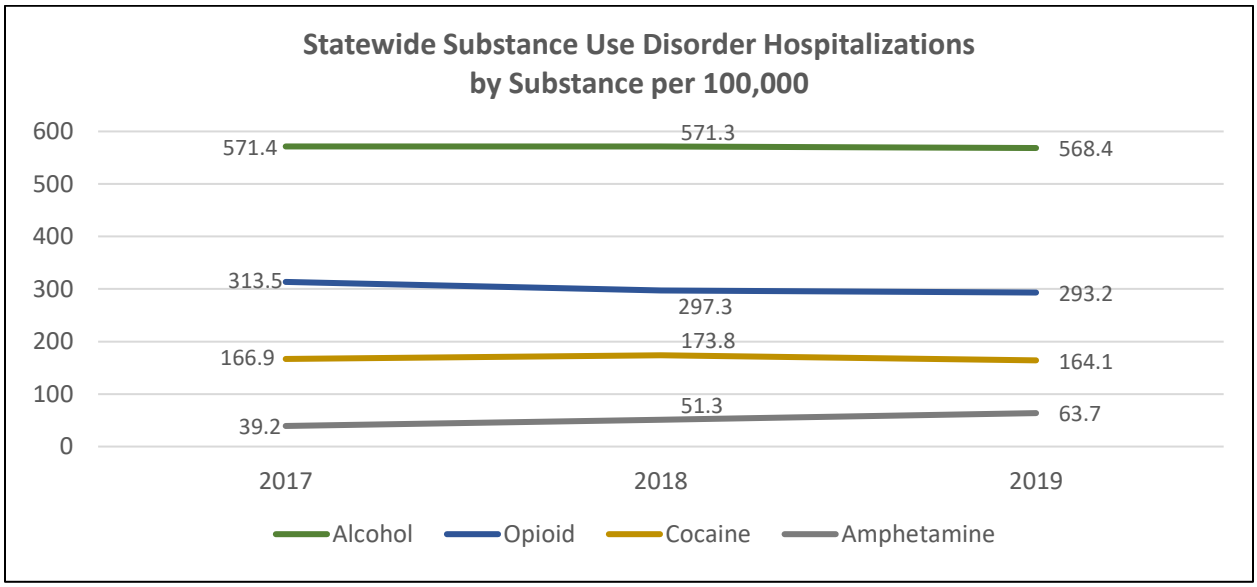
Source: Centers for Disease Control and Prevention



Source: Centers for Disease Control and Prevention
*Mental and behavioral disorders span a wide range of disorders, including disorders due to psychoactive substance use, anxiety, Schizophrenia and other delusional disorders, and mood or personality disorders.

Statewide substance use disorder hospitalizations declined from 2017 to 2019 for all reported substances except amphetamine. The amphetamine hospitalization rate increased 62.6% across PA. **As of 2019, Centre County had a lower rate of hospitalization for all reported substances compared to the**

state. This finding is consistent with an overall small number of drug overdose deaths in Centre County, even during pandemic years.



Source: Pennsylvania Health Care Cost Containment Council (PHC4)

2019 Centre County Substance Use Disorder Hospitalizations by Substance

	Alcohol	Opioid	Cocaine	Amphetamine
Hospitalizations	451	99	17	56
Hospitalizations rate per 100,000	316.0	69.4	11.9	39.2

Source: Pennsylvania Health Care Cost Containment Council (PHC4)

Pennsylvania tracks maternal stays with opioid use and newborn stays with neonatal abstinence syndrome (NAS) as indicators of opioid use prevalence and community impact. Maternal stays include residents aged 12-55 years. NAS is defined as an array of withdrawal symptoms that develop soon after birth in newborns exposed to addictive drugs while in the mother's womb.

From 2017 to 2019, the statewide hospitalization rates for maternal stays with opioid use and newborn stays with NAS declined 2% and 12% respectively. Centre County hospitalization rates for maternal and newborn stays were approximately half the statewide rates.

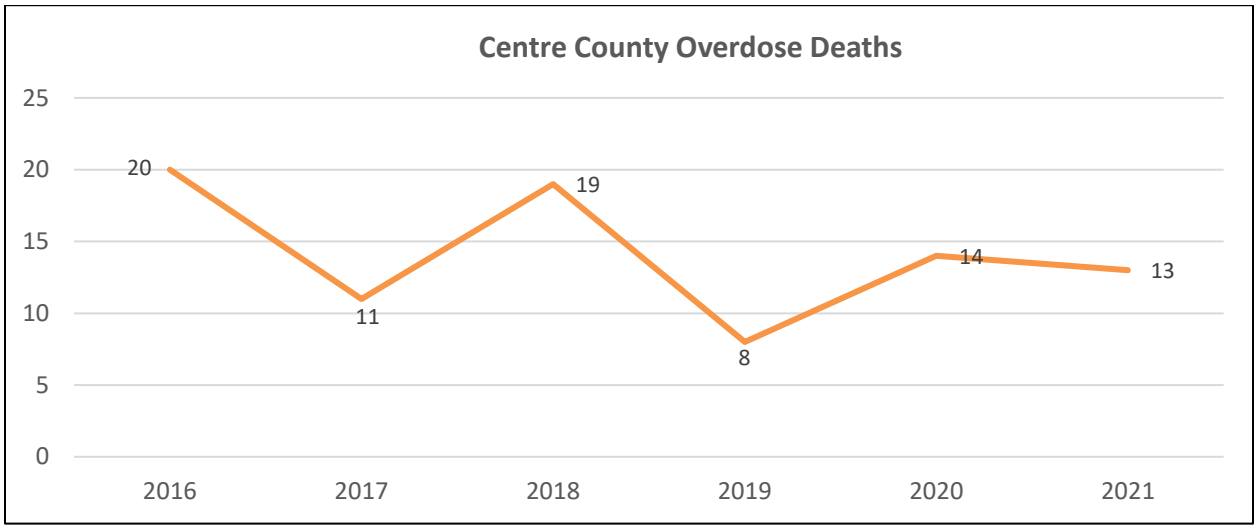
2019 Maternal Opioid Use and Neonatal Abstinence Syndrome (NAS)

	Centre County	Pennsylvania
Maternal hospital stays	NA	2,565
Rate per 1,000 maternal stays	7.7	19.1
NAS hospital stays	NA	1,610
Rate per 1,000 newborn stays	7.0	12.9

Source: Pennsylvania Health Care Cost Containment Council (PHC4)

Consistent with other communities across the nation, Centre County's 2019 success in tackling the opioid crisis was disrupted by the COVID-19 pandemic. Anecdotal evidence suggests the pandemic escalated the opioid crisis due to increased mental distress and healthcare access barriers for addiction support. Overdose deaths in Centre County have been variable since 2016, doubling from 2019 to 2020 and showing a deep decline in 2021.

When analyzed by demographic characteristics, Centre County overdose deaths are evenly distributed among men and women and occur almost exclusively among White residents. While all age groups are affected, the highest number of deaths occur among young adults age 25-34.



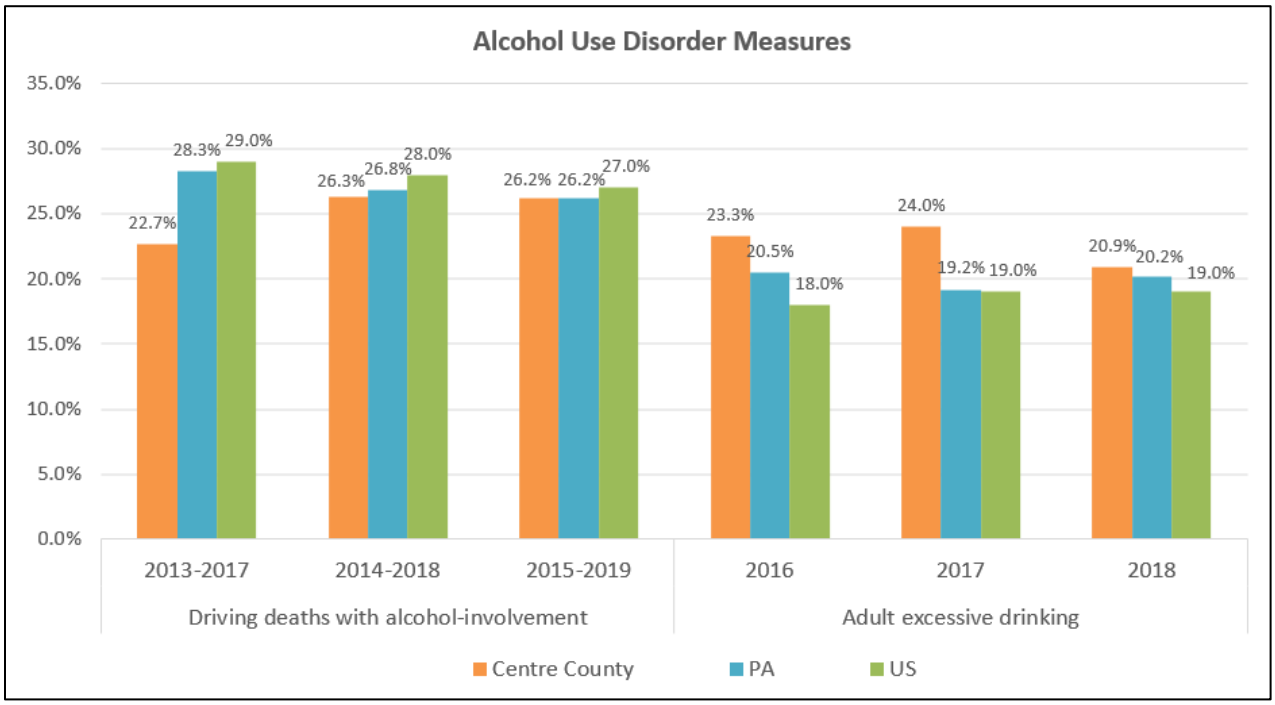
Source: OverdoseFreePA

2020-2021 Centre County Overdose Death Demographics

	2020-2021
Gender	
Female	37%
Male	63%
Race	
Asian	0%
Black	7%
White	93%
Other	0%
Latinx	0%
Age	
0-17	0%
18-24	11%
25-34	37%
35-44	26%
45-54	15%
55+	11%

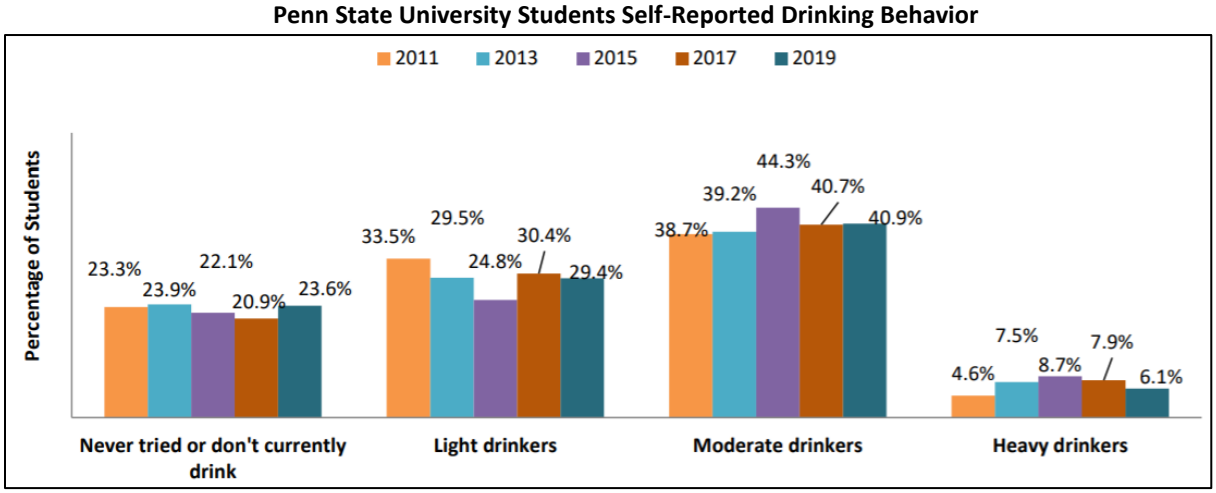
Source: OverdoseFreePA

The percentage of Centre County adults who reported excessive drinking decreased from 2017 to 2018 and is comparable to the statewide average. Consistent with the state and nation, approximately 1 in 4 driving deaths in Centre County are due to alcohol impairment.



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

Consistent with prior years of CHNA data, approximately 76% of Penn State University students report alcohol use. Among alcohol users, 41% are moderate drinkers and 6% are heavy drinkers. **Mount Nittany Medical Center sees a high volume of alcohol-related visits by Penn State students, although visits declined in recent school years.**



Source: Penn State Student Affairs, The Partnership – Campus and Community United Against Dangerous Drinking

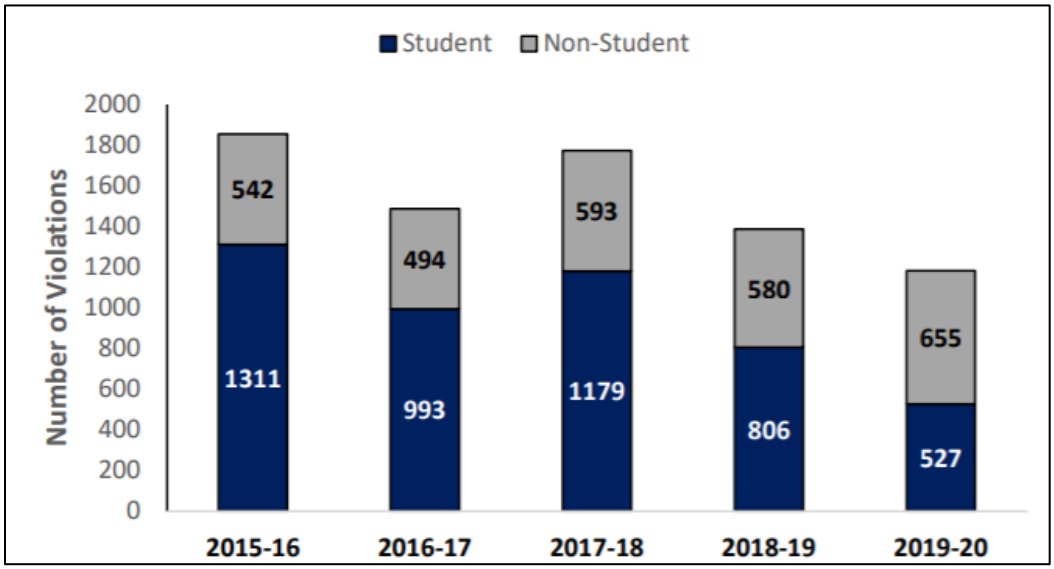
Penn State Student Alcohol-Related Visits to Mount Nittany Medical Center

2015-16	2016-17	2017-18	2018-19	2019-20
651	711	691	570	537

Source: Penn State Student Affairs, The Partnership – Campus and Community United Against Dangerous Drinking

Centre County has historically had a higher rate of crime offenses related to substance use compared to the state, particularly for alcohol. **Consistent with a reported decline in Mount Nittany Medical Center medical visits due to alcohol, the annual number of alcohol-related violations declined in recent school years.** Of note, the decline in violations was largely seen in the student population, while violations among non-students increased.

Annual Number of All Alcohol-Related Violations
(Public Drunkenness, Liquor Law Citations and DUI Arrests)



Source: Penn State Student Affairs, The Partnership – Campus and Community United Against Dangerous Drinking

Maternal and Child Health

The total birth rate continued to decline statewide and in Centre County. Centre County has historically had a lower birth rate than the state. Consistent with countywide demographics, the majority (85%) of births in Centre County in 2019 were to White mothers. The percentage of births to Asian and Black mothers declined from the 2019 CHNA; births to Latina mothers increased approximately one percentage point.

Centre County has fewer teenage births than the state overall. In 2019, 1.7% of births in the county were to teens, less than half the statewide percentage of 3.9%.

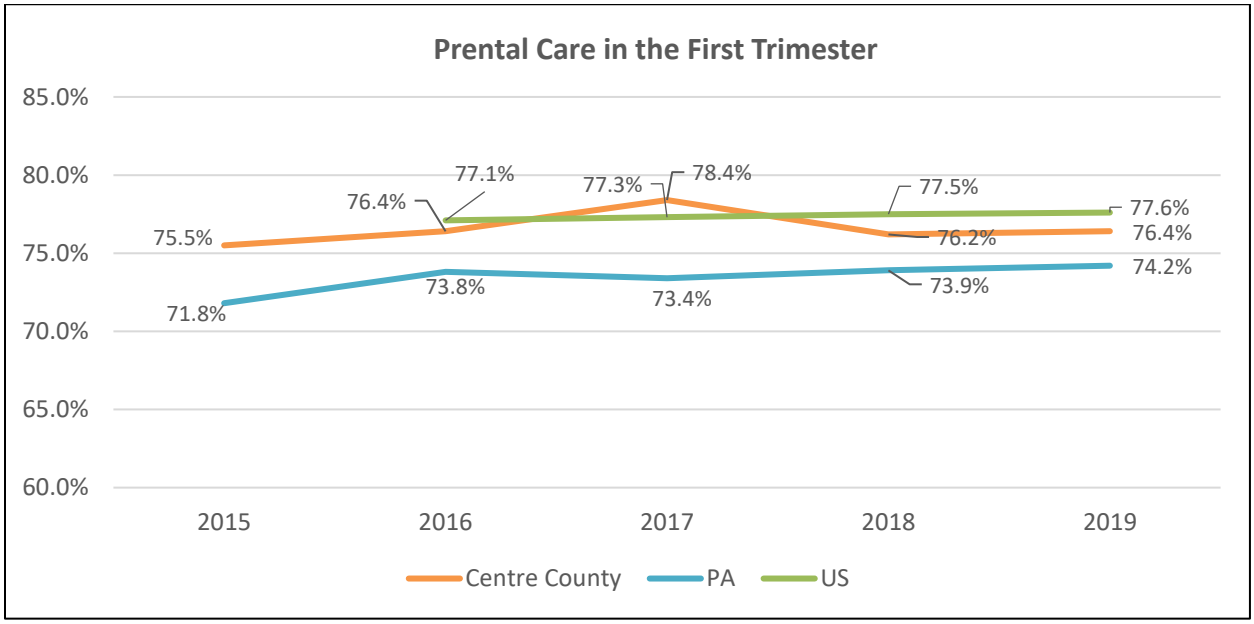
Total Births

Green = Lower percentage than the state

	Centre County	Pennsylvania
Birth Rate per 1,000	Trend	
	Decreasing	Decreasing
2019	14.1	20.6
2018	15.2	20.8
2017	15.2	21.1
2016	15.8	21.4
2015	16.7	21.5
2019 Births by Race and Ethnicity		
Total	1,173	135,677
Asian	8.0%	4.6%
Black	1.1%	13.9%
White	85.3%	70.1%
Latinx	3.5%	11.6%
Births to Teens	Trend	
	Variable	Decreasing
2019	1.7%	3.9%
2018	2.1%	4.1%
2017	1.2%	4.3%
2016	1.4%	4.6%
2015	2.7%	5.1%

Source: Pennsylvania Department of Health

The percentage of Centre County pregnant women receiving first trimester prenatal care is consistent with the percentage reported at the time of the 2019 CHNA. **Centre County has a higher percentage of women receiving early prenatal care compared to the state, but it does not meet the HP2030 goal of 80.5%.** Contrary to state and national trends, White mothers in Centre County are less likely to receive early prenatal care compared to minority racial and ethnic groups, although findings should be interpreted with caution due to low population counts.



