

TRI-COUNTY AREA COMMUNITY HEALTH NEEDS ASSESSMENT

2018

PREPARED FOR
POTTSTOWN AREA
HEALTH & WELLNESS
FOUNDATION

PREPARED BY RESEARCH
& EVALUATION GROUP AT
PUBLIC HEALTH
MANAGEMENT
CORPORATION





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Executive Summary

The Tri-County Community Health Needs Assessment (CHNA) 2018 presents the current state of health among Tri-County residents. This CHNA was conducted by Public Health Management Corporation for the Pottstown Area Health & Wellness Foundation (PAHWF) and was developed using a data and partnership driven approach, multiple data sources, and engagement from a variety of community constituents.

Data presented here demonstrate that the Tri-County Area is close to meeting a number of Healthy People (HP) 2020 goals – national objectives for improving the health of all Americans. The Tri-County Area has met HP 2020 goals to reduce preterm and low birth weight births and is close to meeting goals to initiate prenatal care in the first trimester of pregnancy and to reduce obesity among adults. The Tri-County Area has not yet met HP2020 goals or national recommendations for health behaviors, such as physical activity, nutrition, smoking and binge drinking.

The Tri-County Area is doing the same or better than the remainder of Southeastern Pennsylvania on access to care, such as having health insurance and a regular source of health care, and delaying health care due to cost; however outcomes on these indicators in the Tri-County Area have not improved since 2013.

Many of the same public health issues that concern the region, state and nation exist in the Tri-County Area. These include reducing the prevalence of chronic health conditions, including obesity and diabetes; addressing substance abuse, in particular concerns about opioid use; mental health concerns; and recognizing the impact of traumatic experiences on health and well-being.

This report highlights differences in health access, behaviors and outcomes among the geographic areas that comprise the Tri-County region and between those with and without health insurance and those above and below poverty. In particular, the report demonstrates that Pottstown Borough which has fewer resources than other communities (e.g., lower percentage of adults with high educational status, lower median household income) has more difficulty accessing health care and poorer health outcomes. The report also shows that areas with resources (e.g., high educational status, high median household incomes) still sometimes struggle with access to healthcare and are often not meeting recommendations for health behaviors or have positive health outcomes that meet HP 2020 goals.

Findings from this report can be used to set priorities for the development of policy, strategies, and programs to improve health in the Tri-County Area.

Introduction

This report presents findings from a community health needs assessment (CHNA) of the Tri-County Area conducted by Public Health Management Corporation (PHMC) on behalf of the Pottstown Area Health & Wellness Foundation (PAHWF). Findings from the assessment described in this report include a description of the community, social determinants of health, health behaviors, health outcomes, community resources, and recommendations. This assessment builds on prior CHNAs prepared for PAHWF in 2004, 2008, and 2013.¹

Data in this report are presented for the Tri-County Area and compared, when applicable and available, to Southeastern Pennsylvania (SEPA), Pennsylvania and the United States in order to put the findings into context. In addition, when applicable, Healthy People 2020 goals (HP 2020), a set of goals and objectives with 10-year targets designed to guide national health promotion and disease prevention are included and compared to data from the Tri-County Area.

A variety of data sources inform this CHNA including:

- PHMC's CHDB Demographic Product which is comprised of 2018 United States Census data estimates provided by Claritas Pop-Facts® Premier and Vital statistics data from the Pennsylvania Department of Health
- PHMC's 2018 Tri-County Area Household Health Survey
- PHMC's 2018 Southeastern Pennsylvania Household Health Survey
- Five focus group discussions with community members
- Seventeen key informant interviews with community leaders and stakeholders
- Pennsylvania 2-1-1 a resource service

A detailed description of the data collection efforts and methodology can be found in Appendix A.

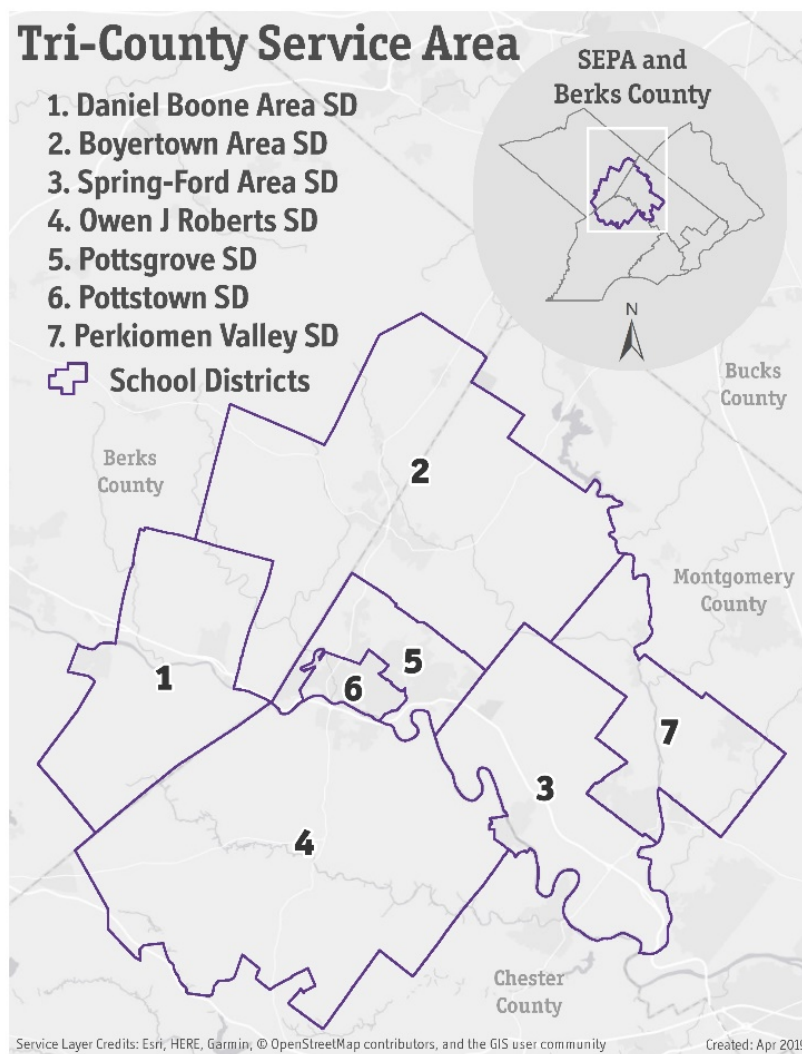
Findings from this assessment can be used as a framework for discussion about the resources, needs, assets and gaps in services in the community. This CHNA can be used by PAHWF and its partners to inform strategic planning, in particular to identify and prioritize health and wellness needs in the Tri-County Area, consider the impact of programs supported by the Foundation, and provide a benchmark to measure against for future programming efforts.

Pottstown Area Health & Wellness Foundation

PAHWF works to enhance the health and wellness of Tri-County residents by providing education, funding and programs that motivate people to adopt healthy lifestyles. PAHWF serves residents of Pottstown Borough and those within a 10 mile radius of downtown Pottstown.

¹ The 2013 CHNA was prepared by PHMC.

The Tri-County Area covers parts of Berks, Chester, and Montgomery Counties and is comprised of seven public school districts: Boyertown, Daniel Boone, Owen J. Roberts, Perkiomen Valley, Pottsgrove, Pottstown and Spring-Ford (Appendix B).



Social Determinants of Health

The places where people live, work, go to school, and spend time affect their health. For example, educational resources impact health. Adults without a high school education have a shorter life expectancy compared to adults with a college degree.² Economic conditions affect health. Employment and income affect insurance status and the ability to pay for out-of-pocket health care expenses. Adults

² Agency for Healthcare Research and Quality, Rockville, DM. (2015 September) *Understanding the Relationship Between Education and Health: A Review of the Evidence and an Examination of Community Perspectives*. Retrieved from <https://www.ahrq.gov/professionals/education/curriculum-tools/index.html>

with low incomes and few financial resources have shorter life expectancy compared to adults with higher income and greater wealth.³ Having access to safe parks promotes physical activities and helps foster connections among neighbors. Local stores that sell affordable healthy foods can help reduce obesity and promote nutritious habits. These conditions into which people are born, live, and work are known as social determinants of health. Addressing these social determinants of health is important for improving community health and reducing health disparities.

This report begins with a description of the Tri-County community which provides a context for where the community has come from and the direction it is heading in. Following that, the report presents the demographic characteristics of the community, specifically the size, age, race and ethnicity of the population and other social determinants that impact health, such as educational status, employment and income. The report then describes access to health care, health behaviors, and health outcomes. The final sections of the report provide a description of social service resources in the community and a summary of the key findings from this assessment.

Tri-County Community Description

Located at the intersection of Berks, Chester, and Montgomery County, the Tri-County Area has a rich history as a manufacturing site in Pennsylvania. Visitors exploring the area can walk the streets of Old Historic Pottstown and see residential neighborhoods that date back to the early-1800s. Today, the Tri-County Area is bisected by two major highways (PA 100 and US 422) and is host to industry, commercial centers, and a trove of natural resources.

Pottstown Borough, the center of the Tri-County Area, is located along the Schuylkill River approximately 40 miles northwest of Philadelphia.⁴ Pottstown's legacy as a center of production began before the nation gained its independence. In 1701, William Penn deemed the land that would become Pottstown to his son, John.⁵ The region soon became home to Pennsylvania's first ironworks in 1716, eventually rising to a prominent position in metal production that would continue for centuries.⁶ Pottstown was incorporated as a Borough in February 1815, the second Borough in Montgomery County after Norristown.⁷ By 1842, the population of the Borough was approximately 600 residents and the area was beginning to transform into a true industrial powerhouse following the expansion of the Reading Railroad through Mt. Carbon.⁸ In the 1860s, the Pottstown Iron Company established large rolling mills, a blast furnace, steel works, and a nail factory.⁹ In the 1930s, the Bethlehem Steel Corporation plant built some of the steel sections for the Golden Gate Bridge.⁹

Although Pottstown's major manufacturing businesses left during the latter quarter of the 1900s, the infrastructure they helped develop remains.¹⁰ In the past decade, revitalization projects have breathed new life into former manufacturing buildings and commercial areas that now host a variety of

³ Woolf F, Aron L, Dubay L, Simon S, Zimmerman E, Luk K. Urban Institute and Virginia Commonwealth University. (2015 April) *How are Income and Wealth Linked to Health and Longevity?* Retrieved from <https://www.urban.org/sites/default/files/publication/49116/2000178-How-are-Income-and-Wealth-Linked-to-Health-and-Longevity.pdf>

⁴ Google Maps. (2019). *Pottstown*. Retrieved from <https://goo.gl/maps/KKbvxQvXaDJ2>

⁵ The Borough of Pottstown. (2019). *History of borough*. Retrieved from <http://www.pottstown.org/index.aspx?NID=270>

⁶ Caust-Ellenbogen, C. (2012, May 23). *History in iron and steel at Pottstown Historical Society*. Retrieved from <https://hsp.org/blogs/archival-adventures-in-small-repositories/history-in-iron-and-steel-at-pottstown-historical-society>

⁷ Borough of Pottstown. *History of borough*.

⁸ Caust-Ellenbogen. *History in iron and steel*

⁹ Reading Eagle. (2015, June 25). *Bethlehem Steel grows a town, helps cast national landmark*. Retrieved from <https://www.readingeagle.com/news/article/bethlehem-steel-grows-a-town-helps-cast-national-landmark>

¹⁰ Snyder, M. (2017, August 31). *When Pottstown was an industrial giant*. Retrieved from https://www.pottsmmerc.com/lifestyle/when-pottstown-was-an-industrial-giant/article_262f8390-5da8-5f84-8410-7946dd1770d6.html

companies that call Pottstown their home. Several of these companies include:¹¹

- Cedarville Engineering (Civil and Environmental Engineering)
- Cigas Machine Shop, Inc. (Green Industrial Facilities/Manufacturing)
- Manatawny Still Works (Beverage/Craft Distillery)
- Precision Polymer Products, Inc. (Manufacturing/Medical Device Components)
- Sly Fox Brewing Company (Beverage/Craft Brewing)
- Steel River Playhouse (Theater/Arts & Culture)
- Ultraflex Systems (Technology/Healthcare)
- VideoRay, LLC (Technology/Robotics)
- Wheels in Motion (Automotive Repair)

The Tri-County Area is home to seven school districts: Boyertown, Daniel Boone, Owen J. Roberts, Perkiomen Valley, Pottsgrove, Pottstown and Spring-Ford. In addition to local school districts, educational resources in the Tri-County Area include The Hill School, West-Mont Christian Academy, the Berks Career and Technology Center, the Western Campus of Montgomery County Community College (MCCC), and the MCCC Sustainability and Innovation HUB.¹²

The region is rich in forestland, and its location on the Schuylkill River provides ample opportunities for outdoor recreation. Canoers and kayakers can be seen navigating the Schuylkill River from the Pottstown Waterfront Park, bikers ride through the Schuylkill River Trail, and campers can spend the night outdoors throughout the Schuylkill River Heritage Area.¹³ In addition, the Tri-County Area hosts the largest grass volleyball tournament in the United States¹⁴ and has two unique athletic facilities not readily available in other communities in Southeastern Pennsylvania: an indoor paddle pool for dragon boating at the Pottstown Athletic Club¹⁵ and the Trilogy Park BMX course.¹⁶

Population Size

Over 241,550 people live in the Tri-County Area (Appendix C). Three out of five residents reside in Montgomery County (67%, N=161,305), 18% reside in Berks County (N=42,549), and 16% reside in Chester County (N=37,696).¹⁷

Among the sub-areas within the Tri-County Area, Spring-Ford (52,194) has the largest population, followed closely by Boyertown (48,095). Perkiomen Valley and Owen J. Roberts are similar in population size (40,447 and 34,381 respectively). The sub-areas with the smallest population size are Daniel Boone, Pottsgrove, and Pottstown which each have a population of approximately 22,000.

¹¹ PAID. (2019). *Success stories*. Retrieved from <https://www.paidinc.org/successstories.php>

¹² Tri-County Area Chamber of Commerce. (2019). *Education*. Retrieved from <http://www.tricountyareachamber.com/livearea/education.aspx>

¹³ Schuylkill River Greenways National Heritage Area. (2019). *Things to do*. Retrieved from <https://schuylkillriver.org/heritage-area/things-to-do/>

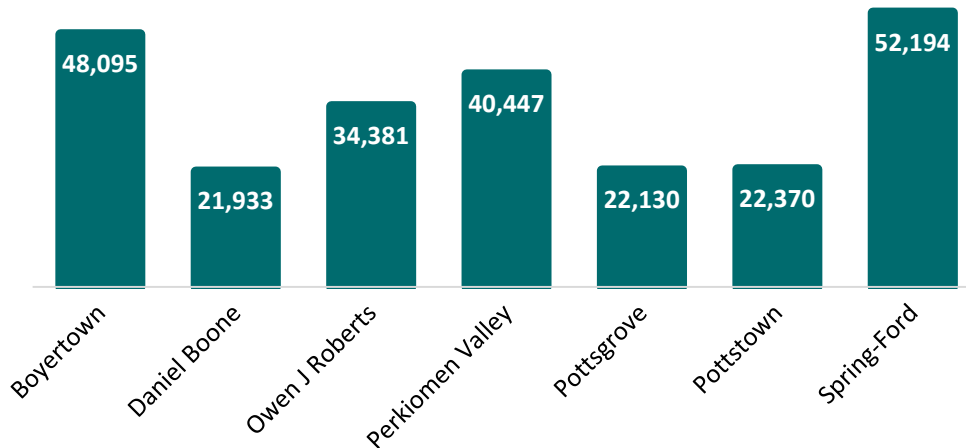
¹⁴ Tri-County Area Chamber of Commerce. (2019). *Things to do*. Retrieved from <http://www.tricountyareachamber.com/thingstodo/>

¹⁵ Pottstown Dragon Warriors. (2019). *Interested in paddling*. Retrieved from <http://pottstownathleticclub.com/index.php/pottstown-dragon-warriors-1>

¹⁶ Trilogy Park BMX. (2019). *About Trilogy Park BMX*. Retrieved from <https://www.usabmx.com/tracks/1868/about>

¹⁷ The PAHWF area comprises 7-20% of the population of each county. Chester County has 519,514 residents 7% of whom reside in PAHWF area (N=37,696); Berks County has 415,367 residents, 10% of whom reside in the PAHWF area (N=42,549); Montgomery County has 826,334 residents, 20% of whom reside in PAHWF area (N=161,305).

The population of Tri-County sub-areas varies. Spring-Ford has the largest population and Daniel Boone the smallest.



Data source: CHDB Demographic Product 2018

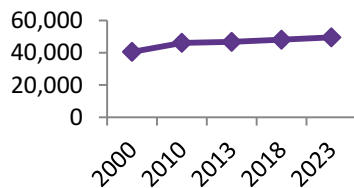
From 2013 to 2018, the population of the Tri-County Area increased 3% and is projected to continue to increase 3% from 2018 to 2023. Pottstown's population is projected to remain the same through 2023 (0.1% increase). The other sub-areas are projected to have slight increases in population from 2% (Daniel Boone, Owen J Roberts, Pottsgrove) to 5% increase in Spring-Ford (Appendix C).

Actual and projected population increases in the Tri-County Area, 2013 to 2023

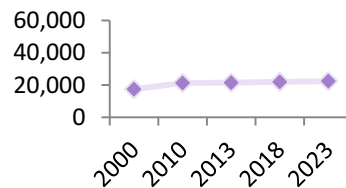
	Population Increase 2013 to 2018	Projected Population Increase 2018 to 2023
Boyertown	3%	3%
Daniel Boone	2%	2%
Owen J Roberts	2%	2%
Perkiomen Valley	5%	4%
Pottsgrove	3%	2%
Pottstown	-.3%	0.1%
Spring-Ford	6%	5%
Tri-County	3%	3%

Approximately a quarter of a million people are expected to live in the Tri-County Area by 2023. It is estimated that 55 thousand people will live in the Spring-Ford Area alone.

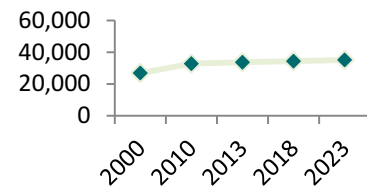
Boyertown



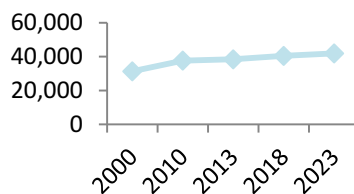
Daniel Boone



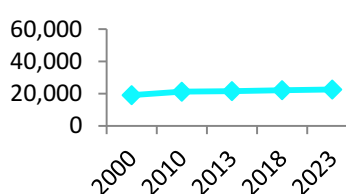
Owen J Roberts



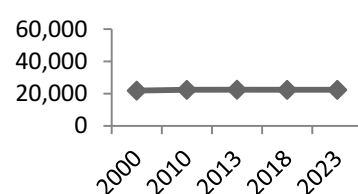
Perkiomen Valley



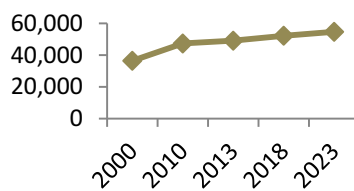
Pottsgrove



Pottstown



Spring-Ford



Data source: CHDB Demographic Product 2018

General Fertility Rate

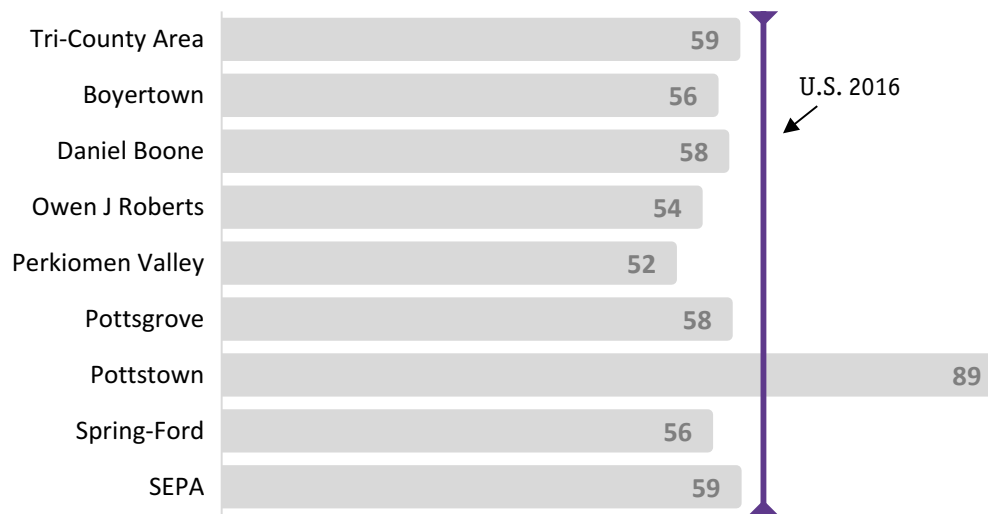
There were, on average, 2,464 births per year in the Tri-County Area from 2012-2016. The general fertility rate (GFR)¹⁸ in the Tri-County Area and SEPA was 59 births per 1,000 women aged 15–44. This fertility rate is lower compared to the GFR in the United States in 2016 (62 births per 1,000 women aged 15–44).¹⁹ However, within the Tri-County Area, Pottstown had a GFR that exceeded the national rate. During 2012-2016, Pottstown experienced 89 births per 1,000 women aged 15–44. Among different racial and ethnic groups, GFR ranged from 57 births per 1,000 white women, 84 births for black women, and 79 births for Hispanic women aged 15–44 in the Tri-County Area.

¹⁸ The general fertility rate is the number of live births per 1,000 females of childbearing age between the ages of 15–44 years.

¹⁹ Martin JA, Hamilton BE, Osterman MJ, Driscoll AK, Drake P. Births: Final data for 2016. National Vital Statistics Reports; vol 67 no 1. Hyattsville, MD: National Center for Health Statistics. 2018.

Tri-County Area has a lower fertility rate compared to the U.S.

There were 59 births per 1,000 women aged 15-44 in the Tri-County Area (2012-2016)



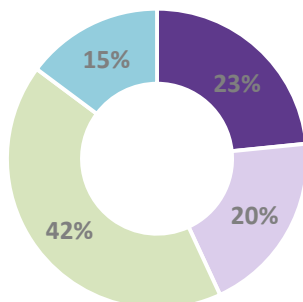
Data source: CHDB Demographic Product 2018 and National Center for Health Statistics (NCHS) 2018

Age and Gender

In the Tri-County Area, nearly one-quarter of residents are between the ages of 0-17 (23%, N=55,523) one in five are 18-34 (20%, N=47,585), two in five are 35-64 (42%, N= 101,693) and one in seven are 65 or older (15%, N=35,749). The age distribution of the population is similar to the age distribution within SEPA and the United States; the largest percentage of residents is aged 35-64 years.

Almost a quarter of the Tri-County population is children (0-17)

■ 0-17 years ■ 18-34 years
■ 35-64 years ■ 65+ years



Approximately one-quarter of residents in each of the individual sub-areas are age 17 and younger (Appendix C). The age distribution of the population in each of the individual sub-areas is similar to the age distribution within the Tri-County Area. Consistent with national trends, one-half of individuals in the Tri-County and within each sub-area are male, and one-half are female.

Data source: CHDB Demographic Product 2018

Race and Ethnicity

The overwhelming majority of Tri-County residents (87%) are white. Other residents are black (6%), Asian (4%), and another 4% identify as another race.²⁰ Four percent of adults identify as Latino.²¹ The population of SEPA is more diverse: 64% are white, 22% black, 7% Asian, and 7% identify as another race. Nine percent identify as Latino. Approximately 80% of Pennsylvania residents are white, 11% are black, 4% are Asian, and 6% are another race. Eight percent are Latino. The Tri-County Area, similar to the United States as whole, is moving toward a decrease in the percentage of the population that is white and an increase in the percentage of the population that is not white. From 2000 to 2018 the Tri-County area experienced a 4% decrease in the white population.

The race and ethnicity of residents varies considerably within the Tri-County Area. For example, Pottstown Borough has the lowest percentage of white residents (68%) and highest percentage of black (22%) and Latino residents (9%) compared with all of the other areas. In contrast to Pottstown Borough, Boyertown is 95% white.

Tri-County sub-areas by race and ethnicity, 2018

	Race ²⁰				Ethnicity
	White	Black	Asian	Other race	Latino
	%	%	%	%	%
Boyertown	95	1	1	2	2
Daniel Boone	91	4	2	3	4
Owen J. Roberts	92	3	2	2	3
Perkiomen Valley	83	8	5	4	4
Pottsgrove	84	10	2	4	4
Pottstown	68	22	1	9	9
Spring-Ford	86	5	7	3	3
Tri-County	87	6	4	4	4

Data source: CHDB Demographic Product 2018

²⁰ Percentages may not add up to 100% due to rounding.

²¹ The 2010 U.S. Census report that people of Hispanic origin may be of any race. For the US Census, ethnic origin is considered to be a separate concept from race.

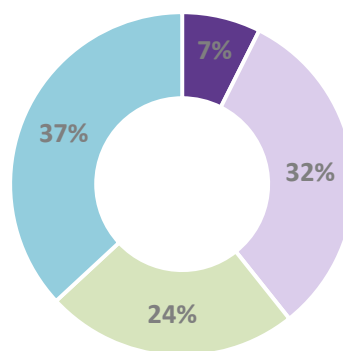
Education

Approximately seven percent of adults in the Tri-County Area aged 25 and over have less than a high school degree, one-third (32%) are high school graduates, and more than one-third (37%) have a college degree or more.

The percentage of Tri-County Area adults with a bachelor's degree or higher (37%) is similar to the percentage of adults in the SEPA region (37%), but higher than the state (29%) and the United States (31%, 2013-2017).²²

Approximately 2 out of 5 Tri-County adults 25+ have a college degree or higher

- Less than high school
- High school/GED
- Some college
- College or more



Data source: CHDB Demographic Product 2018

Educational attainment in Tri-County Area, SEPA, State and U.S.

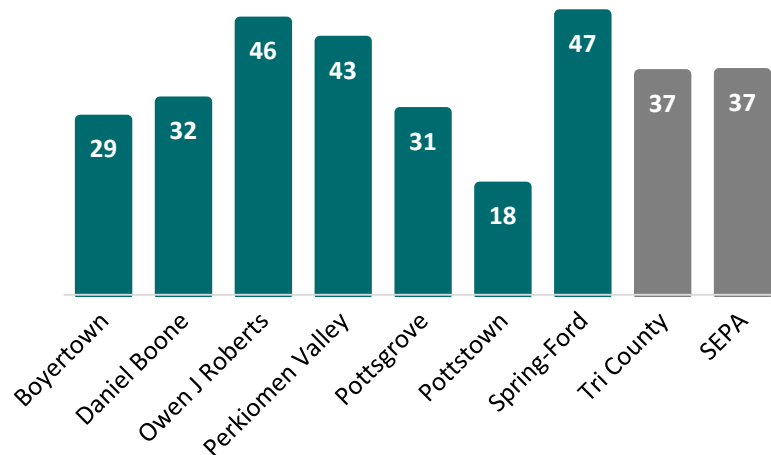
	High school graduate or higher	Bachelor's degree or higher
	%	%
Tri-County	93	37
SEPA	89	37
Pennsylvania	90	29
United States, 2013-2017	87	31

Data source: CHDB Demographic Product 2018 and US Census Bureau

²² US Census Bureau. Quick Facts Pennsylvania. 2013-2017. <https://www.census.gov/quickfacts/pa>

The sub-areas within Tri-County vary in educational achievement. Spring-Ford and Owen J. Roberts have the largest percent of adults with a college degree (47% and 46% respectively) while Pottstown Borough (18%) has the lowest percentage of adults with a college degree.

