St Luke's

UNIVERSITY HEALTH NETWORK

Network & Campus Community Health Needs Assessment Survey Findings

2022

Department of Community Health

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Mission Statement

To create pathways for measurable health equity outcomes through advocacy, access, and navigation of resources for underserved communities and partners

Vision Statement

Our vision is that everyone in our community has access to exceptional healthcare built on a foundation of trust and compassion.

Overview

St. Luke's University Health Network (SLUHN) is a nationally recognized non-profit health network composed of fourteen hospital campuses and more than 300 outpatient facilities serving counties in both Pennsylvania (Berks, Bucks, Carbon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill) and New Jersey (Warren).

As part of the Patient Protection and Affordable Care Act, all non-profit hospitals are required to conduct a Community Health Needs Assessment (CHNA) every three years to maintain tax-exempt status under section 501(c)(3) of the Internal Revenue Code. The goal of the assessment is to identify critical health disparities faced by populations within SLUHN service areas. The assessments state health priorities unveiled by community stakeholders, hospital professionals, and public health experts. This network-wide survey aids in providing further information related to the existing needs within SLUHN communities.

The survey findings are integrated throughout the St. Luke's campus specific CHNA reports, which incorporate primary and secondary data to provide insight into the specific needs of the service area. The 2022 CHNA survey was conducted between May 2021 and September 2021 in all SLUHN network service areas. It was funded and conducted by St. Luke's Department of Community Health. This document serves as a comprehensive summary of survey results from 2012, 2016, 2019, and 2022.

If you have any questions regarding any of these reports, please contact the Department of Community Health at (484) 526-2100. If you would like additional copies, please visit: https://www.slhn.org/community-health/community-health-needs-assessment

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Methodology & Sample

This survey was conducted to answer the following questions:

1. What are the health needs within the fourteen campus SLUHN community?
2. What are the health disparities that need to be addressed?
3. How have the health needs and disparities evolved over time?
4. What are the CHNA trends that highlight the successes and challenges in the SLUHN community?

SLUHN contracted with the Lehigh Valley Research Consortium (LVRC) to conduct the 2012 survey. However, it is important to recognize that the LVRC survey from 2012 utilized a random sample, and the data were weighted for analysis. The 2016, 2019, and 2022 CHNA survey utilized a snowball sample and the data were not weighted. However, comparisons were made to the network populations in the demographics section of the findings to determine the similarities between the network population and survey respondents. This was an anonymous survey and all respondents had to be 18 years or older to complete this survey.

The Community Health Needs Assessment (CHNA) survey was designed using many of the same questions from the 2012, 2016, and 2019 surveys, where possible, in order to study trends in the data. One significant addition to the 2022 CHNA were questions related to COVID-19 and impacts of the pandemic.

Surveys were conducted by staff, volunteers, and community partners to ensure vulnerable populations, who might have otherwise been missed, were included. Respondents were solicited through the local health bureaus, community organizations, community functions, SLUHN clinics, and medical facility waiting rooms. iPads with wireless connectivity were used to administer the survey across the network; however, surveys were also made available through email links, social media, web advertising, and paper copies.

There were a total of 11,523 respondents; however, network and campus-specific data were varied based on completion of surveys and populations within the top 80% of zip codes served by the network or campus. Most surveys were completed in English (98%), while 2% were completed in Spanish and 0.1% were completed in Arabic. Survey responses were predominantly from Northampton (26%) and Lehigh (21%) counties. In 2022, paper copies of the survey were printed to use in community settings in order to achieve greater completion rates, as there were occasional issues with wireless connections, especially in our rural locations. Additionally, it took some respondents longer to complete the survey, or they were unfamiliar with how to use an iPad, which posed further challenges.

Service areas for network populations were defined by determining the top patient zip codes for those who received services from SLUHN in 2019. The top zip codes were defined as those that make up 80% of the population served by each campus (Table 1).

Table 1
St. Luke's University Health Network Top 80% of Zip Codes

St. Luke's University Health Network Campus	# of Surveys completed in the Top 80% of Zip Codes of Patient Encounters (% of total surveys)	Zip Codes (46 total)
Allentown & Sacred Heart	2,092 (18%)	18102, 18103, 18104, 18052, 18062, 18049, 18109, 18080, 18031, 18032, 18106, 18069, 18067, 18101, 18078, 18015, 18037, 18088, 19526
Anderson & Easton	3,232 (28%)	18042, 18045, 18064, 18020, 18013, 18017, 18091, 18040, 18301, 18360, 18072, 18353, 18014, 18302, 18018, 18015
Bethlehem	5,644 (49%)	18017, 18015, 18018, 18064, 18020, 18103, 18042, 18055, 18045, 18040, 18102, 18014, 18067, 18109, 18036, 18104, 18052, 18034, 18229, 18013, 18951, 08865, 18360, 18049, 18301, 18062
Geisinger St. Luke's	536 (5%)	17972, 17901, 17961, 19526, 17922, 17954, 17936, 17960, 17929, 17931, 17970, 17976
Monroe	1,041 (9%)	18360, 18301, 18353, 18466, 18330, 18058, 18302, 18210, 18324, 18322, 18326, 18610, 18372, 18344, 18332, 18334, 18321
Quakertown & Upper Bucks	1,522 (13%)	18951, 18073, 18036, 18041, 18944, 18076, 18034, 18960, 18054, 18955, 18930, 19504, 18015, 18969, 18942, 18972, 18074, 18964, 18092
Warren	1,389 (12%)	08865, 07882, 07823, 08886, 18042, 07863, 18040, 18045
Rural West (Carbon, Lehighton, Miners)	1,004 (9%)	18235, 18252, 18071, 18229, 18232, 18240, 18250, 18218, 18210, 17960, 18080, 18058

Executive Summary

As part of the Patient Protection and Affordable Care Act, all non-profit hospitals are required to conduct a Community Health Needs Assessment (CHNA) every three years in order to remain a tax exempt organization under section 501(c)(3) of the Internal Revenue Code. The goal of the assessment is to identify critical health disparities faced by residents within the community. The survey findings serves as one of the primary data sources.

St. Luke's University Health Network (SLUHN) is a fully integrated, regional, non-profit network of more than 15,000 employees providing services at 14 hospitals and more than 300 outpatient sites in Eastern Pennsylvania and Western New Jersey, serving 11 counties: Lehigh, Northampton, Berks, Bucks, Carbon, Montgomery, Monroe, and Schuylkill in Pennsylvania, and Warren and Hunterdon in New Jersey. Dedicated to advancing medical education, St. Luke's is the preeminent teaching hospital in central-eastern Pennsylvania. In partnership with Temple University, St. Luke's created the region's first and only regional medical school campus and, as of June 2022, has 34 fully accredited graduate medical education programs and 95% of medical residents and fellows pass their board exams on the first try. Additionally, SLUHN has the nation's longest continuously operating School of Nursing, established in 1884.

Due to the geographic overlap of campus service areas, some hospital campuses in SLUHN were combined for both the CHNA and this survey findings document. As indicated throughout this document, the following campuses were reported together:

- Allentown and Sacred Heart Hospital (Lehigh county)
- Anderson and Easton (Northampton county)
- Carbon, Lehighton, Miners (i.e., Rural West) (Carbon and Schuylkill counties)
- Quakertown and Upper Bucks (Bucks county)

Additionally, the CHNA was conducted in collaboration with the local Federally Qualified Health Center look-alike, Star Community Health, in the following reports:

- Allentown and Sacred Heart Hospital (Lehigh county)
- Anderson and Easton (Northampton county)
- Bethlehem (Northampton and Lehigh counties)
- Warren (Warren county, New Jersey)

There are numerous socioeconomic, cultural, and environmental factors that constitute the social determinants of health, and they undoubtedly influence the health and well-being of our population. SLUHN has many services available to help improve health in our region, and a concentrated effort will be necessary amongst all those who contribute to our community's health to invest in sustainable and effective programs to address top priorities.