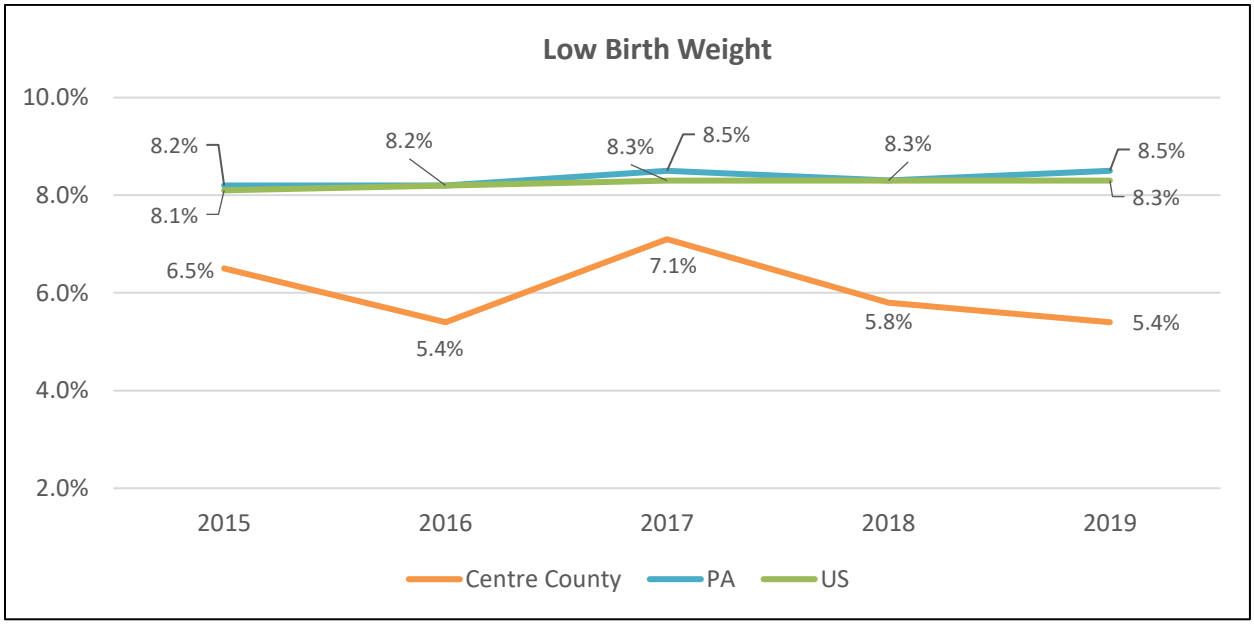
Source: Pennsylvania Department of Health & Centers for Disease Control and Prevention
*In 2016, the US universally adopted the 2003 US Certificate of Live Birth, providing national indicators.

2019 Prenatal Care in the First Trimester by Race and Ethnicity
Green = Higher percentage than state and national benchmarks;
Red = Lower percentage than state and national benchmarks

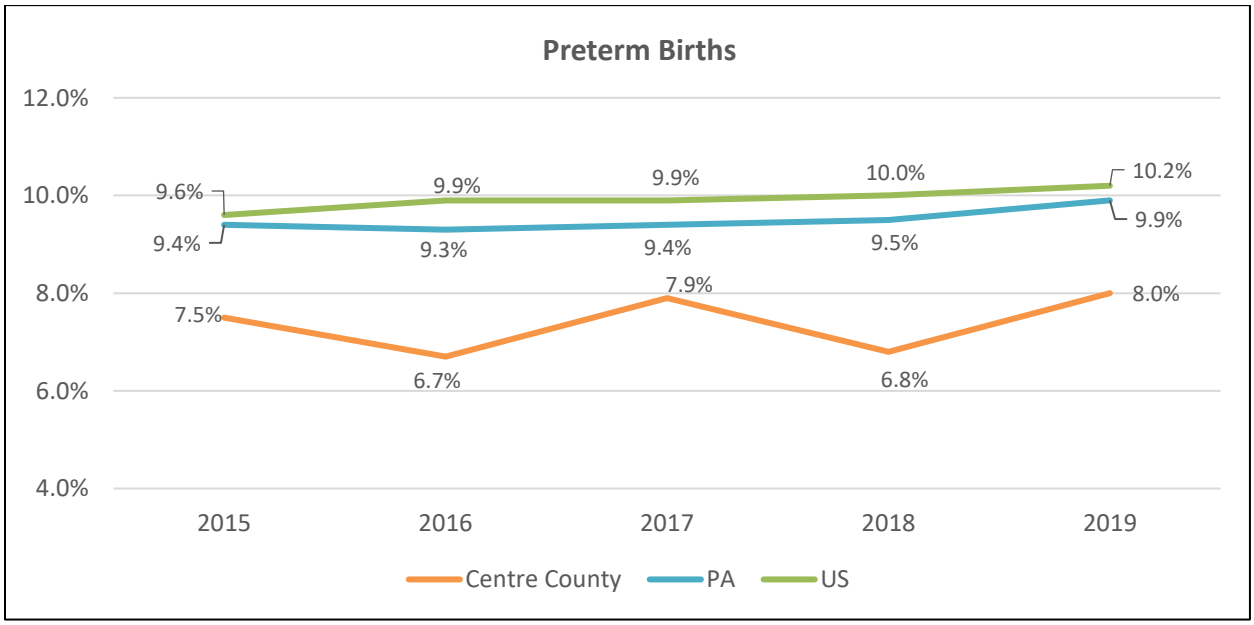
	Total Births	Asian	Black	White	Latina
Centre County	76.4%	78.1%	81.2%	76.2%	78.6%
Pennsylvania	74.2%	72.5%	63.8%	77.4%	65.6%
United States	77.6%	82.1%	67.6%	82.8%	72.1%
HP2030 Goal	80.5%	--	--	--	--

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

Fewer Centre County babies are born with low birth weight and/or preterm when compared to the state and nation. The county meets the preterm birth HP2030 goal. The low birth weight percentage declined from 2017 to 2019, while the preterm birth percentage has been variable. Centre County data are not reported for non-White women due to low counts.



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



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

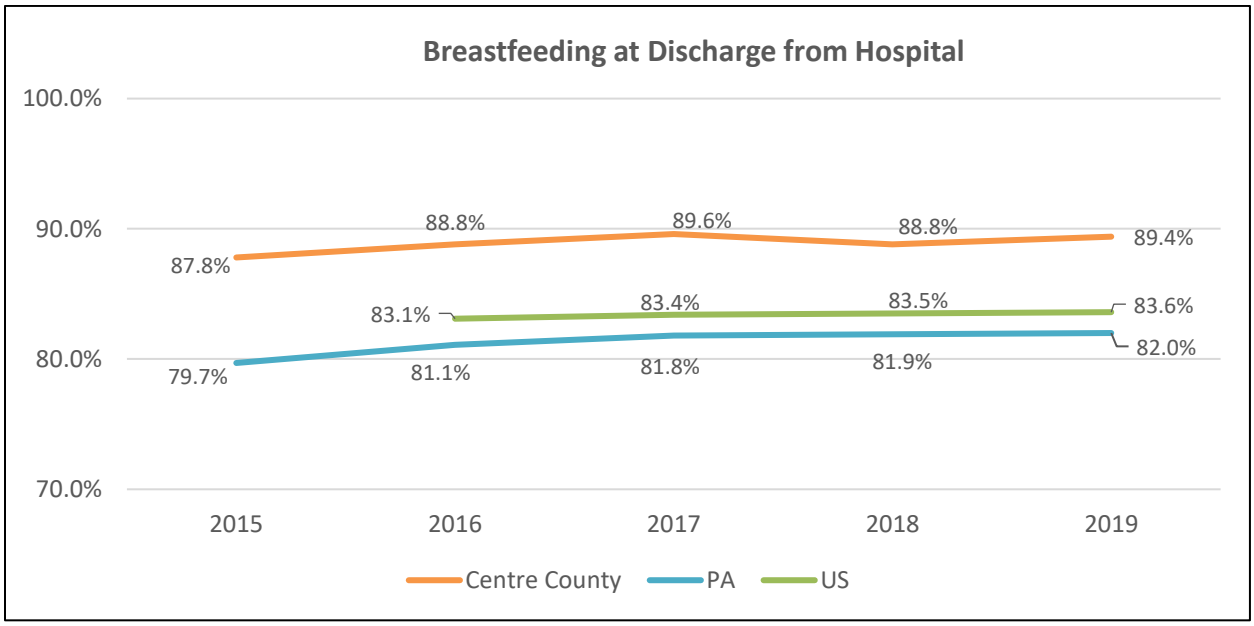
2019 Low Birth Weight and Preterm Births by Race and Ethnicity

Green = Lower percentage than state and national benchmarks

	Total Births	Asian	Black	White	Latinx
Low Birth Weight					
Centre County	5.4%	NA	NA	5.3%	NA
Pennsylvania	8.5%	8.8%	14.4%	7.0%	9.1%
United States	8.3%	8.7%	14.2%	6.9%	7.6%
Preterm Births					
Centre County	8.0%	NA	NA	8.1%	NA
Pennsylvania	9.9%	8.3%	13.8%	9.1%	10.5%
United States	10.2%	8.7%	14.4%	9.3%	10.0%
HP2030 Goal	9.4%	--	--	--	--

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

Nearly 90% of Centre County mothers breastfeed, exceeding state and national benchmarks. Within Centre County, White mothers are the least likely to breastfeed in comparison to other racial and ethnic groups, however, all reported demographics are more likely to breastfeed when compared to their peers statewide and nationally.



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

*In 2016, the US universally adopted the 2003 US Certificate of Live Birth, providing national indicators.

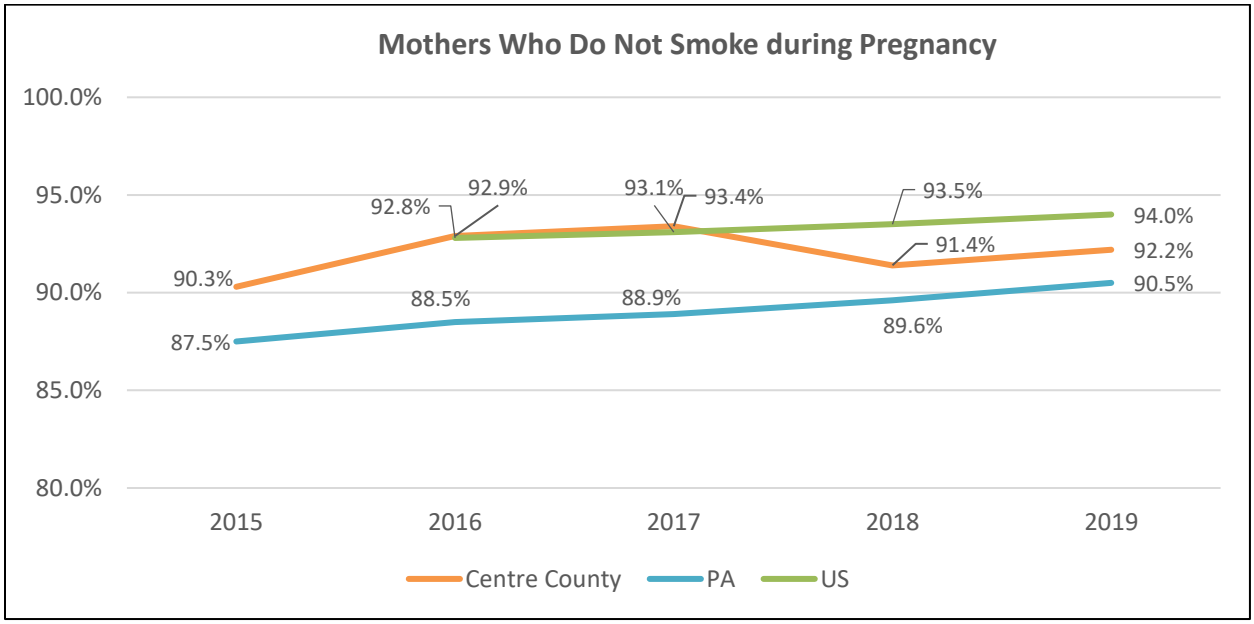
2019 Breastfeeding at Discharge from Hospital by Race and Ethnicity

Green = Higher percentage than state and national benchmarks

	Total Births	Asian	Black	White	Latinx
Centre County	89.4%	95.9%	97.1%	88.4%	100%
Pennsylvania	82.0%	90.7%	76.5%	82.6%	81.7%
United States	83.6%	90.1%	73.1%	85.0%	87.0%
HP2030 Goal	NA	--	--	--	--

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

More women smoke during pregnancy in PA than the nation overall, but the percentage is declining. Within Centre County, approximately 8% of women report smoking during pregnancy compared to 6% nationally. Consistent with the 2019 CHNA, a similar percentage of Black, White, and Latina pregnant women in Centre County report smoking.



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

*In 2016, the US universally adopted the 2003 US Certificate of Live Birth, providing national indicators.

2019 Mothers Who Do Not Smoke during Pregnancy by Race and Ethnicity

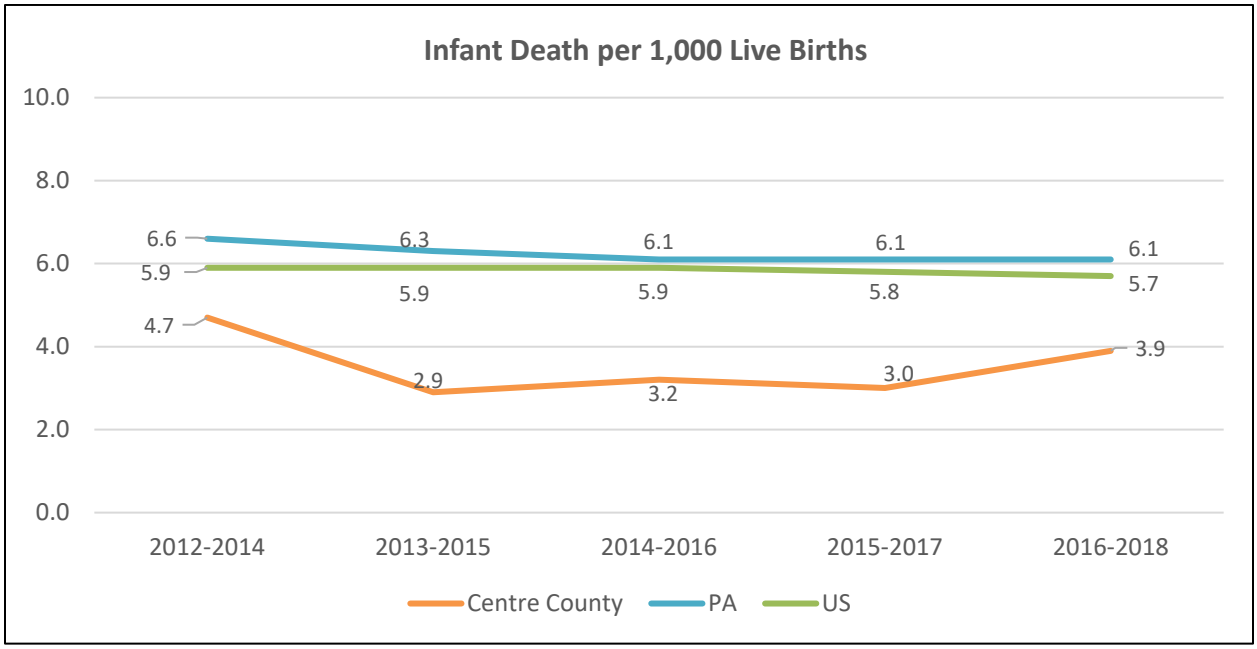
Green = Higher percentage than state and national benchmarks;

Red = Lower percentage than state and national benchmarks

	Total Births	Asian	Black	White	Latina
Centre County	92.2%	100%	91.2%	91.7%	92.9%
Pennsylvania	90.5%	99.2%	92.5%	89.1%	94.9%
United States	94.0%	99.6%	95.2%	91.2%	98.5%
HP2030 Goal	95.7%	--	--	--	--

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

Centre County saw a significant decline in infant deaths from 2007-2009 to 2013-2015. The infant death rate has since stabilized and remains lower than the state and nation and meets the HP2030 goal of 5.0 per 1,000 live births.



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

Across the state and nation, there are wide maternal and child health disparities, particularly affecting Black and Latina mothers. **Of grave concern, as a national average, Black mothers are more than 2.5 times as likely as White and/or Latina mothers to die due to pregnancy-related causes.** Reportable racial and ethnic differences in maternal and child health outcomes are limited within Centre County due to low birth counts among minority populations. When available, data indicate that Black and Latina mothers in Centre County generally fare better than both White mothers in Centre County and their peers statewide and nationally. This finding is contrary to 2019 CHNA findings and should continue to be monitored.

2018 Maternal Deaths* per 100,000 Live Births

	Total Deaths	Total Death Rate	Black Death Rate	White Death Rate	Latina Death Rate
Pennsylvania	19	14.0	NA	NA	NA
United States	658	17.4	37.1	14.7	11.8
HP2030 Goal	--	15.7	--	--	--

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

*Maternal deaths include deaths of women while pregnant or within 42 days of termination of pregnancy, from any cause related to pregnancy or its management.

Key Stakeholder Survey

Background

An online Key Stakeholder Survey was conducted with Centre County community representatives to solicit information about local health needs and opportunities for improvement. Community representatives included healthcare and social service providers; public health experts; civic, social, and faith-based organizations; policy makers and elected officials; and others representing diverse community populations.

A total of 148 individuals responded to the survey. A list of the represented community organizations and the participants' respective titles, as provided, is included in Appendix B. Key stakeholder's names are withheld for confidentiality.

Key stakeholders were asked to indicate any specific regions of Centre County or populations that their organization serves, as applicable. Three-quarters of key stakeholders served all geographic regions of Centre County. Similarly, 71.6% of stakeholders served all population across the county. Nearly 20% of key stakeholders primarily served the Centre Region. Less than 10% of stakeholders served a specific population within Centre County; low-income/poor individuals or families were the most commonly served specific population group.

Centre County Regions Served by Key Stakeholder Survey Participants

	Number of Participants	Percent of Total
Not applicable – serve all of Centre County	111	75.0%
Centre Region	28	18.9%
Nittany Valley Region	14	9.5%
Penns Valley Region	13	8.8%
Moshannon Valley Region	12	8.1%
Lower Bald Eagle Valley Region	11	7.4%
Upper Bald Eagle Valley Region	9	6.1%
Mountaintop Region	8	5.4%

Primary Populations Served by Key Stakeholder Survey Participants

	Number of Participants	Percent of Total
No specific focus-serve all populations	106	71.6%
Other*	18	12.2%
Low Income/Poor individuals or families	14	9.5%
Young adults (19-24)	11	7.4%
Older adults/Elderly	10	6.8%
African American/Black	9	6.1%
Religious community	9	6.1%
Disabled/Differently abled (mental and physical)	7	4.7%
Children (age 0-11)	6	4.1%
Adolescents (age 12-18)	6	4.1%
Homeless individuals or families	6	4.1%
Asian/South Asian	2	1.4%
LGBTQ+ Community	2	1.4%
Uninsured/Underinsured individuals or families	2	1.4%
American Indian/Alaska Native	1	0.7%
Pacific Islander/Native Hawaiian	1	0.7%
Hispanic/Latinx	1	0.7%
Immigrant/Refugee populations	1	0.7%

*Responses included all populations age 0-22, all populations age 18+, early learning program enrollees, employers and community organizations, incarcerated individuals (n=2), Jewish community, K-12 students, low literate adults and adults with limited English, pregnant mothers and mothers of children under 2 years, survivors of domestic violence and sexual assault (n=5), and veterans.

Key stakeholders were asked a series of questions about perceived health priorities, perspectives on emerging health trends, including COVID-19, and recommendations to advance community health and well-being strategies. A summary of their responses follows.