Almost half of adults (25+) in Spring-Ford and Owen J. Roberts have a college degree or more

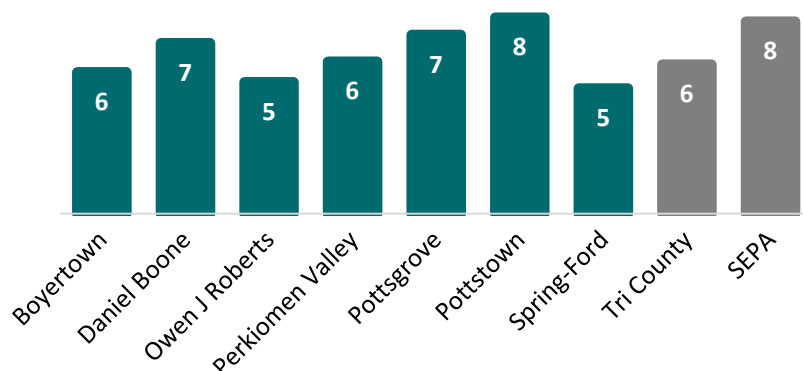


Data source: CHDB Demographic Product 2018

Employment

Six percent of adults aged 16 years and older in the Tri-County Area are unemployed. This is lower than SEPA (8%), the state (7%), but slightly higher than the United States (5%).²³ Within the Tri-County Area, adults in Pottstown Borough (8%) have the highest unemployment rate.

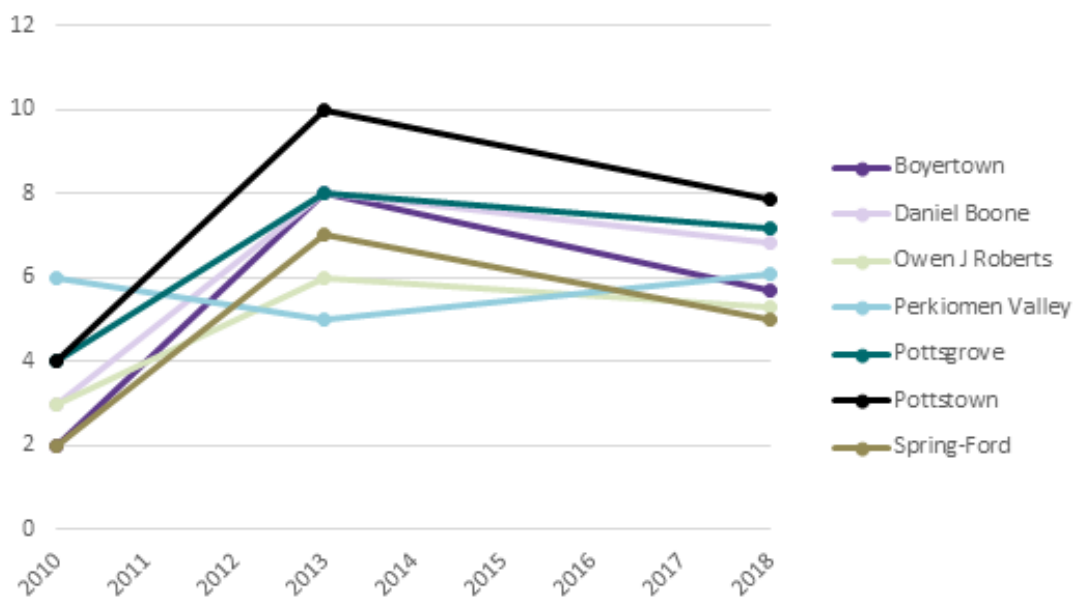
Six percent of Tri-County adults (16+) are unemployed



Data source: CHDB Demographic Product 2018

²³ U.S. Census Bureau. American Fact Finder. Employment Status 2017 American Community Survey.
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_1YR_S2301&prodType=table

Unemployment rates have decreased slightly for all areas except Perkiomen Valley



Data source: CHDB Demographic Product 2018

Poverty Status

The Tri-County Area has a lower poverty rate compared with SEPA and the state overall. Four percent of all families in the Tri-County Area and 7% of families with children are living at incomes below the poverty threshold.²⁴ This represents 2,722 families living below the poverty line and, among this group, 2,009 are families with children. Within SEPA and Pennsylvania, 16% of families with children live in poverty.

Percentage of families living below the poverty level in Tri-County Area, SEPA, and State

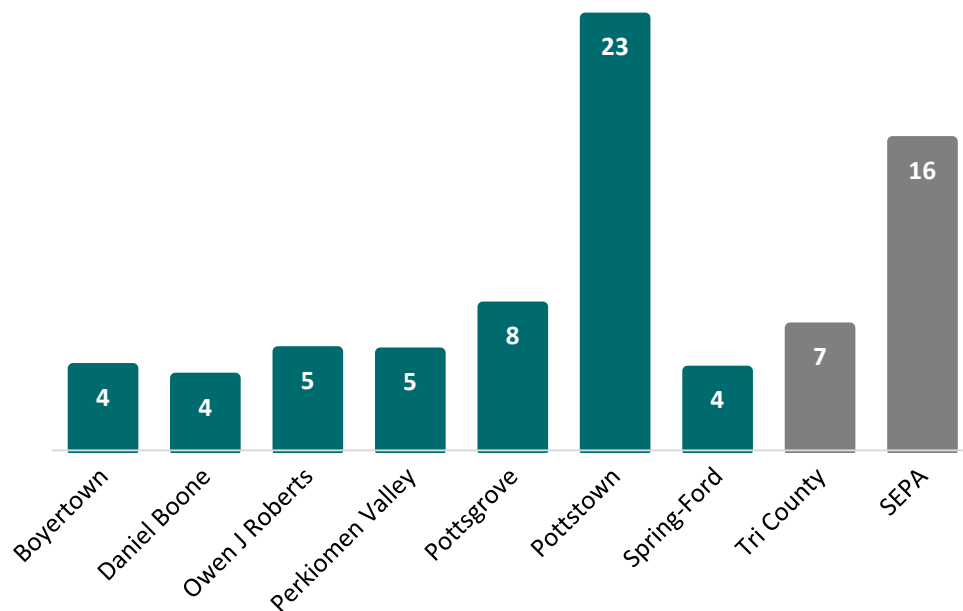
	Families below poverty level	Families with children below poverty level
	%	%
Tri-County	4	7
SEPA	10	16
Pennsylvania	9	16

Data source: CHDB Demographic Product 2018

²⁴ In this section of the report, poverty is defined as the poverty threshold set by the U.S. Census Bureau. The poverty threshold is a specific dollar amount considered to be the minimum resources needed to meet the basic needs of a family unit. The thresholds vary by the number of adults and children in a household. Poverty thresholds do not vary by geography, but are updated annually for inflation with the consumer price index. For additional information about poverty thresholds see: <https://www.census.gov/programs-surveys/cps/technical-documentation/subject-definitions.html#povertydefinition>

Within the Tri-County Area, Pottstown Borough (23%) has the highest percentage of families with children living in poverty. In contrast to Pottstown Borough, only 4% of families with children in the Daniel Boone Area are living in poverty.

Almost a quarter of families with children in the Pottstown Borough have incomes below the poverty level (23%)



Data source: CHDB Demographic Product 2018

While the percentage of families with children living in poverty may be small in some areas, it still represents a considerable number of families. The 4% of families with children in Daniel Boone who are living below the poverty level represents 99 families with children.

Over two thousand families with children in the Tri-County Area have incomes below the poverty line

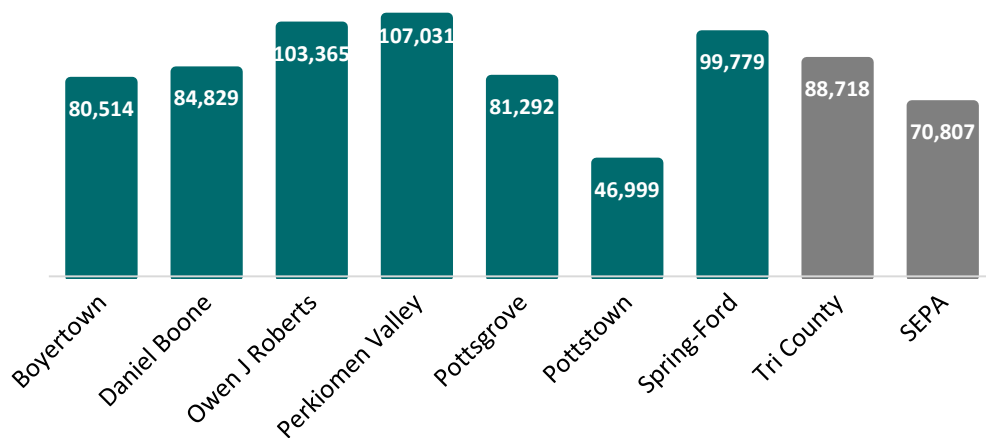
Sub-area	Estimated number of families with children living below the poverty line
Boyertown	253
Daniel Boone	99
Owen J. Roberts	225
Perkiomen Valley	259
Pottsgrove	221
Pottstown	634
Spring-Ford	318

Median Household Income

The 2018 median household income in the Tri-County Area is \$88,718, an increase from \$57,700 in 2000.²⁵ The Tri-County Area has a higher median household income compared to SEPA (\$70,807), Pennsylvania (\$56,951) and the United States (\$57,652).²⁶

Within the Tri-County Area, there is a difference of about \$50,000 in median annual income among the seven sub-areas. Residents of Spring-Ford, Owen J. Roberts, and Perkiomen Valley have more than twice the median annual income (\$99,779-\$107,031) compared to Pottstown Borough (\$46,999).

All Tri-County Areas, except Pottstown, have a higher median household income than SEPA, 2018



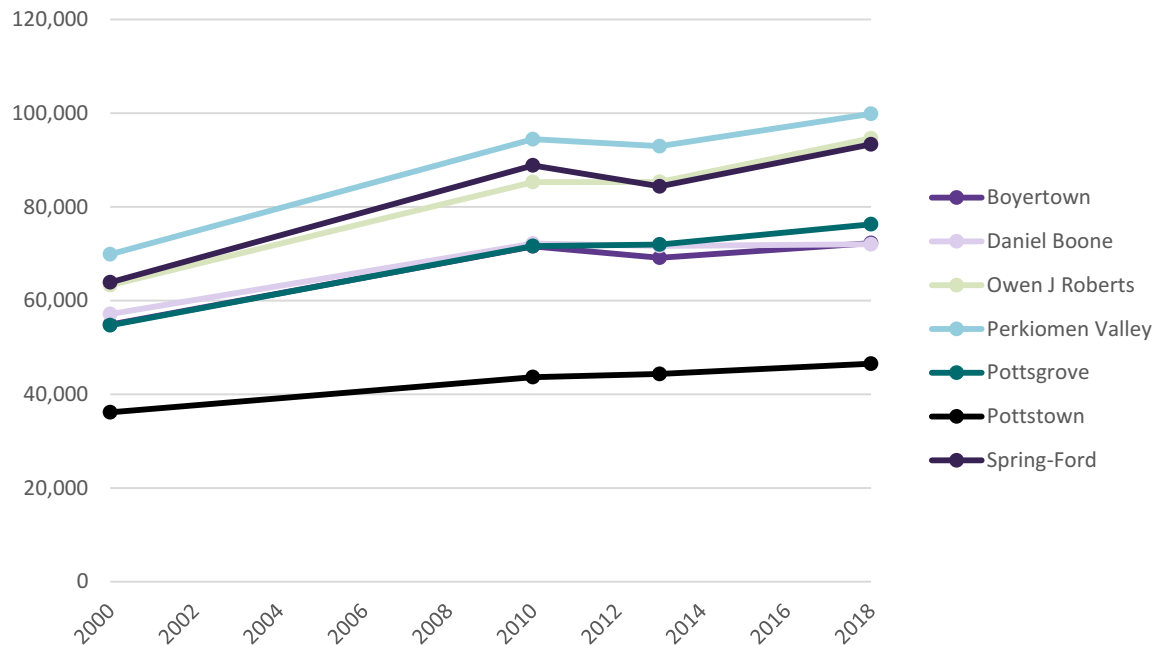
Data source: CHDB Demographic Product 2018

In the past five years, Daniel Boone experienced the smallest percent change in median household income (1% percent change). Owen J Roberts and Spring-Ford each experienced an 11% increase in median household income. All other areas experienced between a 5-7% percent change in median household income.

²⁵ Median income is calculated the U.S. Census by dividing the income distribution into two equal groups, half having income above that amount, and half having income below that amount. For households and families, the median income is based on the distribution of the total number of households and families including those with no income. The median income for individuals is based on individuals 15 years old and over with income. https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2017_ACSSubjectDefinitions.pdf

²⁶ U.S. Census Bureau. Quick Facts Pennsylvania; United States. <https://www.census.gov/quickfacts/fact/table/pa,US/PST045218>. PA and US median household income is presented in 2017 dollars and is an average of the years 2013-2017.

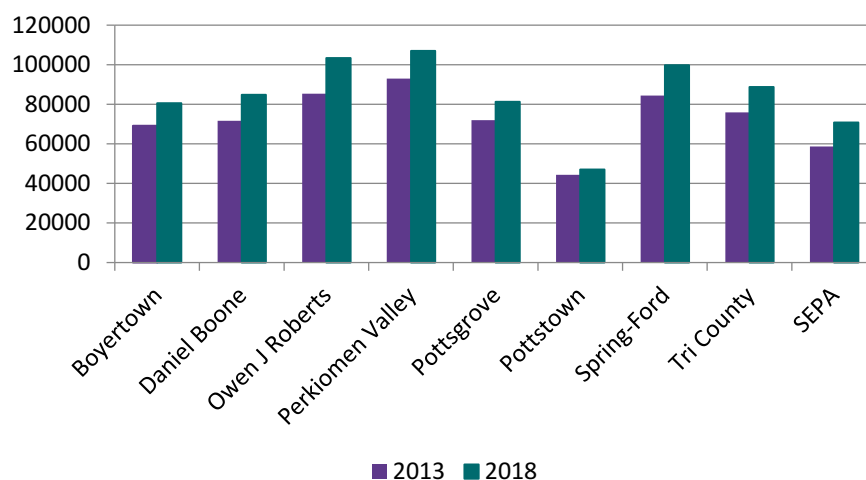
Owen J Roberts and Spring-Ford experienced an 11% increase in median household income from 2013 to 2018



Data source: CHDB Demographic Product 2018

The Tri-County Area in 2018 has a higher median household income compared to 2013. In 2013 the median household income in the Tri-County Area was \$75,911 and in 2018 the median household income was \$88,718, an increase of almost \$13,000. The increase in median household income exceeded inflation in the Tri-County Area, and all sub-areas, except for the Pottstown Borough. The median household income in Pottstown did not rise at the same level of inflation. The 2018 median household income in Pottstown (\$46,999) was only \$2,700 higher than 2013.

The Tri-County Area median household income increased \$13k between 2013 and 2018



Data source: CHDB Demographic Product 2018

Home Ownership

Among the housing units occupied in the Tri-County Area, 79% are occupied by people who own their homes and 21% are occupied by renters. A similar pattern is seen within each sub-area with the exception of Pottstown Borough where 55% of housing units occupied are owner-occupied and 45% are renter-occupied. Perkiomen Valley has the highest percentage of housing units that are owner occupied. The percentage of owner-occupied housing was higher in the Tri-County Area compared to Pennsylvania (69% of housing units) and nationally (64%) between 2013 and 2017.²⁷

Percentage of Owner- and Renter-Occupied Housing

	Owner – occupied	Renter- occupied
	%	%
Tri-County	79	21
Boyertown	83	17
Daniel Boone	82	17
Owen J. Roberts	80	20
Perkiomen Valley	85	15
Pottsgrove	82	18
Pottstown	55	45
Spring-Ford	79	22

Data source: CHDB Demographic Product 2018

Access to Health Care

Health Insurance

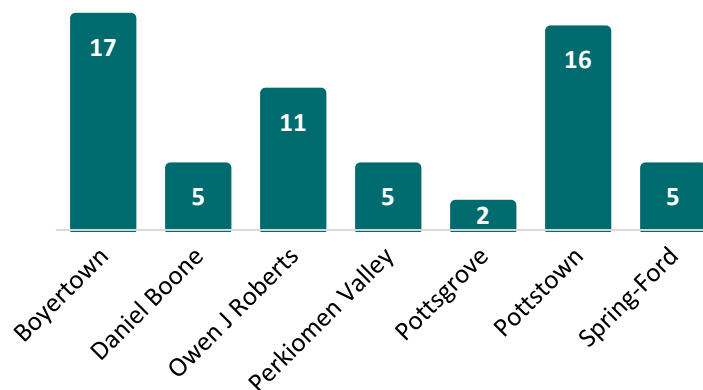
Health insurance coverage increases an individual's ability to access medical care. Without health insurance individuals may face barriers to accessing care and incur significant bills when they do receive health care. Those with a regular source of health care (e.g., a medical provider to call when they are sick) are typically able to obtain care quicker and easier compared to those without a regular source of care, and when care is sought at a place where the individual has been a regular patient, the care provided can be offered in view of the patient's history (e.g., medical records) and ideally within a relationship with a trusted provider.

²⁷ U.S. Census Bureau. Quick Facts United States. <https://www.census.gov/quickfacts/fact/table/pa,US/HSG860217>

In 2018, 8% of adults aged 18-64 years in the Tri-County Area lacked health insurance; rates were similar in 2013.^{28,29} A smaller percentage of adults aged 18-64 years in the Tri-County Area were without health insurance compared to the remainder of SEPA (11%); however, this difference was not statistically significant. Both Tri-County and SEPA have not yet met the HP 2020 goal of 100% health coverage (i.e., 0% uninsured).

Boyertown (17%) and Pottstown (16%) had the highest percentage of adults who reported no health insurance coverage. Pottsgrove had the lowest percentage of adults who lack health insurance, coming close to meeting the HP 2020 goal of 100% health insurance coverage (i.e., 0% uninsured).

Boyertown (17%) and Pottstown (16%) have the highest percentage of adults (18-64) who are uninsured



Data source: Tri-County Household Health Survey 2018

²⁸ 2013 data refers to the 2013 Pottstown Area Household Health Survey

²⁹ In 2018 there were no significant differences in insurance status by poverty (i.e., below or at/above the poverty level).

Voices From the Community

Individuals in the Tri-County Area who have been without health insurance sometime in the past three years reported that:

- Health insurance options are confusing
- Health insurance options, even those through the Affordable Care Act, are expensive
- Medical care is expensive
- Patients without insurance who go to the hospital are able to negotiate payment; however some perceive that they are pushed out quickly once the hospital realizes that they do not have health insurance
- Medical bills are difficult to understand

HEALTH INSURANCE

"We [husband and wife] had health insurance through the website, the Affordable Care Act, but it was very expensive. And so at one point we were just like, we can't afford it, so we're just gonna go without. Because we assumed we didn't qualify for medical assistance because we didn't get food stamps... But then I got sick. And the hospital did like an emergency application or whatever, and found out that we did qualify..."

"Like for him [husband], it [insurance] won't cover his breathing medications. It's \$54 a month just for a nebulizer treatment."

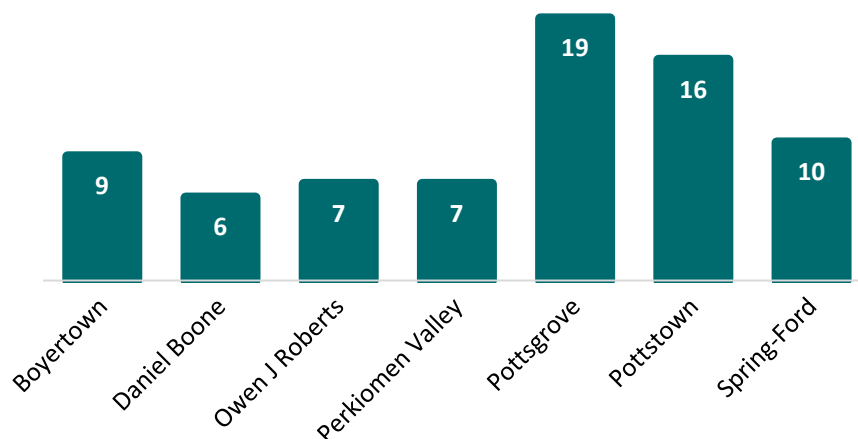
[The hospital] "keep[s] sending [bills] to me. I keep putting them in the pile. It gets bigger and bigger."

Regular Source of Health Care

Having a usual source of health care is associated with better health outcomes, lower costs, and fewer health disparities. **The percentage of adults in the Tri-County Area without a regular source of care, that is adults who reported that they do not have a person or place to go when they are sick or want advice about their health, has not shown a substantial change from 2008 (9% in 2008 and 10% in 2013 and 2018).** Adults in the remainder of SEPA were significantly more likely to be without a regular source of care (14%) compared to the Tri-County Area.³⁰

- In the Tri-County Area, those who lack health insurance are significantly more likely to be without a regular source of care (26%) compared to those with health insurance (9%)³¹
- Among adults with a regular source of care in the Tri-County Area, 90% go to a private doctor's office and 6% go to a community health center

Pottsgrove and Pottstown have the highest percentage of adults who report having no regular source of health care



Data source: Tri-County Household Health Survey 2018

It is unusual that Boyertown and Pottstown have similar percentages of adults who lack health insurance, but Pottstown has almost twice as many adults who lack a regular source of health care compared to Boyertown. It is also striking that Pottsgrove, which had the smallest percentage of adults who lack health insurance (2%) has one of the highest percentages of adults who have no regular source of health care. More information is needed to understand why over 15% of Pottstown and Pottsgrove adults lack a regular source of health care. It may be that the Pottstown and Pottsgrove areas lack primary-care doctors who accept residents insurance, in particular Medicaid. Another possibility is that with the Pottstown hospital nearby residents of Pottsgrove and Pottstown use the hospital as a regular source of health care. Boyertown adults without health insurance may be self-employed and have a regular source of health care that they pay for out-of-pocket.

³⁰ $\chi^2(1, N = 3761) = 6.8, p = .009, \text{Phi} = .04$ Tri-County 95% CI [7.3%, 12.8%], Remainder SEPA 95% CI [12.4%, 15.2%]

³¹ $\chi^2(1, N = 433) = 10.3, p = .001, \text{Phi} = .2$. Uninsured 95% CI [13.1%, 45.5%], Insured 95% CI [6.5%, 13.2%]

Voices From the Community

Individuals reported:

- They have to wait two to three months to see a primary care physician
- There are not enough Spanish-speaking medical providers in the area
- It difficult to find specialists within the area who accept their insurance or are accepting new patients

Stakeholders also cited lack of Spanish speaking providers and few specialists as gaps in health services in the Tri-County Area. In addition they mentioned concern that some primary care providers are not accepting medical assistance and a lack of integration between primary and behavioral health.

REGULAR SOURCE OF CARE

Individuals

"...you have to wait three or four months just to get seen at the doctor because everybody needs the same thing because we all have the same insurance and all"

"...most of the specialists that you're going to get referred to are down towards the city, in Center City... they're not coming into the small towns anymore."

"...I don't think there are many health centers for the Hispanic community.... For many people it's difficult to express themselves or to communicate what they really feel or what they need with medical professionals because they don't speak Spanish."

Stakeholders

"Specialists are missing for different areas of illness."

"Getting them [patients] into a medical home and be consistent with it, not just going when something hurts. A lot of physicians in this area aren't taking new patients or aren't taking MA."

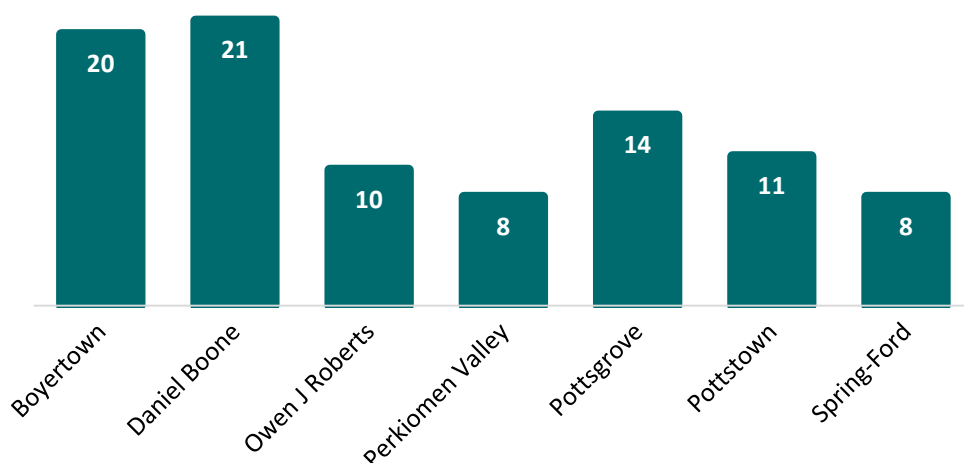
"Primary care sometimes has trouble integrating with behavioral health."

Barriers to Health Care Due to Cost

When individuals delay or put off obtaining health care and medical prescriptions due to cost it can impact not only their immediate health, but their long-term health outcomes as well. **The percentage of adults in the Tri-County Area who reported that they were sick in the past year, but did not seek out care due to cost, decreased only slightly from 14% in 2013 to 13% in 2018.** Adults in the Tri-County Area were slightly more likely to not seek care due to cost compared to adults in the remainder of SEPA (10%)³² compared to Pennsylvania (11%).³³ In 2017, 13% of adults in the United States reported that they were sick in the past year, but did not seek care due to cost.³⁴

- In the Tri-County Area, adults who are uninsured are significantly more likely to delay care due to cost (26%) compared to those with health insurance (14%)³⁵

Daniel Boone and Boyertown had the highest percentage of adults who reported that they did not seek care in the past year due to cost



Data source: Tri-County Household Health Survey 2018

³² The relationship was found to be marginally statistically significant (Pearson chi-square, $p = .10$).

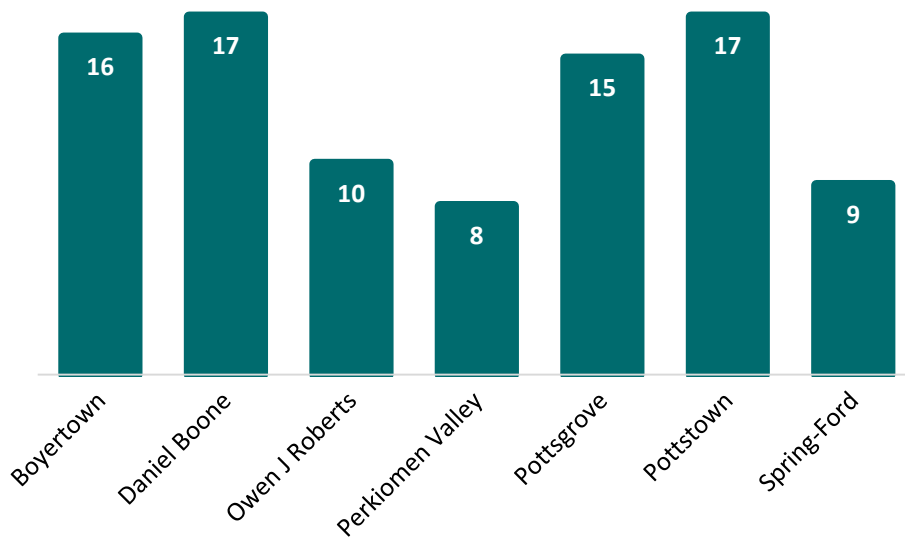
³³ Pennsylvania Department of Health. Pennsylvania BRFSS: Health Care Access/Coverage, Needed to see a doctor in the past year but could not due to cost, Pennsylvania Adults, 2017. <https://www.phaim1.health.pa.gov/EDD/WebForms/BRFSSstate.aspx> These data were provided by the Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions

³⁴ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online]. 2015. [accessed Apr 25, 2019]. URL: <https://www.cdc.gov/brfss/brfssprevalence/>.