From our analysis of primary and secondary data, as well as the Community Health Needs Assessment (CHNA) key informant interviews and partnerships with community members, we see significant issues facing our communities that impede healthy lifestyles. Our efforts in prevention, care transformation, research, and partnerships help support our work to promote sustainable programs and opportunities for our reach to focus on a wide range of health promotion and quality of life initiatives. While there are many issues that need to be addressed, the results from the 2022 CHNA found the top priorities for the St. Luke's Network include:

Table 2

2022 Community Health Needs Assessment
Top Priorities
COVID-19
Access to Care
Workforce Development
Food Insecurity
Obesity Reduction
Physical Activity Promotion
Mental Health
Opioids and other Substance Use
Housing
Transportation

The needs discussed within the health categories outlined in this document will serve as our guide in creating a detailed network implementation plan to best address the needs of the St. Luke's University Health Network service areas using three pillars:

*Wellness and Prevention	*Care Transformation	*Research and Partnerships

When looking at the demographic characteristics of the 11,523 survey respondents to the 2022 CHNA survey, the majority were female (64%), 41% over the age of 65, 89% White, and 90% Non-Hispanic. Additionally, 48% were employed or self-employed, 75% owned their homes, 75% were educated beyond high school, and 56% had an annual household income at or above $60,000. When looking at health behaviors, most survey respondents did not exercise the recommended amount per week, and did not have adequate fruit and vegetable consumption based on the Healthy People 2030 guidelines. Approximately one-quarter of survey respondents reported having a healthy weight, while the remaining three-quarters reported being overweight or obese, following national trends. Meanwhile, high rates of chronic health conditions were of concern, especially for high blood pressure, high blood cholesterol, arthritis, diabetes, and mental health. Survey responses showed that social determinants of health such as insurance type, education, and income levels all had noticeable impact on health behaviors and the clinical care that survey respondents received. In many instances, data was pulled by income to highlight these differences.

Demographics

Age

Most survey respondents were 65 and older (41%) followed by 55 to 64 years old (21%). When looking at the age breakdown by campus, Geisinger St. Luke's had the largest portion of respondents ages 25 to 34 (24.4%). The survey assessed individuals 18 and older, therefore ages under 18 are not reflected in survey results. The median age of all respondents was 60 years old. Based on the U.S. Census findings, the data from the survey provide insight into network-specific findings that are skewed with a larger population of 65 and older respondents.

The Geisinger St. Luke's service area had the largest percentage of respondents in the 25 to 44 age range (39.9%) and the Warren service area had the lowest (14.3%). In the 45 to 64 age range, the Monroe service area had the highest percentage of respondents (44.7%) and Geisinger St. Luke's service area had the lowest (30%). The Warren service area had the highest percentage of respondents age 65 and over (46.1%) while Geisinger St. Luke's service area had the lowest (26.5%).

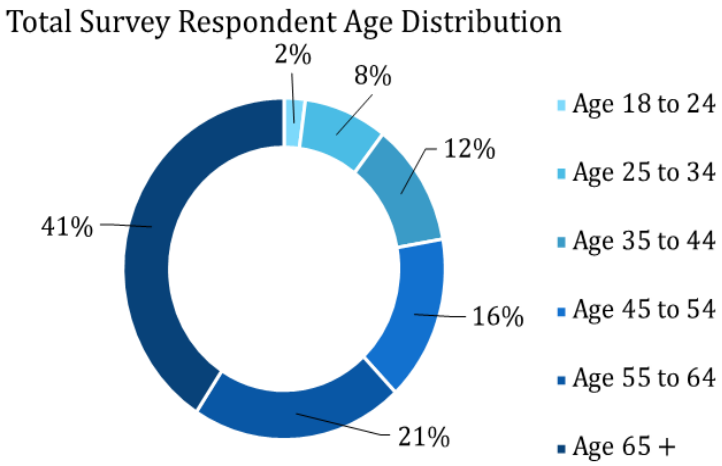


Figure 1

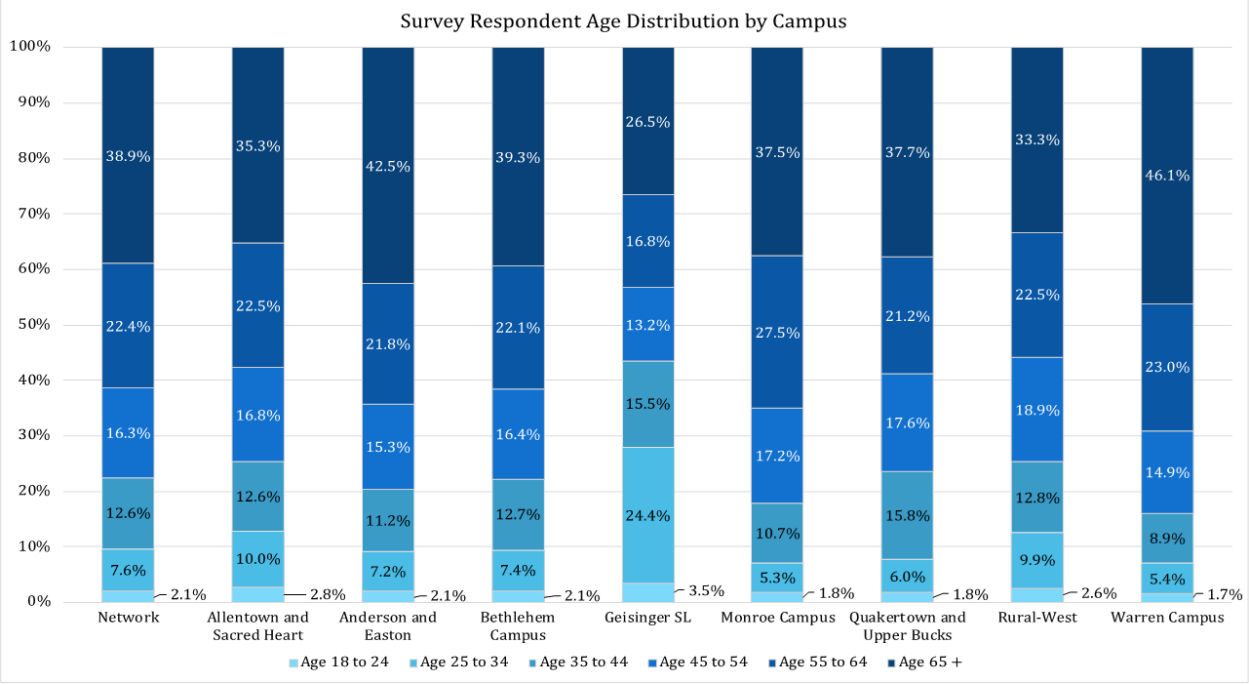


Figure 2

Race

Examining the racial demographic of the SLUHN is one aspect of understanding the needs in the service area. The majority of CHNA survey respondents in the Network identified as White (89.2%). Due to the small number of survey respondents that identified as American Indian and Alaska Native, their responses were combined with Other Race. The Quakertown and Upper Bucks, Geisinger St. Luke's, and Rural West service areas had more than 90% of people identifying as White while the Monroe service area had the least amount of respondents identifying as White (80.2%).

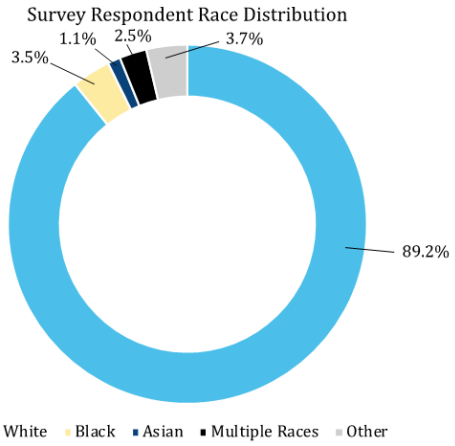


Figure 3

The Monroe (19.8%) and Allentown and Sacred Heart (18.5%) service areas had the highest percentage of respondents who identified as Non-White (American Indian, Alaska Native, Asian, Black, Other), whereas the Rural West (5.5%) and Geisinger St. Luke's (7.5%) had the smallest percentage of respondents who identify as Non-White. Across SLUHN, 3.7% of respondents identified as Other Race(s), Black (3.5%), Multiple Races (2.5%), and Asian (1.1%).