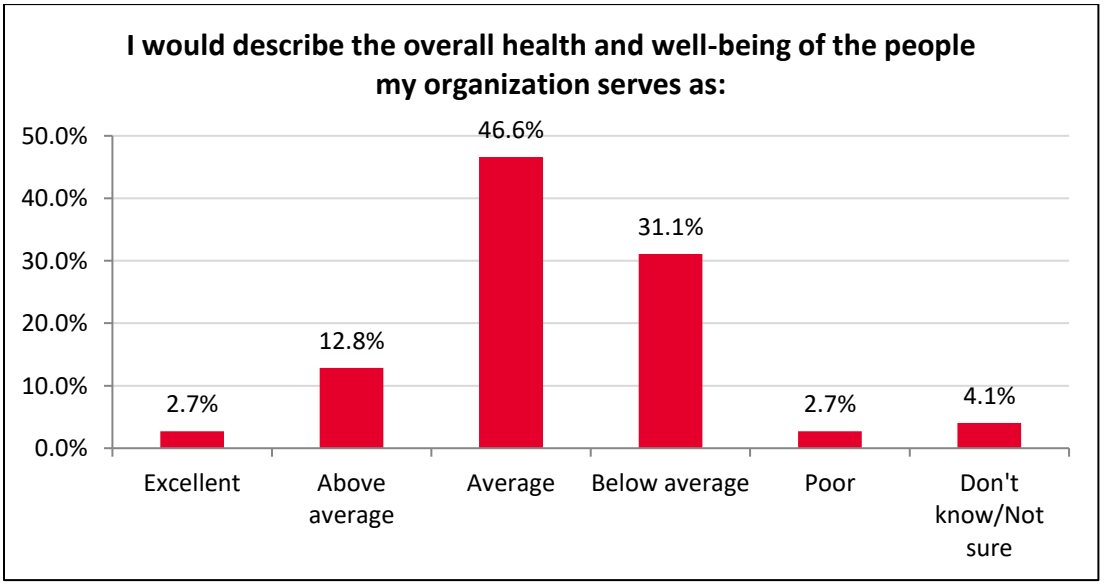
Survey Findings

Health and Quality of Life

Thinking about the people their organization serves, key stakeholders were asked to describe the overall health and well-being of individuals and the most pressing concerns affecting them. Key stakeholders selected up to five pressing concerns from a wide-ranging list of health and social issues. An option to "write in" any issue not included on the list was provided.

Key stakeholders' description of the overall health and well-being of the people their organization serves indicated common perceptions of opportunity for improvement. Approximately 47% of stakeholders described overall health and well-being as "average" and 33.8% described it as "below average" or "poor." When asked if the health and quality of life of the people their organization serves improved, stayed the same, or declined over the past three years, 48.7% of key stakeholders indicated it had declined. Only 6.1% or nine key stakeholders indicated that health and quality of life improved over the past three years.

The top concerns identified by key stakeholders as affecting the people their organization serves indicated consistent issues related to mental health and social determinants of health (SDoH). The largest proportion of key stakeholders (51.4%) selected mental health conditions as a top five most pressing concern. Approximately 33.8% of key stakeholders also selected stress (e.g., work, family, school, etc.). Key SDoH barriers identified by stakeholders included economic stability (46.6%), affordable and quality housing (36.5%), ability to afford healthcare (29.1%), and lack of transportation (29.1%).



In your opinion, what are the top five most pressing concerns affecting the population(s) that your organization serves? Top Key Stakeholder Selections.

	Number of Participants	Percent of Total
Mental health conditions	76	51.4%
Economic stability (employment, poverty, cost of living)	69	46.6%
Housing (affordable, quality)	54	36.5%
Stress (work, family, school, etc.)	50	33.8%
Ability to afford healthcare	43	29.1%
Lack of transportation	43	29.1%
Overweight/Obesity	38	25.7%
Older adult health concerns	32	21.6%
Substance use disorder	30	20.3%
Limited healthcare providers or appointments available	27	18.2%
Diabetes	24	16.2%
Food insecurity	20	13.5%
Heart disease and stroke	18	12.2%
Cancers	16	10.8%
Other*	16	10.8%

*Responses included COVID-19 (n=4), affordable childcare (n=2), older adult health (ageism, dementia/Alzheimer's disease/Parkinson's disease) (n=2), incarceration, information literacy, adverse childhood experiences, injuries requiring surgery, rural transportation, reliable/affordable internet access, orthopedic issues, and post-acute care.

Recognizing the unique urban and rural communities across Centre County, key stakeholders were asked if the health needs of individuals living in the Centre Region differ from the health needs of individuals living outside the Centre Region. Responses reflected diverse perspectives, with 37.8% of stakeholders "agreeing" or "strongly agreeing," 38.5% "neither agreeing nor disagreeing," and 12.8% "disagreeing" or "strongly disagreeing." Key stakeholders that perceived a difference in health status largely identified SDoH, particularly transportation and income, as the root causes of these differences. Select verbatim comments by key stakeholders are included below.

- *"Affordable housing is moving farther and farther out from the Centre Region where employment, healthcare etc. is mostly centered. The county transportation partially serves the need, but hours are limited. CATA serves some areas but access and funding for access causes issues in growth. New funding models place efficiency goals on service - serving more rural or less dense populations outside the core are costly and inefficient - balancing need against these goals."*
- *"Individuals living outside of the Centre Region have less transportation options and more limits on the time they can use the MA (Medicare) van due to location. They also have less resources for food as many of the outlying food banks do not have the same resources that the Centre Region Food Bank offers."*

- *"Our clients who live outside of the Centre region have difficulty with access to transportation for medical appointments. Transportation services do exist for clients with MA (Medicare) but can be difficult to use, especially with an infant. Access to safe areas to walk are limited for many of these clients, so exercise can be challenging, as well as access to grocery stores (vs Dollar Store or convenience store foods). Access to mental health services is more limited due to transportation concerns as well as access to broadband internet for virtual appointments. Connecting in community for support from other parents is also very challenging."*
- *"Overall, I feel the individuals living in the Centre region tend to have higher socioeconomic status, higher education, which helps with routine use of well visits and follow ups."*

Other key stakeholders shared that common health concerns affect all populations within Centre County.

- *"Domestic violence is not discriminatory and occurs between people of any social class, any race, religion, sexual orientation, and all age groups."*
- *"There are pockets of populations in both the Central Region and elsewhere that have a higher rate of inequality in access to and affordability of healthcare coverage and receiving healthcare services."*
- *"With the exception of the student population, our health needs are similar to those of other mid/lower income communities in Pennsylvania. The university skews income data in regards to socio-economic status and tax brackets for Centre County."*

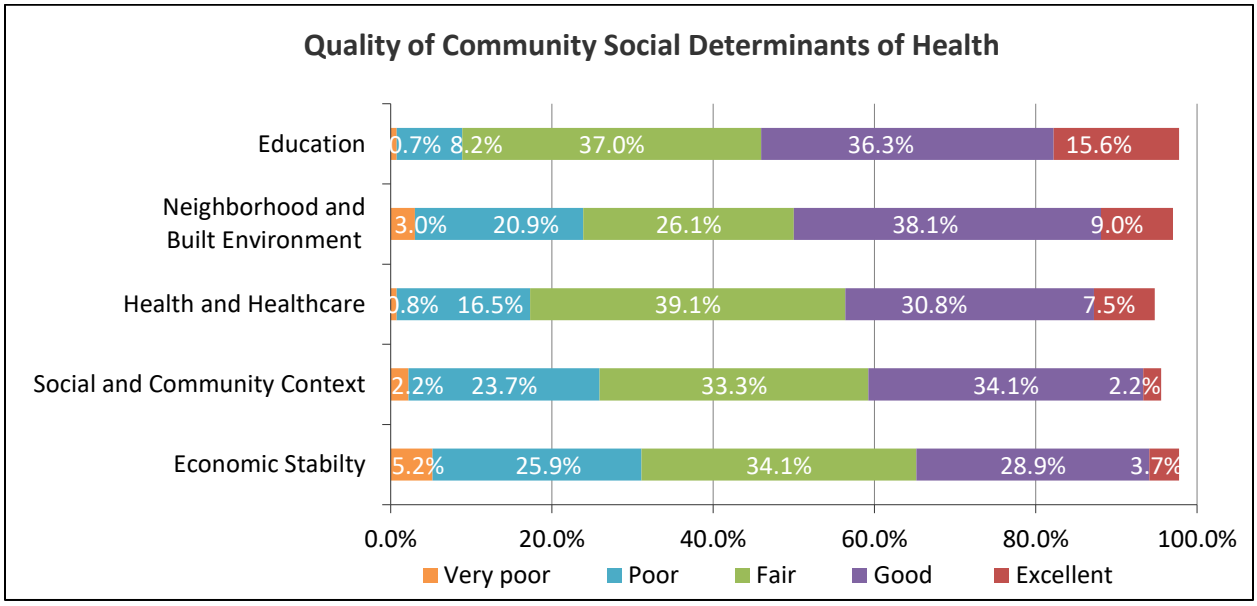
In a follow-up question, key stakeholders were asked to rate the quality of the SDoH within the community their organization serves, focusing on the five key domains identified by Healthy People 2030: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context. Ratings were provided using a scale of (1) "very poor" to (5) "excellent."

The mean score for each SDoH domain is listed in the table below in rank order, followed by a graph showing the scoring frequency. Mean scores were between 3.00 and 3.59, with most respondents rating the listed areas as "fair" or "good." Consistent with the 2019 Key Stakeholder Survey results, education was seen as the strongest community SDoH, with 15.6% of stakeholders rating it as "excellent" and 36.3% rating it as "good." Economic stability was seen as the weakest SDoH, with 5.2% rating it as "very poor" and 25.9% rating it as "poor."

Approximately 65.2% (n=88) of stakeholders stated that their organization currently screens or assesses the people their organization serves for the needs related to SDoH. Among these individuals, 29.6% use a formal screening process (e.g., standard screening tool or process), while 35.6% informally screen or assess individuals through observation or conversation.

Ranking of Social Determinants of Health in Descending Order by Mean Score

	Mean Score
Education (e.g., high school graduation, enrollment in higher education, language and literacy, early childhood education and development)	3.59
Neighborhood and Built Environment (e.g., access to healthy foods, quality of housing, crime and violence, environmental conditions, transportation)	3.30
Health and Healthcare (e.g., access to healthcare, access to primary care, health literacy)	3.29
Social and Community Context (e.g., sense of community, civic participation, perceptions of discrimination and equity, incarceration/institutionalization)	3.11
Economic Stability (e.g., poverty, employment, food security, housing stability)	3.00



Healthcare delivery shifted during the COVID-19 pandemic, with more patient encounters conducted via telehealth (e.g., virtual video or phone appointments). Approximately 69.6% of key stakeholders indicated that the people their organization serves accessed telehealth services in the past three years.

Key stakeholders were asked to share barriers to providing or accessing telehealth among their client base to help inform delivery improvements. Key stakeholder responses largely spoke to a lack of electronic devices or reliable high-speed internet, lack of digital literacy particularly affecting older adults, and perceptions of lower quality of care. Note: Lack of reliable high-speed internet addressed both availability and affordability. Select verbatim comments by stakeholders are included below.

- *"A vast majority of the people we serve outside of our immediate "hub" area are of the older population that still do not carry internet or have access to computers or cell phones. Many also do not have family to assist them with education in using these electronics even if they did have access."*

- *"Biggest barriers to telehealth are clients not being able afford cable/wifi and not having a computer to access the services. They could use free wifi at other places (library, coffee shops, etc.) but it would not be very confidential."*
- *"Difficulties with technology and internet capabilities have hindered using telehealth (video visits). Primarily our people use telephone visits and like using the phone for these services when possible."*
- *"Internet tends to be a lot of the problems for patients along with not knowing how to operate their camera or general IT issues for the older generation that they do not know how to fix while on the call with the providers."*
- *"Lack of digital literacy, lack of trust in being checked outside the physical presence of the service provider, not knowing whether or not their health insurance would cover it."*
- *"Our organization provides telehealth visits based on client needs and desires. The ability of clients to use this service is limited due to lack of access to high-speed internet, either because it is not available, or they can't afford it. Even telephone visits can be challenging in areas with poor cellular service."*
- *"Patients report that virtual appointments for mental health concerns are not as beneficial as in person."*
- *"The rural parts of Centre County don't have broadband so it would be difficult or impossible to access telehealth."*

COVID-19 Insights and Perspectives

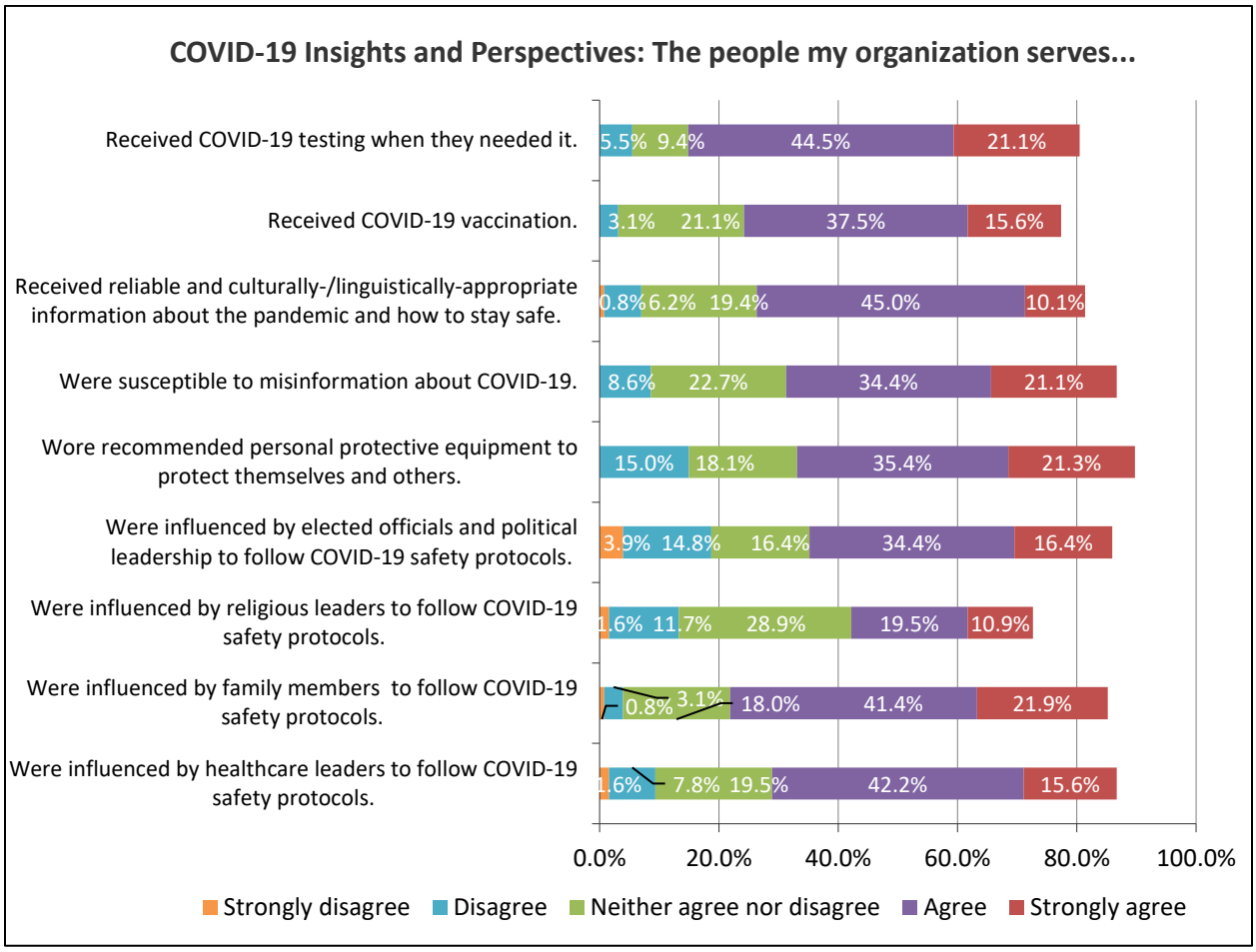
Nearly all key stakeholders (88.3%) "agreed" or "strongly agreed" that the COVID-19 pandemic had a negative impact on the health and well-being of the people their organization serves. Only three stakeholders "disagreed" that it had a negative impact and no stakeholders "strongly disagreed."

Thinking about the people their organization serves, key stakeholders were asked to rate their level of agreement with a variety of statements about COVID-19, including availability of testing, vaccination, and reliable information; susceptibility to misinformation; and likeliness to follow recommended safety protocols. Their responses are shown in the graph on the following page.

While the majority of key stakeholders "agreed" or "strongly agreed" that testing, vaccination, and reliable information were available to the people their organization serves and that individuals wore recommended personal protective equipment (PPE), it is worth noting that 35%-45% of stakeholders did not agree with these statements. Also of note is that 55.5% of stakeholders "agreed" or "strongly agreed" that individuals were susceptible to misinformation about COVID-19.

When asked about community groups that influenced the likeliness of individuals to follow COVID-19 safety protocols, family members were the most commonly identified group, followed by healthcare leaders and elected officials and political leadership. However, of note, nearly 10% of stakeholders

"disagreed" or "strongly disagreed" that healthcare providers influenced likeliness to follow COVID-19 safety protocols.



Key stakeholders were asked to identify the most likely sources of COVID-19 information for the people their organization serves. Key stakeholders rank ordered up to three responses with #1 the most likely source for information. An option to "write in" any source not included on the list was provided.

Key stakeholder responses reflected wide use of diverse COVID-19 information sources. Social media was perceived as the top source of information, with 19.2% of stakeholders selecting it as the #1 source and 55.6% selecting it as a top three source. Friends and family were also a top source of information, along with national and local new sources/media. While 18.3% of stakeholders identified the CDC as a #1 source for information, only 31% identified it as a top three source. Similarly, only 24.5% of stakeholders identified the Pennsylvania Department of Health as a top three source for information.

These findings, when considered with other COVID-19 insights and perspectives, indicate opportunity to promote reliable and trustworthy sources of health information, and to ensure consistent and accurate reporting across information channels.

Where were the people your organization serves most likely to get information about COVID-19?

	Percent Selecting as #1 Source	Percent Selecting within Top 3 Sources
Social media	19.2%	55.6%
Centers for Disease Control and Prevention (CDC)	18.3%	31.0%
Friends/Family	18.3%	49.7%
National news source/media	18.3%	42.9%
Local news source/media	10.8%	35.4%
Pennsylvania Department of Health	4.2%	24.5%
Mount Nittany Health	3.3%	16.9%
Other*	3.3%	7.6%
Other healthcare providers (e.g., primary care providers, other local health systems)	1.7%	16.1%
Political leadership	1.7%	8.5%
Social/Civic organizations	0.8%	2.5%
Health insurance providers	0.0%	0.9%
Church/Religious leaders	0.0%	8.5%

*Responses included key stakeholder organizations, case workers, and Centre County Correctional Facility.