³⁵ $\chi^2(1, N = 432) = 4.6, p < .05, \Phi = 0.1$ Uninsured 95% CI [52.8%, 86.7%] Insured 95% CI [82.2%, 89.9%]

Twelve percent of Tri-County adults reported that they did not fill a prescription in the past year due to cost. In 2016, 9% of Pennsylvania adults did not fill a prescription in the past year due to cost.³⁶

Daniel Boone and Pottstown had the highest percentage of adults who did not fill a prescription in the past year due to cost



Data source: Tri-County Household Health Survey 2018

³⁶ Pennsylvania Department of Health. Pennsylvania BRFSS: Health Care Access/Coverage, Did not take prescribed medication because of cost at least once in the past year, Pennsylvania Adults, 2016. <https://www.phaim1.health.pa.gov/EDD/WebForms/BRFSSstate.aspx> These data were provided by the Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions

Voices From the Community

Stakeholders identified the following barriers that Tri-County residents face in obtaining health care :

- Transportation
- Language Barriers
- Lack of access to specialists
- Lack of health education and knowledge about services available

BARRIERS

"The lack of transportation, if you don't have a job, you have to piece together transportation."

"If you know Pottstown, the borough is right there, but the area is very spread out. Many of our families are very local. Many of them do not have cars. They walk. They are working they are trying to survive."

"When they go to Pottstown Medical hospital they have a hard time with language barriers. So one of the barriers is to have more prenatal health and more doctors that speak Spanish..."

"There are a lot of resources available, but I think letting the community know those resources is the difficult part and there is a lot of duplication of services that needs to be pulled together. "

"We have a lot of services in town. I am not sure that everyone knows about them. "

Health Screenings

Regular health exams and screenings are important tools that can be used to identify and provide treatment for health problems. By treating health problems early, there is often a greater chance for cures and improved outcomes.

Dental Screening

The American Dental Association recommends that adults have regular dental visits to maintain optimal health.³⁷ Approximately 30% of Tri-County adults in 2013 and 2018 did not see a dentist in the past year. In 2016, 34% of adults in Pennsylvania and 34% of adults in the United States did not see a dentist in the past year.³⁸

Blood Pressure Screening

Nearly half of Americans have high blood pressure, but many do not know that they have it. The best way to learn if you have high blood pressure is to have your blood pressure checked.³⁹ The percentage of Tri-County adults who did not receive a blood pressure screening in the past year decreased since 2013. In 2008, 11% of Tri-County adults did not have their blood pressure checked within the past year and, in 2018, 6% did not have their blood pressured checked.

Cancer Screening

The American Cancer Society currently recommends that women with average breast cancer risk aged 40 to 44 years have the choice to start annual breast cancer screenings with mammograms, those aged 45 to 54 years should get a mammogram screening every year, and those aged 55 and older may switch to mammograms every 2 years.⁴⁰ In 2016, 28% of women in the United States aged 40 years and older reported they had not had a mammogram *within the past two years*.⁴¹ In 2018, 26% of Tri-County Area women reported that they did not have a mammogram *within the past two years*. The percentage of women 40 years and older who did not have a mammogram *in the past year* had a very slight change between 2013 and 2018. In 2018 42% of Tri-County women report that they did not have a mammogram *in the past year*.

³⁷ American Dental Association. American Dental Association Statement on Regular Dentist Visits. 2013. <https://www.ada.org/en/press-room/news-releases/2013-archive/june/american-dental-association-statement-on-regular-dental-visits>

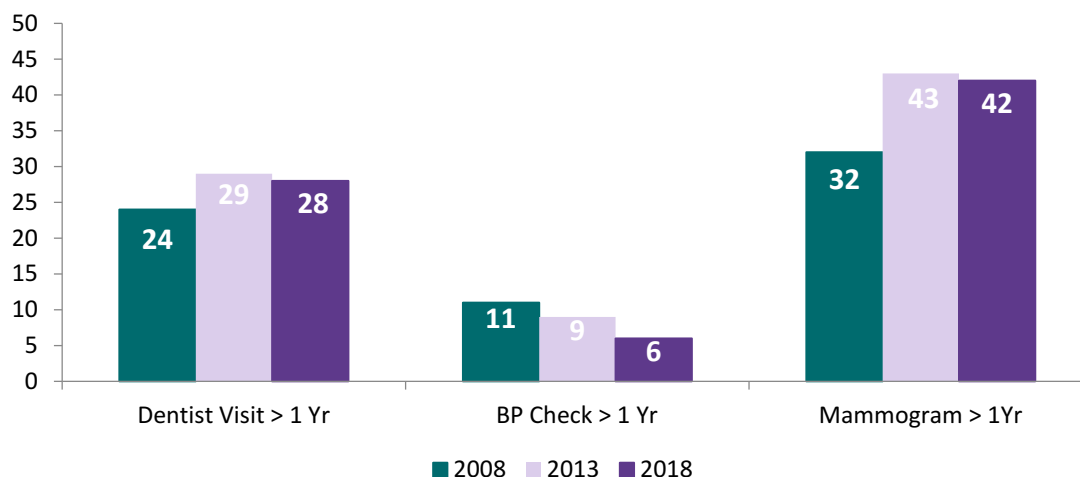
³⁸ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online]. 2015. [accessed Apr 25, 2019]. URL: <https://www.cdc.gov/brfss/brfssprevalence/>.

³⁹ American Heart Association. Monitor Your Blood Pressure. <https://www.heart.org/en/health-topics/high-blood-pressure/the-facts-about-high-blood-pressure>

⁴⁰ Centers for Disease Control and Prevention. Breast Cancer Screening Guidelines for Women. <https://www.cdc.gov/cancer/breast/pdf/breastcancerscreeningguidelines.pdf>

⁴¹ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online]. 2015. [accessed Apr 25, 2019]. URL: <https://www.cdc.gov/brfss/brfssprevalence/>.

The Tri-County Area has had a decrease in the percentage of adults who have did not have a blood pressure screening in the past year



Data source: PHMC Berks County Survey, 2008; PHMC Pottstown Area Survey 2008, 2013; Tri-County Household Health Survey 2018

Health Behaviors

Health behaviors, such as exercising, consuming the recommended amounts of fruits and vegetables, and limiting consumption of sugary beverages can positively influence a person's overall health while behaviors such as smoking and excessive alcohol consumption can negatively impact a person's health. Health behaviors are based on personal habits, but heavily influenced by the environment and economic status of the individual. Understanding positive and negative health behaviors in a community can help organizations and leaders in the community identify services, programs, policies, and infrastructure that may be adapted to increase positive and reduce negative health behaviors.

Exercise

Exercise is a protective activity for ones' health. Regular exercise can help improve quality of life and reduce the risk of premature death, early heart disease, stroke, and other chronic health conditions.

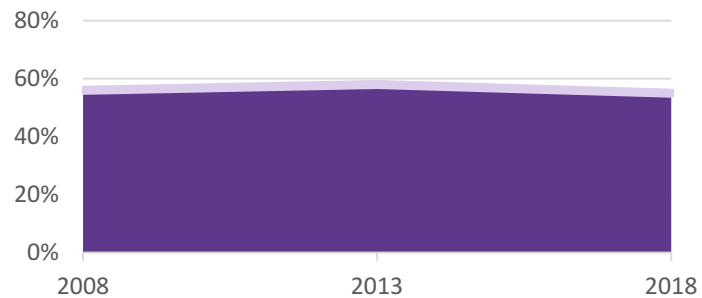
National Physical Activity Guidelines for Adults are:

- Move more and sit less throughout the day
- Do at least 150 minutes (2½ hrs) of moderate-intensity aerobic physical activity a week.
- Perform muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 or more days a week.⁴²

⁴² U.S. Department of Health and Human Services. Physical Activity Guidelines for Americans, 2nd edition. Washington, DC: U.S. Department of Health and Human Services; 2018.

There have been no major differences in the past decade in the percentage of Tri-County adults who exercise for 30 or more minutes at a time 3 or more days per week. Tri-County adults are slightly less likely, although not significantly, to exercise 3 or more days per week (55%) compared to the remainder of SEPA (58%).

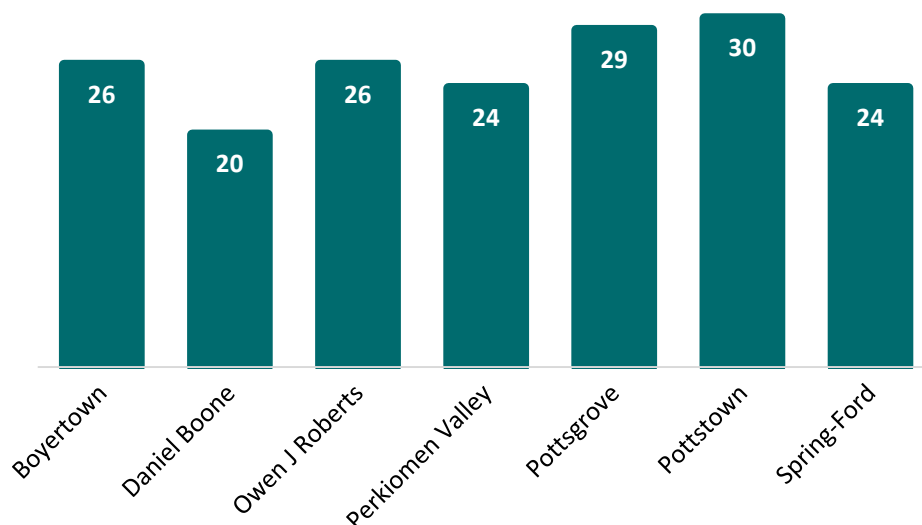
The percentage of Tri-County adults exercising 3 or more more days per week has remained the same over the past decade



Data source: Tri-County Household Health Survey 2018

Tri-County adults are not meeting national physical activity guidelines. **Only 25% of Tri-County adults are meeting at least one part of the national physical activity guidelines for adults: 150 minutes of moderate exercise per week (i.e., participate in at least 30 minutes of exercise 5 or more days a week).** There were no differences whether an adult exercised for 150 minutes by insurance status or poverty. Within the Tri-County Area, Pottstown and Pottsgrove have the highest percentage of adults who are meeting at least one part of the national physical activity guidelines (i.e., 150 minutes of moderate exercise per week) (30% and 29% respectively). Only 20% of Daniel Boone adults report that they exercise for 150 minutes per week.

Thirty percent of Pottstown adults report that they exercise for 150 minutes per week



Data source: Tri-County Household Health Survey 2018

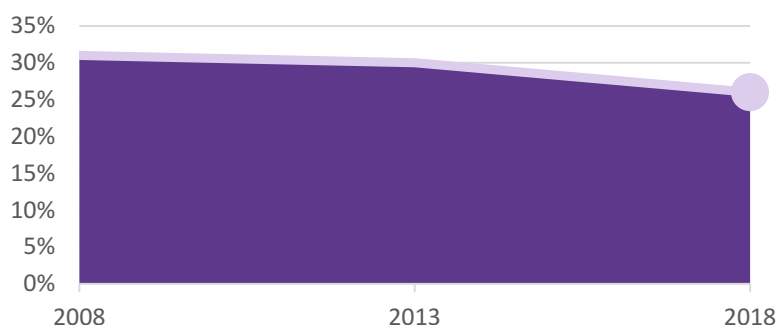
Nutrition: Fruits and Vegetables

Nutrition supports overall health by providing vital minerals and vitamins. Healthy eating patterns can help people achieve and maintain good health and reduce the risk of chronic health conditions. The Dietary Guidelines for Americans 2015-2020 recommend that a healthy eating plan include, among other things, fruits (especially whole fruits) and a variety of vegetables from all of the subgroups – dark green, red and orange, legumes (beans and peas), starchy, and others.⁴³

While calorie needs vary based on age, gender, height, weight, and level of physical activity, it is recommended that an adult requiring 2,000 daily calories consume 2 ½ cups of vegetables per day and 2 cups of fruit per day.^{44,45} The majority of adults in the Tri-County Area do not meet this recommendation.

In 2018, less than 26% of Tri-County adults were meeting the recommendation to consume 4 or more servings of vegetables and fruits per day. However Tri-County adults are eating healthier compared to the remainder of SEPA. Tri-County adults were slightly more likely to consume 4 or more fruits and vegetables per day compared to the remainder of SEPA (22.4%).⁴⁶

Approximately one in four Tri-County adults are consuming 4 or more servings of fruits and vegetables per day



Data source: Tri-County Household Health Survey 2018

- A higher percentage of insured adults consume 4+ fruits and vegetables per day (26%) compared to uninsured adults (19%), but the difference was not statistically significant
- There were no significant differences in fruit and vegetable consumption among adults below the poverty line (24%) and those at or above the poverty line (26%)

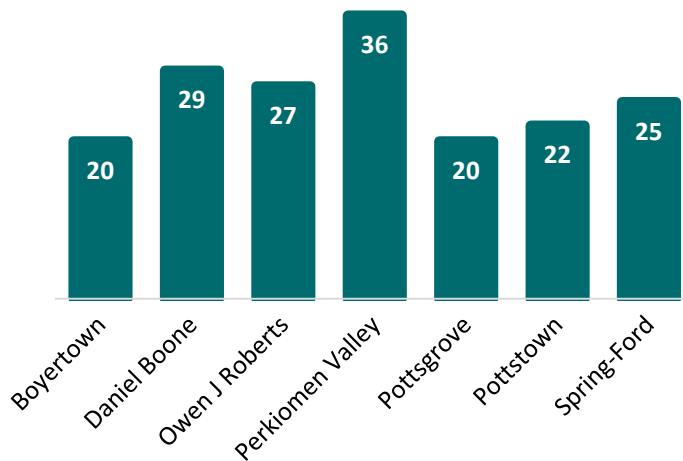
⁴³ U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015–2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Retrieved at: <https://health.gov/dietaryguidelines/2015/guidelines/chapter-1/key-recommendations/#key-recommendations>

⁴⁴ U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015–2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Retrieved at: <https://health.gov/dietaryguidelines/2015/guidelines/chapter-1/a-closer-look-inside-healthy-eating-patterns/#table-1-1-heading>

⁴⁵ The U.S. Food and Drug Administration uses 2,000-calorie diet on Nutrition Facts labels to provide information.

⁴⁶ The relationship was found to be marginally significant (Pearson chi-square, $p < .10$)

Perkiomen Valley has the highest percentage of adults who report meeting the recommended guideline for adults to consume 4 servings of fruits and vegetables per day (36%)



Data source: Tri-County Household Health Survey 2018

Sugary Beverages

Regular consumption of sugary sweetened beverages (SSB), such as soda, sports drinks, sweetened teas, and fruit drinks is associated with obesity and other poor health outcomes including type-2 diabetes and cardiovascular disease. The HP 2020 goal for the population aged 2+ is to consume no more than 9.7% of total caloric intake from added sugars,⁴ yet many Americans continue to regularly consume SSBs, the primary source of added sugar to diets. According to the National Health and Nutrition Examination Survey, over 50% of U.S. adults consume at least one SSB on a given day. Rates of SSB consumption are lower in the Tri-County Area (28%) and remainder of SEPA (27%). There were no significant differences between Tri-County adults and adults from the remainder of SEPA in consumption of SSB.

- A higher percentage of uninsured adults consume at least one SSB on a given day (56%) compared to adults with insurance (27%)⁴⁷
- Poor adults were more likely to consume at least one SSB on a given day (44%) compared to adults who were at or above the poverty line (25%)^{48,49}

⁴⁷ $\chi^2(1, N = 221) = 6.5, p = .01, \text{Phi} = 0.2$. Uninsured 95% CI [31.4%, 78.3%], Insured 95% CI [21%, 34.7%]

⁴⁸ $\chi^2(1, N = 279) = 6.9, p < .01, \text{Phi} = 0.2$. Poor 95% CI [27.2%, 61.7%], At or above poverty 95% CI [20.1%, 31.2%]

⁴⁹ In the Health Behaviors and Health Outcomes section of this report, poverty is defined as the poverty guidelines set by the U.S. Department of Health and Human Services. The poverty guidelines are used for administrative purposes (e.g., determine financial eligibility for federal programs). Guidelines are based on the household size. They are adjusted for Hawaii and Alaska to take into consideration the higher cost of living in those states, but they do have any other geographic considerations. The guidelines are updated annually. For additional information about poverty guidelines see: <https://aspe.hhs.gov/poverty-guidelines>

Adults in Daniel Boone are almost 3 times more likely to consume one or more SSBs in a day compared to Pottstown



Data source: Tri-County Household Health Survey 2018

It is striking that Pottstown Borough, which has a higher percentage of adults without health insurance and higher poverty rates has a smaller percentage of adults consuming SSBs daily (14%). The small percentage of Pottstown Borough adults reporting SSB consumption is driven by a very small percentage of young adults (18-34 years) in the Pottstown Borough who reported consuming SSB once or more per day (4%). The Pottsgrove area also had a very small percentage of young adults who reported consuming SSB once or more per day (6%). Consumption of SSB among young adults in the Tri-County Area as a whole was higher (35%) and ranged from 29% in Daniel Boone to 81% in Boyertown. The sample size of young adults within each sub-area who responded to the Tri-County HHS is fairly small, thus additional data, such as a follow-up survey in future years would provide insight as to whether the findings about SSB consumption in Pottstown is an outlier or is indicative of a trend. It is possible, and hopeful that the young adults in Pottstown and Pottsgrove are following national trends which show a reduction in SSB consumption.⁵⁰ Of course, it is also important to mention that adults in Pottstown are still consuming SSBs just not as frequently as the other areas. More than half of Pottstown adults consume SSBs a few times a week or month (55%) compared to 35% of adults in the remainder of the Tri-County Area who consume SSBs a few times a week or a month.

Cigarette Smoking

Tobacco use, in particular smoking, is the largest single cause of preventable death and disease in the United States.⁵¹ The Health Consequences of Smoking – 50 Years of Progress, a report by the Surgeon General, stated that smoking increases the risk for coronary heart disease, stroke, and lung cancer. In addition, smoking causes cancer in multiple organs in the body and increases the risk for a range of health conditions including poor oral health, blindness and cataracts, and decreases immune function.

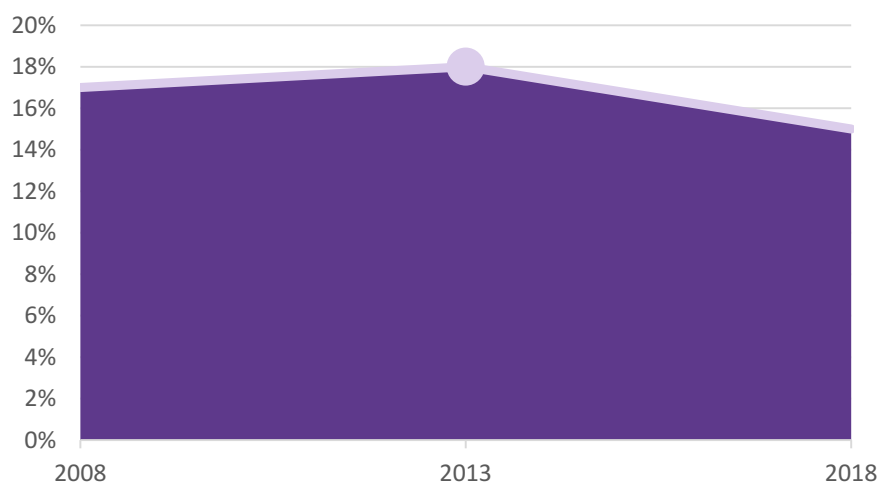
⁵⁰ <https://www.nytimes.com/2017/11/14/health/soda-pop-sugary-drinks.html>

⁵¹ U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

Smoking is associated with overall diminished health. Exposure to second-hand smoke negatively impacts health including increasing the risk for stroke, lung cancer, and coronary heart disease. While smoking rates have declined nationally, more work needs to be done to reduce the tobacco epidemic.

The Tri-County Area has not met the HP 2020 goal to reduce cigarette smoking to 12% of adults (18 yrs and older, age-adjusted).⁵² In the Tri-County Area 16% of adults aged 18 years and older are current smokers (age-adjusted). There are no significant differences in smoking status between adults in the Tri-County Area and the remainder of SEPA.

The percentage (crude prevalence) of Tri-County adults smoking decreased since 2013



Data source: Tri-County Household Health Survey 2018

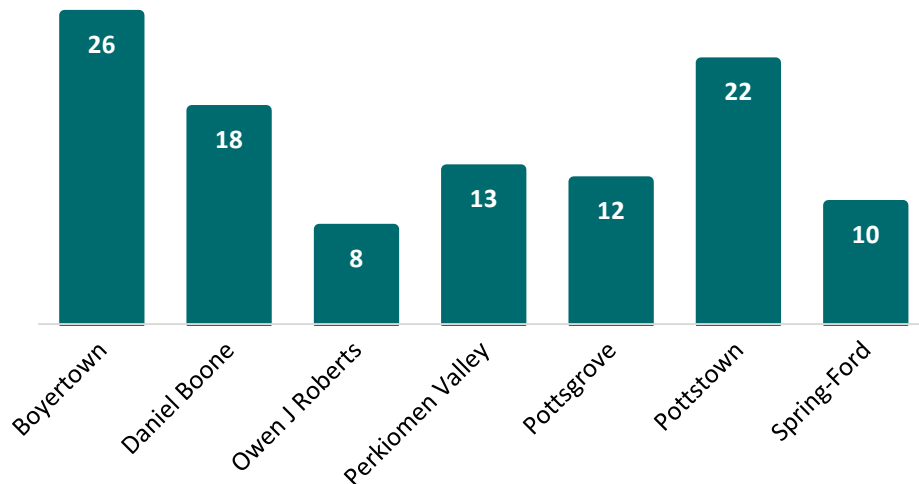
- While a higher percentage of uninsured adults smoke (26%) compared to adults with insurance (17%), the differences were not found to be significant
- Poor adults, adults whose household income is below federal poverty guidelines,⁵³ were more likely to smoke (30%) compared to adults who were at or above the poverty line (13%).⁵⁴

⁵² Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [cited March 23, 2019]. Available from: https://www.healthypeople.gov/node/5287/data_details.

⁵³ See footnote 48 for additional information about poverty.

⁵⁴ $\chi^2(1, N = 546) = 16.3, p < .001, \Phi = 0.2$ Poor 95% CI [18.7%, 44.3%], At or above poverty 95% CI [10%, 16.2%]

The percentage of smokers in Boyertown is more than three times higher than the percentage of smokers in the Owen J. Roberts area



Data source: Tri-County Household Health Survey 2018

Electronic cigarettes are battery powered devices that heat liquid into a vapor that can be inhaled. The inhaled vapor may contain nicotine, flavorings, and toxins.⁵⁵ Electronic cigarettes are a fairly new product and more information is needed to fully understand their impact on health; however most electronic cigarettes contain nicotine and chemicals which are known to be harmful to health.⁵⁶ In Pennsylvania and in the United States, five percent of adults reported that they are current electronic cigarettes users (i.e., use an electronic cigarette “every day” or “some days”).⁵⁷ **In the Tri-County Area, three percent of adults report that they use electronic cigarettes once or a few times per week or daily.** As seen in national trends, younger adults in the Tri-County Area are more likely to use electronic cigarettes than older adults. Among Tri-County adults 18 to 34 years, seven percent use an electronic cigarette at least once per week. Among adults older 35 to 74 years, 2-3% use an electronic cigarette at least once per week. Adults 75 years and older did not report using electronic cigarettes.

In the Tri-County Area, 90% of the women who gave birth from 2012-2016 reported not smoking tobacco while pregnant. The percentage of women in the Tri-County Area who did not smoke tobacco while pregnant is slightly lower than the rate for SEPA (92%). Within the Tri-County Area there are differences among the sub-areas in the percentage of women who abstain from smoking during pregnancy. In the Pottstown area only 82% of women abstained from smoking during pregnancy while 94% abstained from smoking in the Owen J. Roberts, Perkiomen Valley, and Spring-Ford areas.

The Tri-County Area, as well as each of the sub-areas, has not met the HP 2020 target for the percentage of women who deliver a baby and abstain from smoking cigarettes during the pregnancy (98.6%).

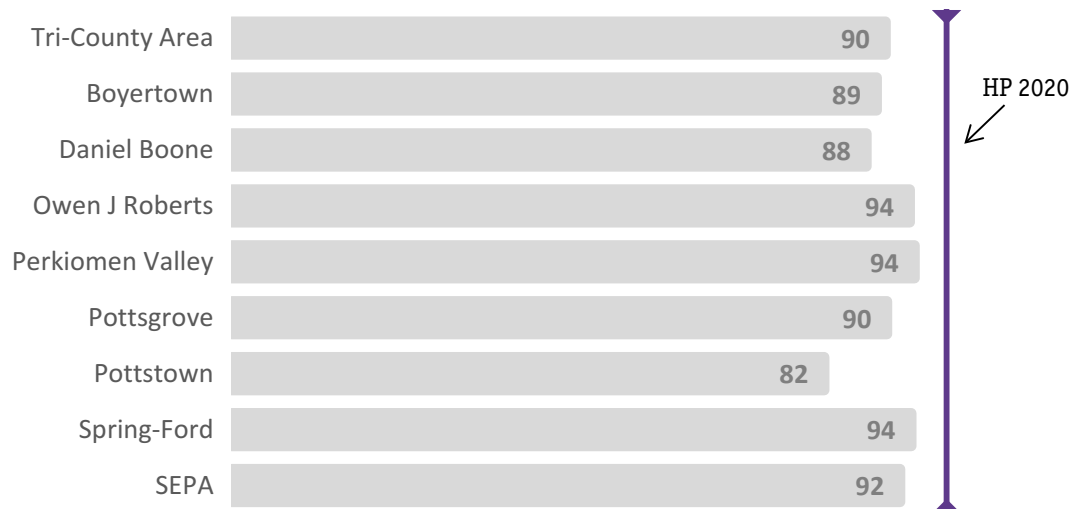
⁵⁵ U.S. Department of Health and Human Services. NIH News in Health. What Are Electronic Cigarettes? <https://newsinhealth.nih.gov/2018/10/what-are-electronic-cigarettes>

⁵⁶ Centers for Disease Control and Prevention. Office on Smoking and Health. About Electronic Cigarettes. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html#health-effects-of-using-e-cigarettes

⁵⁷ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online]. 2015. [accessed Apr 25, 2019]. URL: <https://www.cdc.gov/brfss/brfssprevalence/>.

Tri-County Area has not met the HP 2020 goal for reducing smoking during pregnancy

90% of Tri-County women did not smoke during pregnancy (2012-2016). HP 2020 goal is 98.6% of women do not smoke during pregnancy.