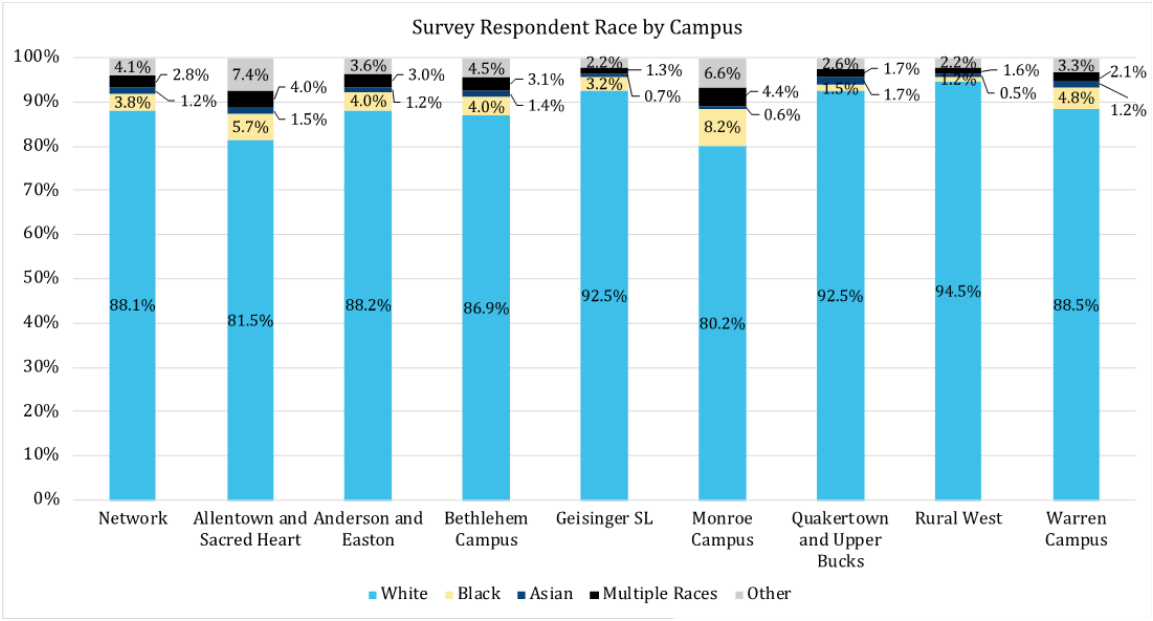


Figure 4

Ethnicity

Overall, 10% of CHNA survey respondents identified as Hispanic. The Hispanic population varies widely throughout the Network, with only 4.3% of respondents in Rural West identifying as Hispanic and 18.7% of respondents from the Allentown and Sacred Heart service area identifying as Hispanic.

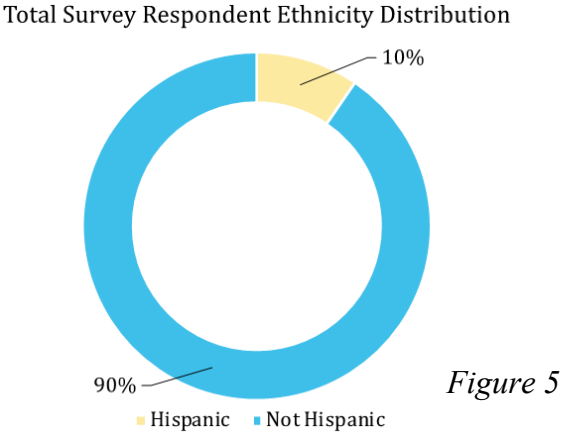


Figure 5

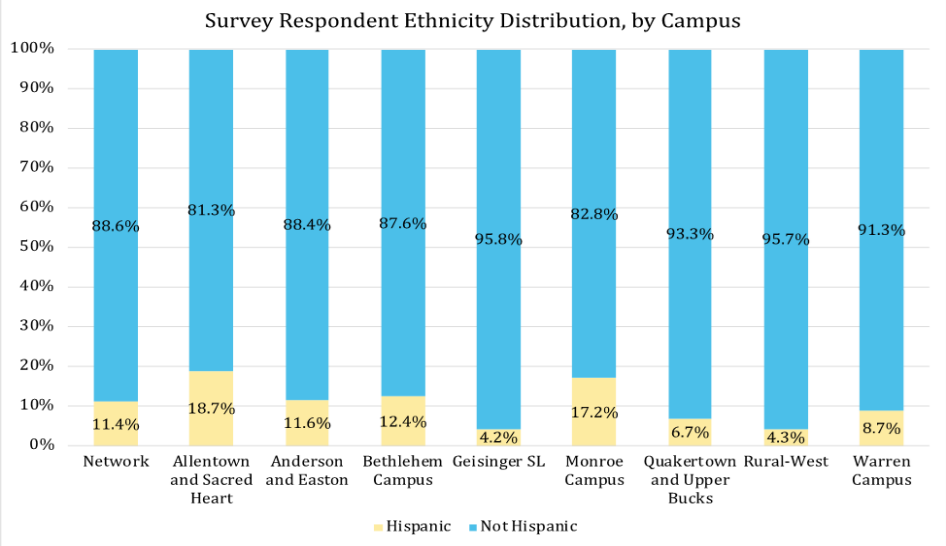


Figure 6

Sex

Survey respondents were asked to indicate their sex at birth (i.e., birth certificate designation). Results show that 64% of respondents were designated female at birth and 36% male. In the Geisinger St. Luke's service area, 76.1% of respondents were designated female, the highest in the Network, while the lowest percentage of respondents was 60.3% in the Monroe service area.