Community Resources to Impact Health

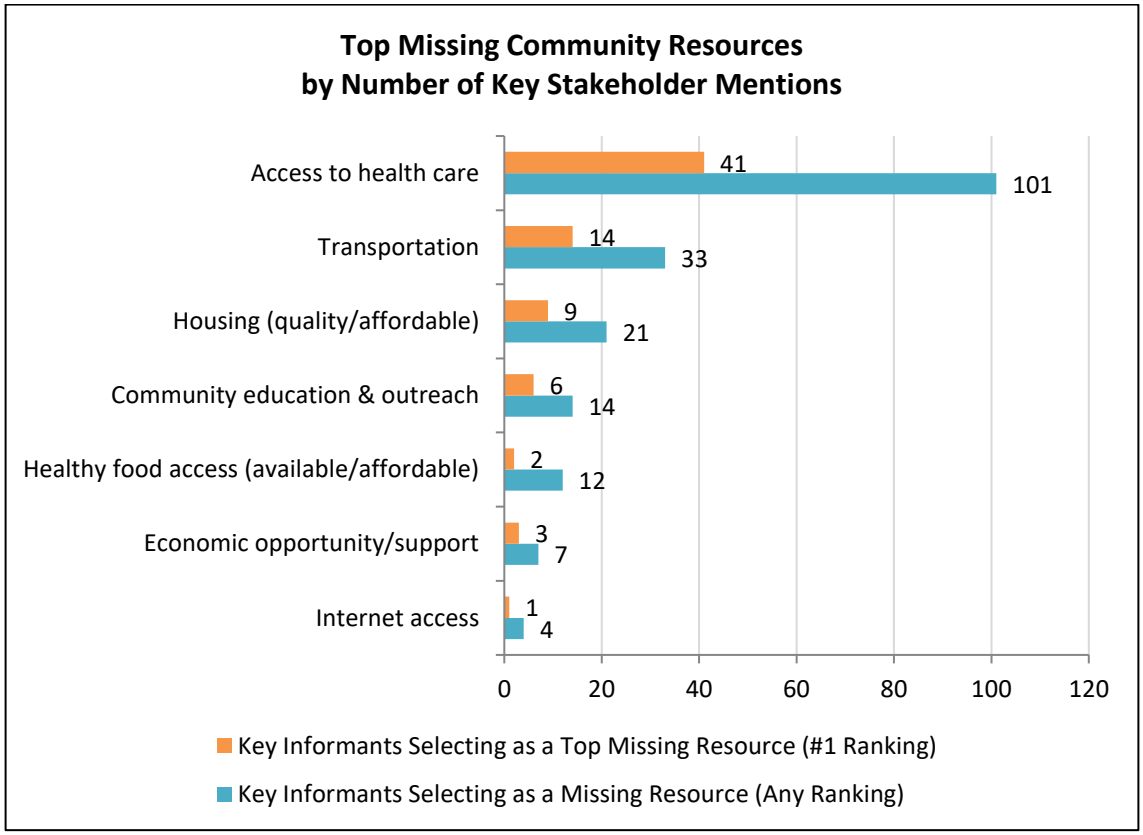
Key stakeholders were asked to identify missing resources in the community that would help residents optimize their health. Stakeholders rank ordered up to three free-form responses with #1 as the top missing resource. The graph on the following page summarizes identified missing resources by category and number of mentions by key stakeholders.

Access to care was the top identified missing resource category by key stakeholders, and within access to care, behavioral healthcare was the top identified service gap. Stakeholders identified a broad list of missing behavioral healthcare services, including inpatient and outpatient mental healthcare, pediatric mental healthcare, Medicare providers, drug and alcohol rehab, Bridge Programs, prescribing psychiatrists, and case management.

Key stakeholders also identified the need for more local providers for both primary and specialty care. Stakeholders cited the need for more appointment availability with primary care providers and expanded specialty care services, including bariatric, cardiology, diabetes, geriatrics, interventional radiology, neurology, palliative care, and pediatrics. Note: no specialty services were identified by more than one stakeholder. The need for affordable healthcare, including dental care, and free or reduced cost services were also commonly identified by key stakeholders.

Transportation was the second top identified missing resource by key stakeholders. While transportation needs were cited for all of Centre County, stakeholders largely prioritized need within rural communities and areas outside the Centre Region.

Identified community education and outreach opportunities addressed the need for accurate and consistent health information that reflects appropriate literacy levels and is available both digitally and in print. Print materials were considered important for older adults and individuals without internet.



Key stakeholders were asked how community organizations, including MNH, can better serve underrepresented populations (Black, indigenous, immigrant/undocumented, people of color, LGBTQ+, and others) to achieve health and social equity. Stakeholders were invited to provide free-form comments about the topics. Select verbatim comments are included below.

- *"A campaign that visually shows underrepresented populations. Something similar to PSU's You Belong Here campaign."*
- *"Adjust care practices to address cultural differences and to reckon with long-held misunderstandings about health of historically excluded populations."*
- *"By going out into the community where the underrepresented populations are; going to them, through the agencies/businesses/religious communities that serve them."*
- *"Earmark funding to be spent locally on initiatives that decrease the negative impact of social determinants of health."*

- *"Educate employees about inequities, hidden biases, and providing sensitive care. Assure all employees are treating clients with dignity and respect. In our program, we see firsthand how different clients are treated differently when seeking the same healthcare or assistance. This not only includes underrepresented populations, but also very young clients as well as lower-resource or less educated clients."*
- *"Have an intentional and ongoing action plan in regard to employee training, organizational culture-building and culture-keeping, and maintenance and improvements to facilities. Pay attention to the needs of all patients and visitors and listen to people's feedback and suggestions."*
- *"I would prefer not focus on inequities, but focus on inclusion in all we do moving forward. Create awareness of microaggressions and design strategies with representatives of underrepresented populations on the planning teams and subcommittees."*
- *"Many of our systems are coded to prevent certain identities from even being recorded. Better computer interface and documentation would be a big step. All staff needs to be better educated on diversity issues and better trained to interact with the public even, and especially, when individuals do not share their identities."*
- *"Marginalized groups will respond to facilities that have those groups represented on staff/boards. Public forum participation and opportunities to hear from those populations directly."*
- *"Translate documents into different languages, have information available in workplaces and other spaces where underrepresented populations are likely to be present, actually reach out to the populations mentioned (don't wait for them to come to you), ensure safety and acceptance when these populations reach out, have more people with similar backgrounds available to help."*
- *"We can do a better job of educating our staff regarding biases and racism. Many staff members have very little understanding or acknowledgement of biases and how they play a part in the delivery of healthcare. Additionally, we can continue to strive to represent all populations within our own health system staff."*

Lastly, stakeholders were asked for recommendations on how MNH can better collaborate with their organization and others to improve the health and well-being of residents. Recommendations were provided as free-form comments. Select verbatim comments are included below by overarching theme.

Access to Healthcare

- *"Better communication and collaboration for high - need clients."*
- *"Better connection/linkage to social supports/services and care."*
- *"Better ways to inform communities of existing health and well-being care options."*
- *"Continue to hire providers of color."*
- *"Improved access to telehealth and other telemedicine options. Better use of tech."*
- *"Increase outpatient Mental Health providers- one stop shop for appointments."*
- *"Mobile Health vans so every population can be served."*

- *"More drug and alcohol counseling for individuals while incarcerated."*
- *"More training for physicians and nursing on aging adults and cognition/dementia."*
- *"Offer satellite testing or vaccination services at our location."*
- *"Patient transportation offerings."*
- *"Refer pregnant clients to Nurse - Family Partnership program."*
- *"Suicide prevention efforts focused at the clinical level."*
- *"Use strategies where people come to clinic and receive an array of medical services - dr., nurse, labs, nutrition, mental health, similar to Dialysis clinic - treat people holistically with a case management approach."*

Community Outreach

- *"Collaboration on education and outreach."*
- *"Come out into the community for events."*
- *"Encourage staff to increase their involvement in local government, school boards, civic organizations, and volunteer engagements."*
- *"Have and provide us information about free clinics/screenings."*
- *"Highlight Mount Nittany Health's commitment to community - social media, local radio, Centre County printed news, etc."*
- *"Information fairs/activities in the community, throughout the county."*
- *"Include more community events where people talk about their needs and barriers."*
- *"Mount Nittany did an excellent job with their vaccine clinics. Use similar strategies for other needs."*
- *"Promoting our services."*
- *"Push out health information that is written for people with low information literacy."*
- *"Regularly keep us informed of the challenges experienced and ways you are addressing them."*
- *"We miss the Community Partnership for Health opportunity that linked Mount Nittany with community groups."*

Other

- *"Allow space for innovative thinking, problem solving, and collaboration with organizations that serve at risk populations."*
- *"Be up-to-date on the latest domestic violence/sexual assault scientific literature."*
- *"Continue the grant partnership - very valuable!"*
- *"Having a yearly meeting on how we can partner around serving the homeless."*
- *"Help find funding for new and innovative collaborations and programs."*
- *"Partner with school districts, county government, and local social service organizations to do community outreach or make referrals to services that impact social determinants of health."*
- *"Promote affordable housing initiatives, especially outside Centre Region."*
- *"Share resources - contribute funding to local initiatives that impact social determinants of health."*

Mount Nittany Medical Center Utilization Data

Background

As part of the 2022 CHNA, Mount Nittany Medical Center utilization data were analyzed to assess patient trends related to key community health needs, including chronic disease prevalence, management and behavioral health. The data were analyzed by zip code and payer type, as available, and correlated with public health and socioeconomic 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 each year much of the population will not have contact with any of the medical center' departments. Therefore, their health concerns are not measured by health provider data.

Utilization data were analyzed for calendar years 2019 and 2020, and the first and second quarters of 2021 (Q1 - Q2 2021). Data were analyzed across the inpatient (IP), outpatient (OP), and emergency department (ED) settings.

Nationally, healthcare use decreased in spring 2020 due to delayed or avoided medical care because of concerns about COVID-19 and cancellations of elective care. The cancellation of elective care was taken to increase hospital capacity for the care of individuals affected by COVID-19 and to mitigate community spread of the virus. Healthcare use rebounded in the latter part of 2020 as in-person care resumed for hospital and lab services and COVID-19 testing became more widely available. However, overall healthcare utilization was lower in 2020 than in prior years.

Recognizing the impact of COVID-19 on healthcare, Mount Nittany Medical Center utilization data were analyzed for the period before and during the pandemic. Utilization patterns related to key health issues, including ambulatory care sensitive* and behavioral health conditions, were trended annually to demonstrate changes in demand for services and to predict patient needs moving forward.

*Ambulatory care is care provided on an outpatient basis and includes diagnosis, observation, treatment, etc. Ambulatory care sensitive conditions are conditions that if effectively 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 is a full analysis of Mount Nittany Medical Center utilization data as it relates to the 2022 CHNA.

Utilization Data Key Findings

Chronic Condition Prevalence

Chronic conditions are among the most common health problems affecting Americans. According to the CDC, "Six in ten Americans live with at least one chronic disease, like heart disease, cancer, or diabetes. These and other chronic diseases are the leading causes of death and disability in the US, and they are also a leading driver of healthcare costs."

The following table illustrates the top zip codes of residence for Mount Nittany Medical Center patients who are managing a chronic condition. Patients from these zip codes accounted for 50% or more of all visits with a chronic condition listed on the patient record. Data were analyzed across nine chronic conditions: Asthma, behavioral health (BH), cancer, chronic obstructive pulmonary disorder (COPD), congestive heart failure (CHF), coronary artery disease (CAD), diabetes, hypertension (HTN), and substance use disorder (SUD). Note: The condition may not be the primary reason for the visit or the primary diagnosis.

Recognizing the relationship between social determinants of health and health status, socioeconomic measures are shown for the top zip codes for chronic condition prevalence to assess their potential impact on healthcare utilization.

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: 16801, 16803, and 16823. These zip codes comprise the majority of the Centre County population, which will influence prevalence rates. Since the 2019 CHNA, other zip codes, spanning more rural portions of the county, have also been identified as top areas of patient origin. Notably, **zip codes 16866, Philipsburg and 17044, Lewistown represent an increasing proportion of patients who are managing a chronic condition. While this finding may suggest overall higher patient volumes from these areas, it is worth noting that both zip codes have the highest Community Need Index (CNI) score in their respective county**, indicating higher overall socioeconomic need.

Among Philipsburg and Lewistown patient visits, the largest increases in chronic disease prevalence were seen for behavioral health, diabetes, and/or coronary artery disease. At the time of the 2019 CHNA, patients from Philipsburg zip code 16866 accounted for 4.6% of all visits with a behavioral health diagnosis listed on the patient record. This proportion increased to 5.5% for the current analysis. Similarly, at the time of the 2019 CHNA, patients from Lewistown zip code 17044 accounted for 3.6% of all visits with a coronary artery disease diagnosis and 4.7% of all visits with a diabetes diagnosis listed on the patient record. These proportion increased to 4.6% and 6.4%, respectively, for the current analysis.

Zip Codes Accounting for 50% or More of Chronic Condition Prevalence Across Inpatient, Outpatient, and Emergency Department Settings, 2019 – Q2 2021

Zip Code	Asthma	BH	Cancer	COPD	CHF	CAD	Diabetes	HTN	SUD
16823, Bellefonte	19.4%	19.6%	14.6%	23.2%	23.4%	20.1%	20.2%	16.9%	20.3%
16801, State College	14.4%	16.4%	15.7%	10.3%	15.7%	12.5%	11.6%	12.4%	12.7%
16803, State College	9.2%	9.5%	10.2%	5.2%	7.7%	6.7%	6.4%	7.2%	6.3%
16866, Philipsburg	5.3%	5.5%	3.9%	5.7%	6.5%	6.0%	4.5%	4.5%	5.6%
16828, Centre Hall	--	--	--	4.0%	--	4.0%	3.9%	4.1%	2.6%
17044, Lewistown*	--	--	--	--	--	4.6%	6.4%	5.6%	--
16870, Port Matilda	3.9%	--	3.7%	3.2%	--	--	--	--	3.0%
16827, Boalsburg	--	--	3.1%	--	--	--	--	--	--
Sum of above zip codes	**52.2%**	**51.0%**	**51.2%**	**51.6%**	**53.3%**	**53.9%**	**53.0%**	**50.7%**	**50.5%**

*Lewistown is located in Mifflin County. All other zip codes are located in Centre County.

Social Determinants of Health Indicators by Zip Code

	Population in Poverty	Children in Poverty	Less than HS Diploma	No Health Insurance	CNI Score
16823, Bellefonte	5.7%	6.6%	8.4%	4.7%	2.4
16801, State College*	33.6%	12.8%	2.6%	3.9%	3.2
16803, State College*	23.4%	10.9%	1.9%	4.7%	3.0
16866, Philipsburg	14.8%	18.7%	17.8%	4.9%	3.6
16828, Centre Hall	7.8%	10.2%	3.2%	5.6%	1.8
17044, Lewistown	15.1%	25.0%	10.4%	4.4%	3.2
16870, Port Matilda	3.3%	1.8%	4.7%	2.4%	1.2
16827, Boalsburg	6.3%	8.8%	0.5%	1.3%	2.2

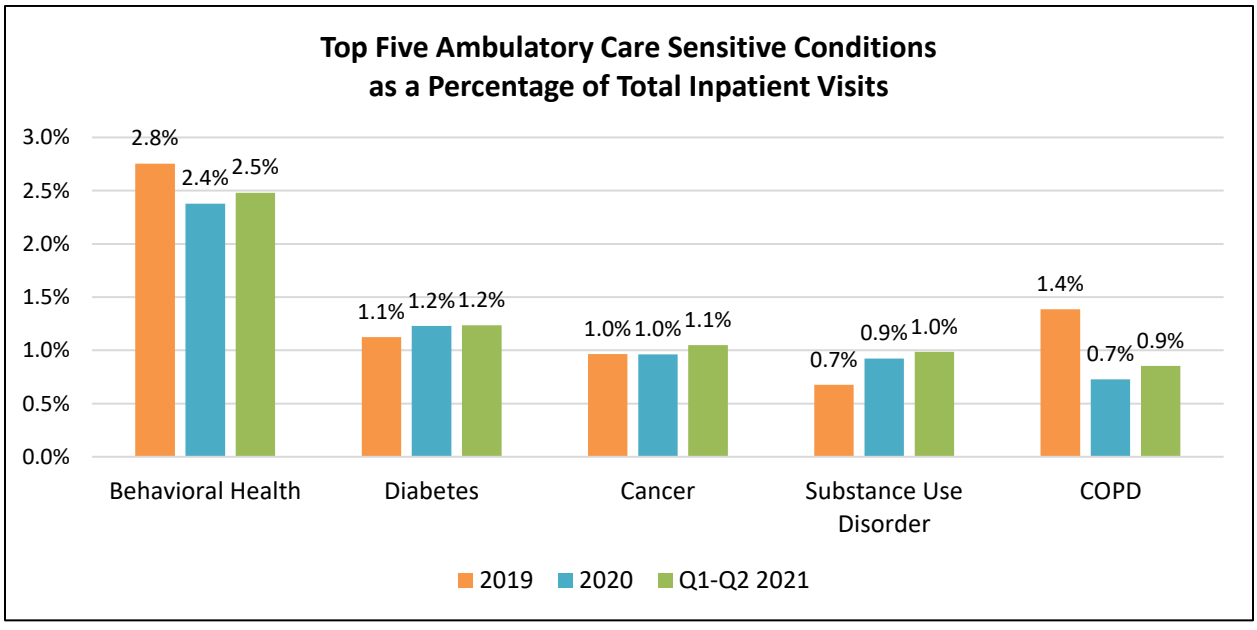
*Data are likely impacted by PSU students.

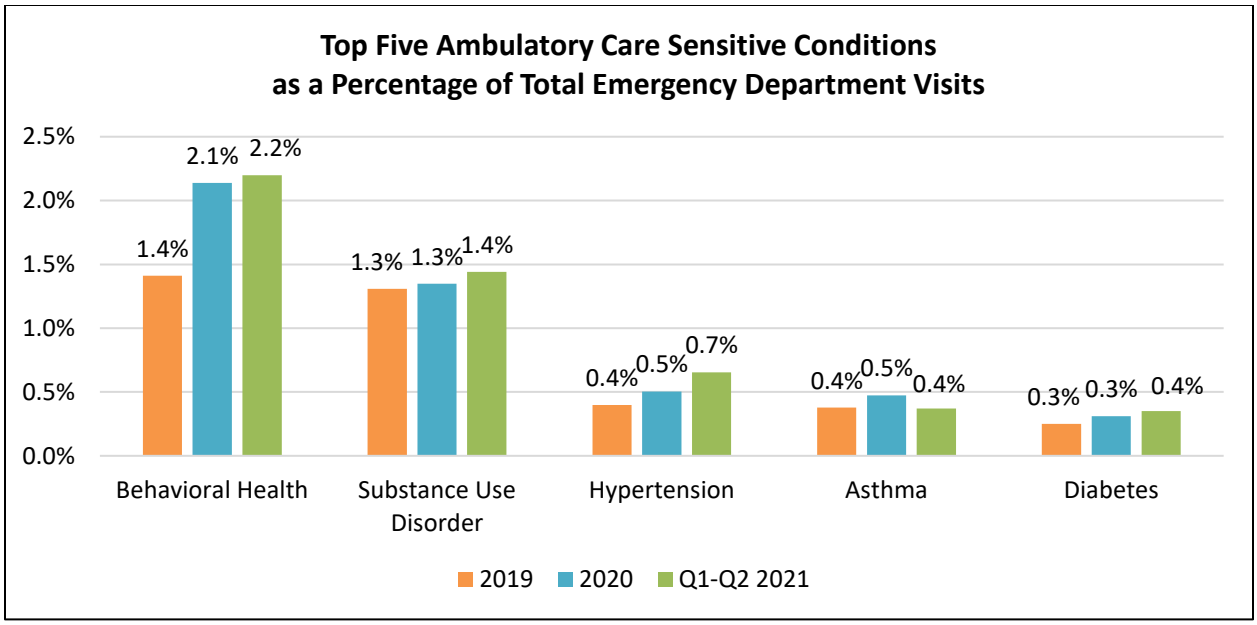
Ambulatory Care Sensitive (ACS) Conditions

Ambulatory care is care provided on an outpatient basis and includes diagnosis, observation, treatment, etc. Ambulatory care sensitive conditions are conditions that if effectively 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 graphs depict the top five ACS conditions based on prevalence within Mount Nittany Medical Center IP and ED settings. The conditions represent the primary diagnosis or reason for the hospital visit.