Data source: CHDB Demographic Product 2018 and NCHS 2018

Alcohol Consumption – Binge Drinking

Excessive alcohol consumption such as binge drinking, which is defined as four or more drinks for a woman and five or more drinks for a man during a single occasion, has both short- and long-term implications. Short-term, immediate effects of binge drinking include impairment of motor function and reaction time, increase in violence, and an increase in risky sexual behaviors. Long-term effects can include an increased risk for chronic health conditions, such as high blood pressure, heart disease, stroke, and cancers of the breast, mouth, throat, and colon; learning and memory problems including dementia; and mental health problems, such as depression and anxiety.⁵⁸

The percentage of Tri-County adults who reported binge drinking at least once in the past month is trending in an unhealthy direction

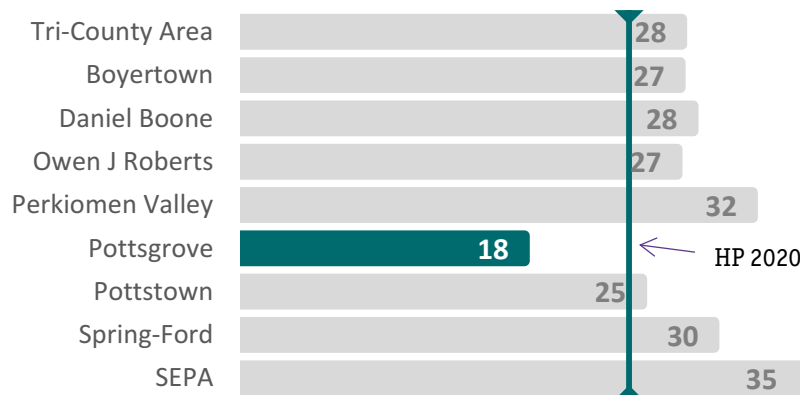


Data source: Tri-County Household Health Survey 2018

⁵⁸ Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Facts Sheets – Alcohol Use and Your Health. Retrieved online. <https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm>

In 2018, 28% of Tri-County adults reported that they binge drank at least once in the past month. The Tri-County Area has not met the HP 2020 goal to reduce binge drinking to 24.2% among adults 18 years and older;⁵⁹ however, adults in the Tri-County Area are significantly less likely to binge drink compared to the remainder of SEPA (35%).⁶⁰

Pottsgrove is the only area that has met the HP 2020 goal to reduce binge drinking to no more than 24.2% of adults



Data source: Tri-County Household Health Survey 2018

Substance Abuse and Treatment

Substance abuse of alcohol, drugs, or both is a multifaceted public health challenge. Drug use increases the risk for contracting viral infections such as HIV/AIDS or hepatitis. Operating a motor vehicle after consuming alcohol or drugs increases the risk for accidents putting the driver, passenger, and others on the road including pedestrians in harm's way. Substance abuse can contribute to the development of mental illness. Substance abuse can also lead to addiction; a chronic disease that includes compulsive drug-seeking behaviors that are difficult to control.

The United States is experiencing an epidemic of prescription opioid overdoses. While prescription opioids are useful with helping patients manage some types of pain, health leaders have recognized that high-dosage and long-term use of prescription opioids puts individuals at risk for addiction and overdose. More information is needed to understand the prevalence of prescription pain medication use and opioid use in particular. Findings about the use of prescription pain medications, opioid prescriptions, and heroin in the Tri-County Area are presented below.

Prescription pain medication

- 28% of Tri-County adults used prescription pain medications⁶¹ in the past year
- 4% of Tri-County adults misused a prescription pain medication in the past year (took without a prescription)
- 31% of Pennsylvania adults used prescription pain medications in the past year
- 3% of Pennsylvania adults misused a prescription pain medication in the past year⁶²

⁵⁹ Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [cited March 23, 2019]. Available from: https://www.healthypeople.gov/node/5205/data_details

⁶⁰ $\chi^2(1, N = 3741) = 10.5, p < .001$. Tri-County 95% CI [23.8%, 31.5%], Remainder of SEPA 95% CI [33%, 36.4%]

⁶¹ Prescription pain medications may include both opioid based and non-opioid based medications

⁶² Pennsylvania Department of Health. Enterprise Data Dissemination Informatics Exchange (EDDIE) <https://www.phaim1.health.pa.gov/EDD/>. These data were provided by the Division of Health Informatics, Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

Opioid-based prescription pain reliever

- 11% of Tri-County adults have been prescribed, in the past year, opioid-based prescription pain relievers, such as OxyContin, Percocet, Vicodin, oxycodone, hydrocodone, or fentanyl for 6 months or longer⁶³
- 7% of Tri-County adults have misused an opioid-based pain medication at least once in their lifetime

Other substance use and treatment

- 3% of Tri-County adults reported that they have ever used heroin
- 9% of Tri-County adults once had an alcohol or drug problem
 - Two-thirds of adults who have had an alcohol or drug problem have ever received treatment or counseling for alcohol or drug use
- 2% of Tri-County adults received treatment for drug or alcohol abuse in the past year
- 12% of Tri-County adults have a household or family member who is in recovery

⁶³ Tri-County HHS respondents were asked In the past year, have you been prescribed opioid-based prescription pain relievers, such as OxyContin, Percocet, Vicodin, oxycodone, hydrocodone, or fentanyl for 6 months or longer? Please do not include prescription pain relievers used for cancer treatment, end-of-life care, or palliative care.

Voices From the Community

Stakeholders discussed poor eating habits, smoking, and other health behaviors that put residents at increased risk for chronic disease. In addition they noted concern about safety, motor vehicle safety and opioids.

HEALTH BEHAVIORS

"Safety - some degree of violence, some motor vehicle safety, the opioid crisis."

"We have the highest rate of Narcan. We are usually right up there if not the highest."

"The opioid epidemic... Pottstown has one of the highest overdose rates in the country... It is a major issue."

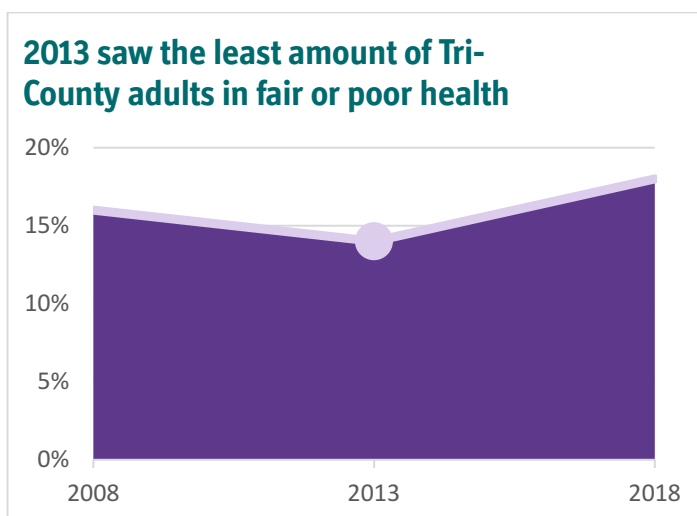
Health Outcomes

Self-Assessed Health Status

Self-assessed health is a commonly used measure of quality of life and a predictor for mortality.⁶⁴ It is an individual's perception of their health and is typically measured as a rating (e.g., excellent, very good, good, fair, and poor). In 2018 there were no significant differences between adults in the Tri-County Area and the remainder of SEPA in their self-assessed ratings of health. However, a higher percentage of adults in the Tri-County Area (17% age-adjusted) rated their health as fair or poor compared to the U.S. (12%).^{65,66}

The percentage of Tri-County adults who rate their health as fair or poor is higher in 2018 (18%) compared to 2013 (14%)

Data source: PHMC Pottstown Area Survey 2008, 2013 and Tri-County Area Household Health Survey 2018



Among Tri-County adults:

- 22% of uninsured adults aged 18-64 rated their health as fair or poor. Uninsured adults were not significantly different in self-assessed health from those who have health insurance.
- Poor adults were significantly more likely to rate their health as fair or poor (41%) compared to those at or above the poverty line (13%)⁶⁷
- The three areas with the highest percentage of adults who rate their health as fair or poor, Boyertown, Pottsgrove and Pottstown, are the areas with the lowest median household income and the lowest percentages of college graduates.

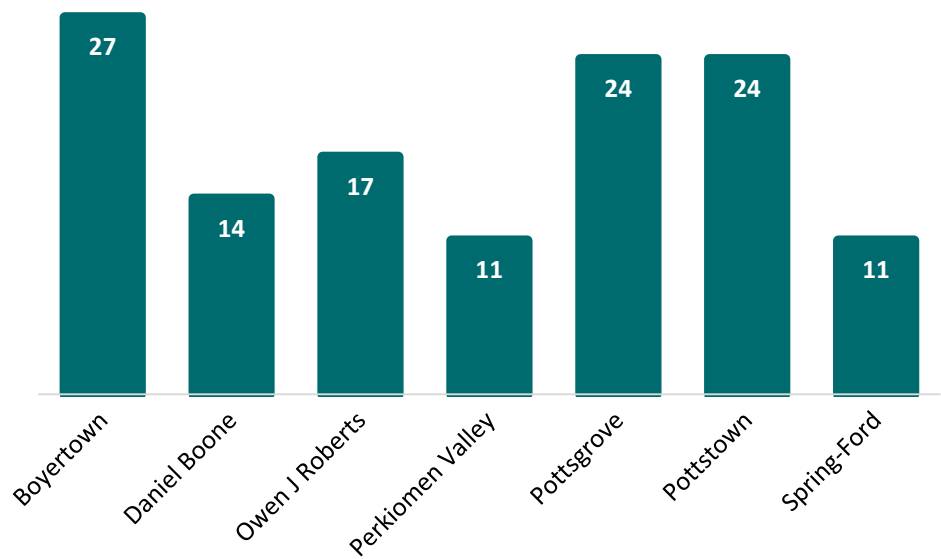
⁶⁴ Zhao G, Okoro C, Hsia J, Town M. (2018). Self-Perceived Poor/Fair Health, Frequent Mental Distress, and Health Insurance Status Among Working-Aged US Adults. *Preventing Chronic Disease* (15), 170523. DOI: <https://doi.org/10.5888/pcd15.170523>.

⁶⁵ Blackwell DL, Villarreal MA. Tables of Summary Health Statistics for U.S. Adults: 2017 National Health Interview Survey. National Center for Health Statistics. 2018. Available from: <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>. SOURCE: NCHS, National Health Interview Survey, 2017.

⁶⁶ The comparison of self-assessed health status rating with the U.S. involved age-adjusted self-assessed health. For the Tri-County Area the age-adjusted percentage of adults who rate their health as fair or poor was 17%.

⁶⁷ $\chi^2(1, N = 547) = 36, p < .001, \Phi = 0.3$. Poor 95% CI [28.2%, 53.9%], At or above poverty line 95% CI [11.1%, 16.2%]

Twenty-seven percent of Boyertown adults report that their health is poor or fair



Data source: Tri-County Household Health Survey 2018

Voices From the Community

Community stakeholders cited several health concerns for adults in the Tri-County Area. These health concerns include:

- Obesity
- On-going chronic mental health issues
- Diabetes and high blood pressure

HEALTH CONDITIONS

"There is a lot of obesity. Of course the health conditions that go along with that diabetes, high blood pressure, heart disease."

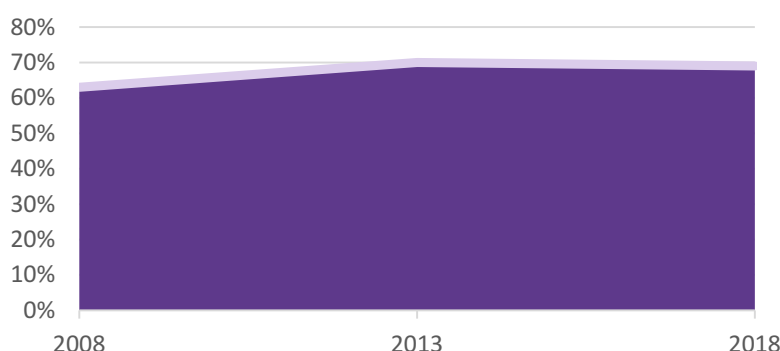
"Increased need for mental health. Have had suicide, depression, eating disorders in Pottstown."

"Diabetes, high blood pressure those are always an issue."

Overweight and Obese

Overweight and obesity are risk factors for chronic illnesses.⁶⁸ Adults who are overweight are at risk of becoming obese which increases their risk for poor health outcomes. **The Tri-County Area has seen a rise in overweight and obesity in the past 10 years from 63% in 2008 to 69% in 2018**, but remained stable over the past 5 years.

The percentage of overweight and obese Tri-County adults has remained similar in the past 5 years



Data source: Tri-County Household Health Survey 2018

Tri-County adults are significantly more likely to be overweight and obese when compared to the remainder of SEPA (64%).⁶⁹

- A higher percentage of uninsured adults were overweight or obese (76%) compared to insured (67%) adults; however this difference was not significant
- A similar percentage of poor adults (71%) and adults at or above the poverty line were overweight or obese (69%)

In the United States obesity has become one of the largest health concerns of the 21st century. Adults who are obese are at higher risk compared to adults of normal body weight, for serious diseases and health conditions, including high blood pressure, type 2 diabetes, coronary heart disease, stroke, body pain and difficulty with physical functioning.⁷⁰ The Tri-County Area has not reached HP 2020 goal to reduce obesity to 30.5% of adults (age-adjusted).^{71,72} In the Tri-County Area, 32% of adults are obese (age-adjusted, percent, ages 18+).

⁶⁸ World Health Organization. Obesity and overweight. Key Facts. [cited March 23, 2019]. Available from: <https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight>

⁶⁹ $\chi^2(1, N = 3,623) = 5.5, p < .05, \Phi = 0.04$. Tri-County 95% CI [64.8%, 72.9%], Remainder of SEPA 95% CI [62%, 65.5%]

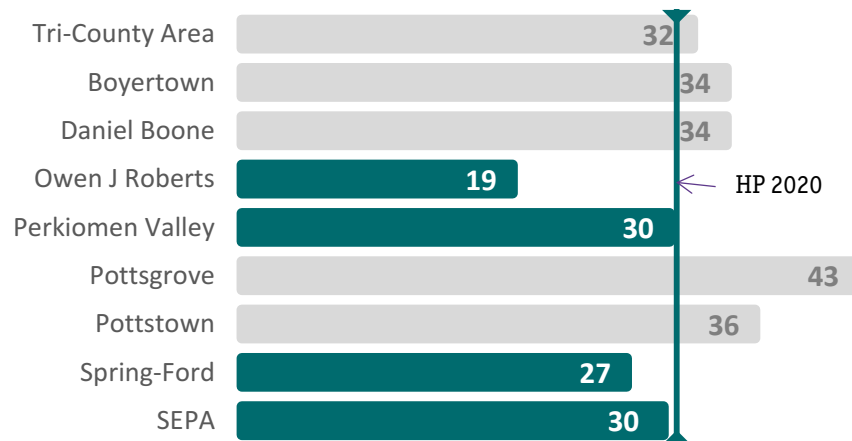
⁷⁰ Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health Promotion [Internet]. The Health Effects of Overweight and Obesity. [Cited March 23, 2019]. Available from: <https://www.cdc.gov/healthyweight/effects/index.html>

⁷¹ Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [cited March 23, 2019]. Available from: https://www.healthypeople.gov/node/4968/data_details

Healthy People 2020 goal for obesity includes adults ages 20+. HHS data includes ages 18+.

⁷² Healthy People 2020 goal for obesity includes adults ages 20+. HHS data includes ages 18+.

Owen J. Roberts, Perkiomen Valley, and Spring-Ford have met HP 2020 goals to reduce obesity among adults (age-adjusted, percent, 18+)



Data source: Tri-County Household Health Survey 2018

Asthma

Respiratory diseases like asthma negatively impact public health and daily life. Approximately 25 million people in the U.S. have asthma, and episodes of reversible breathing problems can range from mild to life threatening.⁷³ Fourteen percent of adults (age-adjusted, 18+ yrs) in the U.S. have been told by a doctor or health professional that they have asthma.⁷⁴ The percentage of adults in the Tri-County Area who reported that a doctor or health professional has told them they have asthma is 16%, which is the same percentage as 2013.

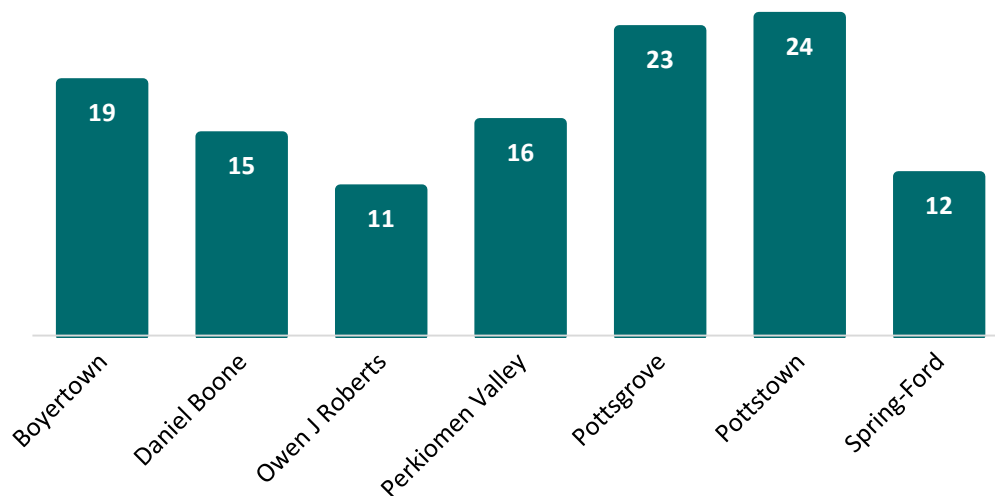
- Adults with and without health insurance reported similar rates of asthma.
- Poor adults in the Tri-County Area are more likely to have been told they have asthma (25%) compared to adults at or above 100% of the federal poverty line (15%)⁷⁵

⁷³ Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion [cited March 23, 2019]. Available from: <https://www.healthypeople.gov/2020/topics-objectives/topic/respiratory-diseases>

⁷⁴ Blackwell DL, Villarroel MA. Tables of Summary Health Statistics for U.S. Adults: 2017 National Health Interview Survey. National Center for Health Statistics. 2018. Available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-2.pdf

⁷⁵ $\chi^2(1, N = 546) = 5.8, p < .05, \Phi = 0.1$. Poor 95% CI [15.4%, 38.8%], At or above poverty 95% CI [11.8%, 17.8%]

Almost a quarter of Pottstown adults have been told by a doctor or health professional that they have asthma



Data source: Tri-County Household Health Survey 2018

Chronic Obstructive Pulmonary Disease (COPD)

Like asthma, COPD is a respiratory disease that affects one's breathing. Seven percent of Pennsylvania adults report having been told by a health professional that they have COPD.⁷⁶ In the Tri-County Area, 4% of adults have been told by a doctor or health professional that they have COPD.

- There were no significant differences between insured and uninsured adults for COPD⁷⁷
- Poor adults are more likely to have been told they have COPD (12%) compared to adults at or above 100% of the federal poverty line (3%)⁷⁸

Diabetes

Diabetes is a debilitating and costly health condition that can reduce the quality of life for an individual. Eleven percent of Pennsylvania adults have been told by a health professional that they have diabetes.⁷⁹ In the Tri-County Area, the percentage of adults who report that they have been told by a health professional that they have diabetes is 11%, which is the same as reported in 2013. There are no significant differences for having diabetes between the Tri-County Area and the remainder of SEPA or insured compared to uninsured adults.

⁷⁶ Pennsylvania Department of Health. Division of Health Informatics. 2017. Chronic Health Indicators - Ever told they have chronic obstructive pulmonary disease (COPD), emphysema or chronic bronchitis. Available at: <https://www.phaim1.health.pa.gov/EDD/WebForms/BRFSSstate.aspx>. These data were provided by the Division of Health Informatics, Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

⁷⁷ Prevalence of COPD is not available for SEPA.

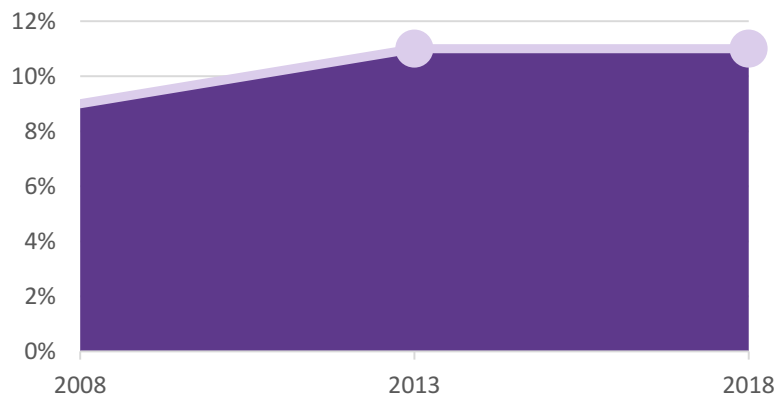
⁷⁸ $\chi^2(1, N = 540) = 12.7, p < .001, \Phi = 0.2$. Poor 95% CI [5.6%, 22.3%], At or above poverty 95% CI [2.3%, 4.1%] chi-square

⁷⁹ Pennsylvania Department of Health. Division of Health Informatics. 2017. Diabetes, Pennsylvania Adults, 2017. Available at:

<https://www.health.pa.gov/topics/HealthStatistics/BehavioralStatistics/BehavioralRiskPAAdults/Documents/State%20Report/2017/2017trends.aspx>. These data were provided by the Division of Health Informatics, Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

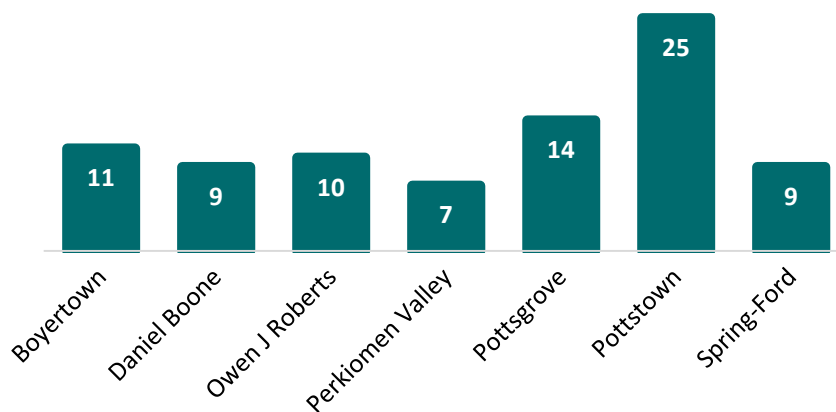
- Poor adults are more likely to have been told they have diabetes (18%) compared to adults at or above 100% of the federal poverty line (10%).⁸⁰

The percentage of adults with diabetes remained constant from 2013 to 2018



Data source: Tri-County Household Health Survey 2018

The percentage of adults with diabetes is three times higher among Pottstown adults than Perkiomen Valley



Data source: Tri-County Household Health Survey 2018

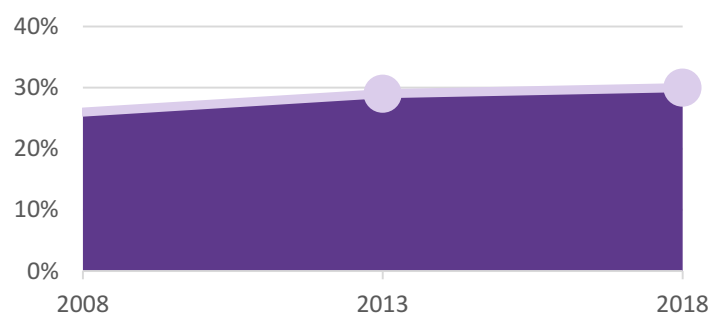
⁸⁰ $\chi^2(1, N = 540) = 4.2, p < .05, \text{Phi} = 0.09$. Poor 95% CI [10.7%, 28.7%], At or above poverty 95% CI [7.8%, 12.4%]

High Blood Pressure

High blood pressure (hypertension) is a dangerous condition that can lead to heart disease and stroke. In the U.S. 33% of adults have high blood pressure.⁸¹ In the Tri-County Area, the percentage of adults whose doctors diagnosed them with high blood pressure is 30%. There are no significant differences for the percentage of adults with high blood pressure between Tri-County adults and adults from the remainder of SEPA or insured adults compared to adults without insurance.

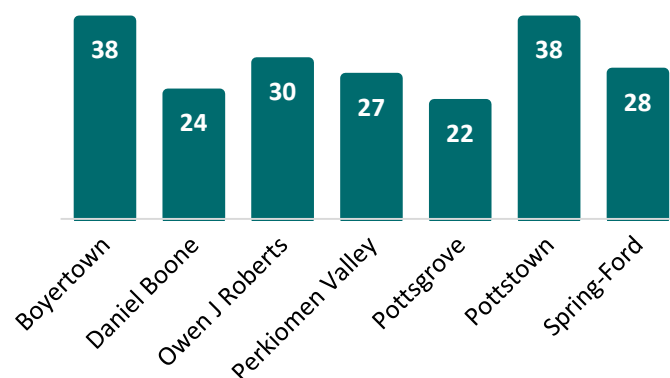
- Poor adults are more likely to have been told they have high blood pressure (39%) compared to adults at or above 100% of the federal poverty line (28%)⁸²

The percentage of adults with high blood pressure rose only slightly from 29% in 2013 to 30% in 2018



Data source: Tri-County Household Health Survey 2018

38% of Boyertown and Pottstown adults have been diagnosed with high blood pressure



Data source: Tri-County Household Health Survey 2018

⁸¹ Centers for Disease Control and Prevention. National Center for Health Statistics (2016). Table 53. Selected health conditions and risk factors by age: United States, selected years 1988-1994 through 2015-2016. Available at: <https://www.cdc.gov/nchs/data/has/2017/053.pdf>

⁸² $\chi^2(1, N = 545) = 4, p < .05, \Phi = .09$. Poor 95% CI [28, 52.6%] At or above poverty 95% CI [24.9%, 32.1%]

Hepatitis C (HEP C)

Hepatitis C is a liver infection caused by the Hepatitis C virus (HCV). Most people become infected with HCV, a blood borne virus, by sharing needles or other equipment to inject drugs. Infected adults may not feel ill and some infected adults may experience only a short-term illness. For other infected adults, hepatitis C becomes a long-term chronic illness.⁸³ The Centers for Disease Control and Prevention estimates there were 41,200 new hepatitis C infections that occurred nationally in 2016.⁸⁴ During 2013-2016 an estimated 2% of all adults in the United States had a past or current hepatitis C infection.⁸⁵ In the Tri-County Area, 2% of adults report that they have had hepatitis C.

Cancer

Cancer is the second leading cause of death in the United States. Between 2011 and 2015 there were 394,042 new cases of cancer reported in Pennsylvania and 143,695 people who died of cancer.⁸⁶ From 2011-2015, the rate of new cancers in the United States was 449.2 and the rate for Pennsylvania was 490.9.⁸⁷ Among the states, Pennsylvania had the third-highest rate of new cancers.

In the Tri-County Area, 10% of adults report that they have had some form of cancer. There are no significant differences for having been diagnosed with cancer between insured compared to uninsured adults; or adults below the federal poverty line and those at or above the federal poverty line.

According to the Pennsylvania Department of Health, Division of Health Statistics, from 2012-2016, the average annual number of cases of cancer for the Tri-County Area was 1,281; the age-adjusted⁸⁸ cancer incidence rate for the Tri-County Area was 463 per 100,000. To compare, this is lower than SEPA during the same period (491).

The age-adjusted cancer incidence rate in Tri-County includes:

- 189 cases of female breast cancer
- 162 cases of lung cancer
 - 109 cases among females, 133 cases among males
- 131 cases of prostate cancer
- 110 cases of colorectal cancer
 - 73 cases among females, 88 cases among males
- 83 cases of female genital cancer

⁸³ Centers for Disease Control and Prevention. Hepatitis C Information. <https://www.cdc.gov/hepatitis/hcv/index.htm>

⁸⁴ Centers for Disease Control and Prevention. Viral Hepatitis Surveillance United States, 2016.