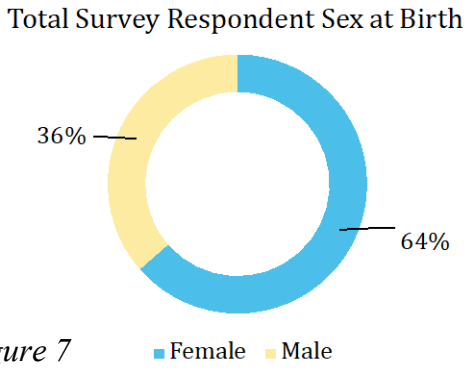


Figure 7

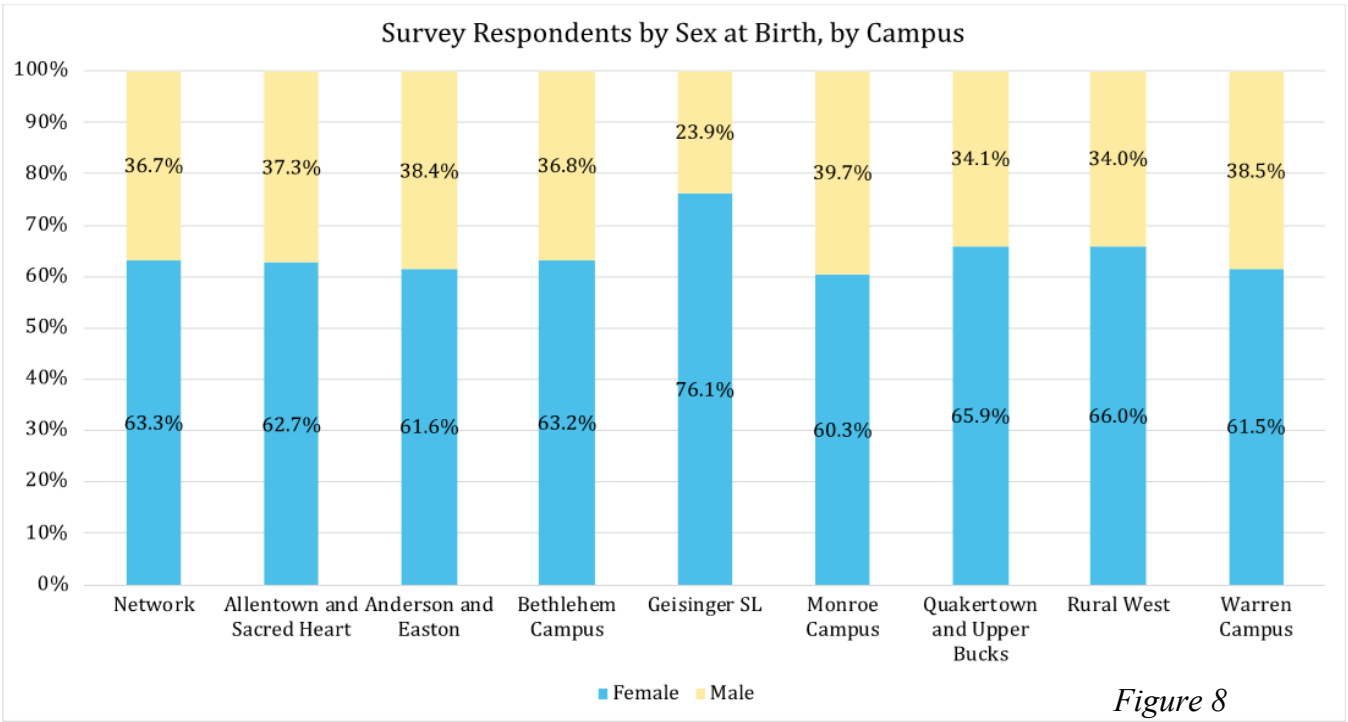


Figure 8

Social & Economic Factors

Household Income

Figure 9

The 2021 Federal Poverty Level (FPL) guideline is measured at $12,880 a year for one person and $26,500 for a family of four. If one person is 200% of the Federal Poverty Level, they make $25,760; if a family of four is 200% of the Federal Poverty Level, they make $53,000. In Pennsylvania, 28.3% of people live at or 200% below the FPL; 22.9% in New Jersey. The Allentown and Sacred Heart service area has the most people living at or 200% below the FPL (32%), and the Quakertown and Upper Bucks service area has the least amount (19.2%). The ACS reported that the median household income in the U.S. is $62,843. In Pennsylvania, the median household income is $61,744 and $82,545 in New Jersey. It is important to note that 15% of respondents in the Network fell into the less than $25,000 category, which is considered below the poverty line for a family of four according to the Department of Health and Human Services as of January 2021.

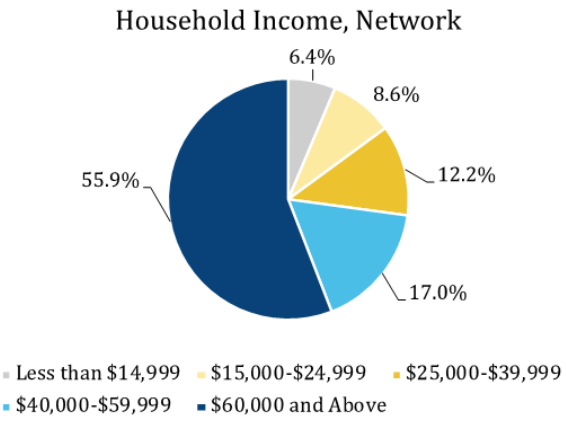
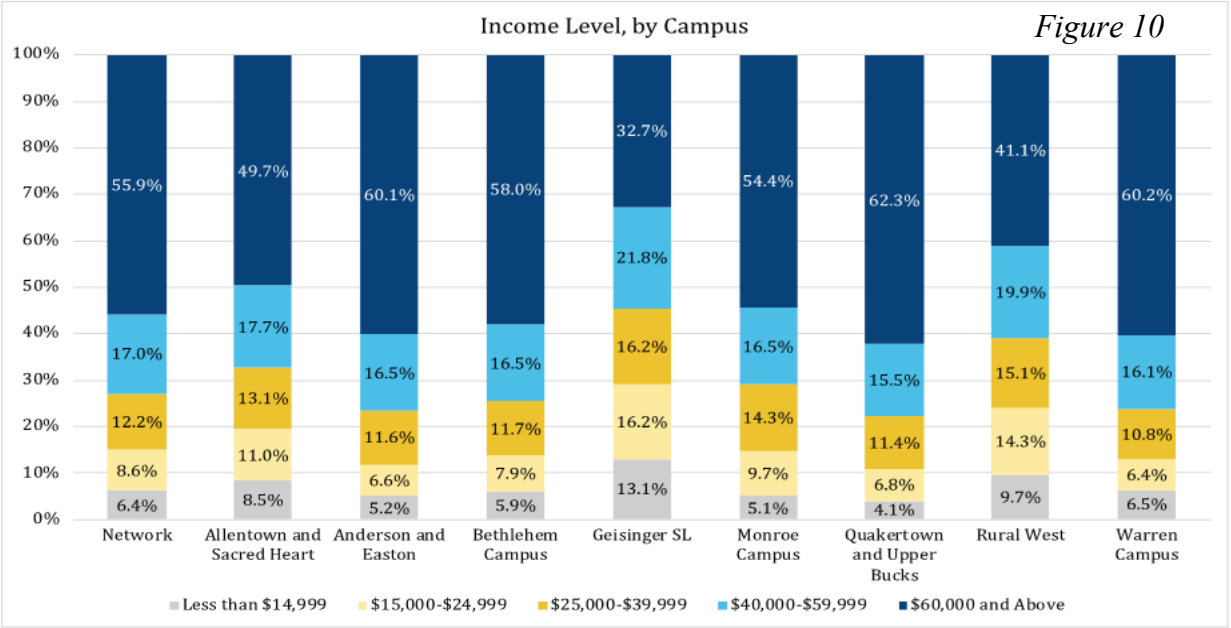


Figure 10



The Geisinger St. Luke's service area had the highest percentage of respondents (13.1%) making less than $14,999, while Quakertown and Upper Bucks had the lowest (4.1%). Conversely, Quakertown and Upper Bucks had the highest percentage of respondents making more than $60,000 (62.3%), while Geisinger St. Luke's had the lowest (32.7%). Income is a social determinant of health, with higher income correlated with better health outcomes. The variability seen throughout the Network (Figure 10) is critical as SLUHN examines the needs of the community related to access to care, preventing chronic disease, and mental and behavioral health.

When considering income in relation to ethnicity, survey data indicated that higher percentages of non-Hispanic respondents reported higher household income compared to Hispanic respondents. Only 17% of Hispanic survey respondents reported having an income higher than $100,000 compared to 30% of non-Hispanic respondents. Conversely, only 5% of non-Hispanic respondents reported a household income less than $14,999 compared to 17% of Hispanic respondents. The household income trend (Figure 11) indicates that non-Hispanic respondents are more likely to have a higher income compared to Hispanic respondents. This trend is also reflected nationally, with $54,632 as the median household income for the Hispanic population compared to the national average of $62,843.