Ambulatory care sensitive conditions comprised a small proportion of overall IP and ED visits to Mount Nittany Medical Center. In 2019, the top five ACS conditions accounted for 6.9% of all IP visits and 3.7% of all ED visits. **Consistent with past CHNA findings, behavioral health was the most prevalent condition in IP and ED settings.** Substance use disorder was the second most prevalent condition in the ED.

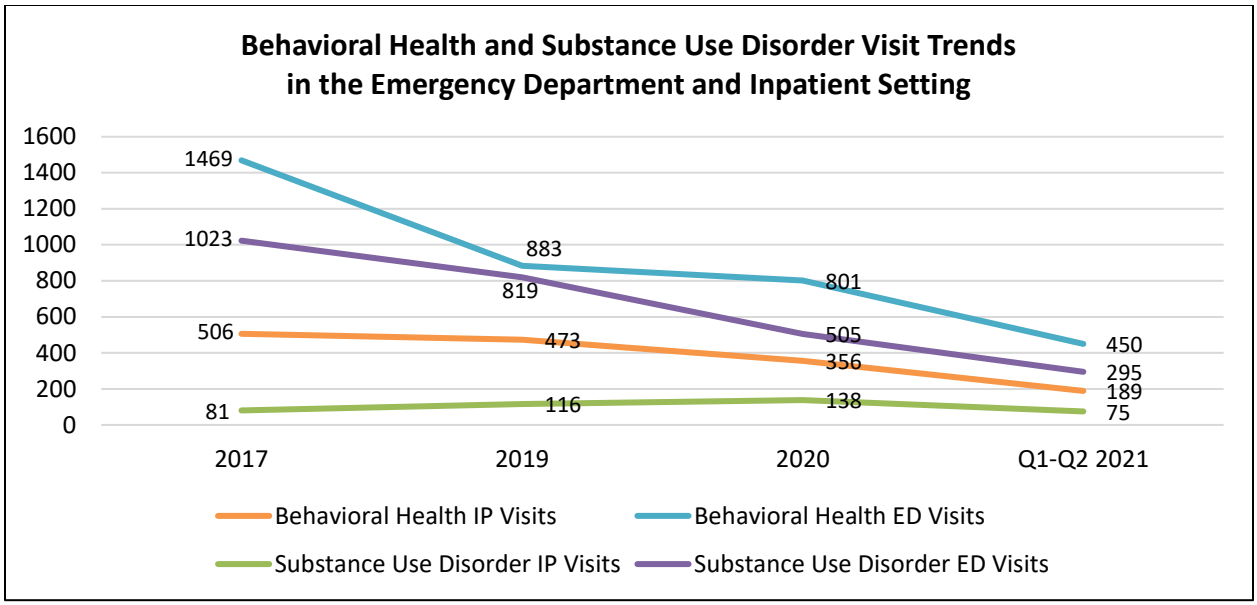




The proportion of ED visits due to a behavioral health concern increased from 1.4% in 2019 to 2.1% in 2020, but these findings represent a decrease in utilization from prior CHNAs. At the time of the 2016 and 2019 CHNAs, behavioral health conditions accounted for 2.4% and 2.7% of all ED visits, respectively. Substance use disorder-related ED visits also declined, accounting for approximately 2% of ED visits at the time of the 2016 and 2019 CHNAs and 1.3% of ED visits in 2019 and 2020.

Consistent with the decline in the proportion of ED visits due to behavioral health and substance use disorders, the number of visits also declined, even before the pandemic. Additional declines in 2020 were likely due in part to the impact of COVID-19 on overall healthcare services.

It is worth noting that the number and proportion of IP visits due to substance use disorder increased from prior CHNAs, although they account for approximately 1% of all visits. Substance use disorders accounted for 0.5% of IP visits at the time of the 2019 CHNA and 0.9% of IP visits in 2020; the number of substance use disorder-related IP visits increased from 81 to 138 during the same time period.



Behavioral Health and Substance Use Disorder Patient Trends

The following table depicts behavioral health-related ED visits by patient age for the top three primary diagnoses: anxiety, depression, and unspecified mood disorders. These diagnoses accounted for 76.8% of all behavioral health-related ED visits occurring from 2019 to Q2 2021. **Consistent with prior CHNA findings, youth and young adults comprised about half of all depression and unspecified mood disorder-related visits and one-third of anxiety-related visits.**

An annual analysis of the top two behavioral health diagnoses in the ED, anxiety and depression, illuminates unique trends among both youth and older adults. **While the total number of ED visits due to anxiety and depression declined from 2017 to 2020, the number of visits among youth under age 18 increased slightly.** Notably, there were 57 ED visits among youth for depression in 2020, accounting for 27.4% of all depression visits. **Among older adults aged 65 or over, the number of visits due to anxiety increased by nearly 50% from 2017 to 2019, although visits declined in 2020.** The decline in visits in 2020 is likely due in part to the pandemic and fear of seeking services at the hospital. This trend should continue to be monitored and explored for unmet care needs among older adults.

**Behavioral Health Emergency Department Visits (Primary Diagnosis)
by Top 3 Diagnoses and Patient Age, 2019 – Q2 2021**

	Anxiety		Depression		Unspecified Mood Disorder	
	Count	Percent	Count	Percent	Count	Percent
Under 18 years	49	6.0%	116	23.2%	95	29.8%
18 – 24 years	249	30.4%	174	34.8%	76	23.8%
25 – 34 years	202	24.6%	86	17.2%	61	19.1%
35 – 44 years	101	12.3%	40	8.0%	27	8.5%
45 – 54 years	55	6.7%	33	6.6%	23	7.2%
55 – 64 years	62	7.6%	22	4.4%	19	6.0%
65 years or over	102	12.4%	29	5.8%	18	5.6%
Total Visits	**820**		**500**		**319**	

Anxiety-Related Emergency Department Visits (Primary Diagnosis) by Patient Age, Trended 2017 – 2020

	2017		2019		2020	
	Count	Percent	Count	Percent	Count	Percent
Under 18 years	15	3.7%	21	6.3%	20	6.3%
18 – 24 years	131	32.1%	94	28.3%	91	28.6%
25 – 34 years	101	24.8%	81	24.4%	85	26.7%
35 – 44 years	47	11.5%	43	13.0%	34	10.7%
45 – 54 years	33	8.1%	19	5.7%	24	7.5%
55 – 64 years	45	11.0%	23	6.9%	30	9.4%
65 years or over	36	8.8%	51	15.4%	34	10.7%
Total Visits	408		332		318	

Depression-Related Emergency Department Visits (Primary Diagnosis) by Patient Age, Trended 2017 – 2020

	2017		2019		2020	
	Count	Percent	Count	Percent	Count	Percent
Under 18 years	47	10.9%	38	19.5%	57	27.4%
18 – 24 years	177	41.1%	73	8.3%	66	8.2%
25 – 34 years	69	16.0%	27	3.1%	35	4.4%
35 – 44 years	34	7.9%	21	2.4%	12	1.5%
45 – 54 years	47	10.9%	9	1.0%	18	2.2%
55 – 64 years	44	10.2%	8	0.9%	11	1.4%
65 years or over	13	3.1%	19	2.2%	9	1.1%
Total Visits	431		195		208	

The following table depicts ED visits due to substance use disorder by primary substance (drug or alcohol) and patient age. **Alcohol-related visits accounted for 88.4% of the total ED visits due to substance use disorder occurring from 2019 to Q2 2021.** Consistent with prior CHNA findings, approximately 66% of alcohol-related visits occurred among patients aged 18 to 24, while 69% of drug-related visits occurred among patients aged 25 or over.

Substance Use Disorder Emergency Department Visits (Primary Diagnosis) by Primary Substance and Patient Age, 2019 – Q2 2021

	Alcohol-Related Visits		Drug-Related Visits	
	Count	Percent	Count	Percent
Under 18 years	16	1.1%	6	3.2%
18 – 24 years	945	66.0%	52	27.8%
25 – 34 years	144	10.1%	54	28.9%
35 – 44 years	115	8.0%	49	26.2%
45 – 54 years	105	7.3%	13	7.0%
55 – 64 years	87	6.1%	7	3.7%
65 years or over	20	1.4%	6	3.2%
Total Visits	1,432		187	

Among alcohol-related visits, the number of visits by youth under age 18 declined, even before the pandemic. This finding is consistent with public health data that showed declining alcohol use among youth countywide. **The number of drug-related ED visits was stable or declined from 2019 to 2020 for all age groups except 25–34-year-olds.** The number of drug-related ED visits among adults aged 25-34 nearly doubled from 2019 to 2020 and was consistent with 2017 findings.

Alcohol-Related Emergency Department Visits (Primary Diagnosis) by Patient Age, Trended 2017 – 2020

	2017		2019		2020	
	Count	Percent	Count	Percent	Count	Percent
Under 18 years	23	2.5%	4	0.5%	7	1.6%
18 – 24 years	627	68.5%	535	70.4%	266	61.3%
25 – 34 years	93	10.2%	64	8.4%	46	10.6%
35 – 44 years	50	5.5%	50	6.6%	42	9.7%
45 – 54 years	73	8.0%	62	8.2%	27	6.2%
55 – 64 years	32	3.5%	31	4.1%	40	9.2%
65 years or over	17	1.9%	14	1.9%	6	1.4%
Total Visits	915		760		434	

Drug-Related Emergency Department Visits (Primary Diagnosis) by Patient Age, Trended 2017 – 2020

	2017		2019		2020	
	Count	Percent	Count	Percent	Count	Percent
Under 18 years	4	3.7%	4	6.0%	2	2.8%
18 – 24 years	39	36.1%	20	29.9%	21	29.6%
25 – 34 years	28	25.9%	15	22.4%	26	36.6%
35 – 44 years	17	15.7%	19	28.4%	13	18.3%
45 – 54 years	10	9.3%	4	6.0%	5	7.0%
55 – 64 years	7	6.5%	3	4.5%	3	4.2%
65 years or over	3	2.8%	2	3.0%	1	1.4%
Total Visits	108		67		71	

Behavioral Health and Substance Use Disorder Comorbidities

Behavioral health and substance use disorders can also present as comorbidities, particularly among patients with chronic conditions. Behavioral health comorbidities were present for nearly 30% of IP visits due to a select primary chronic condition diagnosis and nearly 20% of ED visits. Substance use disorder comorbidities were present for a similar percentage (20%-22%) of IP and ED visits due to a primary chronic condition diagnosis.

Behavioral Health and Substance Use Disorder Secondary Diagnoses (Comorbidities) among Inpatient and Emergency Department Visits due to a Chronic Condition*, 2019 – Q2 2021

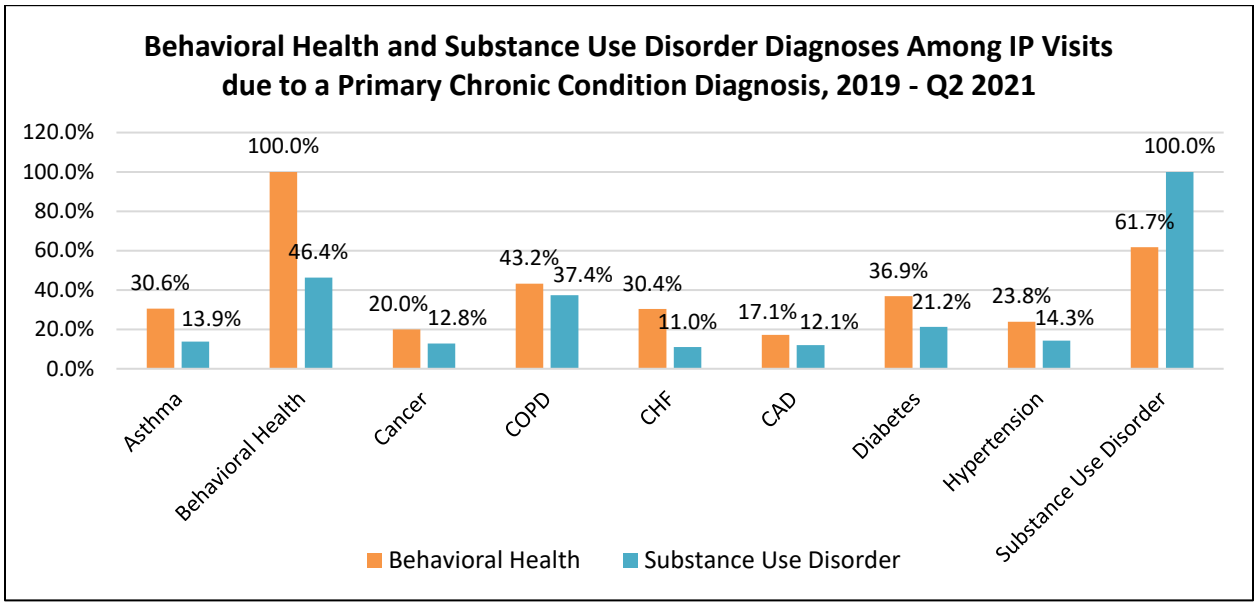
	Behavioral Health Comorbidities		Substance Use Disorder Comorbidities	
	Count	Percent	Count	Percent
Inpatient Setting	594	29.7%	392	19.6%
Emergency Department Setting	353	19.3%	403	22.0%

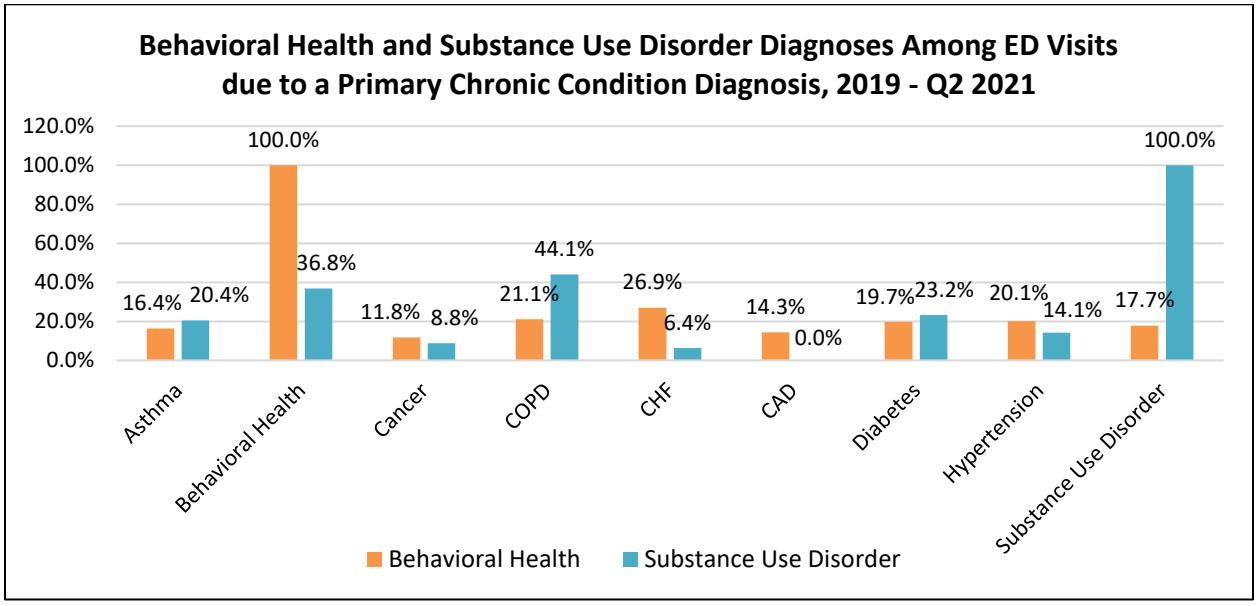
*Chronic conditions included Asthma, Cancer, COPD, CHF, CAD, Diabetes, and Hypertension.

Chronic conditions can be more difficult to manage if a patient has a behavioral health and/or substance use disorder comorbidity. The following charts examine the prevalence of comorbidities among IP and ED visits due to select chronic conditions. Note: the chronic condition was the primary diagnosis or reason for the visit, while behavioral health and substance use disorder diagnoses were secondary conditions.

Within the IP and ED settings, visits due to a primary diagnosis of COPD or diabetes were among the most likely to have a behavioral health and/or substance use disorder comorbidity. **Notably, approximately 40% of IP visits due to COPD or diabetes had a behavioral health comorbidity, and 37% of visits due to COPD had a substance use disorder comorbidity.** In the ED setting, approximately 20% of visits due to COPD or diabetes had a behavioral health comorbidity, and 44% of visits due to COPD had a substance use disorder comorbidity. These findings are consistent with national healthcare trends.

Behavioral health and substance use disorders also often present together. **Among IP and ED visits due to a behavioral health diagnosis, approximately 40-50% of visits had a co-occurring substance use disorder. Within the IP setting, nearly 62% of visits due to a substance use disorder had a co-occurring behavioral health disorder.**





Readmission Rates

The following tables show 30-day all-cause readmission rates by age and zip code. Readmissions include admission to Mount Nittany Medical Center for any reason within 30 days of the initial visit. Nearly 66% of readmissions were among patients aged 65 or older, and 40% were among patients aged 75 or older. The majority of readmissions occurred among patients residing in four zip codes: 16823, 16801, 16803,

and 16866. **Note**: **while patients from zip code 16866, Philipsburg accounted for 7.6% of all readmissions, they had one of the highest readmission rates across Centre County at nearly 10%**.

30-Day Readmissions by Patient Age, 2019 – Q2 2021

	Number of Readmissions	Percent of Total Readmissions
Under 18 years	69	2.3%
18 – 24 years	47	1.6%
25 – 34 years	109	3.7%
35 – 44 years	135	4.6%
45 – 54 years	222	7.5%
55 – 64 years	427	14.5%
65 – 74 years	752	25.5%
75 years or over	1,186	40.2%

Patient Zip Codes of Origin with Highest 30-Day Readmissions, 2019 – Q2 2021

	Admissions	Readmissions	Readmission Rate	Percent of Total Readmissions
16823, Bellefonte	7,483	689	9.2%	23.4%
16801, State College	5,174	421	8.1%	14.3%
16803, State College	3,064	234	7.6%	7.9%
16866, Philipsburg	2,265	223	9.8%	7.6%

The following table calculates 30-day all-cause readmission rates among patients admitted to Mount Nittany Medical Center for a chronic condition (primary diagnosis). The inpatient readmission rate for the medical center was highest among patients with congestive heart failure (13.4%), followed by chronic obstructive pulmonary disorder (11.4%) and cancer (11.1%).

Readmissions by Chronic Condition as Primary Diagnosis, 2019 – Q2 2021

	Admissions	30-Day Readmissions	30-Day Readmission Rate
Congestive heart failure	5,580	745	13.4%
Chronic obstructive pulmonary disorder	4,438	507	11.4%
Cancer	1,519	169	11.1%
Coronary artery disease	7,158	677	9.5%
Diabetes	8,146	729	8.9%
Behavioral health	11,534	955	8.3%
Substance use disorder	6,242	429	6.9%
Hypertension	11,688	588	5.0%
Asthma	2,838	123	4.3%

Research findings from the utilization data analysis were compared to secondary public health and socioeconomic findings to compare healthcare and community trends, identify high-risk populations, and assess contributing social determinants of health factors.

Partner Forum Summary

Background

As part of the CHNA, Mount Nittany Health hosted a virtual Partner Forum on Tuesday, March 1, 2022. A total of 72 people attended representing Mount Nittany Health, 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, the impact of COVID-19 on communities and services, and new or innovative opportunities for cross-sector collaboration.