<https://www.cdc.gov/hepatitis/statistics/2016surveillance/pdfs/2016HepSurveillanceRpt.pdf>

⁸⁵ Hofmeister MG, Rosenthal EM³, Barker LK¹, Rosenberg ES³, Barranco MA³, Hall EW⁴, Edlin BR⁵, Mermin J⁵, Ward JW^{1,6}, Ryerson AB¹. (2019). Estimating Prevalence of Hepatitis C Virus Infection in the United States, 2013-2016. *Hepatology*. 69(3), 1020-1031. doi: 10.1002/hep.30297

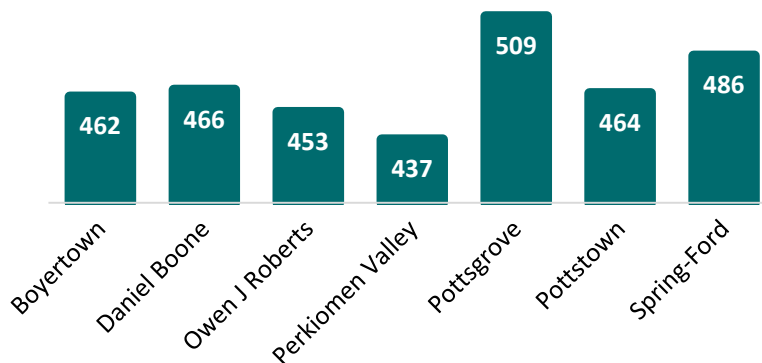
⁸⁶ U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on November 2017 submission data (1999-2015): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; www.cdc.gov/cancer/dataviz, June 2018.

⁸⁷ U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on November 2017 submission data (1999-2015): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; www.cdc.gov/cancer/dataviz, June 2018.

<https://gis.cdc.gov/Cancer/USCS/DataViz.html>

⁸⁸ Age-adjustment allows for a fairer comparison between groups when the outcome of interest is related to age. It is calculated as the number of incidences (or deaths) per 100,000 people in that age group.

Pottsgrove has the highest age-adjusted rate of cancer (509)



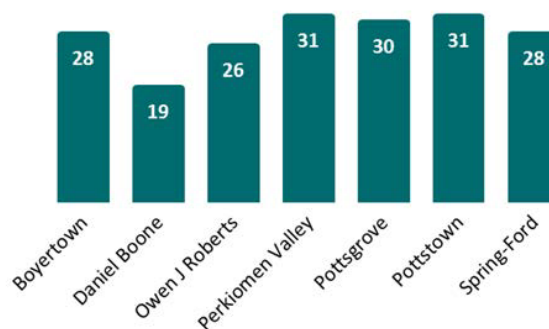
Data Source: Pennsylvania Department of Health, Division of Health Statistics.

High Cholesterol

Approximately one in three American adults has high cholesterol. In the Tri-County Area, 28% of adults have been told that they have high cholesterol. Of these individuals, 86% of adults with high cholesterol have made a cholesterol-related lifestyle change. There were no significant differences for high cholesterol by insurance or poverty status.

Perkiomen Valley and Pottstown have the highest percentage of adults who have been told they have high cholesterol

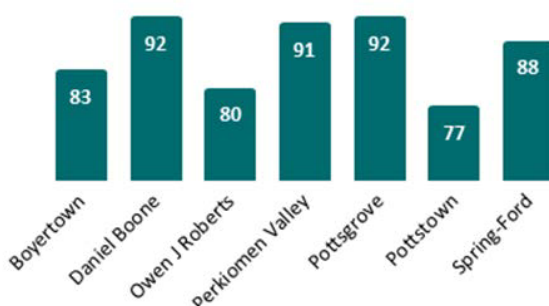
Within the Tri-County Area, Daniel Boone is the area with the lowest percentage of adults who have been told that they have high cholesterol (19%). The remaining six areas have similar percentages.



Data source: Tri-County Household Health Survey 2018

Over 90% of adults from Perkiomen Valley with high cholesterol are making cholesterol-related life changes, but only 77% of adults from Pottstown are doing the same

Data source: Tri-County Household Health Survey 2018



Mental Health

Mental health can impact health behaviors and physical health. For example, depression increases the risk for chronic health conditions, including stroke, type 2 diabetes, and heart disease. Likewise, poor physical health can impact mental health. Chronic health conditions, such as cancer, diabetes, Alzheimer's disease, and coronary heart disease increase the risk for depression.⁸⁹ According to the National Survey on Drug Use and Health, in 2016 an estimated 44.7 million adults aged 18 or older had a mental illness in the past year representing 18% of adults in the United States.⁹⁰ In the Tri-County Area, 23% of adults reported that they have ever been diagnosed with a mental health condition.⁹¹ There are no significant differences in diagnosis of a mental health condition between Tri-County adults and the remainder of SEPA or between insured and uninsured adults.

- Poor adults were more likely to have been diagnosed with a mental health condition (31%) compared to adults at or above the federal poverty line (21%).⁹²

The Tri-County Area is experiencing an increase in percentage of adults diagnosed with a mental health condition



Data source: Tri-County Household Health Survey 2018

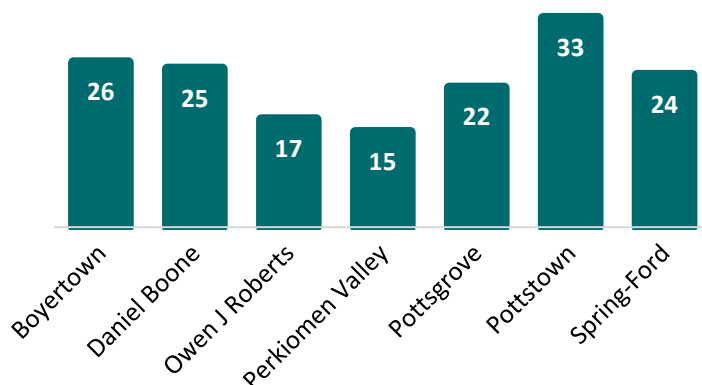
⁸⁹ National Institute of Mental Health. Chronic Illness & Mental Health. <https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health/index.shtml>

⁹⁰ The National Survey on Drug Use and Health defines a mental illness as having any mental, behavioral, or emotional disorder in the past year that met DSM-IV criteria (excluding developmental disorders and substance use disorders).

⁹¹ It is important to note that Tri-County adults reported whether they have *ever been diagnosed* while national rates refer to having a mental health condition *in the past year*.

⁹² $\chi^2(1, N = 547) = 3.9, p < .05, \Phi = 0.08$. Poor 95% CI [19.4, 45.1%] At or above poverty 95% CI [17.8%, 25.1%]

One-third of Pottstown adults reported that they have ever been diagnosed with a mental health condition

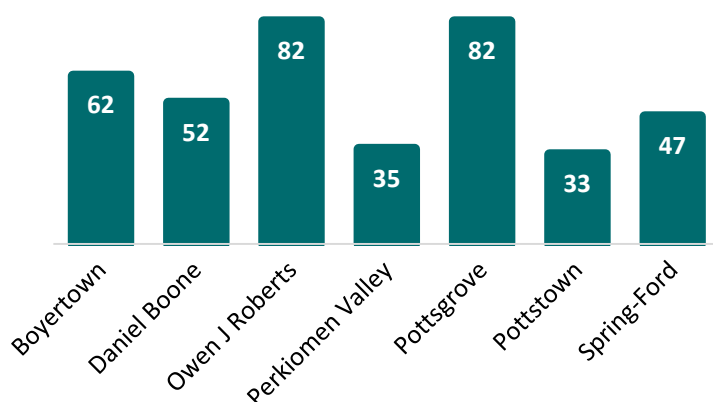


Just over half of Tri-County Area adults who have ever been diagnosed with a mental health condition are currently receiving treatment (55%). The percentage of adults currently receiving treatment varies by sub-area. Over 80% of adults from Owen J Roberts and Pottsgrove who have ever been diagnosed with a mental health condition are currently receiving treatment while only 33% of adults from Pottstown who have ever been diagnosed with a mental health condition are currently receiving treatment. In 2017, 15% of all adults 18 years and older in the United States received mental health services in the past year. Among the 46.6 million adults in the United States with any diagnosed mental illness,⁹³ 43% received mental health services in the past year and among the approximately 11 million adults with a serious mental illness in the past year, 67% received mental health services in the past year.⁹⁴

⁹³ Any mental illness is defined as any mental, behavioral, or emotional disorder in the past year that met DSM-IV criteria (excluding developmental disorders and SUDs)

⁹⁴ Substance Abuse and Mental Health Services Administration. (2018). *Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health* (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from <https://www.samhsa.gov/data/>

Over 80% of adults in the Owen J Roberts and Pottsgrove areas who have ever had a mental health condition are currently receiving treatment for a mental health condition



Data source: Tri-County Household Health Survey 2018

Communicable Diseases

Tracking communicable diseases is a requirement of our nation's public health system. Assessing communicable diseases in a community provides insight into the threats to the community's health, resources needed to treat and prevent the spread of the diseases, and evaluate the impact of current resources to reduce the incidence. This section discusses six communicable diseases tracked by the state: Lyme disease, pertussis, varicella, chlamydia, gonorrhea, and hepatitis B.

Across the U.S. in 2017, a total of 42,743 confirmed cases of **Lyme disease**, a bacterial infection transmitted to humans through the bite of infected blacklegged ticks, were reported.⁹⁵ Overall, Lyme disease cases are up drastically in Pennsylvania. Among all 50 states, Pennsylvania has the highest number of cases.⁹⁶ Pennsylvania reported 93 cases of Lyme disease per 100,000 people in 2017.⁹⁷ In the Tri-County Area, the Lyme disease incidence rate in 2015-2017 was:

- 62 per 100,000 in Montgomery County
- 84 per 100,000 in Chester County
- 95 per 100,000 in Berks County⁹⁸

Pertussis, also known as **whooping cough**, is a highly contagious respiratory disease. Pertussis can be prevented in children over two months of age and in adults by a series of vaccinations. During 2017, state health departments across the United States reported 18,975 cases of Pertussis with a rate of 6 cases per 100,000 individuals.⁹⁹

⁹⁵ Centers for Disease Control and Prevention. Lyme Disease. Data and Surveillance. <https://www.cdc.gov/lyme/datasurveillance/index.html>

⁹⁶ Centers for Disease Control and Prevention. Lyme Disease Data Tables: Most Recent Year. <https://www.cdc.gov/lyme/datasurveillance/tables-recent.html>

⁹⁷ Pennsylvania Department of Health. Enterprise Data Dissemination Informatics Exchange (EDDIE). These data were provided by the Division of Health Informatics, Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions. <https://www.phaim1.health.pa.gov/EDD/>

⁹⁸ Pennsylvania Department of Health. <https://www.health.pa.gov/topics/HealthStatistics/VitalStatistics/CountyHealthProfiles/Documents/current/maps-diseases.aspx>

⁹⁹ Centers for Disease Control and Prevention. 2017 Final Pertussis Surveillance Report. <https://www.cdc.gov/pertussis/downloads/pertuss-surv-report-2017.pdf>

Pennsylvania had a reported 8 pertussis cases per 100,000 individuals in 2017.⁷⁸ Rates of pertussis were higher in the counties that comprise the Tri-County Area:

- 16 cases per 100,000 in Montgomery County
- 23 cases per 100,000 in Chester County
- 10 cases per 100,000 in Berks County⁷⁹

Varicella (Chicken Pox) vaccine became available in the United States in 1995. In the U.S. in 2014, 91% of children age 19 to 35 months old in the United States had received one dose of Varicella vaccine, varying from 83% to 95% by state.¹⁰⁰ Pennsylvania had a reported 5 varicella cases per 100,000 individuals in 2017.⁷⁸ Between 2015-2017, the varicella incidence rates in the Tri-County Area were:

- 5 cases per 100,000 in Montgomery County
- 7 cases per 100,000 in Chester County
- 3 cases per 100,000 in Berks County⁷⁹

In 2017, the number of cases in the United States of infections from **Chlamydia trachomatis** and **Neisseria gonorrhoeae** increased for the fourth straight year. More than 1.7 million cases of chlamydia, the most common notifiable condition, were reported to the CDC in 2017. This corresponds to a rate of 529 per 100,000 people. Gonorrhea, the second most common notifiable condition in the United States, had over 550,000 cases reported to the CDC in 2017. There were 171 cases of gonorrhea per 100,000 people.¹⁰¹

Rates of chlamydia and gonorrhea cases in Pennsylvania are lower than the United States. In 2017, Pennsylvania reported 441 chlamydia cases and 119 gonorrhea cases per 100,000 people.⁷⁸ The incidence rates of the sexually transmitted infections including chlamydia and gonorrhea are different within the counties that comprise the Tri-County Area. Among the three counties Chester County has the lowest rate of sexually transmitted infections. Berks County has the highest, exceeding the state's rate for Chlamydia. The rate of Chlamydia from 2015-2017 was:

- 281 per 100,000 in Montgomery County
- 223 per 100,000 in Chester County
- 452 cases per 100,000 in Berks County⁷⁹

The rate of Gonorrhea from 2015-2017 was:

- 45 per 100,000 in Montgomery County
- 32 per 100,000 in Chester County
- 73 cases per 100,000 in Berks County⁷⁹

Hepatitis B is an infection of the liver and can be fatal if not treated. Hepatitis B is spread through contact with body fluids. In 2016, a total of 3,218 cases of acute hepatitis B were reported to the CDC; however many people may not have symptoms and may not realize they are infected. Because the Hepatitis B infection is often not diagnosed, CDC

¹⁰⁰ Centers for Disease Control and Prevention. Monitoring the Impact of Varicella Vaccination. <https://www.cdc.gov/chickenpox/surveillance/monitoring-varicella.html>

¹⁰¹ Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2017*. Atlanta: U.S. Department of Health and Human Services; 2018. <https://www.cdc.gov/std/stats17/natoverview.htm>

believes the reported numbers underestimate the actual cases. CDC estimates there were 20,900 acute hepatitis B cases in 2016.¹⁰²

In 2017, Pennsylvania had a rate of 7 Hepatitis B cases per 100,000 individuals.⁷⁸ In the Tri-County Area the rate of Hepatitis B from 2015-2017 was:

- 12 per 100,000 in Montgomery County
- 7 per 100,000 in Chester County
- 8 cases per 100,000 in Berks County¹⁰³

Birth Outcomes

In the Tri-County Area there were 3.3 infant deaths per 1,000 live births and 2.5 neonatal deaths (death within first 28 days of life) per 1,000 live births. The Tri-County Area is doing better than the HP 2020 target for infant deaths (6.0 infant deaths per 1,000 live births) and neonatal deaths (4.1 deaths per 1,000 live births).

More than three out of four women (77%) from the Tri-County Area initiated prenatal care in the first trimester of pregnancy. The percent of women who sought prenatal care in the first trimester in the Tri-County Area is the same as the rate in the United States in 2016 (77%);¹⁰⁴ however, it is higher (i.e., better) than the percent of women seeking prenatal care in the first trimester in the SEPA region (62%).

The Tri-County Area is extremely close to reaching the HP 2020 goal of 77.9% of women who deliver a live birth receiving prenatal care beginning in the first trimester.¹⁰⁵ Boyertown, Daniel Boone, Perkiomen Valley, and Spring-Ford all meet or exceed this HP goal (i.e., doing better). Pottstown (62%), Pottsgrove (75%) and Owen J. Roberts (77%) do not quite yet meet this HP 2020 target.

¹⁰² Centers for Disease Control and Prevention. Division of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Hepatitis B Questions and Answers for the Public. <https://www.cdc.gov/hepatitis/hbv/bfaq.htm#statistics>

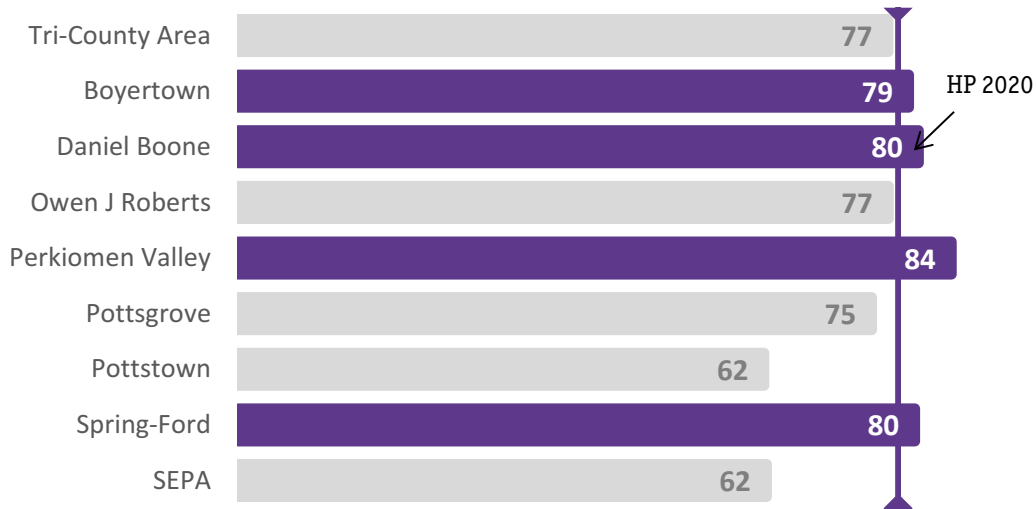
¹⁰³ Pennsylvania Department of Health

¹⁰⁴ Osterman MJ, Martin JA. Timing and adequacy of prenatal care in the United States, 2016. National Vital Statistics Reports, vol 67 no 3. Hyattsville, MD: National Center for Health Statistics. 2018. Retrieved from: https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_03.pdf

¹⁰⁵ U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2020. Maternal, Infant, and Child Health Objectives. Healthy People 2020. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>.

Tri-County Area is very close to meeting HP 2020 goal for prenatal care

77% of Tri-County women began prenatal care in the first trimester (2012-2016). HP 2020 goal is 77.9% of women.

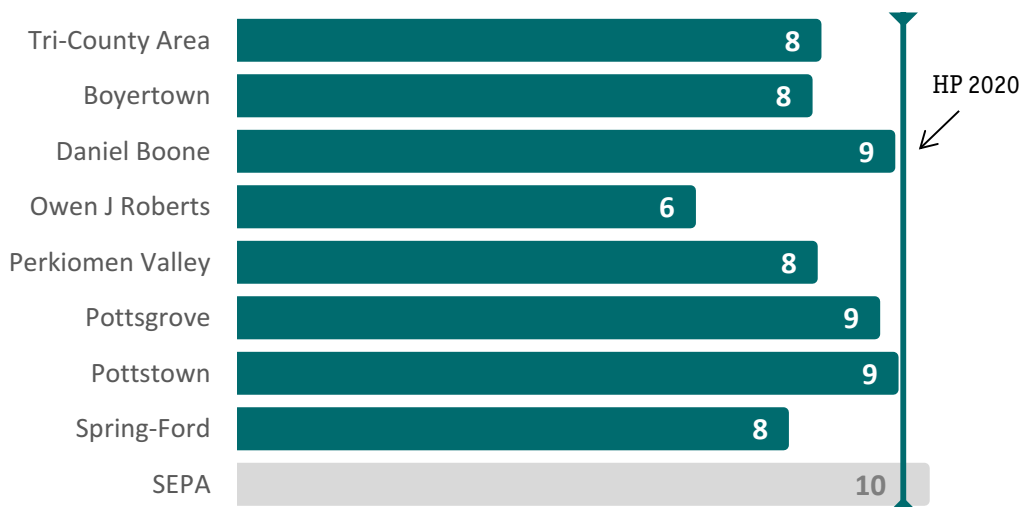


Data source: CHDB Demographic Product 2018 and National Center for Health Statistics (NCHS) 2018

The percentage of infants born preterm (less than 37 weeks completed of gestation) in the Tri-County Area (8%) and in each sub area is lower (i.e., better) compared to SEPA (10%) and the U.S. (10%). In addition, the Tri-County Area and each sub area have met the Healthy People 2020 goal of no more than 9.4% of live births born preterm.

Tri-County Area has met the HP 2020 goal for preterm births

8% of infants from the Tri-County Area were born preterm (2012-2016). HP 2020 goal is no more than 9.4% of births.



Data source: CHDB Demographic Product 2018 and NCHS 2018

The percentage of infants born low birth weight (born at less than 2,500 grams or 5 pounds) in the Tri-County Area (7%) is lower (i.e., better) compared to SEPA (9%) and the U.S. (8%). In addition, the Tri-County Area has met the HP 2020 goal of no more than 7.8% of infants born low birth weight. Two of the sub areas, Daniel Boone (9%) and Pottstown (8%) have not met the Healthy People 2020 target for low birth weight.

Tri-County Area has met the HP 2020 goal for low birth weight

7% of infants from the Tri-County Area were born low birth weight (2012-2016). HP 2020 goal is no more than 7.8% of births are low birth weight.



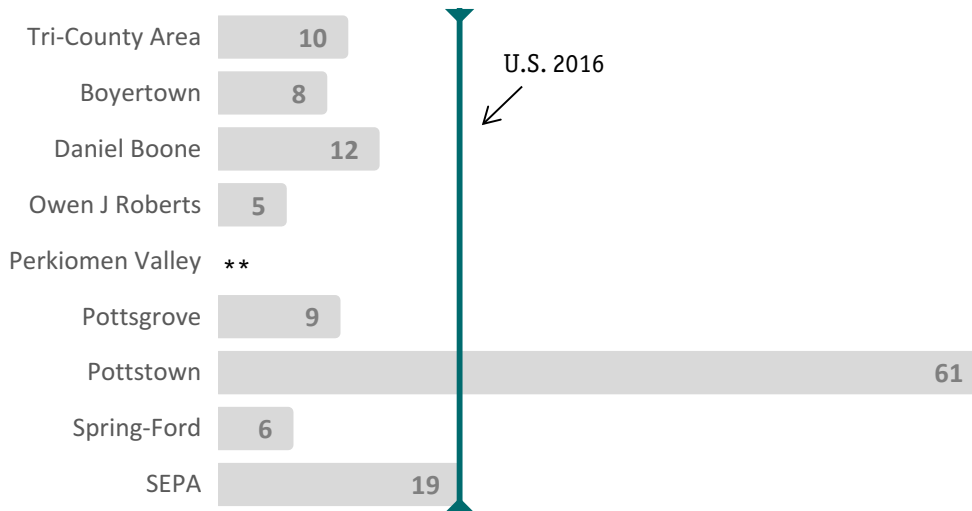
Data source: CHDB Demographic Product 2018 and NCHS 2018

The birth rate for teenagers aged 15–19 in the Tri-County Area (10 births per 1,000 teenagers) was lower than the teenage birth rate in the SEPA region (19 births per 1,000 women) and the United States in 2016 (20 births per 1,000 women). Within the Tri-County Area, Pottstown had the highest teen birth rate (61 births per 1,000 teenagers) while Perkiomen Valley had less than 5 teen births per year.¹⁰⁶

¹⁰⁶ Rates based on small numbers may fluctuate dramatically from year to year with one or more additional case. In this report data are suppressed if the number of births and/or deaths is less than 5 cases per year.

Teenage birth rate is lower in the Tri-County Area compared to the U.S.

There were 10 births per 1,000 teenage girls aged 15-19 in the Tri-County Area (2012-2016)



Data source: CHDB Demographic Product 2018 and National Center for Health Statistics (NCHS) 2018

** Data are suppressed because there were fewer than 5 births per year.

Adverse Childhood Experiences

Negative experiences during childhood, such as child abuse or neglect and household dysfunction (e.g., substance abuse, divorce) not only impact quality of life during childhood, but can have a detrimental impact on the health and wellbeing of a child for the rest of their life.

These negative experiences, also known as adverse childhood experiences (ACEs), can lead to excessive or prolonged activation of the physiological stress response systems, known as toxic stress, which can interfere with healthy brain development and lead to social, emotional, and cognitive impairment. ACEs experienced during childhood are associated with poor health behaviors and outcomes in adulthood such as an increase in risky health behaviors, chronic health conditions, and even early death.¹⁰⁷

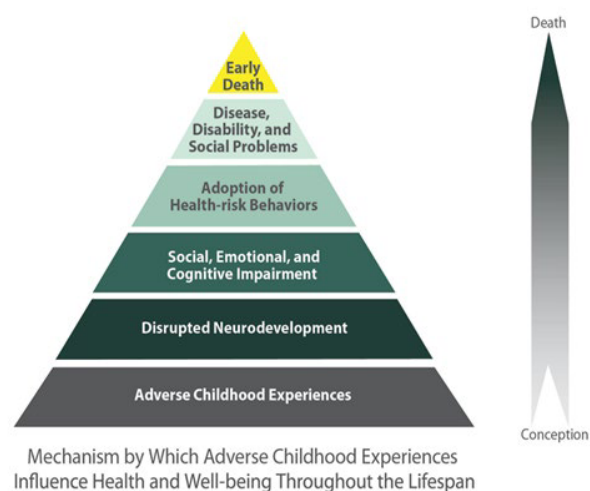


Image courtesy of National Center for Injury Prevention and Control, Division of Violence Prevention

¹⁰⁷ Felitti VJ, Anda RF, Nordenberg D, Williamson D, Spitz A, Edwards V, Koss M, and Marks J. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) study. *Am J Prev Med.* 1998; 14(4):245-258.

Adverse childhood experiences are defined as:

- Child abuse (physical, emotional, and sexual abuse)
- Child neglect (physical and emotional neglect)
- Household dysfunction (mental illness, incarcerated household member, intimate partner violence/domestic violence, substance abuse, and parental separation or divorce) (See Appendix F for more information about how ACEs were measured)

In the findings about ACEs that follow, three sources of comparison data are used to contrast with data from the Tri-County Area: data gathered through an ACE module used by 23 states in their Behavioral Risk Factor Surveillance System (BRFSS) survey, the Pennsylvania ACE module BRFSS, and the CDC-Kaiser survey. The 23 state and Pennsylvania BRFSS data are ideal comparison data points because they include data that were recently collected; however BRFSS data do not include child neglect indicators. The CDC-Kaiser survey data are not as recent as BRFSS, but do include child neglect indicators.

Abuse and Household Dysfunction: National and Tri-County Area

A recent national assessment of the prevalence of abuse and household dysfunction ACEs using a large sample of American adults found that ACEs are common and remain a burden. Data gathered from an ACE module used by 23 states in their Behavioral Risk Factor Surveillance System (BRFSS) found that 62% of adults experienced during their childhood (first 18 years of life) at least one abuse or household dysfunction ACE and 25% of adults have experienced 3 or more.^{108,109} The Tri-County HHS found similar results; 61% of adults in the Tri-County Area have experienced at least one abuse or household dysfunction ACE and 23% of adults have experienced 3 or more.

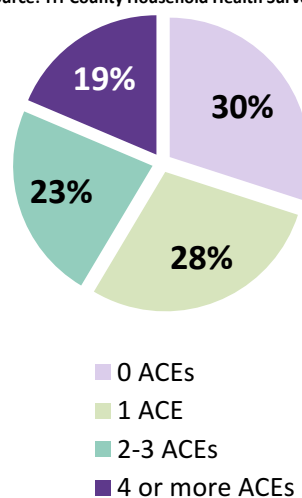
Abuse, Neglect, and Household Dysfunction: National and Tri-County Area

The original CDC-Kaiser ACE study conducted with a sample of 17,337 adults and which included an assessment of abuse, household dysfunction, as well as neglect (emotional and physical), found that 64% of adults experienced at least one ACE. Over a quarter (26%) experienced 2-3 ACEs and 13% experienced 4 or more ACEs.¹¹⁰

The Tri-County Area found slightly higher percentage of adults who have experienced abuse, household dysfunction, and neglect ACEs. An estimated 70% of Tri-County adults experienced at least one ACE and 19% experiencing 4 or more ACEs,

19% of Tri-County adults have experienced 4 or more ACEs

Data source: Tri-County Household Health Survey 2018



¹⁰⁸ Merrick MT, Ford DC, Ports KA, Guinn AS. Prevalence of Adverse Childhood Experiences From the 2011-2014 Behavioral Risk Factor Surveillance System in 23 States. *JAMA Pediatrics*. 2018; 172(11):1038–1044. doi:10.1001/jamapediatrics.2018.2537

¹⁰⁹ The ACE assessment used by 23 states in their BRFSS survey does not include physical and emotional neglect.