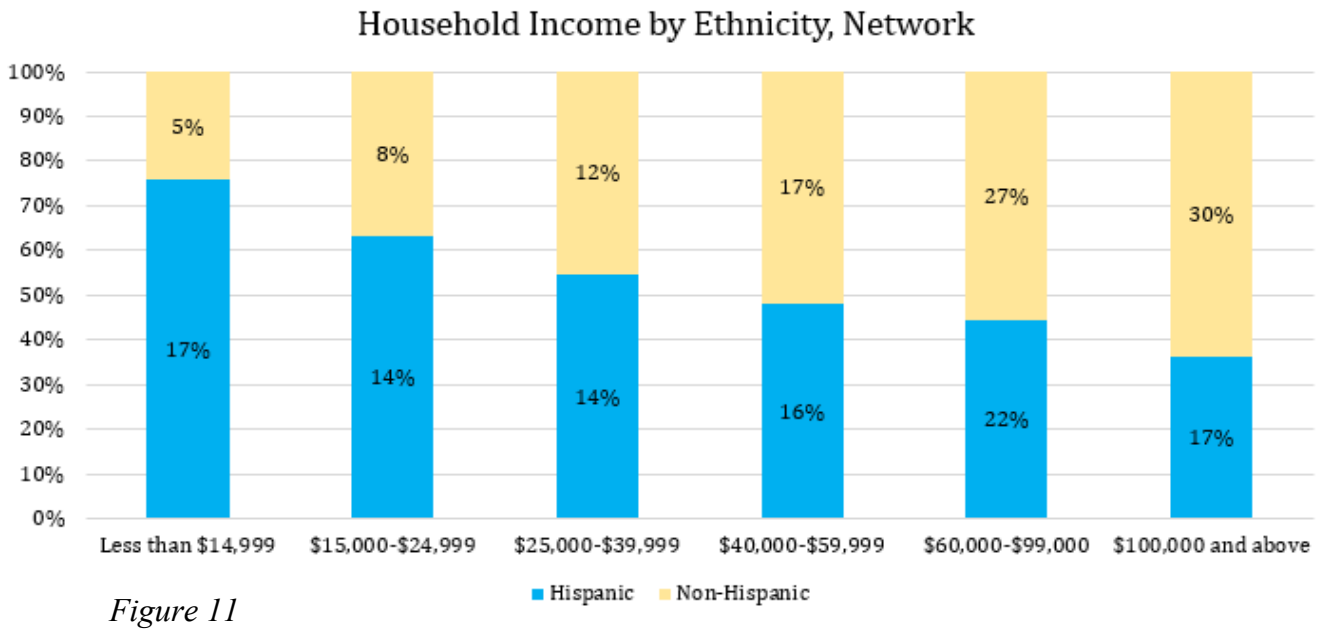


Figure 11

Racial disparities in income are also seen nationally, with Black American households making $43,674 compared to White American households ($68,943) and Asian households ($91,775). These disparities were also reflected in the SLUHN service area, with 30% of White and 55% of Asian respondents making more than $100,000 compared to only 23% of Black respondents. When looking at lower income brackets by race, 25% of Black respondents reported an income less than $25,000, compared to only 13% of White and 14% of Asian respondents.

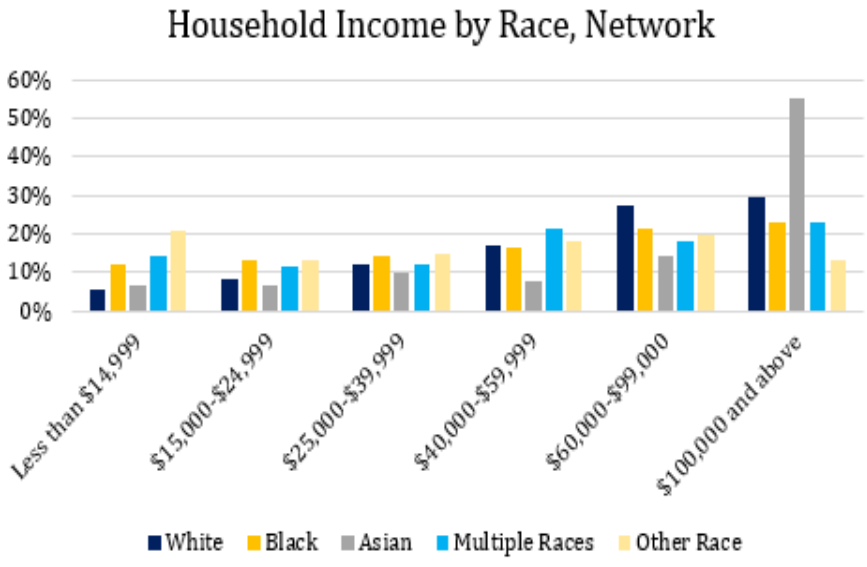


Figure 12

Marmot's longitudinal Whitehall Study identified a relationship between income and health outcomes, where higher income is linked with better health outcomes. Similarly, 2022 CHNA survey response data indicate that there is a clear relationship between income and insurance status, where 33.6% of respondents in the $14,999 or less annual household income category reported that their primary insurance was Medicaid, 12.3% primary insurance, 6.9% didn't know, and 5.6% had no coverage/pay cash. Conversely, 1.0% of respondents in the $60,000 or above annual household income category reported that their primary insurance was Medicaid, 0.4% didn't know, and 0.8% had no coverage/pay cash (Figure 13). Additionally, 71.1% of respondents with a household income of $60,000 and above had private insurance compared with only 12.3% of respondents making less than $14,999. Because of these relationships, income was the primary indicator used to represent vulnerable populations in survey analysis.