2022 CHNA Partner Forum Agenda

- Welcome and Opening Remarks
- 2022 CHNA Overview and Research Findings
- Centre County Community Updates (Centre County Foundation, Centre County Government, Centre County United Way)
- Small Group Facilitated Breakout Discussion
- Conclusion

Small Group Discussion

Following the 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. Participants were instructed through a two-part facilitation that asked the following questions:

<u>Applying Lessons from COVID-19</u>

1. What are striking findings from the CHNA research? Have these findings changed with COVID?
2. What challenges brought about by COVID will take our community the longest time to recover from?
3. What COVID responses/reactions within our community brought about new ways of doing things that will continue to benefit individuals and families?

Measuring Impact

1. What stands out to you as a significant accomplishment in recent years that has most impacted the community?
2. What does it take to get to the next level? Where do you see opportunity to grow your offerings and/or expand? Who are your partners today, and who would you like to partner with in the future?
3. What are opportunities to foster community and clinical linkages to reduce health and social inequities? How is your organization working to foster community equity? What has been successful?

Key Themes

Applying Lessons from COVID-19

1. What are striking findings from the CHNA research? Have these findings changed with COVID?

- COVID exacerbated mental health concerns across all ages due to isolation, economic stress, and limited-service availability during the pandemic; preliminary findings for 2022 suggest the county could see more suicide deaths this year than in prior years
- Disparities in life expectancy and related health outcomes are prevalent in rural communities, and are largely rooted in social determinants of health differences (e.g., poverty, food insecurity)
- Transportation continues to be a challenge, particularly in rural communities, and may have been exacerbated by higher demand for access to community resources during the pandemic
- Approximately 45% of county households were considered ALICE (asset-limited, income-constrained, employed) before the pandemic; this proportion likely grew with job loss and other economic pressures experienced by individuals (Consider updating the CHNA data annually to measure the ongoing impact of COVID-19)
- Despite COVID, Centre County saw improvements in many measures of health and social well-being and continues to be one of the healthiest counties in the state

2. What challenges brought about by COVID will take our community the longest time to recover from?

- Adjusting back to normal life; people have adapted an isolated lifestyle, contributing to lower attendance and engagement in community events
- Affordable housing was an emerging issue before COVID; the pandemic exacerbated this issue, continuing to push affordable housing farther outside the Centre Region
- COVID widened economic disparities; some families did better due to stimulus payments and lower household costs, while others, particularly in the service industry, experienced severe hardship as a result of job loss and now rising inflation
- Delayed care practices in 2020 and 2021 have contributed to both high demand for healthcare services in 2022 and higher acuity patients, during a time of unprecedented staffing shortages
    - Clinical staffing shortages have contributed to long patient wait lists and/or no available specialty appointments, particularly for behavioral healthcare
- Increasing reliance on virtual services has highlighted disparities in internet and technology access, as well as technological expertise, particularly among older adults

- Isolation and the shift to virtual care and services may create an unintentional barrier to reporting and/or identifying issues at home (e.g., abuse or neglect)
- Loss of academic and social emotional learning among youth is anticipated to have long-term negative impacts
- Political polarization during the pandemic created mistrust and animosity for healthcare providers and other reliable sources of health information
- Rising inflation has contributed to higher agency operating costs, depleted revenues
- Social service staffing shortages have limited service capacity and created longer wait times; these shortages are anticipated to be a long-term issue requiring smaller/leaner operations
- The pandemic contributed to more anxiety, depression, and other mental health concerns, particularly among youth and older adults; additionally, the pandemic forced some individuals to prioritize caring for their families versus themselves, potentially exacerbating health needs and delaying their early detection
- Other impacts of COVID, including "long-COVID" disease symptoms, obesity due to diet and physical activity lifestyle changes during the pandemic, and food shortages or scarcity

3. What COVID responses/reactions within our community brought about new ways of doing things that will continue to benefit individuals and families?

- Advancements in telehealth and expedited use across healthcare and social service agencies
    - Community agencies will likely continue telehealth services as a way of expanding access to care, creating flexibility for attending activities and events, and addressing persistent access barriers like transportation and childcare
    - Some agencies (e.g., Veterans Affairs) have started providing computer devices and technology support to clients
- Development of new, virtual interactive programs by community agencies that allow them to offer relevant material in real-time (e.g., Mental Health First Aid)
- Ability to leverage Zoom and other conferencing applications to gather for social events
- Greater acknowledgement and appreciation among health and social service providers
- Greater awareness and use of community social service resources
- New convenience options, such as grocery store food delivery
- New federal funding for emergency social services have allowed more people to be served by community agencies during the pandemic, but providers are concerned about what happens to these individuals when funding is no longer available; financial support for housing and childcare were specifically identified by participants
- Remote work options have expanded applicant pools to fill labor shortages and have created more flexible work schedules for better work-life balance
- The YMCA's approach of "going to where they are" for food distribution is a model for increasing access to other services across the county

Measuring Impact

1. **What stands out to you as a significant accomplishment in recent years that has most impacted the community?**

- Based on prior data trends, Centre County anticipated fewer overdose-related deaths and other measures of addiction in 2021; this trend held true even with the pandemic
- Centre County has been successful in lowering incarceration rates by approximately 50% over the past six years; some of this success is attributed to the county's Behavioral Health Diversionary Initiative to identify individuals with serious mental illnesses who are involved with the criminal justice system and redirect them to mental health treatment systems
- Centre Helps has provided valuable assistance to individuals in crisis or struggling to make ends meet by helping them navigate the local safety net
- COVID vaccine clinics successfully provided countywide vaccination options
- Greater community awareness of behavioral health concerns and investment in services by Centre County Government, including a new crisis center offering 24-hour phone and mobile services
    - A 24/7 walk-in crisis center was added at 2100 East College Avenue
    - Mobile crisis services were expanded to be responsive to the needs of school districts and law enforcement; the county is also seeking funding for a crisis residential center
- Growth of CATAGO! services in Bellefonte has improved transportation options with on-demand, curb-to-curb, shared ride shuttles
- Outdoor recreation facilities saw higher use during the pandemic, and the community has invested in organizations that promote outdoor healthy lifestyles (e.g., Harvest Fields Community Trails, Happy Valley Adventure Bureau, ClearWater Conservancy)
- New indoor recreation opportunities (e.g., C3 sports, Nittany Valley Sports Centre)
- Out of the Cold purchased a new building to help shelter individuals experiencing homelessness
- The Centre County United Way Hamer Foundation Community Disaster Fund provided financial support during the pandemic to assist families in meeting basic needs (e.g., housing, food, utilities, medical bills, childcare); about 600 families have received financial assistance
- The community saw an uptick in "Asian hate" as a result of the pandemic; agencies are pursuing mechanisms to discuss, identify, and increase reporting of these occurrences
- The COVID pandemic fostered community connectedness, including looking out for neighbors, especially the elderly or infirmed

2. **What does it take to get to the next level? Where do you see opportunity to grow your offerings and/or expand? Who are your partners today, and who would you like to partner with in the future?**

- A countywide assessment of industry wages to measure cost of living disparities and racial inequities
- Centre Helps serves as a local call center for the National Suicide Prevention Lifeline and this summer, will begin receiving all local calls to the Lifeline; while this approach will provide better response to resident calls, Centre Helps is anticipating high call volumes due to COVID and the Lifeline is currently staffed by volunteers – additional funding and support is being explored
- Collective planning and action among community leaders is needed to impact economic and health outcomes, and develop creative solutions for persistent issues like behavioral health

- Consistent with physical health strategies, community partners need to explore opportunities to promote mental wellness, while providing comprehensive services for mental illness
- Embedded case managers at both primary care practices and social service agencies to help navigate the safety net system and conduct home visits as needed
- Expanded local acute care services; more partnerships with Mount Nittany Health to promote programs like Centre Moves and enhance wrap-around services for patient populations (e.g., pregnant people)
- Leveraging social and religious organizations to disseminate information and services
- Mobile or satellite health and social services to better meet the needs of rural communities
- Opportunities like the Partner Forum to share data, learn about existing community resources, and network with other providers
- Partnership with Penn State University to develop a pipeline for diverse, minority applicants at the medical center
- Standards of care and engagement for all populations, particularly those currently marginalized, so that efforts can shift from reactive to proactive
- Support for statewide and federal initiatives to improve internet connectivity in rural areas
- The county has been largely successful in meeting food-related needs for residents, but requires additional support for housing-related needs, including affordable housing inventory and case managers to assist individuals in accessing short-term shelter and long-term stabilized housing
- "The death of George Floyd represents a DEI tipping point moment" for our communities; awareness has been raised that all population groups, ethnicities, etc. need to be supported and we need to take advantage of this opportunity

3. What are opportunities to foster community and clinical linkages to reduce health and social inequities? How is your organization working to foster community equity? What has been successful?

- Continue efforts to destigmatize issues like homelessness and mental health through community education and conversation
- Create more opportunities for community agencies to share and promote available resources, and foster a collective community approach versus individual planning in silos or sectors
- Expand connection groups for pregnant people and new parents
- Explore multi-faceted and cross-organizational solutions to address transportation needs, particularly in rural communities
- Explore opportunities for collaboration between hospitals and community-based organizations to both increase affordable housing inventory (e.g., hospital as developer) and provide healthcare services within community shelters
- Explore opportunities to include mental health professionals in police response to individuals in psychiatric or substance use crises
- Explore partnership opportunities with PSU's Health Services and Student Affairs
- Replicate Patton Township's efforts to assess affordable housing needs and present actionable recommendations to expand and maintain inventory
- Streamline referrals between health and social service agencies to better meet the holistic needs of residents, centralize resources, and decrease response time for crisis situations
- Use new virtual technologies to assist in navigating resources between community agencies

Provider Engagement Survey

Background

An online Provider Engagement Survey was conducted with healthcare providers, leadership, and staff employed by Mount Nittany Health (MNH). The survey was conducted to support MNH's ongoing efforts to improve access to care, reduce health disparities, and develop collaborative action planning to address the underlying social determinants of health (SDoH) that perpetuate disparate health outcomes.

A total of 86 individuals responded to the survey. Participant demographics were included as optional questions to ensure confidentiality and are provided as available.

More than half of survey participants worked at Mount Nittany Medical Center, while other participants worked across MNH primary and outpatient care sites. The largest proportion of participants identified as nurses, physicians, or physician assistants (22%-24%). The most represented age group was 35-44 (36%), followed by 45-54 (24%). Approximately 66% of participants identified as female and 24% as male.

Primary Work Setting of Survey Participants (as provided)

	Number of Participants	Percent of Total
Mount Nittany Medical Center	29	58.0%
Mount Nittany Health - Park Avenue	10	20.0%
Mount Nittany Health - Bellefonte	6	12.0%
Other*	6	12.0%
Mount Nittany Health - Boalsburg	5	10.0%
Mount Nittany Health - Blue Course Drive	3	6.0%
Mount Nittany Health - Green Tech Drive	3	6.0%
Mount Nittany Health - Mifflin County	3	6.0%
Mount Nittany Health - Penns Valley	2	4.0%
Mount Nittany Health - Philipsburg	2	4.0%
Cardiovascular Pavilion	1	2.0%
Mount Nittany Health Surgical Center	1	2.0%

*Responses included emergency department, pediatrics, reconstructive & cosmetic surgery, multiple sites.

Role of Survey Participants (as provided)

	Number of Participants	Percent of Total
Nurse	12	24.0%
Other*	12	24.0%
Physician	11	22.0%
Physician associate (assistant)	6	12.0%
Case manager	5	10.0%
Behavioral health provider	4	8.0%
Nurse practitioner	1	2.0%
Medical assistant	1	2.0%
Social worker	1	2.0%

*Responses included management, registrar, allied health professional, caregiver, faith-based organization.

Age Group of Survey Participants (as provided)

	Number of Participants	Percent
18-24 years	1	2.0%
25-34 years	6	12.0%
35-44 years	18	36.0%
45-54 years	12	24.0%
55-64 years	7	14.0%
65 years or more	1	2.0%
Prefer not to answer	5	10.0%

Survey participants were asked a series of questions about access to care and social services, perspectives on the impact of COVID-19 and SDoH on patient outcomes, and opportunities to promote health and well-being and inclusive care environments. A summary of their responses follows.

Survey Findings

Social Determinants of Health Impact

Thinking about the people their care site serves, survey participants were asked to rate the impact of SDoH and COVID-19 on health outcomes and perceptions of SDoH training needs. Ratings were provided using a scale of (1) "strongly disagree" to (5) "strongly agree," with an option for "not applicable (NA)."

Nearly 63% of survey participants "agreed" or "strongly agreed" that SDoH negatively impacted the health of patients and their families, and nearly 85% "agreed" or "strongly agreed" that COVID-19 negatively impacted patients by exacerbating SDoH needs. Less than 40% of participants "agreed" or "strongly agreed" that their care site had the right amount of training and resources to address SDoH.

Survey participants were asked to rate their level of comfort in identifying and discussing SDoH with patients. Participant responses indicated varying perceptions, with slightly more than half stating they are "comfortable" or "very comfortable," one-quarter stating they were "neither uncomfortable nor comfortable," and 1 in 10 stating they were "uncomfortable" or "very uncomfortable."

Please rate the following statements:

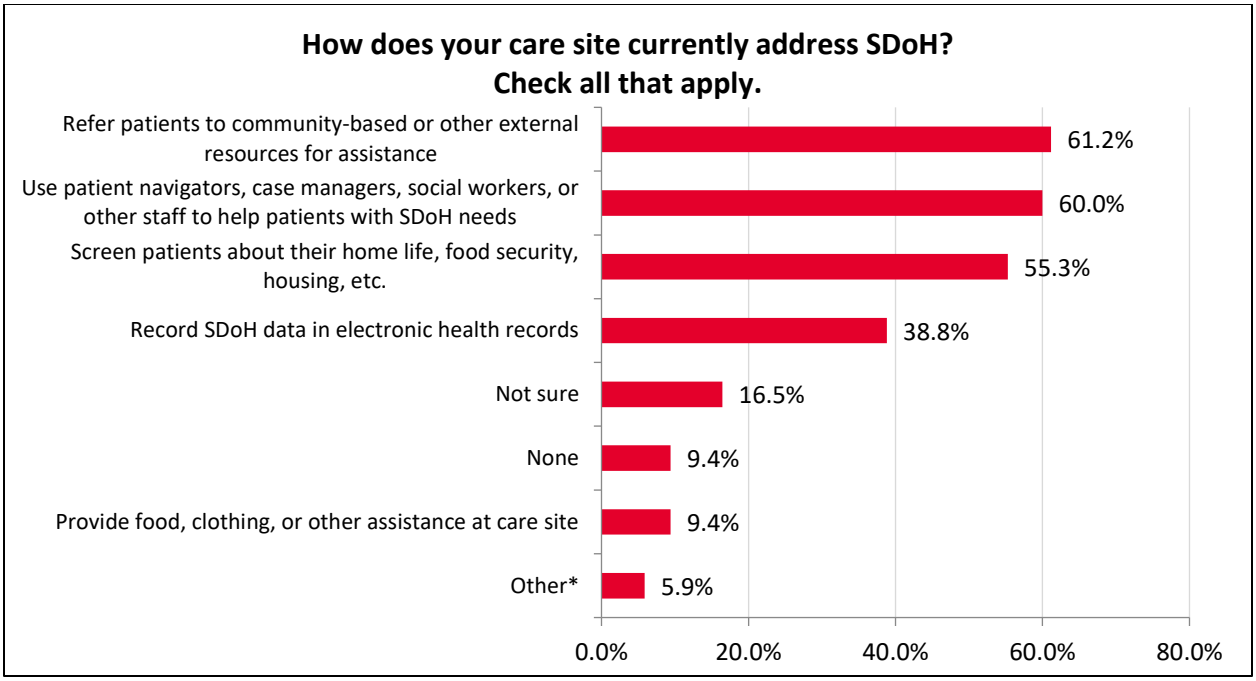
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	NA
The SDoH negatively impact the health of the patients and families my care site serves.	2.3%	17.4%	15.1%	33.7%	29.1%	2.3%
The COVID-19 pandemic has had a negative impact on my care site's patients because it exacerbated various SDoH.	1.2%	7.1%	5.9%	54.1%	30.6%	1.2%
My care site has the right amount of training and resources to address patient/family needs related to SDoH.	4.7%	38.4%	18.6%	31.4%	5.8%	1.2%

Please rate your level of comfort in performing the following tasks related to SDoH:

	Very Uncomfortable	Uncomfortable	Neither Uncomfortable nor Comfortable	Comfortable	Very Comfortable	NA
Identifying SDoH that impact optimal healthcare for patients.	1.2%	9.4%	28.2%	43.5%	15.3%	2.4%
Discussing SDoH that impact health during your patients' office visits.	1.2%	11.8%	22.4%	45.9%	9.4%	9.4%

Approximately 55% of survey participants indicated that their care site actively screens patients for SDoH, including home life, food security, housing, etc. When SDoH needs are identified among patient populations, the most common care site response was to refer them to community-based or other external resources for assistance and/or use patient navigators, case managers, social workers, or other staff to assist them. Nearly 10% of participants indicated that their care site does not address SDoH needs and 16.5% were unsure of their care site's response.

Awareness of available SDoH resources and the process for referring patients to them varied widely among survey participants. A nearly equal proportion of participants were aware of both available SDoH resources and the referral process for them (31.0%) or neither of these factors (27.4%).



*Other responses by survey participants:

- *"As a case manager I am directly involved with the SDoH issues. We are currently lacking resources and time to manage all the social issues for these folks."*
- *"Attempt to get transportation or change workflows to accommodate certain patient transportation issues."*
- *"Based on individual case."*
- *"I know we have provided Crisis information and have a LGBT friendly therapist."*
- *"UBER assistance for students."*

If you identify SDoH needs among your patients, are you aware of available resources and the process for referring patients to them?

	Percent
I am aware of both available resources to address SDoH needs and the process for referring patients to them.	31.0%
I am aware of available resources to address SDoH needs, but not the process for referring patients to them.	26.2%
I am not aware of available resources to address SDoH needs, but I am aware of the process for referring patients to them.	15.5%
I am not aware of either available resources to address SDoH needs or the process for referring patients to them.	27.4%

Thinking about SDoH, survey participants were asked to identify the top three needed social services for patients. Participants rank ordered up to three free-form responses with #1 as the top needed service. The following table summarizes identified needs by category and number of mentions by participants.

It is worth noting that while survey participants were asked to identify the top three needed social services for patients, the top identified need was mental health services, including counseling, outpatient care, and psychiatry. **Related to social needs, transportation was the top identified gap**. Other top identified service gaps were economic stability and senior and caregiver support, with a focus on in-home care, adult day care, and long-term care options. Identified economic stability needs spanned both career and wage opportunities and financial assistance programs to meet basic needs, such as affordable, nutritious food.

What are the top social services or external community factors that would help improve SDoH for patients? Rank order up to three responses.

	#1 Social Service Gap	Top 3 Social Service Gap
	Number of Mentions	Number of Mentions
Mental health services (counseling, outpatient, psychiatry)	14	27
Transportation	8	23
Senior/Caregiver support (in-home care, adult day care, long-term care)	7	12
Economic stability (job opportunities, financial assistance)	6	16
Case managers/social workers	5	5
Housing (affordable, safe, shelter options)	4	9
Healthcare cost assistance (medications, copays/deductibles)	3	9
Dental care (affordable, uninsured care)	1	4
Diversity, Equity, and Inclusion (training, diversity in staff)	1	4

Survey participants were asked to share suggestions that will help address patient SDoH needs. Select verbatim comments are included below. Common themes among participants included the need for awareness of available community social services and referral practices, onsite case management to support patients in navigating health and social services, more available mental health services, and enhanced partnerships between both clinical providers (e.g., primary care and behavioral health) and clinical and social service providers to co-locate and/or coordinate care.