¹¹⁰ Centers for Disease Control and Prevention. Violence Prevention. About the CDC-Kaiser ACE Study. <https://www.cdc.gov/violenceprevention/childabuseandneglect/cestudy/about.html>

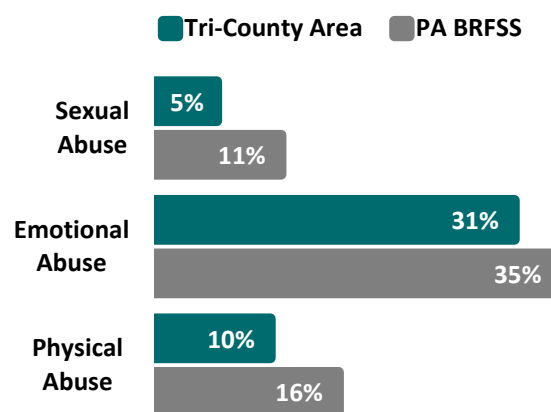
putting them at an elevated risk for health-risk behaviors and poor health outcomes.

Individual ACEs

Childhood Abuse

In the Tri-County Area, the prevalence of individual ACEs followed many of the same trends seen from the 2016 ACE module of the PA Behavioral Risk Factor Surveillance System (BRFSS); however, the prevalence for each measure was slightly lower among Tri-County adults compared to Pennsylvania adults.¹¹¹ Within the abuse categories, emotional abuse was most prevalent among Tri-County residents at 31% and Pennsylvania residents (35%). One in ten Tri-County adults reported experiencing physical abuse as a child, lower than that of Pennsylvania, where 16% of adults reported physical abuse as a child. Five percent of adults in the Tri-County Area reported enduring sexual abuse as a child, roughly half that of the 11% reported in all of Pennsylvania.

Tri-County adults reported experiencing less abuse as a child compared to Pennsylvania adults



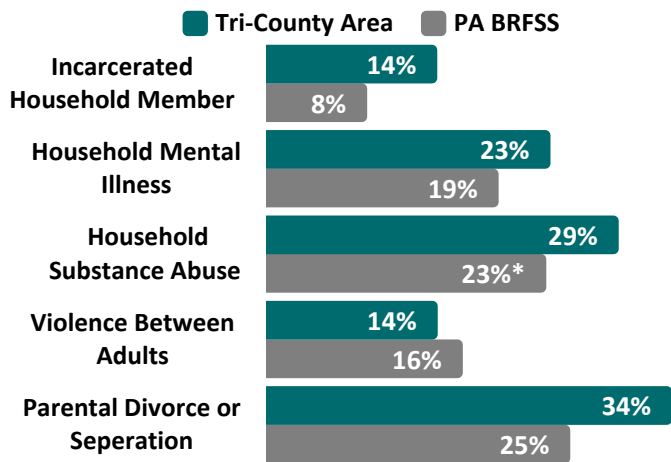
Data source: Tri-County Household Health Survey 2018

Household Dysfunction

The percentage of adults who reported experiencing household dysfunction while growing up was higher in the Tri-County Area compared to Pennsylvania for each individual indicator, except for witnessing violence between adults. Aside from parental separation or divorce, the most common household dysfunction was living with a household member who abused alcohol and/or drugs (29% of Tri-County adults). The percentage of Tri-County adults who during childhood lived with a household member who was incarcerated or sentenced to serve time was nearly twice that of Pennsylvania as a whole.

¹¹¹ Pennsylvania Department of Health. Division of Health Informatics. 2018. 2016 Adverse Childhood Experiences. [https://www.health.pa.gov/topics/HealthStatistics/BehavioralStatistics/InjuryStatistics/Documents/Ace%20Report%202016\(portrait\).pdf](https://www.health.pa.gov/topics/HealthStatistics/BehavioralStatistics/InjuryStatistics/Documents/Ace%20Report%202016(portrait).pdf)

Tri-County adults reported higher levels of household dysfunction compared to Pennsylvania adults



* The PA BRFSS measured and reported, as separate indicators, whether respondents lived with someone who 1) was a problem drinker/alcoholic or 2) used illegal street drugs or prescription medications. The household substance abuse data from PA BRFSS presented in the figure above describes the percentage of people surveyed who lived with someone who abused alcohol (23%), but does not include the percentage of adults who lived with someone who abused prescription medications or other illegal substances (11%).

Data source: Tri-County Household Health Survey 2018

Childhood Neglect

Six percent of adults in the Tri-County Area experienced physical neglect as a child and 31% experienced emotional neglect during their childhood. PA BRFSS did not measure childhood neglect. The CDC-Kaiser ACE survey found that 10% of adults experienced physical neglect as a child and 15% experienced emotional neglect.¹¹²

Mortality

Between 2012-2016, the 10 leading causes of death accounted for 74% of all deaths occurring in the Tri-County Area and were the same as the leading causes of death in the United States with a few exceptions: in the Tri-County Area stroke is the third leading cause of death and accidents are the fifth leading cause of death (See Appendix D for mortality ICD-10 codes). The rank order for these diseases are reversed for the United States (i.e., accidents are ranked third in the United States and cerebrovascular diseases are ranked fifth). Alzheimer's disease is ranked sixth in the United States, but is not included in the leading causes of death in Tri-County Area (it is ranked 11th). Septicemia was the eighth leading cause of death in the Tri-County Area, but was not among the 10 leading causes of death for the United States, although it was the tenth leading cause of death for females in the United States.

¹¹² Source: Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016. Retrieved from <https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/about.html>

Deaths and percentage of total deaths for the 10 leading causes of death: Tri-County Area, 2012-2016

Cause of death	Rank	Average annual number of deaths	Percent of total deaths
All causes		1,870	100.0
Diseases of the heart	1	422	22.6
Malignant neoplasms (cancer)	2	422	22.6
Cerebrovascular disease (stroke)	3	125	6.7
Chronic lower respiratory diseases	4	101	5.4
Accidents (unintentional injuries)	5	100	5.3
Diabetes mellitus	6	46	2.5
Influenza and Pneumonia	7	43	2.4
Septicemia	8	38	2.0
Nephritis, Nephrotic Syndrome, and Nephrosis (kidney disease)	9	37	2.0
Intentional self-harm (suicide)	10	37	2.0

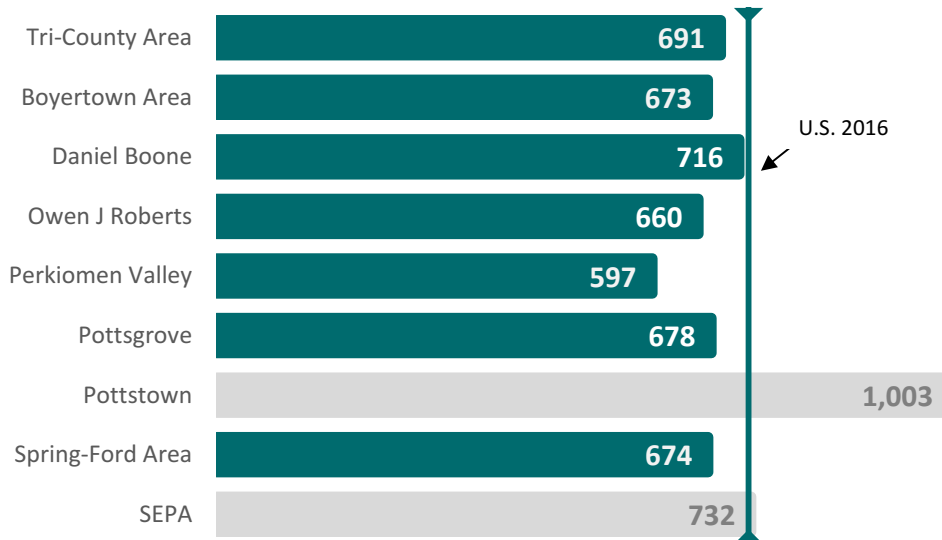
To understand the impact of each cause of death it is necessary to examine age-adjusted death rates, which allow for comparisons between groups with different age distributions. For example, a community with a high percentage of older adults will have a higher rate of death due to heart disease compared to a community with a high percentage of young adults who will have a higher rate of deaths due to unintentional injuries. Adjusting the mortality rates by age can make the two groups comparable. The age-adjusted mortality rate based on year 2010 U.S. population age distribution for the Tri-County Area (690.9 deaths per 100,000 people) is lower than SEPA, the state¹¹³, and the nation¹¹⁴ (732.4, 770.1, and 728.8 respectively). Between the time period 2007-2010 and 2012-2016, the age-adjusted mortality rate in Tri-County Area decreased 4 percent.

The seven sub-areas that comprise the Tri-County Area, differ in their mortality outcomes. For example, Pottstown Borough (1,003.1 deaths per 100,000) has the highest overall age-adjusted mortality rate followed by Daniel Boone (716 deaths per 100,000).

¹¹³ Henry J Kaiser Family Foundation. Number of Deaths per 100,000 Population. 2016. Retrieved from <https://www.kff.org/other/state-indicator/death-rate-per-100000/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

¹¹⁴ Xiu, J, Murphy SL, Kochanek KD, Bastian B, Arias E. Deaths: Final data for 2016. National Vital Statistics Reports; vol 67 no 5. Hyattsville, MD: National Center for Health Statistics. 2018. Retrieved from: https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_05.pdf

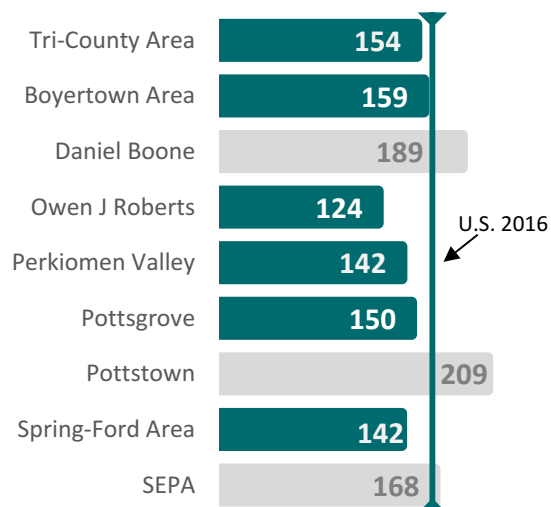
Pottstown Borough has a higher age-adjusted mortality rates than the other sub-areas and SEPA, 2012-2016



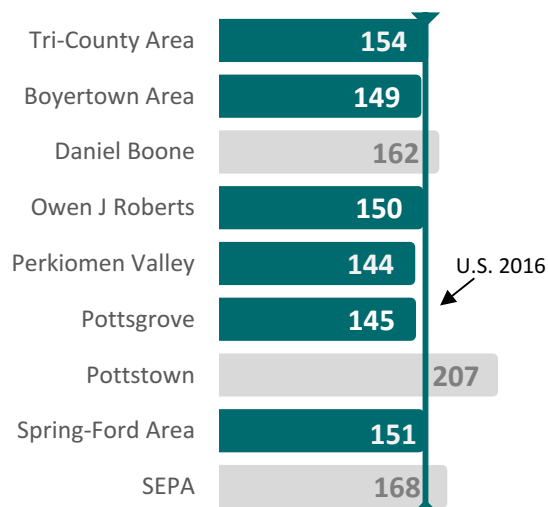
Data source: CHDB Demographic Product 2018 and National Center for Health Statistics (NCHS) 2018

The mortality rates for heart disease and cancer follow a similar pattern. Overall the Tri-County Area has a lower mortality rate for heart disease and cancer compared to SEPA and the United States. Within PAHWF service area, the Pottstown sub-area, followed by Daniel Boone, has the highest age-adjusted mortality rates for heart disease and cancer; and for both communities, their age-adjusted mortality rates for heart disease and cancer exceed the U.S. age-adjusted mortality rates.

Tri-County Area has a lower age-adjusted heart mortality rate compared to the United States



Tri-County Area has a lower age-adjusted cancer rate compared to the United States



Data source: CHDB Demographic Product 2018 and National Center for Health Statistics (NCHS) 2018

Cancer mortality was primarily due to lung, colorectal, breast and prostate cancer. Between 2012-2016 there were, on average, 112 deaths due to lung cancer and 38 deaths due to colorectal cancer in the Tri-County Area. There were an average of 31 deaths among women due to breast cancer and 18 deaths among men due to prostate cancer.

The age-adjusted mortality rates in the Tri-County Area are higher for stroke (46.0 deaths per 100,000), influenza and pneumonia (15.8 deaths per 100,000), and intentional self-harm (14.5 deaths per 100,000) compared to SEPA and the United States. The mortality rate due to stroke is 1.23 times higher in the Tri-County Area compared to the United States. The mortality rate due to suicide is 1.37 times higher than SEPA and 1.07 times higher than the United States. The mortality rate due to septicemia is higher in both Tri-County Area (13.8) and SEPA (14.3) compared to the United States (10.7).

Age-adjusted mortality rates for leading causes of death in PAHWF, SEPA, and the United States, 2012-2016¹¹⁵

Data source: CHDB Demographic Product 2018 and National Center for Health Statistics (NCHS) 2018

	PAHWF 2012-2016	SEPA 2012-2016	U.S. 2016
Diseases of the heart	153.6	167.8	165.5
Malignant neoplasms (cancer)	153.9	168.4	155.8
Cerebrovascular disease (stroke)	46.0	39.2	37.3
Chronic lower respiratory diseases	37.8	34.1	40.6
Accidents (unintentional injuries)	42.1	44.9	47.4
Diabetes mellitus	17.0	17.9	21.0
Influenza and Pneumonia	15.8	13.7	13.5
Intentional self-harm (suicide)	14.5	10.6	13.5
Septicemia	13.8	14.3	10.7
Nephritis, Nephrotic Syndrome, and Nephrosis (kidney disease)	13.5	15.5	15.5
Alzheimer's	12.5	14.1	30.3

¹¹⁵ There are an insufficient number of deaths for each the cause of death presented in this table to compare mortality rates within the PAHWF area.

Between 2012 and 2016 there were on average 51 drug overdose deaths (22.8 deaths per 100,000) in the Tri-County Area. These deaths include both unintentional deaths, suicide, homicide, and those of an undetermined manner. The Tri-County Area drug overdose mortality rate is 1.15 times higher compared to the United States (19.8),¹¹⁶ but .87 times lower compared to SEPA (26.0).

Child Health

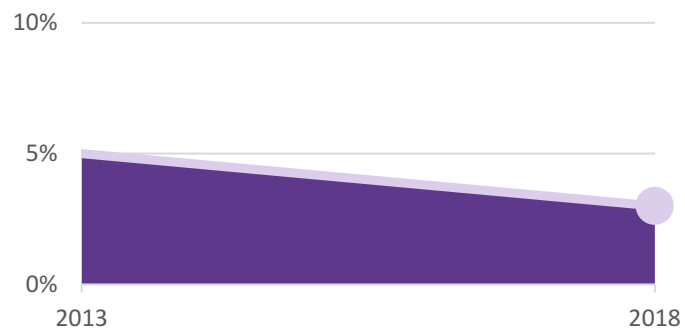
Child Health Status

A parent or caregiver's rating of their child's health quality of life provides an indication of the overall health of a child. Nationally, 1.4% of parents or caregivers rate their child's health as fair or poor.¹¹⁷

In the Tri-County Area 3% of parents or caregivers rate their child's health as fair or poor.

Data source: Tri-County Household Health Survey 2018

The percentage of Tri-County children whose health is rated as fair or poor is decreasing



A strong indicator of a child's health status may be the presence of regular source of care. In 2018, it was reported that most of the Tri-County children (91%) receive their regular source of health care at a private doctor's office. Six percent used a community health center or public clinic for their regular source of care, 3% went to a hospital outpatient clinic and 0.3% went to some other place. Over 90% of children had seen a dentist in the past year.

The U.S. Department of Health and Human Services' Physical Activity Guidelines for Americans, 2ND edition recommends that children and adolescents (ages 6-17) have 60 minutes or more of physical activity daily.¹¹⁸

- 12% of children exercise less than 3 times per week for 30 minutes or more, 69% between 3-7 times per week, and 19% more than 7 times per week.

About one-third of children ages 6 and older in the Tri-County area (35%) are considered overweight or obese based on their Body Mass Index percentile. When broken down further, 15% of Tri-County children ages six and over are obese and 20% are overweight.

¹¹⁶ Hedegaard H, Warner M, Miniño AM. Drug overdose deaths in the United States, 1999–2016. NCHS Data Brief, no 294. Hyattsville, MD: National Center for Health Statistics. 2017. Retrieved from: <https://www.cdc.gov/nchs/data/databriefs/db294.pdf>

¹¹⁷ Child and Adolescent Health Measurement Initiative. 2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved 3/25/19] from www.childhealthdata.org. <https://www.childhealthdata.org/browse/survey/results?q=5268&r=1>

¹¹⁸ U.S. Department of Health and Human Services. Physical Activity Guidelines for Americans, 2nd edition. Washington, DC: U.S. Department of Health and Human Services; 2018. Retrieved from: https://health.gov/paguidelines/second-edition/pdf/Physical_Activity_Guidelines_2nd_edition.pdf

Community Supports for Health Behaviors

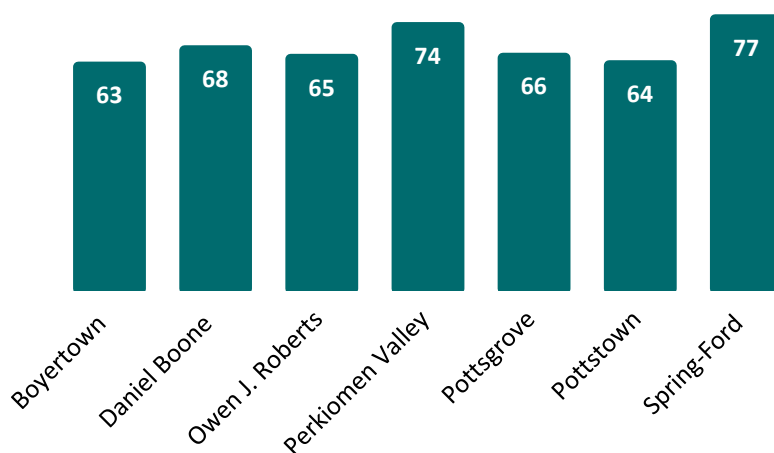
The environment in which people live, work and play influences their behaviors and impacts physical and mental health. Convenient access to affordable fresh fruits and vegetables supports people in their ability to consume healthy foods. Safe green spaces provide opportunities for people to exercise. Living in a community with high social capital where residents trust their neighbors, feel they belong and are engaged in community organizations, is associated with improved physical and mental health outcomes.

Fresh Fruit and Vegetables

Having a well-balanced diet, including fresh fruit is essential to ones' health. People that do not have access to affordable healthy food options like fresh fruit in their community will substitute other less healthy foods into their diet.

Approximately 70% of Tri-County adults and 67% of SEPA adults report that it is very easy to find fruits and vegetables in their neighborhood. Perkiomen Valley and Spring-Ford have the highest percentages of people that find it very easy to find fruits and vegetables in their area (74% and 77% respectively). Pottstown and Boyertown have the lowest percentages of people that find it very easy to find fruits and vegetables in their neighborhood (63% for both).

Within each sub-area, over 60% of adults have a very easy time finding fruits and vegetables in their neighborhood



Data source: Tri-County Household Health Survey 2018

Community residents who participated in focus group discussions described how grocery stores are not conveniently located. A resident said, *"It all depends on where you live at in Pottstown that you need a car to go get groceries."* Another adult explained, *"We're two miles from any grocery store."* One community resident reported that the prices for food at stores located within Pottstown Borough appear to be higher than prices for food outside the borough. The resident said, *"I noticed in Pottstown that the food is very expensive. So if you go to Redners on high street versus on Charlotte street... On Charlotte, it's half that price."* Some community residents were familiar with another opportunity for convenient food: community gardens in the Pottstown Borough.

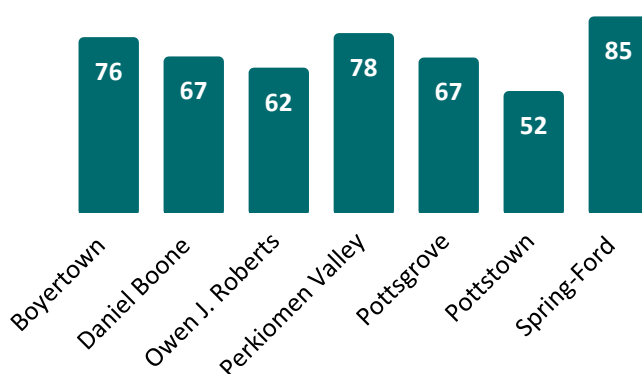
Some stakeholders identified a lack of affordable healthy foods as a need in the Tri-County Area. A stakeholder said, “...cheaper to go to Dollar Store to get a big bag of [chips] than fresh fruit. Certainly Pottstown is a town surrounded by agricultural areas but affordable is not necessarily accessible to people living in Pottstown.”

Parks and Green Space

Having accessible safe green space, such as public parks, recreation fields, and community gardens in a neighborhood has a positive impact on both physical and mental health. Over 70% of Tri-County adults and approximately 80% of SEPA adults report that there is a park or outdoor space in their neighborhood that they are comfortable visiting during the day (72% Tri-County and 78% SEPA). Area residents have varying levels of comfort when it comes to visiting these green spaces.

Within the Tri-County Area the percentage of adults who have a park or green space that they are comfortable visiting during the day varies. Over 80% of adults in Spring-Ford report that they have a park or green space that they are comfortable visiting during the day. Just over half (52%) of Pottstown adults reported that they have a park or green space that they are comfortable visiting.

Just over half of Pottstown residents felt comfortable visiting outdoor parks/green spaces in their neighborhood.



Data source: Tri-County Household Health Survey 2018

Five percent of Tri-County adults have a park in their neighborhood, but they are not comfortable visiting it. A higher percentage of Pottstown adults – 15% - report that they have a park in their neighborhood, but are not comfortable going to it.

Twenty three percent of Tri-County adults reported that there is not a park or green space in their neighborhood. Within the Tri-County area over 30% of Daniel Boone (31%), Owen J. Roberts (34%), Pottsgrove (33%) and Pottstown (34%) adults reported that they do not have a park or green space in their community.

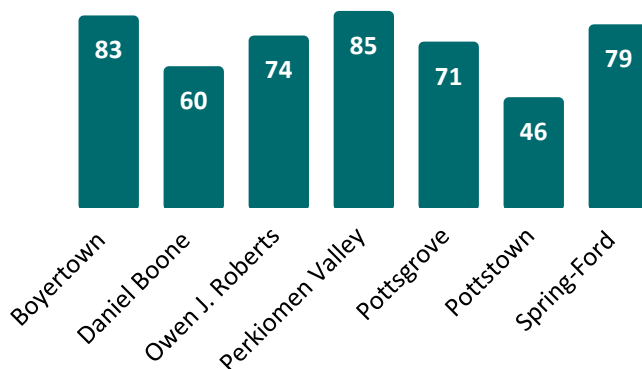
Community stakeholders identified how the environment in the Tri-County area can help foster physical activity. Stakeholders mentioned the Perkiomen trail and that Pottstown Borough is a walkable community. A stakeholder noted, “Pottstown is a walkable community.”

Community residents echoed those comments. They mentioned that Pottstown Borough is a walkable community. Residents shared *“there are walking parks all over the place.”* And *“...a lot of stuff that’s in walking distance...”* One resident noted that *“All these doggone hills”* help keep them healthy.

Social Capital

Social capital refers to the networks and relationships that one has with the people in and around their community. Tri-County adults have higher social capital (75% of adults have medium to high social capital) compared to SEPA adults (70%). Within the Tri-County Area, Perkiomen Valley and Boyertown have the highest percentages of adults that have medium to high social capital (85% and 83% respectively). Pottstown adults have the lowest amount of social capital, with only 46% considered having medium to high social capital.

The percentage of adults with medium to high social capital in the Pottstown area is only 46%, almost 20% lower than the surrounding areas



Data source: Tri-County Household Health Survey 2018

Community residents described the social capital they experience in the community. One resident who recently moved to the area said, *“I like the fact of... everybody helps each other out.”* Another resident noted, *“...there's a lot of opportunities in Pottstown. There are a lot of resources. If you need help with something, there's always someone who can help you. Even if you don't necessarily know who that person is, you could simply talk to the teacher, or the principal, or anyone in the community, and they can lead you in the right direction.”* A stakeholder observed the social capital in the community. The stakeholder said, *“I think there is a certain sense of community in Pottstown. People who live in Pottstown really identify with the area.”*

In addition to social capital among residents, stakeholders described the social capital that exists among organizations in the Tri-County area. Stakeholders described the collaboration that occurs among agencies and multi-agency initiatives such as, creating a trauma informed community, improving access to prenatal care for pregnant women, and encouraging adults with drug addiction to seek treatment. A stakeholder explained, *“One of the things that make Pottstown special, if you work to develop relationships you can make things happen.”* Another stakeholder described the collaborative spirit in the Tri-County area, *“Cooperation and trust – if you back up three years ago...there was not trust... Now we all have each other's cell phone and we have been able to break down those formal barriers. Those*

informal communications that can occur in real time. Besides the leaders that can build trust, we have brought in case managers – those on the front line – because they are able to work better.”

Stakeholders also described the benefits and disadvantages of being a small community with pockets of deep poverty located near Philadelphia one of the largest cities in the United States. A stakeholder explained that the needs in the Tri-County area are often overlooked because Philadelphia has great needs. *“Based on our location there is regional availability. Unfortunately that is also a weakness. We are part of the greater Philly region, there are pockets of great need in the suburbs and Pottstown is one of them.”* Another stakeholder explained, *“Part of the reason we [Tri-County Area] are ahead of the curve is that we are smaller and can address [issues].”*

Community Assets

The Tri-County Area has a number of strong social service agencies and organizations. Below is an overview of some of the organizational resources available in the Tri-County Area (Appendix E). Additional resources can be identified by calling 2-1-1 or using the online 211 portal at <http://211sepa.org/> (covers Montgomery and Chester Counties) and <http://www.pa211east.org/> (Berks County).

Public Health Resources

Pennsylvania has a total of six county and four city health departments. The purpose of public health departments is to prevent disease, protect people from hazards to their health, and promote healthy living through an organized, community-based approach. Health departments conduct health screenings, ensure environmental and food safety, monitor and test for communicable diseases, administer immunizations, support maternal and child health, and provide health education. Local health departments ensure that these services are provided to the public using an organized approach. Services are provided free or at low cost to the general public in order to reach as many residents as possible. The main office of the Montgomery County Health Department office is located in Norristown, but a satellite office and health clinic are located in Pottstown. The Montgomery County health clinic in Pottstown runs an immunizations clinic and a communicable disease clinic (HIV testing and counseling, sexually transmitted disease and treatment, and tuberculosis treatment).