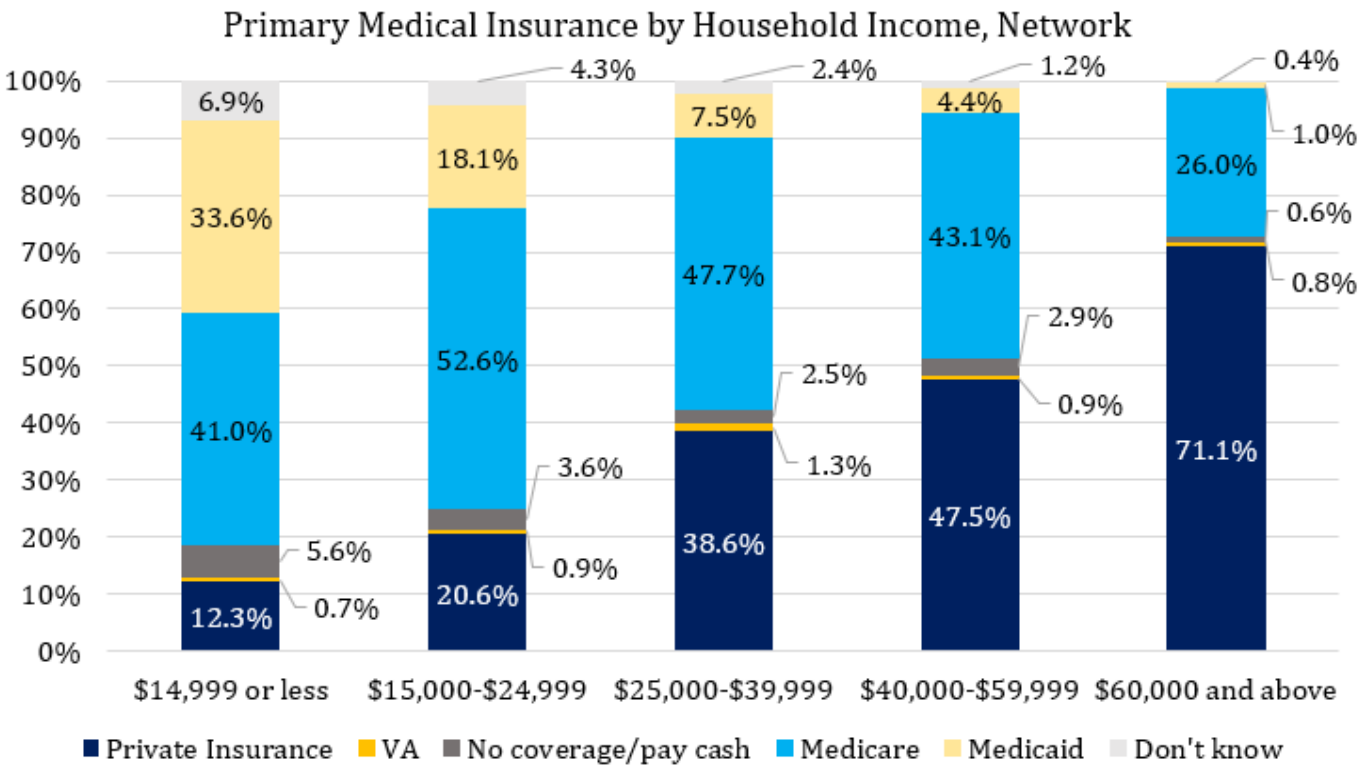


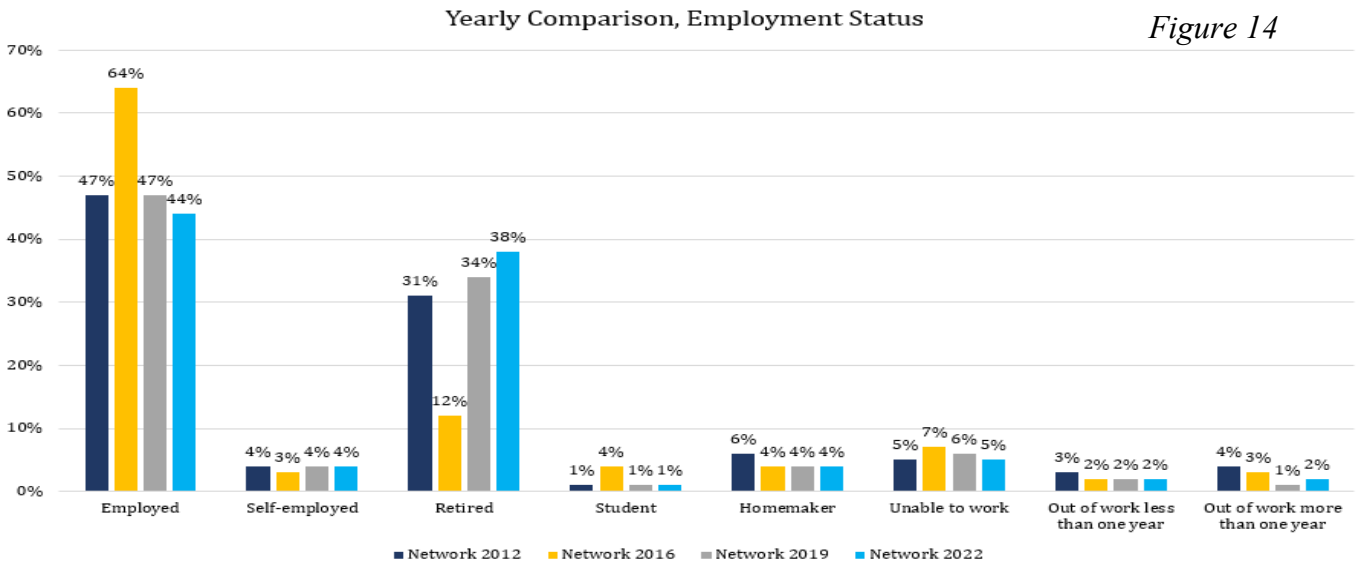
Figure 13

Social & Economic Factors

Employment Status

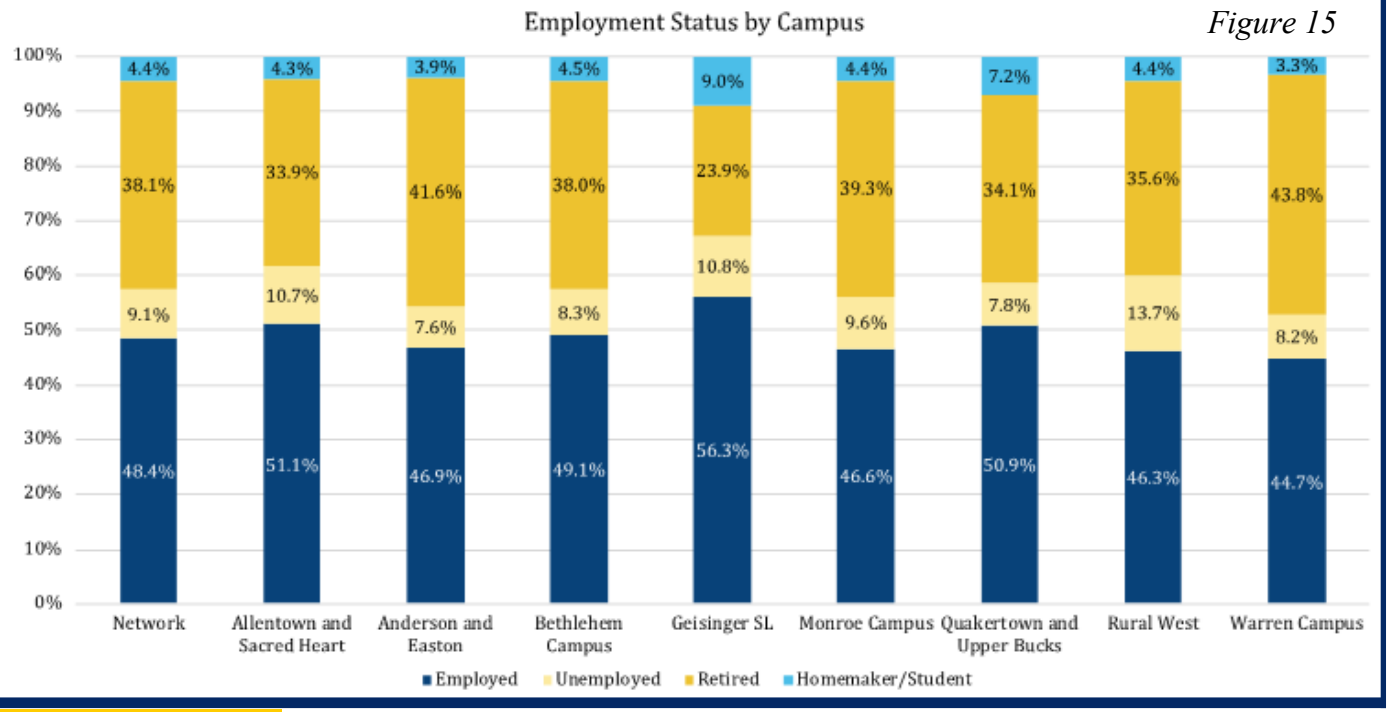
Trends in employment status remained consistent with previous years, with a slight increase in retired respondents (38%) and a decrease in employed (44%) from 2019. The age distribution of retired survey respondents aligns with the age distribution, with 41% ages 65 and older.

Figure 14



Geisinger St. Luke's had the highest percentage of employed (i.e., employed, self-employed) respondents while the Warren campus had the lowest. The Rural West campuses had the highest percentage of unemployed individuals (i.e., out of work, unable to work) and Anderson and Easton had the lowest (Figure 15).

Figure 15

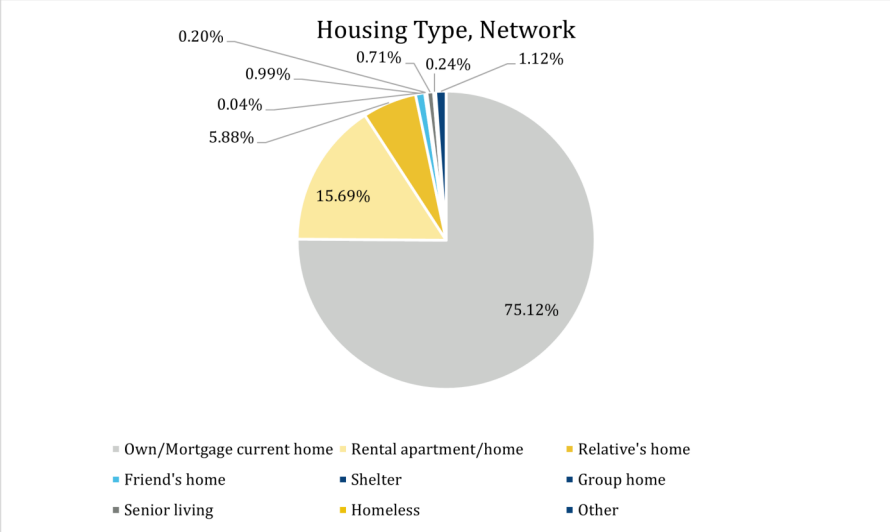


Social & Economic Factors

Housing

The 2022 CHNA asked respondents to indicate their housing type. Due to small sample size, the group "Other" consists of individuals living in a shelter (.04%), group home (0.2%), senior living (0.71%), homeless (0.24%), or Other (1.12%). The majority of respondents own or have a mortgage on their home (75.1%), followed by renting a home (15.7%), living in a relative's home (5.9%), Other (2.3%), and living in a friend's home (1%).