- *"A lot of what we do for our patients has been streamlined to be done electronically. While this is very helpful and many have adapted to this, a large portion of our patient population does not have access to a computer or may not have family or friends that can help them do things on the computer. This can make patients very anxious and upset, thinking they are unable to get certain care."*
- *"Case management to help with connection and identification of problems, possibly help with resolution."*
- *"Collaboration between primary care & mental health services including psychiatric care & counseling services."*
- *"Conduct town halls open to the public on a regular basis to get community input. Look at ways to co-house with community partners providing supportive services such as mental health and job training - for a one-stop shop."*

- *"Expanding access to primary care services on nights and weekends."*
- *"For patients that go by other names/genders than given at birth, we have to go into a patient's chart and only then see if there's a different identity. I think we should be able to have this put in patients' charts to be seen on the schedule and chart."*
- *"Have a homelessness coordinator that can assist the homeless in our community that visit our offices. This coordinator can have access to transportation to get the patients to and from appointments. Find places for them to stay if needed. Have resources for food and clothing or supplies for kids. Have connections to resources in the community to assist a family that may need these resources in the future."*
- *"I believe there is a need for outpatient case management. We need more home health services and caregivers. I'd like to see more mobile psych for patients that don't drive or won't get themselves to appointments."*
- *"It would be great to receive education from our community partners, to know exactly what they offer and how we can refer to them. Especially Office of Aging and Centre Co. Base Service Unit."*
- *"MNH and the community are in dire need of more mental health/counseling services as well as inpatient/addition support facilities."*
- *"Open forum as the community demographics change. Diverse representation in administration. Hiring of more minority/underrepresented races in positions where they have a real opportunity to enhance care and make positive changes."*
- *"Provide paid family leave so that employees can care for their children or other family members without stressing about lost pay."*
- *"The hospital must address improving transportation upon discharge from the hospital. Suggestions include a complimentary shuttle van with handicap accessibility. This often holds up discharges and increases length of stay and risk for the patient."*
- *"There used to be a social service person in the MNPG practice. As pt.'s are acutely ill in the hospital and we cannot address all of their social issues nor "fix" them it would be great to have a person or persons in the physician practices that we could call upon to let them know what we have started as far as referrals to community resources so that these things can be followed up on. This would also be a great role for a transitional care nurse in the physician practices."*

Care Management

Survey participants were asked to rate their level of agreement in how effectively their care site manages patient health and social needs and perceived benefit of enhanced care management and care coordination services. Ratings were provided using a scale of (1) "strongly disagree" to (5) "strongly agree," with an option for "not applicable (NA)."

The majority of survey participants "agreed" or "strongly agreed" that their care site effectively manages the clinical needs of patients. Participants had differing opinions on their care site's effectiveness in managing social needs and coordinating care and services between Mount Nittany

Medical Center and Mount Nittany Health primary care sites. Approximately 42%-50% of participants "agreed" or "strongly agreed" with these statements, while 17%-21% "disagreed" or "strongly disagreed." Consistent with this finding, **nearly three-quarters of participants "agreed" or "strongly agreed" that their care site would benefit from care management services.**

Please rate the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	NA
My care site effectively manages the clinical needs of patients.	0.0%	4.6%	16.7%	50.0%	25.8%	3.0%
My care site effectively manages the social needs of patients.	1.5%	19.7%	27.3%	47.0%	3.0%	1.5%
My care site would benefit from care management services.	0.0%	1.5%	13.6%	43.9%	30.3%	10.6%
There is good coordination of care and services between Mount Nittany Medical Center and Mount Nittany Health primary care sites.	4.6%	12.1%	36.4%	36.4%	6.1%	4.6%

Survey participants were asked to describe their ideal scenario for providing care management services at their care site. Select verbatim comments are included below. Common themes among participants included the need for dedicated case management staff, particularly for individuals seen in the ED and patients with chronic disease and/or behavioral health concerns; culturally competent and welcoming care settings for diverse patient populations; and enhanced communication and coordination of patient needs and services across clinical and community providers.

- *"Case management in the ED is diligent in attempting to schedule necessary outpatient f/up appointments for patients being discharged. For the mental health population this is challenging because there are not enough outpatient providers to fulfill the need. It is difficult for ED CM to provide continued f/up to be sure patient is successful in following through with scheduled appointments, as this falls within the parameters of an outpatient CM."*
- *"Case manager in office available to meet with patients with identified psychosocial needs. Referral could be initiated by provider or by patient themselves."*
- *"Completion of medication reconciliation for ALL patients."*
- *"Dedicated staff persons to do follow up phone calls for patients with chronic conditions visiting the ED to ensure they are taking their medications and following through with follow up visits and treatment plan to prevent return visits. Cannot rely on ED nurses in a care assignment to be able to make a thorough follow up call."*
- *"Having information for homeless shelters, women's services, etc. I'd like to have "Safe space" signs for LGBTQ+ community."*

- *"I think the needs of certain demographics are met at a higher rate than other demographics that are unrepresentative/misunderstood because we don't have the right people to effectively assess the needs of diverse backgrounds/ needs."*
- *"Increased communication between our care management staff, so that both are aware when mutual clientele seek services of the other. Sharing of records, making referrals when services are needed of the other, opportunity to share updated information on resources that are available through our offices."*
- *"More case managers at all times for the ER. One case manager for psych patients and one case manager for medical patients at all times."*
- *"Patients have an alert that pops up identifying any barriers to their health like transportation, language, hearing, assistance needed, etc. and a plan is laid out for when the patient arrives prior to them coming through the door."*
- *"The primary focus of case management at MNMC is two-fold - utilization management and discharge planning. With providing both of these services it can be difficult to address all the social issues of our community. The caseloads can be between 15-20 patients most days. It can be difficult to provide "full service" as a result. As mentioned earlier having a resource person in the physician offices would be very helpful."*
- *"We have been using Rebecca Burkholder from the hospital for a pilot here in the DM office. She has been amazing. Having a devoted in-house care manager here is needed and would help us to better provide excellent care to many patients. We providers are wearing many hats here including case manager and social worker and it's really difficult b/c we don't have the time or training to best help the patients in this way. An in-house case worker to work exclusively with our diabetes patients would be incredibly useful and a valuable resource."*

Thinking about chronic disease care and management, survey participants were asked to identify the top three needed services to improve patient outcomes. Participants rank ordered up to three free-form responses with #1 as the top needed service. The following table summarizes identified needs by category and number of mentions by participants.

The top identified service needed to improve chronic disease care and management was case management. Participants identified the need for case management in both primary and acute care settings and to assist with coordinating referrals, conducting patient and discharge follow-up, and providing social service assistance. Other top identified needs included medication reconciliation, mental health services, and education and hands-on coaching to promote healthy lifestyles and disease management.

If you were to improve chronic disease care and management for your patient population, what are the top 3 things that you would need in your care setting? Rank order up to three responses.

	#1 Service Need	Top 3 Service Need
	Number of Mentions	Number of Mentions
Case management	7	19
Medication reconciliation	4	4
Mental health services (counseling, psychiatric, walk-in care)	4	6
Healthy lifestyle and disease management education, coaching	3	7
Additional clinical staffing	1	3
Home healthcare	1	2
Screening/Needs assessment	1	2
More time with patients	1	1
Medication payment assistance	0	4
Community resource awareness	0	2

As follow up to this question, survey participants were asked to think specifically about diabetes care and management and to identify the top three needed services to improve diabetic patient outcomes. Participants rank ordered up to three free-form responses with #1 as the top needed service. The following table summarizes identified needs by category and number of mentions by participants.

The top identified service needed to improve diabetes care and management was education and support. Participants identified the need for Diabetes Self-Management Education, in-office educators, and community programming. Other top identified needs included dietician support and dietary guidance (e.g., nutrition counseling, cooking classes, guided shopping) and medication cost assistance, including insurance coverage checks to ensure prescribed medications are covered by health plans.

If you were to improve chronic disease care and management for your patient population, what are the top 3 things that you would need in your care setting? Rank order up to three responses.

	#1 Service Need	Top 3 Service Need
	Number of Mentions	Number of Mentions
Diabetes education and support	9	22
Medication cost assistance	4	5
Dietician support/dietary guidance	2	6
Endocrinology access	2	4
Diabetes-specific case management	2	5
Care supply assistance (e.g., glucometers, test strips)	1	2
Digital care monitoring	0	2

Diversity, Equity, and Inclusion

Diversity, equity, and inclusion (DEI) describes policies and programs that promote the representation and participation of different groups of individuals, including people of different ages, races and ethnicities, abilities and disabilities, genders, religions, cultures, and sexual orientations. Mount Nittany Health is assessing system wide training and resource needs to help improve DEI policies and programs.

Approximately 88% of survey participants "agreed" or "strongly agreed" that it is valuable to examine and discuss the impacts of DEI on healthcare delivery and outcomes. Participants were asked to rate their current understanding of DEI and competency level in applying DEI practices in the healthcare setting. Ratings were provided using a scale of (1) "novice" to (5) "expert." Participant responses indicated consistent perceptions of opportunity for DEI training and resources. No participant considered themselves an "expert" in DEI or applying DEI practices in the healthcare setting; approximately one-third considered themselves "proficient." A lower proportion of participants (17%-21%) considered themselves "proficient" in ability to train others on DEI policies and programs or medical knowledge of health challenges that disproportionately affect vulnerable populations.

Please rate your competency level related to Diversity, Equity, and Inclusion

	Novice	Beginner	Competent	Proficient	Expert
Clear understanding of DEI and the difference between each term	0.0%	26.3%	40.4%	33.3%	0.0%
Ability to train others on DEI policies and programs	26.3%	24.6%	31.6%	17.5%	0.0%
Ability to apply DEI practices in the healthcare setting	10.5%	17.5%	40.4%	31.6%	0.0%
Medical knowledge of health challenges that disproportionately affect vulnerable populations (e.g., metastatic breast cancer among women of color, mental health and substance use disorder among LGBTQ+ or non-binary youth)	8.8%	26.3%	42.1%	21.1%	1.8%

Lastly, survey participants were provided with a list of DEI-related trainings and asked to indicate the trainings they have already received and/or that they think should be offered to MNH employees. Participants were mostly likely to have received cultural awareness and belonging and/or unconscious and implicit bias trainings. **Approximately 60% or more of survey participants thought that all of the listed trainings should be offered to MNH employees, with the top recommendations of unconscious and implicit bias and antiracism trainings.**

Diversity, Equity, and Inclusion Training among MNH Employees

	I have received this training	I think this training should be offered to MNH employees	Neither
Unconscious and implicit bias	33.9%	73.2%	10.7%
Antiracism	26.3%	70.2%	12.3%
LGBTQ+ gender identity and affirming	26.3%	68.4%	15.8%
Addressing micro aggressions	21.1%	64.9%	21.1%
Cultural awareness and belonging	40.4%	63.2%	10.5%
Stereotyping	31.6%	63.2%	15.8%
The meaning of DEI	28.6%	62.5%	17.9%
Inclusive workspace training	29.8%	61.4%	17.5%

Evaluation of Health Impact: 2019-2022 Community Health Improvement Plan Progress

In 2019, Mount Nittany Health (MNH) completed a CHNA and developed a supporting three-year Implementation Plan for community health improvement. The Implementation Plan outlined our strategies for measurable impact on identified priority health needs, including behavioral health and substance use disorders and chronic disease. Within six months of the release of the 2019 Implementation Plan, the COVID-19 pandemic shifted the priorities of our community and MNH adapted our work to respond to the emergent needs of residents. The following sections outline our work to impact the 2019 CHNA priority health areas and respond to COVID-19 in our communities.

Community Investment

Mount Nittany Health is committed to creating healthier people and a stronger, thriving community. Through our expanded grant program, registered local and regional community organizations may apply for grants to help advance their missions in and around Centre County. The grant program aims to address the most pressing health issues facing our region, as identified by the CHNA, and improve quality of life across Centre County by supporting effective outcome-based projects and leveraging sustainable funding to empower positive solutions.

COVID-19 Response

Beginning in February 2020, MNH began preparations to care for our community for what is now known as the COVID-19 pandemic. Response to COVID-19 diverted significant health system and community resources as we worked to collectively address one of the worst public health crises in modern history.

Mount Nittany Health became the community's trusted health advisor for COVID-19, providing not just care for those who became ill but relevant and factual information to help community members protect themselves, loved ones, and neighbors. We also proudly served as the first and leading COVID-19 vaccination provider during the early stages of vaccine distribution when supplies were limited. Mount Nittany Health provided over 51,000 vaccinations, cared for nearly 2,300 COVID patients, and conducted over 91,000 COVID tests. We developed a host of tools and campaigns to educate our community at large, including targeted marketing campaigns, videos, social media posts, and dedicated web pages.

Behavioral Health and Substance Use Disorder

2019 Implementation Plan Goal: Improve overall well-being of residents by increasing access to care and encouraging resiliency, wellness, and self-management of behavioral health and/or substance use disorders.

Increasing Awareness and Promoting Evidence-Based Strategies

Mount Nittany Health supported diverse community initiatives to increase awareness of behavioral health and substance use disorder signs and symptoms, reduce stigma, promote available services across Centre County, and develop messaging and programs that promote integrated physical and behavioral wellbeing. These initiatives included the following:

Red Folder Project

Mount Nittany Health partnered with the Jana Marie Foundation and Suicide Prevention Task Force to provide 2,500 'Red Folders' to serve as quick reference guides to Centre County behavioral health resources. The folders were distributed to community gatekeepers, including faith-based leaders, school staff, and others. The folders included tips for how to approach someone who may be in distress and connect the individual with an appropriate resource.

Question, Persuade, Refer; Mental Health First Aid; and Youth Mental Health First Aid

Mount Nittany Health partnered with the Jana Mare Foundation to provide Adult and Youth Mental Health First Aid (MHFA) and Question, Persuade, Refer (QPR) suicide prevention training. These are reoccurring programs that MNH has funded for several years. Collectively, the program aims to teach participants how to identify, understand, and respond to signs of mental illness.

Community members trained in QPR and MHFA:

- 71 Community members Trained in Mental Health First Aid
- 22 Community members in Youth Mental Health First Aid
- 60 Community members Trained in Question Persuade Refer
- 1 additional trainer certified in Youth Mental Health First Aid

Community Based Education

Mount Nittany Health partnered with community organizations to develop messaging programs that promote integrated physical and behavioral well-being and prevention and self-management tactics. Messages were disseminated through MNH communication channels, as well as community partner agencies. Shared information included the importance of behavioral health and wellness, available resources including crisis intervention support, and practical tips to well-being.

Centred Outdoors

Mount Nittany Health partnered with Clearwater Conservancy to offer Centered Outdoors and the Prescription PARx program. Centred Outdoors is designed to engage people in the natural world through guided, family-friendly outings. The PARx program allows physicians and other clinicians to prescribe time outdoors, encouraging patients to engage in more physical activity. The program provides a low barrier of entry for individuals of all physical fitness and skill levels to spend time hiking and being active.

Youth Service Bureau Street Outreach Program

The Street Outreach Program serves youth ages 5-17 in outlying, rural areas across the county. Many of these youth face adversities due to poverty, poor family relationships or parental supervision, lack of access to transportation, violence, and/or drug and alcohol issues in the family. The program builds critical mentorship connections, with the goal that participants will be able to name at least one adult they can turn to for help and demonstrate protective factors for avoiding drug and alcohol use.

Program outcomes:

- 96% of youth were able to name at least one adult they can turn to for help (Goal: 90%)
- 97% of youth reported improved relationships with peers and family (Goal: 85%)
- 97% of youth demonstrated increased ability to make good decisions (Goal: 90%)
- 97% of youth demonstrated increased social and emotional competence (Goal: 90%)

Increasing Access to Services and Improving Care Coordination

Mount Nittany Health sought to improve patient outcomes related to behavioral health and substance use disorder through evidence-based and patient-centered care practices, case management services, screening and referral standards, and partnership with community-based providers.

Strawberry Fields, Inc. (SFI)

In partnership with SFI, MNH provided funding assistance for blended case management services and the purchase of the Wiley Treatment Planner. Funding support for blended case management services enabled SFI to assist with consumers' transportation needs for physical and behavioral health follow-up appointments, both reducing no-show appointments and improving follow-through for recommended care. The Wiley Treatment Planner provides over 1,000 evidence-based interventions for 31 presenting diagnoses and serves as a mobile management tool for better care coordination across providers.

Centre County Mental Health Task Force

Mount Nittany Health is an active collaborator within the Centre County Mental Health Task Force to identify and implement improvements in the delivery of crisis services and transitions of care. Per the recommendation of the Task Force, MNH created the Behavioral Health Interdisciplinary Committee to oversee mental health crisis patient response within the ED and other hospital settings. The committee is comprised of the ED lead physician, the behavioral health psychiatrist, the ED manager, the behavioral health manager, and the lead behavioral health case manager. Mount Nittany Health plans to identify a consulting liaison as an advisor on the promotion of inclusive and culturally responsive care settings.

The charge to the Behavioral Health Interdisciplinary Committee includes:

- Identify and adopt inclusive and evidence-based practices to enhance positive patient outcomes
- Enhance two-way communication with families
- Conduct internal clinical case reviews and data collection to seek opportunities to improve practice
- Explore evidence-based processes, technologies (i.e., telemedicine), and protocols
- Identify and review data to assess the effectiveness of the ED's mental health crisis response system

- Assess ongoing education and professional development needs to include, but not limited to, mental health crisis diagnosis and response, crisis intervention and de-escalation, cultural sensitivity, implicit bias, inclusivity, special populations, substance use disorder, serious mental illness (SMI), HIPAA applications, and 302 regulations/decisions
- Review policies and procedures, e.g., develop a consistent intake process and HIPAA compliant feedback loop for patients brought to the ED by law enforcement and their family members
- Review and implement applicable recommendations in the PA General Assembly's Joint State Government Commission Report, released in July 2020

Mount Nittany Health ED Psychiatric Liaison Program

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; and improved patient and provider satisfaction.

Chronic Disease

2019 Implementation Plan Goal: Reduce risk factors for chronic disease and improve management of chronic disease conditions.

Promoting Healthy Lifestyles and Addressing Social Determinants of Health Barriers

Mount Nittany Health sought to promote healthy lifestyles for Centre County residents by providing financial and technical support to organizations engaging residents in their health; supporting and sponsoring free or low-cost initiatives targeting at-risk communities; leveraging MNH providers to provide chronic disease community education; and assessing opportunities to provide mobile preventive health services in partnership with community agencies.

Centre Volunteers in Medicine (CVIM)

Mount Nittany Health is proud to be CVIM's lead healthcare partner. As a partner, MNH provided sustained support for CVIM’s operations to meet the healthcare needs of the uninsured. Since 2019, MNH has provided: $815,000 in cash contributions; $969,175 in-kind healthcare services; and other supporting services such as Information Technology, at-cost pharmaceuticals, and volunteer physicians. Since CVIM's inception in 2003, Mount Nittany Health has proudly invested $7 million in direct financial and in-kind services.

Mid-State Literacy

Mount Nittany Health was a funding partner for the Literacy for Life: Chronic Disease Prevention and Management program. This program included relevant education at accessible reading levels, emphasizing heart disease, cancer, diabetes, and obesity. Additional tutoring services targeted low-

income and ethnically diverse populations and were provided in small groups and one-on-one instruction across Centre County. The program demonstrated success in increasing chronic disease knowledge, including ability to follow prescription label and aftercare instructions, and improving English listening comprehension and speaking ability among adults with limited English language skills.

YMCA Anti-Hunger Programs

Mount Nittany Health was a funding partner for YMCA anti-hunger programs, providing $25,000 in support for the Travelin' Table and Backpack Program. The Travelin' Table is a mobile bus bringing nutritious meals and other important resources to sustain healthy physical and mental growth directly to those who need them. It is equipped with a full kitchen to support distribution of healthy meals, healthcare education and screenings, and educational supplies and sports equipment to combat summer learning loss and encourage exercise.