Acute Care

Pottstown Hospital, part of the Tower Health System, is a general medical and surgical hospital in Pottstown, offering a full range of health services including inpatient and outpatient care, medical and surgical care, diagnostic and emergency care, and family care.

Primary Care

Primary care patient medical homes are an important resource in ensuring continuous and comprehensive care that can prevent or ameliorate chronic disease. **Montgomery County, where Pottstown Borough and several other sub-areas in the Tri-County Area are located, has a higher ratio of primary care physicians per person, 710:1, compared with both the state and the nation as a whole.**¹¹⁹ On the other hand, **Berks County, where several sub-areas in the Tri-County Area are located, has fewer primary care physicians per person than Pennsylvania as a whole.** According to the **County Health Rankings**,¹¹⁹ the ratio of primary care physicians to the population of Berks County is 1,570:1. This is lower than the U.S. ratio of 1,067:1 and the Pennsylvania ratio of 1,230:1. Chester County, the location of the Owen J. Roberts Area, fares slightly better, with a ratio of 1,160:1. However, the mere presence of more primary care physicians does not ensure that more individuals in the population get primary care.¹²⁰

In addition to the providers listed above, access to primary care for low-income residents of the Tri-County Area is also provided at a Federally Qualified Health Center, **Community Health & Dental Care, Inc.** in Pottstown. Services provided by Community Health & Dental Care, Inc. include women's health exams, flu shots, on-site lab services, on-site pharmacy, childhood immunizations, preventive screenings, pediatric care, case management and referral assistance, and dental services for adults and children. In addition to Community Health & Dental Care Inc., dental care is available to low-income residents through the **Community Medical and Dental Center Rahns**, located in Rahns, Montgomery County. Some Tri-County residents also go to **The Clinic**, located in Phoenixville. The Clinic offers comprehensive medical care and wellness counseling for uninsured residents.

Other Health Care Services

Primary episodic care services are also provided by Tower Health Urgent Care in Douglassville and Limerick.

Mental and Behavioral Health Services

Seven agencies, with primary or satellite locations in the Tri-County Area, provide mental health and/or substance abuse services to residents, offering recovery oriented behavioral health and supportive services through individual, group and family therapy:

- Creative Health Services – Pottstown, Spring City, Boyertown, and Pennsburg. Students Assistance Program (SAP) in each Tri-County school district.
- Holcomb Behavioral Health Systems - Pottstown
- Malvern Institute – addiction treatment only - Pottstown
- New Life Youth and Family Services- Schwenksville
- Penn Foundation - Pottstown
- Rehab After Work - Outpatient Treatment Centers- addiction treatment – Pottstown
- Spring-Ford Counseling Services – Royersford

¹¹⁹ University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation. County Health Rankings 2019. <http://www.countyhealthrankings.org/explore-health-rankings>

¹²⁰ Shi, L. and Starfield, B. The Effect of Primary Care Physician Supply and Income Inequality on Mortality Among Blacks and Whites in US Metropolitan Areas. American Journal of Public Health. August 2001, Vol. 91, No. 8, pp. 1246-1250.

Senior Centers

Three senior centers in the Tri-County Area provide health, education, arts, and fitness programming; information and referrals; assistance with grocery shopping; socialization opportunities; and communal meals for older adults:

- Tri-County Active Adult Center – Pottstown
- Encore – Birdsboro
- The Center at Spring Street- Boyertown

Each county has an Area Agency on Aging that provide information and assistance services, based on need, to all older county residents and those with disabilities; empowering self-determination; advocating for their rights; and promoting the highest possible level of independence.

In the Tri-County area, there are two agencies that provide personal care and memory care for seniors:

- Chestnut Knoll – Boyertown – a residential facility and Chestnut Knoll at home – serves older adults in Berks, Chester and Montgomery counties and provides assistance with everyday tasks to support older adults still living in their own homes.
- Fredrick Living a retirement community

Shelters

There are two **shelter programs** in the Tri-County Area for homeless men, women, women with children, and/or families. The Ministries at Main Street provides seasonal homeless shelter services in Pottstown. The Berks County Housing Authority offers shelter and housing services in Birdsboro. Other housing and rent assistance is offered in the Tri-county area by five agencies:

- Pennsylvania Department of Human Services
- Salvation Army, Pottstown Center
- Spring-Ford Project Outreach - Royersford
- Open Hearth – Spring City
- Vincent Heights – Spring City

Food Security

The Tri-County Area has several agencies and organizations that provide services directed to improving nutrition. Three **Special Supplemental Nutrition Program for Women, Infants, and Children** (WIC) offices in the area, located in Boyertown, Pottstown, and Spring City, provide supplemental nutritious foods, information on healthy eating, including breastfeeding promotion and support, and referrals to health care for low-income pregnant, postpartum, and breastfeeding women, infants, and children up to age five who are at nutritional risk.

The **Pottstown Cluster of Religious Communities** supplies food, community meals, dry goods, support and referrals and financial assistance for individuals and families. Services include: an Emergency Food Pantry which provides food and infant formula; a Community Meals Program with complete weekday and holiday lunches and dinners, cooked and served by volunteers; a Dry Goods Department with clothing, shoes, personal hygiene items and housewares; an emergency financial assistance program; Meals on Wheels; the Getting Ahead Initiative, an educational program on overcoming poverty; personal care; and support and referrals to community social agencies and health care.

Comprehensive Social Service Agencies

Other non-profit agencies that provide a wide range services to Tri-County Area residents include the Salvation Army, Pottstown Family Center, ACLAMO, YWCA Tri-County Area, and Family Services of Montgomery County. As noted above, additional social service agencies exist in the area and can be located through PA 211.

The **Salvation Army** provides assistance with emergency food and shelter, shelter for homeless families, food pantry, summer camp for kids, youth groups, and health and wellness referrals.

The **Pottstown Family Center** offers a wealth of programs for families and children. These programs include: Alternative Response, which provides support to families who have a concrete need for assistance; The Parent-Child Playgroup; Parents As Teachers Home Visitation; Parent Education; and The PEAK (Pottstown Early Action for Kindergarten Readiness) Initiative, which works with the Tri-County Area.

ACLAMO Family Centers helps Spanish-speaking individuals, children and families, expectant mothers, and elderly with a variety of needs including health, housing, employment, education, and legal aid. ACLAMO works to ensure access to family development resources.

YWCA Tri-County Center- advocates for women, girls, and families by providing quality programs and services designed to support and enrich the community. Direct service programming includes early childhood education, before- and after-school enrichment, youth/girls' development, adult education, and workforce development. Mission-based advocacy efforts raise awareness and build social capital around women's empowerment, racial and social justice, and safe and healthy communities.

Family Services of Montgomery County - Pottstown Family Center offers family support programs and services including: parents as teachers home visitation; parent-child playgroup; fatherhood program; parent education workshops; pregnant and parenting teen program; SHARE food program; and time-limited family reunification.

Summary

The public health needs identified through this community health assessment include many of the public health concerns affecting the Southeastern Pennsylvania region, the state, and the country. In the Tri-County Area residents are not meeting national recommendations for adequate exercise and healthy eating (e.g., fruit and vegetable consumption and reduced sugar sweetened beverage consumption). The Tri-County area has not met HP 2020 goals for obesity, smoking, and binge drinking. Just as throughout America, many Tri-County residents struggle with chronic health conditions such as diabetes, high blood pressure, and asthma. In some areas within Tri-County those with mental health conditions are not getting the treatment that they need. Finally substance abuse is a public health concern in the Tri-County Area.

- **Social determinants of health impact the Tri-County Area.** Some areas within the Tri-County Area benefit from a high percentage of residents with high income, education, and employment while other areas are challenged by poverty and low levels of education and employment. Pottstown, the area in Tri-County with the lowest socio-economic status (SES) (e.g., lowest median household income and highest percentage of unemployment and families with children living in poverty), has a high percentage of adults who have difficulty accessing health care (e.g., high percentage are uninsured, do not have a regular source of care, have not filled a prescription due to cost).
- **Areas with high SES do not necessarily have uniformly high access to health care.** Owen J Roberts and Spring Ford, two areas with high SES (e.g., very low percentage of families in poverty, low unemployment, and high median family income) both were ranked third highest among the Tri-County sub-areas for selected indicators related to access to health care (11% of Owen J Roberts adults do not have health insurance and 10% of Spring-Ford adults lack a regular source of health care). Daniel Boone which has the fourth highest median household income (\$84k) and a very low percentage of families in poverty led the region with the highest percentage of adults who did not seek care due to cost (21%). When working to improve access to health care, it is important to focus on areas with low SES, but also to address the pockets in areas with higher SES where adults and families are struggling to access health care.
- **Tri-County Area has strong collaborative relationships among organizations working to improve the health and quality of life in the community.** A particular strength of the Tri-County Area is the collaborative relationship that exists among many of the health, educational and social services organizations in the area. The relatively small geographic area helps facilitate efforts to address health concerns and social determinants of health. These collaborative relationships should be continued to be fostered.

As readers reflect on the findings in this report, they may consider the impact of potential interventions and efforts that address individuals, interpersonal networks (e.g., family and friends network), communities, organizations, and policies. A socio-ecological approach to public health prevention suggests that a combination of interventions at all levels (e.g., individuals, interpersonal networks, communities, organizations, and policies) is most effective at addressing and preventing public health concerns. Questions to consider while reflecting on the findings are:

- What is the interest among the community to address specific needs? What do residents think should be addressed? Are organizations in the community supportive of the need to address particular public health concerns?
- What is already being done in the Tri-County Area to address needs identified? What else can be done?
- What, if any, evidence-based interventions exist to address areas of concern?
- What is the effectiveness of any suggested intervention? What is the potential impact?
- What resources exist to support proposed interventions?

Reflecting and discussing these questions may help users of this report identify next steps for themselves and their organizations.

Appendix A. Methodology and data sources

This community health needs assessment (CHNA) was developed using a data and partnership driven approach, multiple data sources, and engagement from a variety of community constituents. Pottstown Area Health & Wellness Foundation (PAHWF) contracted with Public Health Management Corporation's (PHMC) Research & Evaluation Group (R&E Group), to collect and analyze data, as well as engage the Tri-County community residents and key stakeholders serving the community to comprehensively characterize the populations and inform understanding of community health needs.

PAHWF Service Area

The PAHWF service area is defined as the Pottstown borough and a 10-mile radius of downtown Pottstown. For the purpose of this needs assessment the area includes 7 school districts (Boyertown, Daniel Boone, Owen J Roberts, Perkiomen Valley, Pottsgrove, Pottstown, and Spring-Ford) and 33 townships and/or boroughs that comprise those school districts.

Tri-County Area School Districts, Counties, and Township/Boroughs

School district/ sub-area	County	Township/Borough		
Boyertown	Berks	Bally borough Boyertown borough	Colebrookdale township Douglass township	Earl township Washington township
	Montgomery	Douglass township	New Hanover township	Upper Frederick township
Daniel Boone	Berks	Amity township	Birdsboro borough	Union township
Owen J Roberts	Chester	East Coventry township East Nantmeal township East Vincent township	North Coventry township South Coventry township	Warwick township West Vincent township
Perkiomen Valley	Montgomery	Collegeville borough Perkiomen township	Lower Frederick township Schwenksville borough	Skippack township Trappe borough
Pottsgrove	Montgomery	Lower Pottsgrove township	Upper Pottsgrove township	West Pottsgrove township
Pottstown	Montgomery	Pottstown borough		
Spring-Ford	Chester	Spring City borough		
	Montgomery	Limerick township	Royersford borough	Upper Providence township

Data Sources

Multiple data were collected and analyzed for this CHNA. The sources for data include both primary data sources (collected specifically for this CHNA) and secondary data sources (existing data). Data sources for this CHNA included:

The 2018 Tri-County Area Household Health Survey (Tri-County HHS).

- The 2018 Tri-County HHS is a representative telephone survey of households residing in the Tri-County area. PHMC conducted the survey contracting with SSRS, a market and survey research firm to administer the 2018 Tri-County HHS. The Tri-County HHS collected a variety of health and wellbeing measures including health status, behaviors, and outcomes; access to health care; and social capital. The Tri-County HHS included both landline and cell phones. A total of 1,371 total telephone interviews were conducted with residents 18 years and older:
 - 1,101 covering all Tri-County school districts,
 - 15 oversample surveys from Pottstown Borough proper (Pottstown School District), and
 - 255 interviews obtained in the data collection effort for the 2018-2019 Southeastern Pennsylvania (SEPA) Household Health Survey (described below) that met the qualifications for the 2018 Tri-County HHS.

The Tri-County HHS was actively fielded for 4½ months from August 2018 through January 2019.

Further information about the methodology of the Tri-County HHS can be found in the 2018-2019 Pottstown Household Health Survey Report prepared by SSRS and available from PAHWF or PHMC at chdbresearch@phmc.org.

- **The 2018 Southeastern Pennsylvania Household Health Survey (SEPA HHS)**, R&E Group developed and has fielded the SEPA HHS for the past 35 years. The 2018 SEPA HHS was administered to 7,501 households, using a random-digit dial phone survey method, across Montgomery, Chester, Delaware, Philadelphia, and Bucks Counties. The SEPA HHS provides the most unique and comprehensive source of health-related data, solely focused on the SEPA region. Additionally, the SEPA HHS offers unique insights into the local health and social services issues, and includes questions unavailable from other sources. Data from the SEPA HHS were used to compare to findings from the Tri-County HHS. In-depth survey methodology and accompanying documentation can be found at www.chdbdata.org
- **CHDB Demographic Product.** The CHDB Demographic Product is comprised of over 480 variables covering characteristics of communities, such as population size, education, and, per capita household income; birth outcomes, such as rate of low birth weight and rate of late prenatal care; and death outcomes, such as age-adjusted mortality rate for the leading causes of death. These data are based on the U.S. Census, birth certificates, and death certificates
 - **2018 United States Census** data estimates provided by Claritas Pop-Facts® Premier provided a picture of the socioeconomic and demographic characteristics of PAHWF's service area. Census-based demographic data are derived from 2018 Claritas Pop-Facts® Premier and processed by PHMC. Claritas Pop-Facts® Premier is a proprietary database comprised of demographic data adapted from the U.S. Census, American Community Survey (ACS) and other known and highly utilized data sources, such as residential data from the U.S. Postal Service, utility companies and marketing firms.
 - **Vital Statistics** data from the Pennsylvania Department of Health details trends in births, birth outcomes, prenatal care, leading causes of death, and cancer incidence for the communities served by PAHWF.¹

¹These data were provided by the Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.

- **Pennsylvania Department of Health Enterprise Data Dissemination Informatics Exchange (EDDIE)** data were accessed for state and/or county-level data about communicable diseases and data from Behavioral Risk Factor Surveillance System, including adverse childhood experiences and prescription pain medication use.

- **Key Informant Interviews and Focus Group** data from community members and service area constituents was collected by speaking with residents, business and government stakeholders, faith-based stakeholders, and social services organizations. PAHWF and PHMC co-developed all relevant guides and survey questions to elicit information and perspective across multiple stakeholders about community health needs. Thematic and descriptive analysis of data elucidate additional, unique health-related barriers, needs, resources, and strengths of prominent population subgroups. PAHWF staff and key stakeholders identified potential key informant interviewees. PAHWF staff and key partners actively publicized and recruited focus group participants.
 - **Key Informant Interviews.** Seventeen key informant interviews were conducted with stakeholders from the fields of health care, social service/social justice, housing/homeless, community safety, community leadership, and youth development. Stakeholders were from the following organizations: Creative Health Services, Community Health and Dental Care, Tower Health, and Montgomery County Health Department Pottstown Center, Montgomery County Public Defender's office, ACLAMO, YWCA, Pottstown Works, Salvation Army, Habitat for Humanity, First Presbyterian Church, Pottstown Downtown Improvement District Authority, the School Districts of Pottstown, Boyertown and Perkiomen Valley, and Pottstown Early Action for Kindergarten Readiness (PEAK).
 - **Focus Group Discussions.** Forty-seven community residents participated in one of five focus groups. The focus groups were organized by populations of interest. The five focus groups were:
 - Older adults
 - Young adults
 - Adults without health insurance
 - Parents and caregivers of young children
 - Spanish-speaking adults

- **PA 2-1-1.** PA 2-1-1 is a resource that connects people of Pennsylvania to health and human services information at no cost to them, and administers the state set-aside funds from the Emergency Food and Shelter Program. Data about social service resources in the Tri-County Area were downloaded from the following PA 2-1-1 websites <http://www.pa211east.org/> (Berks County) and <https://211sepa.org/> (Montgomery and Chester Counties).

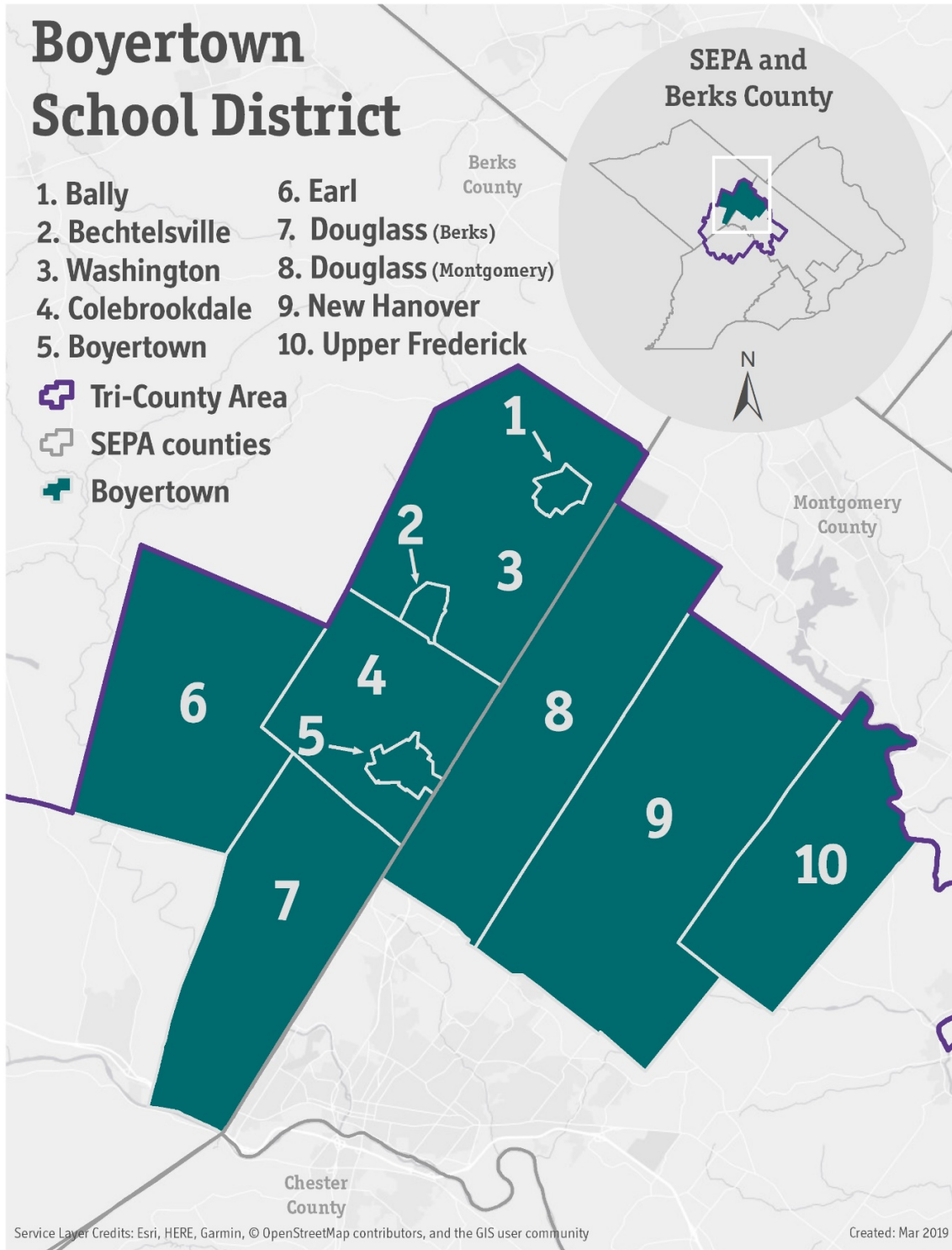
Statistical Analysis

PHMC used IBM SPSS software to conduct descriptive statistics and conduct statistical analysis. The report includes census estimates and crude prevalence and age-adjusted prevalence, as appropriate, for health indicators. Tri-County HHS estimates presented at the sub-area/school district level are based on a smaller sample size than estimates for the Tri-County Area or SEPA, and should be used with caution.

PHMC adjusted the sample size of the Household Health Survey for design effect resulting from variance due to weighting adjustments, before conducting statistical tests. PHMC used the Chi Square statistic to test for significant relationships between variables, and the phi coefficient or Cramer's V for effect sizes. The following analyses were conducted using the Tri-County HHS and, as needed, the SEPA HHS:




- Compared Tri-County Area adults to adults in the remainder of Southeastern Pennsylvania.
- Compared Insured adults 18-64 years to adults 18-64 years who lack health insurance.
- Compared Adults with incomes below the poverty guidelines to those living at or above poverty.

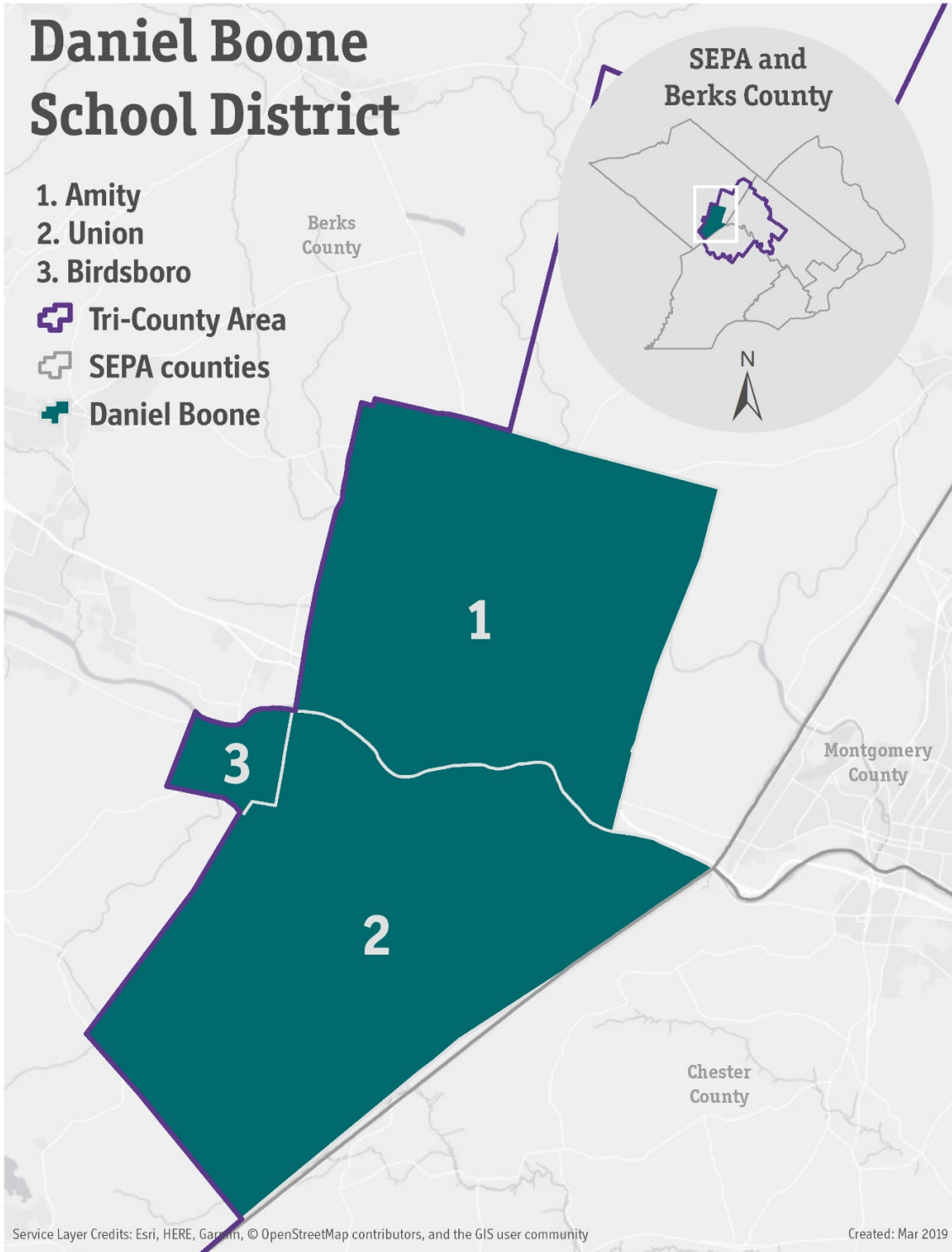
Appendix B – PAWHF Sub-areas



Daniel Boone School District

1. Amity
2. Union
3. Birdsboro

-  Tri-County Area
-  SEPA counties
-  Daniel Boone






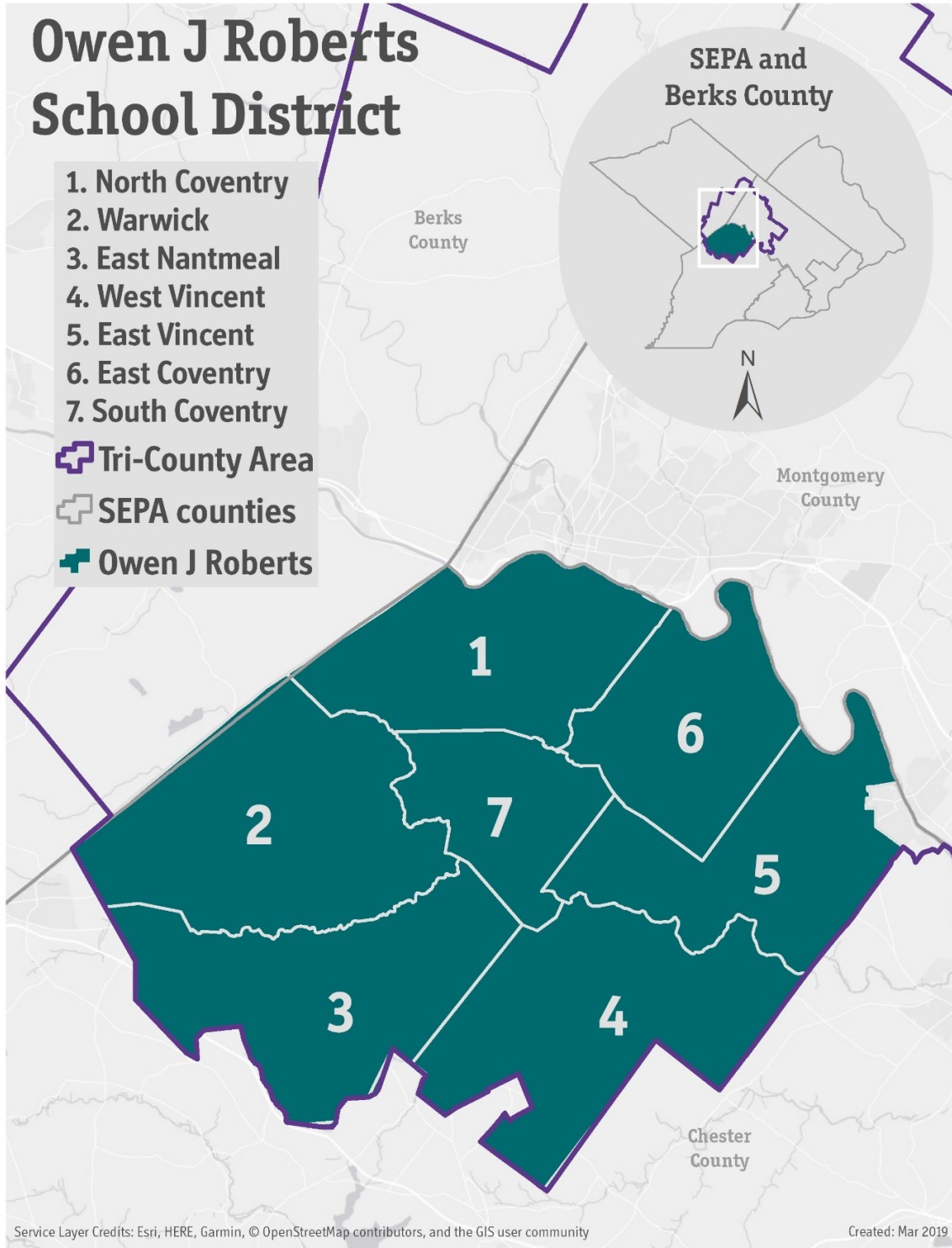
Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