Figure 16



In 2012 and 2016, the survey asked respondents whether they rent or own their homes. In 2019 and 2022, the question was revised to include diverse housing situations in the service area. Trends during the last ten years related to renting or home ownership indicate a decrease in respondents renting a home or apartment, and an increase in home ownership (Figure 17).

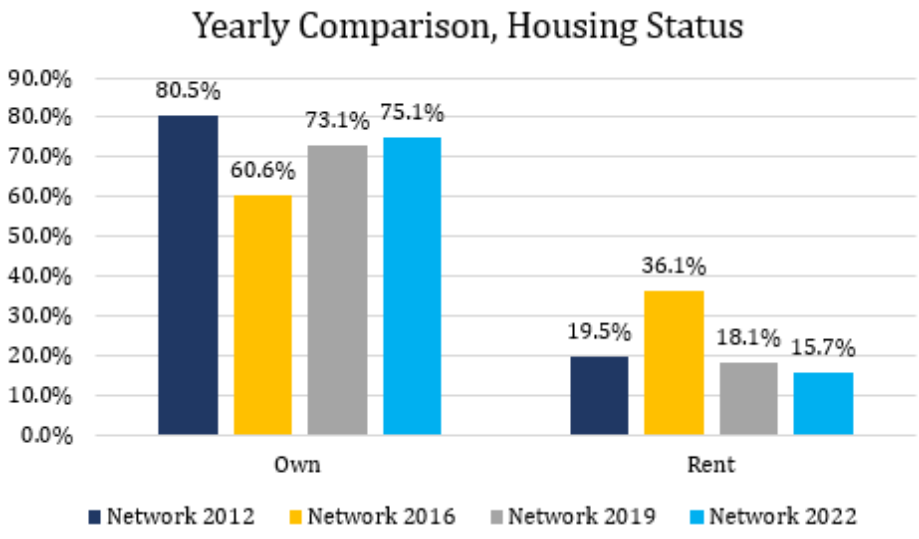
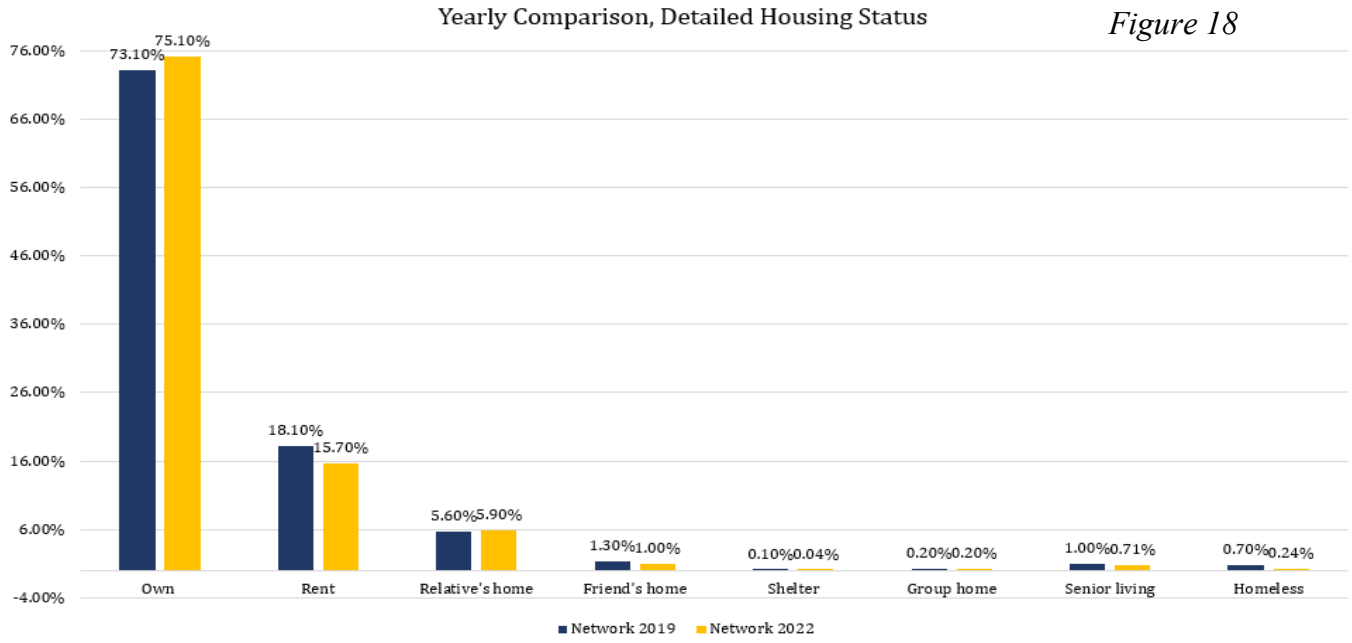


Figure 17

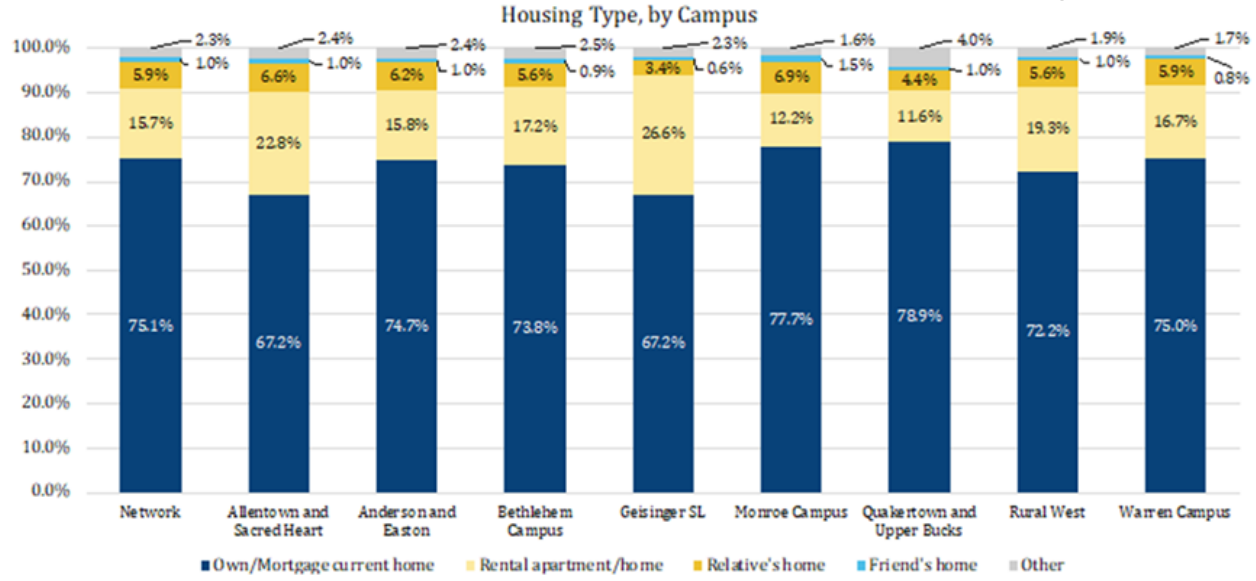
Trends in more diverse living situations between 2019 and 2022 show relatively similar percentages of respondents living in different forms of housing, or homeless (Figure 18).