The Backpack Program serves students across Centre County. Students enrolled in the program receive a backpack full of food each Friday (or the last day of school for the week) during the school year. The program served 965 students in seven school districts in 2021, providing a total of 33,681 bags.

Open Streets Bellefonte

On May 18, 2019, MNH hosted the inaugural Open Streets Bellefonte event. The four-hour event drew more than 1,000 people to the borough's downtown for health-centered activities. The event created 'paved parks' on High and Allegheny Streets that provided activity hubs for all ages and fitness levels, from dancing to yoga to aerobics to hula-hooping. Sponsored in part by Northwest Bank, the day also featured wellness-themed educational activities and brought community members together. Due to the COVID-19 pandemic, a virtual Open Streets event was hosted in 2020. As part of the 2020 event, MNH distributed 300 activity bags and designed an adventure hunt and virtual 5k.

Mount Nittany Health Fit for Play

Mount Nittany Health Fit for Play is the system's physical therapy and sports medicine specialty provider. Inspired to find new ways to care for the community during the pandemic, Mount Nittany Health Fit for Play began offering virtual exercise classes to local assisted living facilities to support the health and wellness of residents. The 30-minute classes were free and included a variety of upper body, lower body, and core exercises to get the heart rate up, as well as to improve circulation, range of motion, strength, and cardiovascular health.

Centre Moves

Centre Moves is a community coalition with the vision that all Centre County residents will adopt healthy habits. Centre Moves programs, supported by MNH, included the Fit Families Challenge, a community-wide physical activity challenge; Push the Pedal, a community-wide biking challenge; and Community Garden Program, offering a seed swap and community garden information and workshops. Centre Moves was not active in the latter portion of 2021 or 2022 as coalition members diverted resources to addressing pandemic-related concerns.

Mount Nittany Health Provider Education

Mount Nittany Health providers regularly served as subject matter experts to provide chronic disease community education. Providers were featured as part of the following community partner communications: Health Break, Healthy Weight over the Holiday Campaign, social media, and newsletters.

Improving Care Coordination for Individuals with a Chronic Condition

Mount Nittany Health sought to improve chronic disease care coordination through dedicated care coordinator programs, expanded palliative care, integrated care models, and social determinants of health screening and response practices.

Technology Investment and Patient Care Pilot Program

Mount Nittany Health has made a major investment in care management technology to improve patient outcomes, particularly for those individuals managing a chronic disease. This technology focuses on improving population health by addressing gaps in care, improving patient engagement, and focusing on quality measures.

Mount Nittany Physician Group recently piloted a program using this technology with strong results. The program focused on securing routine screenings, vaccinations, and in-office procedures to provide holistic care for patients managing a chronic disease; enhanced patient-clinician interactions; and increased adherence to care plans. The pilot program and technology are actively being evaluated for operationalization and wide distribution across Mount Nittany Physician Group offices.

Mount Nittany Physician Group Care Coordinator Program

The Care Coordinator Program was implemented in 2016 to improve care outcomes for patients with comorbidities and in need of intensive case management services, and to help them reach their highest health potential. The program provides appointment management, medication reconciliation, and linkages to community and medical resources.

Oncology Patient Navigation and Oncology Breast Navigation Programs

These programs are available to MNH cancer patients and their family members and are designed to remove social barriers to care and improve health outcomes. As part of the program, MNH employs a Breast Care Center patient care coordinator.

Program Utilization:

- 2019 – 501 Patients, 1479 Interventions
- 2020 – 426 Patients, 1685 Interventions
- 2021 – 488 Patients, 1763 Interventions

Lung Nodule Program

Mount Nittany Medical Center has been designated as a Screening Center of Excellence by Go2 Foundation for Lung Cancer and UPMC Health Plan for its ongoing commitment to responsible lung

cancer screening. From 2019 to 2021, the screening center detected eight lung cancer diagnoses among patients. Screenings are offered as part of the Lung Nodule Program, dedicated to improving quality of life by providing early detection of lung cancer; best practices in lung nodule care; avoidance of surgical procedures; and thorough follow-up care based on evidence-based treatment recommendations.

Program Statistics:

- 2019 – 125 Baseline Exams, 158 Annual Exams (87% return rate)
- 2020 – 124 Baseline Exams, 188 Annual Exams (83% return rate)
- 2021 – 202 Baseline Exams, 239 Annual Exams (78% return rate)

Mount Nittany Health Palliative Care Services

To improve the lives of patients in our community who are dealing with serious chronic illnesses, MNH launched a palliative care program. The new program, available on both an inpatient and outpatient basis, prioritizes symptom management, emotional and spiritual support, help with daily activities, and help with healthcare decision making for patients.

Mount Nittany Health Heart Failure Program

The heart failure program at MNH is designed to help patients understand their disease process and better manage it through lifestyle changes and medication. The multi-disciplinary care approach focuses on meeting the patient's entire spectrum of care needs and improved healthcare outcomes. In 2019, the program enrolled 145 patients and 62% of patients had zero hospital admissions for any cause. In 2020, the program enrolled 192 patients and 82% patients had zero hospital admissions for heart failure. In 2021, the program enrolled 125 new patients and had active enrollment by 226 patients. Among active patients, 61% had zero hospital admissions for any cause and 91% had zero heart failure admissions.

Mount Nittany Health Diabetes Programming

Mount Nittany Health offers a number of programs to teach patients, caregivers, and clinicians how to best deal with diabetes. The Life with Diabetes Education Series and individual sessions with certified diabetes educators help people with diabetes comfortably manage their disease. Group classes cover all aspects of learning to manage diabetes, including what diabetes is, understanding medications, monitoring and treatment practices, healthy eating, and weight loss strategies.

Our Commitment to the Community

Mount Nittany Health is dedicated to improving quality of life for residents of Centre County. Responding to the health needs of our community is central to our mission: Healthier People. Stronger Community. We will continue to invest in the health of our community through collaboration with community partners and residents, and as outlined in our 2022-2025 Implementation

Reporting

The 2022 CHNA final report is available to the public at https://www.mountnittany.org/about-us/community-health-needs-assessment. A three-year implementation plan will also be available to the public upon completion in fall 2022.

Mount Nittany Health thanks the many individuals and community organizations that contributed to the 2022 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 Nena Ellis, Director of Brand & Community Engagement at Nena.Ellis@mountnittany.org.

Appendix A: Public Health Secondary Data References

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Appendix B: Key Stakeholder Survey Participants

- Boggs Township, Secretary/Treasurer
- Catholic Charities, Emergency Financial Caseworker
- Center for Alternatives in Community Justice, Executive Director
- Central Pennsylvania Community Action, Family Service Coordinator
- Centre Area Transportation Authority, Assistant ADA & On-Demand Operations Manager
- Centre Area Transportation Authority, ADA & On Demand Operations Manager
- Centre Area Transportation Authority, Administration
- Centre Area Transportation Authority, Executive Director
- Centre County Drug and Alcohol, Drug and Alcohol Program Administrator
- Centre County Library & Historical Museum, Administrative Director
- Centre County Library and Historical Museum, Assistant Branch Manager
- Centre County Library and Historical Museum, Executive Director
- Centre County MH/ID EI D&A, Human Services Administrator
- Centre County MH/ID/EI-D&A, Assistant Administrator
- Centre County Youth Service Bureau, CEO
- Centre County Youth Service Bureau, Program Director Parenting Plus and DeClutter
- Centre Emergency Medical Associates, Physician
- Centre Helps, Basic Needs Case Manager
- Centre Helps, Executive Director
- Centre Safe - Child Access Center, Visitation & Exchange Advocate
- Centre Safe, Counselor/Advocate
- Centre Safe, Director of Finance
- Centre Safe, Director of Programs and Services
- Centre Safe, Executive Director
- Centre Safe, Housing Advocate
- Centre Safe, Legal Director
- Centre Safe, Paralegal
- Centre Safe, Prevention Educator
- Centre Safe, Prevention Educator
- Centre Safe, Triage Advocate
- Centre Volunteers in Medicine, Executive Director
- CentrePeace, Inc., Executive Director
- Church, Leader
- Congregation Brit Shalom, Rabbi
- Early Learning Resource Center Region 8/Child Development and Family Council of Centre County, Inc., Executive Administrator
- Food Bank, Volunteer
- Food Bank of the State College Area, Operations Manager
- Foxdale Village, Director of Health Services
- Housing Transitions, Executive Director
- Leadership Centre County, Executive Director
- MidPenn Legal Services, Regional Manager

- Mid-State Literacy Council, Inc., Executive Director
- Miles Township Fire Co. Ladies Auxillary, Secretary
- Mount Nittany Health, Director
- Mount Nittany Health, EVP PCS CNO
- Mount Nittany Health, Manager
- Mount Nittany Health, Manager
- Mount Nittany Health, Manager
- Mount Nittany Health, Manager
- Mount Nittany Health, Manager, Program & Service Development
- Mount Nittany Health, MD
- Mount Nittany Health, RN
- Mount Nittany Health, RN
- Mount Nittany Medical Center, Assistant
- Mount Nittany Medical Center, Clinical Coordinator
- Mount Nittany Medical Center, Director
- Mount Nittany Medical Center, Director
- Mount Nittany Medical Center, House Supervisor
- Mount Nittany Medical Center, Manager
- Mount Nittany Medical Center, Nursing Supervisor
- Mount Nittany Medical Center, Oncology Patient Navigator
- Mount Nittany Medical Center, Physician
- Mount Nittany Medical Center, Registered Nurse
- Mount Nittany Medical Center, RN
- Mount Nittany Medical Center, RN
- Mount Nittany Medical Center, Supervisor
- Mount Nittany Physician Group, COO
- Mount Nittany Physician Group, Clinical Coordinator
- Mount Nittany Physician Group, Practice Manager
- Mount Nittany Physician Group, Practice Manager
- Mount Nittany Physician Group, RN
- Nurse - Family Partnership / UPMC HHC Central PA, Supervisor, Centre County
- Out of the Cold: Centre County, Program Manager
- Patton Township, Township Manager
- Penn State College of Medicine, 4th-year Medical Student
- Penn State Millennium Scholars, Assistant Program Director
- Penn State University, Sustainable Food Systems Program
- Penns Valley Community Church, Pastor
- Private Industry Council of the Central Corridor, Director
- Senator Jake Corman, Executive Assistant
- St. Paul's United Methodist Church & Wesley Foundation, Director of Community & Congregational Care
- State College Area School District, Finance and Operations Director
- State College Community Land Trust, Executive Director
- State College Food Bank, Board President

- State College Food Bank, Director and Volunteer
- State College Food Bank, Executive Director
- State College Food Bank, Vice President
- Strawberry Fields, Inc, Director Program Operations
- Strawberry Fields, Inc, Employee
- Strawberry Fields, Inc, supervisor Blended Case Management
- Unity Church of Jesus Christ, General Body member
- Unity Church of Jesus Christ, Lay Leader
- Unity Church of Jesus Christ, Leadership Team
- Unity Church of Jesus Christ, Member
- Unity Church of Jesus Christ, Member
- Unity Church of Jesus Christ, Member
- Unity Church of Jesus Christ, Member
- Unity Church of Jesus Christ , Safety/Security/Team leader
- YMCA of Centre County, CEO
- YMCA of Centre County - Penns Valley Branch, Director

Appendix C: Partner Forum Participants

- Amanda Pighetti-Marshall, Mount Nittany Medical Center
- Amy Trithart, Mount Nittany Health
- Amy Wilson, Mid-State Literacy Council, Inc.
- Ann Walker, ELRC 8/Child Development and Family Council of Centre County, Inc.
- Anna Kochersperger, State College Community Land Trust
- Anne Ard, Centre Safe
- Annie Smith, Strawberry Fields, Inc.
- Ashley Kader, Mount Nittany Medical Center
- Ashley Mekis, Mount Nittany Medical Center
- Ashley Shuey, Mount Nittany Physician Group Blue Course Drive IM
- Brandy Reiter, Senator Jake Corman
- Carol Eicher, Community Diversity Group
- Cheryl White, Centre Volunteers in Medicine
- Christine Bishop, Youth Service Bureau
- Courtney Maholtz, Mount Nittany Medical Center
- Cynthia Zerbe, Centre Area Transportation Authority
- Deborah Nardone, ClearWater Conservancy
- Denise McCann, Centre Helps
- Doug Erickson, Patton Township
- Dr. Deborah Smith, Retired from Penn State University
- Emily Wolfe, Penn State University
- Eric Norenberg, Centre Region Council of Governments
- Erika Smith, The Arc of Centre County
- Gay Dunne, Bellefonte Borough's Environmental Advisory Board
- Greg Scott, Chamber of Business and Industry of Centre County
- Holly Oxendale, Tides, Inc.
- Jacqueline Hahn, Mount Nittany Medical Center
- Jay Hoover, Mount Nittany Medical Center
- Jeannine Lozier, Mount Nittany Health
- Jennifer Crane, Youth Service Bureau
- Jennifer Scanlon, Mount Nittany Health
- Jessy Foster, PA Health Access Network
- Jim Prowant, Mount Nittany Physician Group
- Joleen Hindman, FirstEnergy / Local Affairs
- Jordan Taylor, Skills of Central PA
- Kelly Wolgast, Penn State University
- Kim Bahnsen, Nurse - Family Partnership / UPMC HHC Central PA
- Leanne Lenz, Centre County United Way
- Leslie Pillen, Penn State University
- Louwana Oliva, Centre Area Transportation Authority
- Madeline Sell, The Arc of Centre County
- Mark Higgins, Centre County Government

- Matt Golemboski, Mount Nittany Health
- Matt Wise, Senator Jake Corman
- Melissa Bopp, Pennsylvania State University
- Michael Pipe, Centre County Government
- Molly Kunkel, Centre Foundation
- Morgan Wasikonis, Housing Transitions
- Naana Nti, Community Diversity Group
- Nalini Krishnankutty, Penn State University
- Natalie Corman, Centre County Government
- Nena Ellis, Mount Nittany Health
- Nicole Tice, SKILLS
- Nina Campbell, Mount Nittany Medical Center
- Paul Takac, College Township
- Rebecca Burkholder, Mount Nittany Medical Center
- Robin Weagley, The Meadows Psychiatric Center
- Roger Greene, Mount Nittany Health - Organizational Development
- Samantha Bittinger, Mount Nittany Physician Group
- Scott Mitchell, YMCA of Centre County
- Scott Specht, James E Van Zandt VA Medical Center
- Shannon Hilliard, Mount Nittany Health
- Stephanie Fost, Habitat for Humanity of Greater Centre County
- Susan Seymour, VHA
- Tamra Fatemi-Badi, WPSU
- Tiffany Ricotta, CenClear
- Tom Charles, Mount Nittany Health
- Trish Meek, Centre Region Council of Governments

MOUNT NITTANY HEALTH

Community Health Needs Implementation Strategy

September 2022

Healthier People. Stronger Community.

Executive Summary

As the regional healthcare leader, Mount Nittany Health is committed to understanding and addressing the most pressing health and wellness concerns for the communities we serve. Therefore, every three years Mount Nittany Health conducts a Community Health Needs Assessment (CHNA) and creates a corresponding implementation strategy to address the top health priorities identified through the CHNA development process.

Mount Nittany Health conducted the 2022 CHNA in partnership with Centre Foundation, Centre County United Way, Centre County Government and nearly 150 community stakeholders and partner organizations. It serves as a framework for planning and actions to improve the health and wellness of our community for both the health system and for human services organizations in Centre County.

Consistent with prior CHNAs, the 2022 findings show that Centre County scores well across a variety of measures. Overall, the county ranks 2nd among all 67 Pennsylvania counties for health outcomes. However, there are still pressing issues and gaps that are important to address.

Based on a combination of data collection and stakeholder input, chronic disease and behavioral health emerged as the top priority areas. In addition, the current findings continue to highlight the importance of addressing the needs of rural, diverse and vulnerable populations. The implementation strategy addresses each of these three priority areas, with key objectives, areas of focus, MNH resources and potential collaboration partners. Specific initiatives and programs are integrated into MNH's overall system strategic plan, which is updated annually.

In addition to the priority areas, CHNA identified community needs related to substance use disorder (SUD) and affordable housing in Centre County. As these are not areas of direct focus and expertise within the health system, MNH will continue to work with and support community agencies that have distinct capabilities and focus on these areas.

Chronic Disease – Address access and health outcomes for individuals with chronic disease. Provide and support prevention, diagnosis and treatment through MNH services and collaboration with community partners.

Key Objectives

- Enhance population health capabilities
- Improve primary care and specialty access
- Improve rural community access to preventive and chronic disease services
- Enhance care coordination for individuals with a chronic condition diagnosis

Areas of Focus/Initiatives	MNH Resources	Potential Collaborations
• Grow the number of primary and specialty care providers to improve access • Continue to expand programs to manage individuals with chronic disease • Increase participation in annual wellness visits to enhance improve early diagnosis and treatment and prevention • Provide education and outreach in rural communities • Invest in population health programs and infrastructure to improve chronic disease management and treatment outcomes • Address social determinants of health through enhanced care management services and collaborations with community partners • Support community prevention, exercise and fitness programs through collaboration with community partners • Support health literacy efforts, with a focus on rural communities	• Primary care • Medical specialty programs and services focused on high risk areas • Chronic disease focused clinics and programs • Weight management programs • Diabetes-related programs and services • Population health staff and programs • Community outreach and engagement team	• Payers • County agencies and programs • State agencies and programs • School districts • Local and regional non-profits

Behavioral Health – Reduce social risk factors for behavioral health conditions and improve access to care. Support initiatives that promote behavioral health awareness, strategy and resources to the community with a focus on youth.

Key Objectives

- Increase community awareness of behavioral health prevention and intervention strategies
- Promote resilience-focused initiatives to combat adverse childhood experiences
- Improve access and care coordination for behavioral health services
- Enhance early identification and intervention for youth behavioral health issues

Areas of Focus/Initiatives	MNH Resources	Potential Collaborations
• Recruit behavioral health providers to provide access to care • Provide a range of acute-care behavioral health services, including emergency department and inpatient care • Provide emergency department behavioral health case management services to coordinate care • Develop child and adolescent services to improve access and address youth behavioral health needs • Work with local government and law enforcement agencies to ensure effective collaboration for individuals with behavioral health needs • Collaborate with community organizations to enhance awareness of behavioral health conditions and suicide risk factors, along with education on prevention strategies • Identify strategies to increase support for addressing behavioral health issues in rural communities	• MNMC inpatient behavioral health unit • MNMC emergency department • MNMC ED case management • Inpatient case management • Outpatient case management • Child and adolescent psychology • Primary care providers • Community outreach and engagement team	• Community behavioral health organizations • Community behavioral health providers • County and state behavioral health programs • Community human services and social services agencies • Mental health first aid educators • School districts • Law enforcement agencies • State and county government

Disparities: Identify and address barriers and disparities for rural, diverse and vulnerable populations. Socioeconomic and other risk factors contribute impact overall well-being and contribute to adverse health outcomes.

Objectives

- Increase rural access through continued growth of MNH primary and specialty care locations
- Increase MNH presence and engagement in rural communities
- Support community efforts that directly address social determents of health
- Support community efforts to reduce barriers to care for vulnerable populations

Areas of Focus/Initiatives	MNH Resources	Potential Collaborations
• Continue expansion of primary and specialty care services in rural communities • Support community organizations that provide services to vulnerable and at-risk populations • Collaborate with social service and non-profit organizations to address social determinants of health among rural and vulnerable populations • Enhance community engagement and collaborations across rural communities • Provide diversity, equity and inclusion training across the health system and engage in community-based DEI initiatives	• Primary and specialty care providers • Rural primary and specialty care locations • Tele-medicine services • Community outreach and engagement team • Human Resources team	• Local non profits • Youth centers and program centers • Local school districts • Local leadership • Behavioral health resource providers • Area healthcare providers