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Owen J Roberts School District




1. North Coventry
2. Warwick
3. East Nantmeal
4. West Vincent
5. East Vincent
6. East Coventry
7. South Coventry

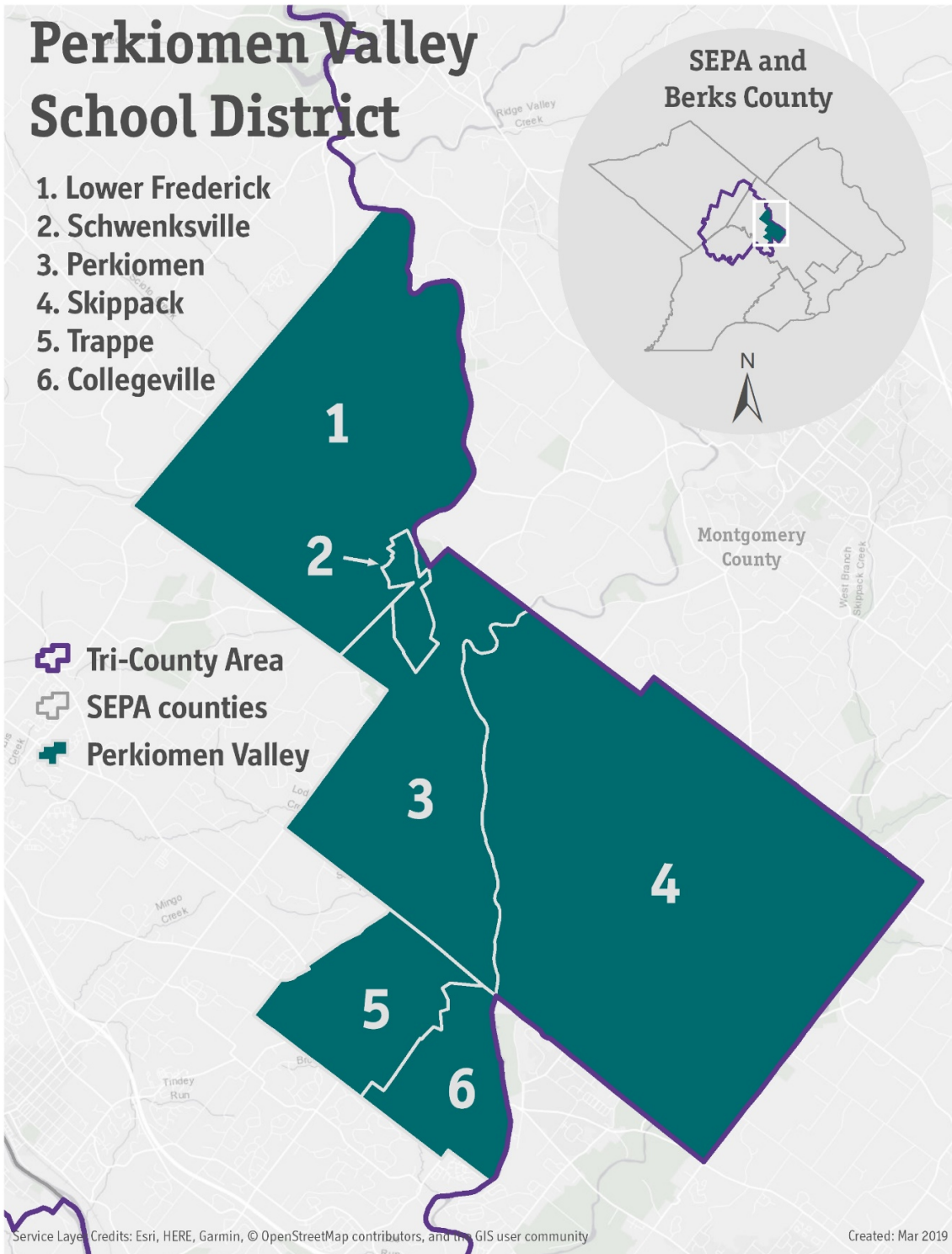
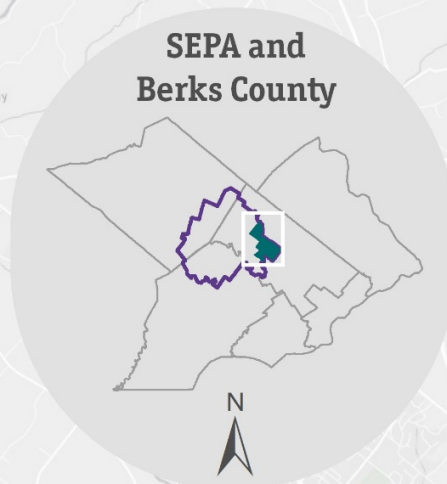
-  Tri-County Area
-  SEPA counties
-  Owen J Roberts



Perkiomen Valley School District

1. Lower Frederick
2. Schwenksville
3. Perkiomen
4. Skippack
5. Trappe
6. Collegeville

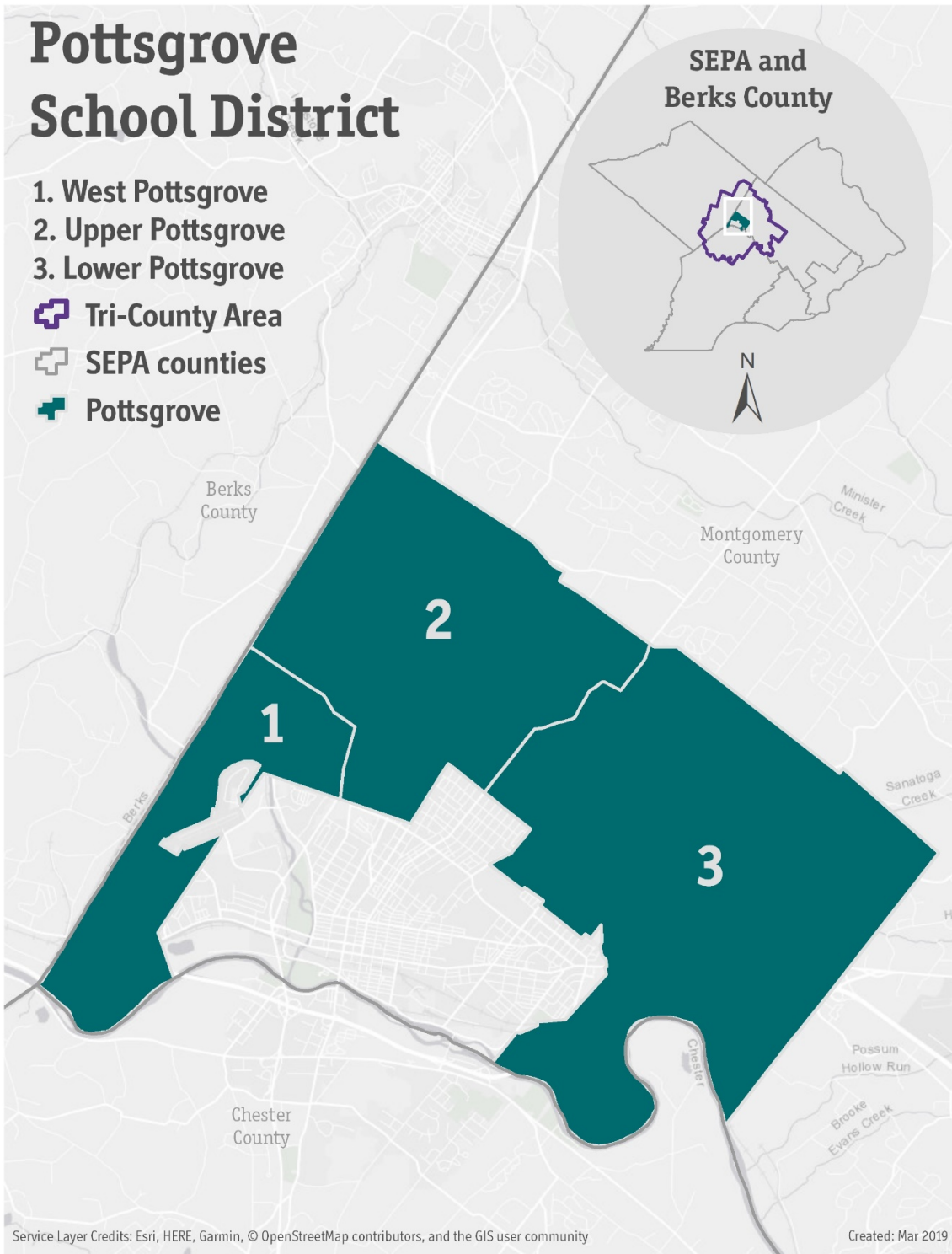
-  Tri-County Area
-  SEPA counties
-  Perkiomen Valley



Pottsgrove School District

1. West Pottsgrove
2. Upper Pottsgrove
3. Lower Pottsgrove

-  Tri-County Area
-  SEPA counties
-  Pottsgrove

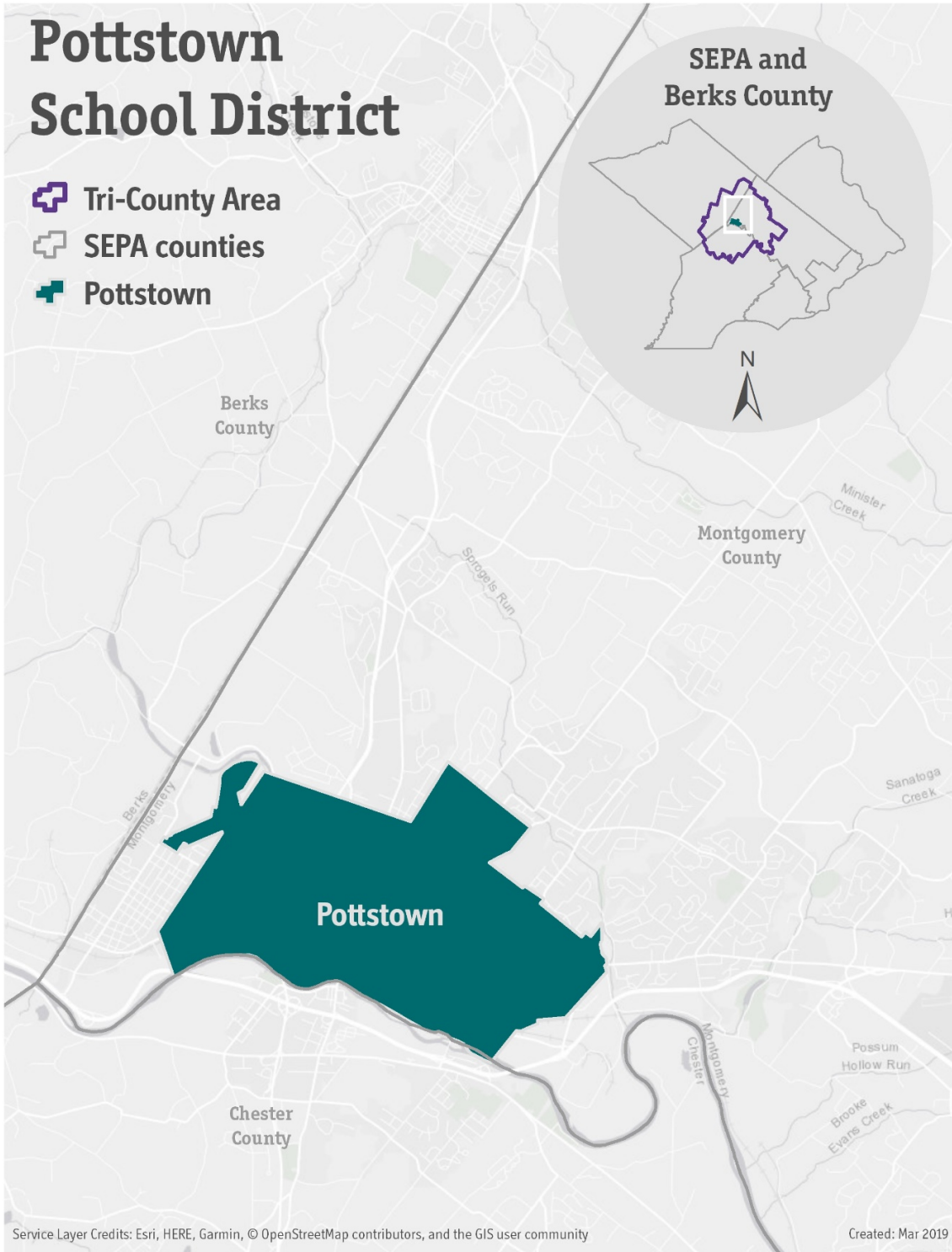


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Pottstown School District

-  Tri-County Area
-  SEPA counties
-  Pottstown






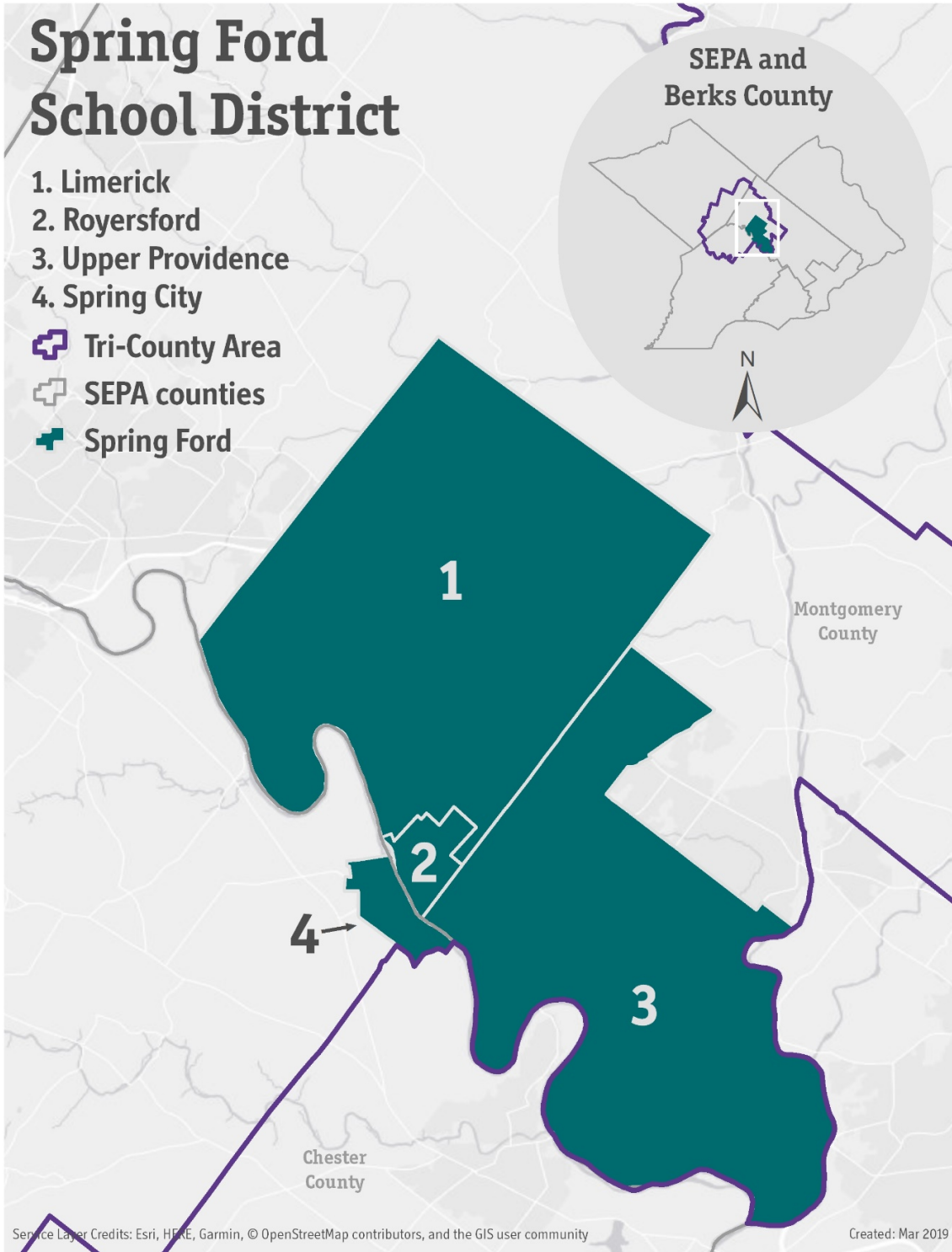
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Created: Mar 2019

Spring Ford School District

1. Limerick
2. Royersford
3. Upper Providence
4. Spring City

-  Tri-County Area
-  SEPA counties
-  Spring Ford



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Created: Mar 2019

Appendix C

Tri-County Area population size and projected population

	Total population 2000	Total population 2018	Percent Increase in population 2000-2018	Projected population 2023	Projected percent increase in population 2018-2023
Boyertown	40,519	48,095	18.7	49,538	3.0
Daniel Boone	17,390	21,933	26.1	22,360	1.9
Owen J. Roberts	26,860	34,381	28.0	35,150	2.2
Perkiomen Valley	31,356	40,447	29.0	41,915	3.6
Pottsgrove	19,073	22,130	16.0	22,585	2.1
Pottstown	21,894	22,370	2.2	22,397	0.1
Spring-Ford	36,450	52,194	43.0	54,699	4.8
Tri-County	193,542	241,550	30.0	248,644	2.9

Tri-County sub-area population by age, 2018

	0-17 yrs		18-34 yrs		35-64 yrs		65 yrs and older	
	#	%	#	%	#	%	#	%
Boyertown Area	10569	22.0	8872	18.4	20307	42.2	8347	17.4
Daniel Boone	5357	24.4	4360	19.9	8980	40.9	3236	14.8
Owen J Roberts	7724	22.5	6380	18.6	14493	42.2	5784	16.8
Perkiomen Valley	9172	22.7	9365	23.2	17155	42.4	4755	11.8
Pottsgrove	5237	23.7	4362	19.7	9171	41.4	3360	15.2
Pottstown	5425	24.3	4771	21.3	8835	39.5	3339	14.9
Spring-Ford Area	13031	25.0	9493	18.2	22717	43.5	6953	13.3
Tri-County	56515	23.4	47603	19.7	101658	42.1	35774	14.8
SEPA area	897,970	21.8	968,461	23.6	1,592,845	38.7	651,918	15.9
U.S. ¹		22.6						15.6
		0-18 years		19-34 yrs				
U.S. ²		24		21		39		15

¹ United States Census Bureau. Quick Facts United States.
<https://www.census.gov/quickfacts/fact/table/US/PST120217>

² Henry J Kaiser Family Foundation. Population Distribution by Age. Timeframe 2016.

<https://www.kff.org/other/state-indicator/distribution-by-age/?currentTimeframe=1&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

Tri-County Population by Municipality		
Municipality (township or borough)	Sub-area/school district	2018 Population
Pottstown borough	Pottstown	22370
West Pottsgrove township	Pottsgrove	3913
Schwenksville borough	Perkiomen Valley	1446
Boyertown borough	Boyertown Area	4007
Royersford borough	Spring-Ford Area	4938
Bally borough	Boyertown Area	1093
Birdsboro borough	Daniel Boone	5064
Spring City borough	Spring-Ford Area	3315
Washington township	Boyertown Area	4096
Colebrookdale township	Boyertown Area	4981
Lower Pottsgrove township	Pottsgrove	12366
Douglass township (Mountgomoery County)	Boyertown Area	10729
Douglass township (Berks County)	Boyertown Area	3327
Union township	Daniel Boone	3502
Earl township	Boyertown Area	3112
Amity township	Daniel Boone	13367
Upper Frederick township	Boyertown Area	3835
Upper Pottsgrove township	Pottsgrove	5851
New Hanover township	Boyertown Area	12915
Collegeville borough	Perkiomen Valley	5178
Warwick township	Owen J Roberts	2399
East Vincent township	Owen J Roberts	7128
Lower Frederick township	Perkiomen Valley	4862
Skippack township	Perkiomen Valley	15599
Limerick township	Spring-Ford Area	20006
North Coventry township	Owen J Roberts	7908
East Coventry township	Owen J Roberts	7196
Trappe borough	Perkiomen Valley	3586
South Coventry township	Owen J Roberts	2802
Perkiomen township	Perkiomen Valley	9776
East Nantmeal township	Owen J Roberts	1752
Upper Providence township	Spring-Ford Area	23935
West Vincent township	Owen J Roberts	5196
Tri-County Regional Total	Tri-County Region	241550
Data source: 2018 CHDB Demographic Product		

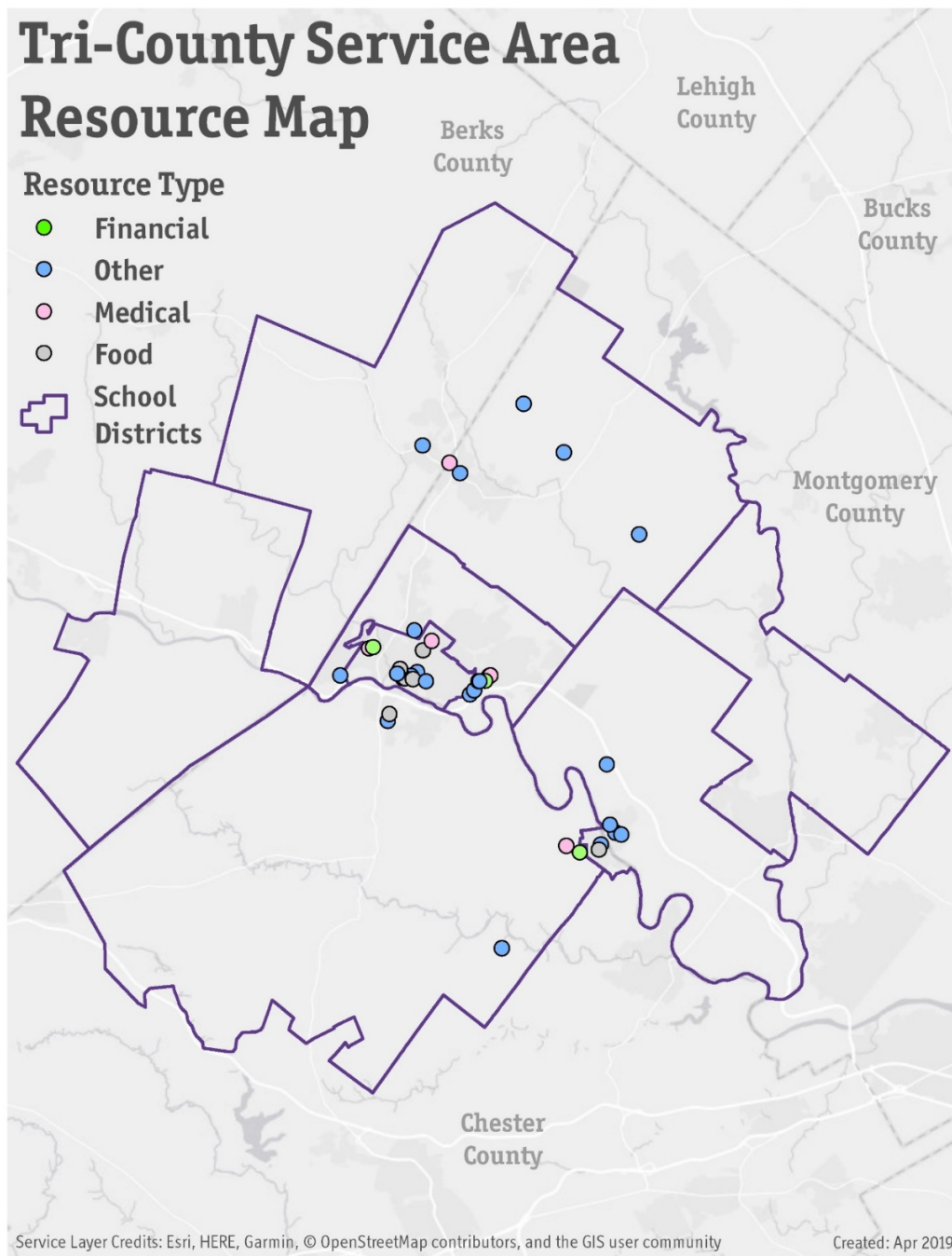
Appendix D

Leading cause of death with ICD-10 codes

Cause of death (based on ICD-10)		Rank	Average annual number of deaths	Percent of total deaths
All causes			1,870	100.0
Diseases of the heart	I00–I09,I11,I13,I20–I51	1	422	22.6
Malignant neoplasms (cancer)	C00–C97	2	422	22.6
Cerebrovascular disease (stroke)	I60–I69	3	125	6.7
Chronic lower respiratory diseases	J40–J47	4	101	5.4
Accidents (unintentional injuries)	V01–X59,Y85–Y86	5	100	5.3
Diabetes mellitus	E10–E14	6	46	2.5
Influenza and Pneumonia	J09–J18	7	43	2.4
Septicemia	A40–A41	8	38	2.0
Nephritis, Nephrotic Syndrome, and Nephrosis (kidney disease)	N00–N07,N17–N19,N25–N27	9	37	2.0
Intentional self-harm (suicide)	*U03,X60–X84,Y87.0	10	37	2.0

Appendix E

Key Health and Social Service Organizations in the Tri-County Area



Appendix F

Adverse Childhood Experiences

To assess the prevalence of ACEs, respondents to the Tri-County HHS were asked about their experiences during their first 18 years of life with the following:

Abuse

- Physical abuse:
 - An adult living in your home pushed, grabbed, shoved, slapped or hit you so hard that you had marks or were injured
- Emotional abuse:
 - An adult living in your home swore at you, insulted you, or put you down
- Sexual abuse:
 - An adult who was 5 or more years older than you used inappropriate touching or fondling, try to have, or actually have, any type of oral, anal, or vaginal sexual intercourse with you?

Household Dysfunction

- Substance abusing household member
 - Lived with anyone who was a problem drinker or an alcoholic, used illegal street drugs, or who abused prescription medication
- Mentally ill household member
 - You lived with anyone who was mentally ill, suicidal, or severely depressed
- Violence between adults
 - Saw or heard an adult living in your home get slapped, kicked, punched, beaten up, or hit; or threatened with an object, such as a stick, cane, bottle, club, knife or gun
- Household member in prison
 - Lived with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility
- Separation/divorce
 - Parents were separated or divorced

Neglect

- Emotional neglect:
 - Felt you did not have someone in your life who helped you feel important or special
 - Felt that your family didn't look out for each other, feel close to or support each other
- Physical neglect:
 - Did not have enough to eat, had to wear dirty clothes, and had no one to protect you