Figure 18



Housing situation by campus in the 2022 CHNA indicated that the highest percentage of home ownership was in the Quakertown and Upper Bucks service area (78.9%) while Allentown and Sacred Heart and Geisinger St. Luke's had the lowest percentage of home owners (67.2%). The Geisinger St. Luke's service area had the largest percentage of renters (26.6%) and the Quakertown and Upper Bucks service are had the lowest (11.6%). The Monroe campus service area had the highest percentage of respondents living with a relative (6.9%). While the Quakertown and Upper Bucks service area had the highest percentage of home ownership, it also had the highest percentage of respondents who reported other types of housing. When broken down further, in the Quakertown and Upper Bucks service area, 0.07% of individuals reported living in a shelter, 0.91% in a group home, 0.98% in senior living, 0.33% were homeless, and 1.76% Other.

Figure 19



Social & Economic Factors

Education

Education is a social determinant of health, and the education goal for Healthy People 2030 is to increase educational opportunities and help children and adolescents do well in school, as higher levels of education are correlated with longer and healthier lives. CHNA trends show a longitudinal decrease in respondents that did not complete high school, and an increase in respondents that completed a post graduate degree. Variability in high school diploma/GED, while some college and four-year college degree remained relatively similar (Figure 20).

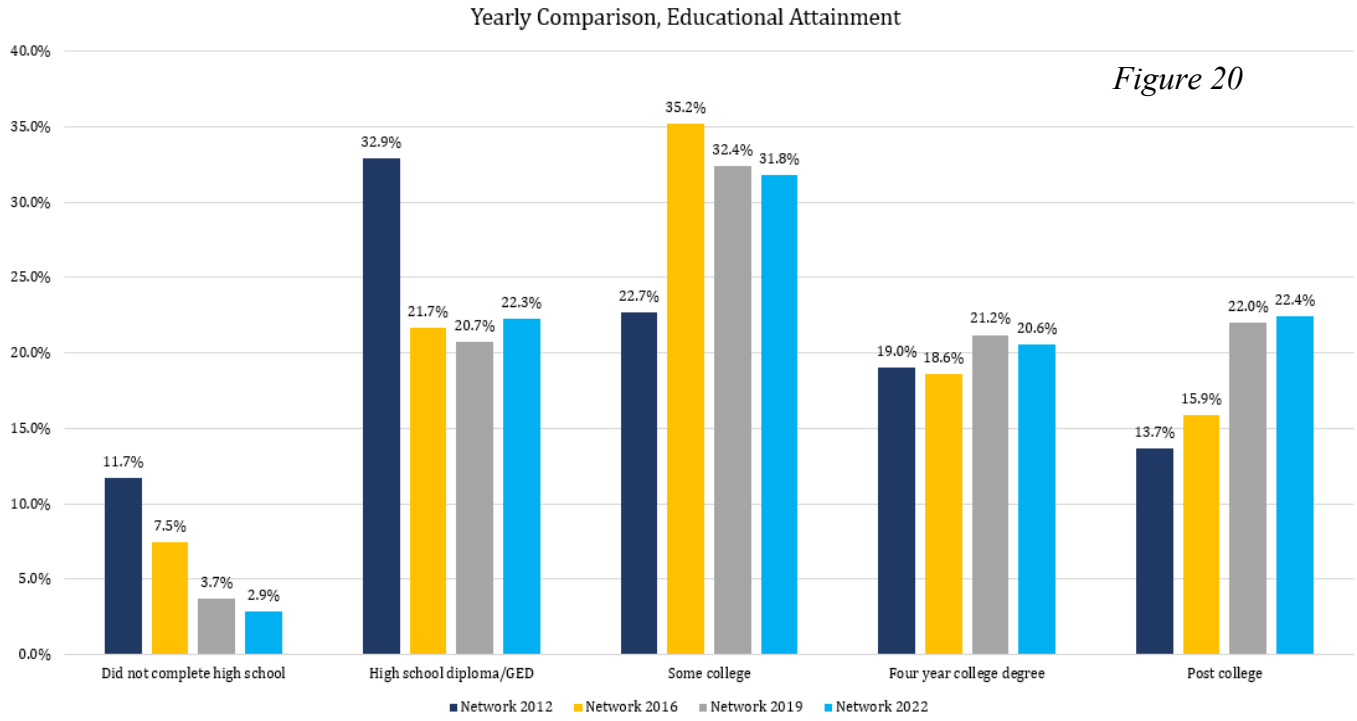


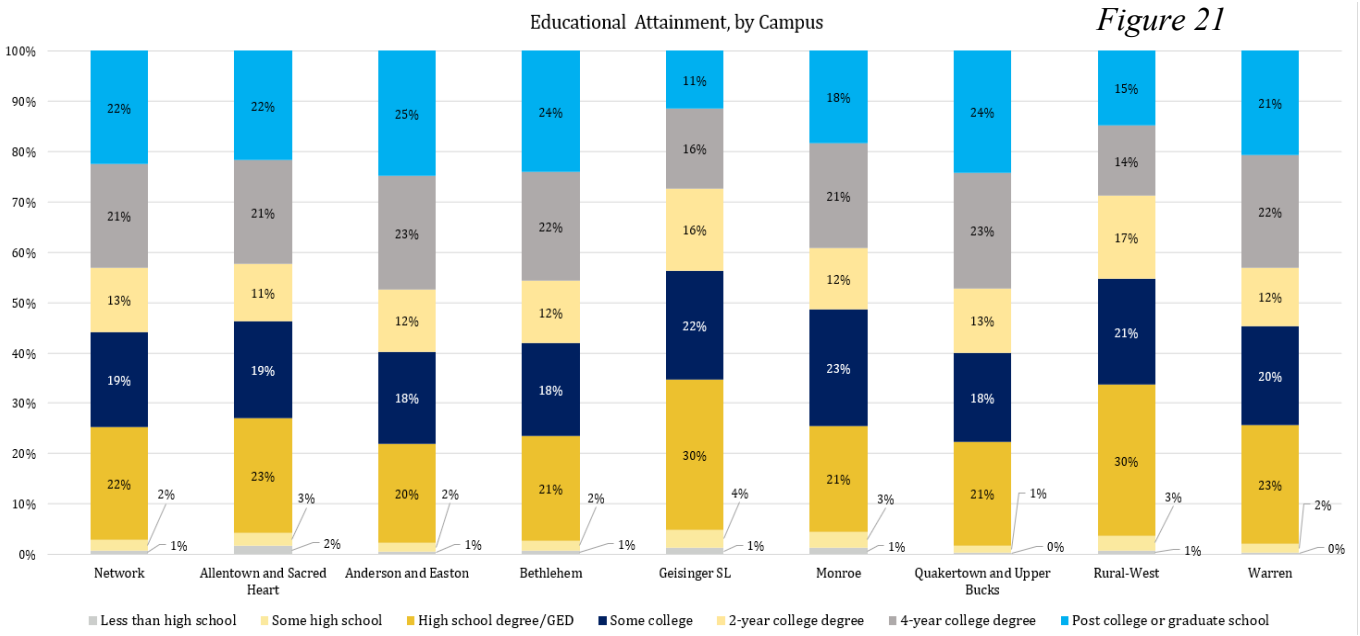
Figure 20

When income is considered in relation to education, 44.6% of survey respondents in 2022 with income less than $15,000 and 21.4% of those with income between $15,000 and $24,999 had completed less than high school, compared to zero respondents whose income was $100,000 or above. Additionally, 40.3% of respondents with an income less than $15,000 and 39.5% of respondents with an income between $15,000 and $24,999 had a high school diploma or GED, compared to 12.7% of those whose income was $60,000 or above. Conversely, 25.6% of respondents with an income less than $15,000 and 30.4% of respondents with an income between $15,000 and $24,999 had at least a 2-year college degree, compared to 70.1% of those making $60,000 or above.

When looking at educational attainment by campus, small percentages of respondents had less than a high school diploma/GED, with the Allentown and Sacred Heart service area the highest (2%) while both Warren and Quakertown and Upper Bucks had no respondents with less than a high school diploma/GED. Geisinger St. Luke's and the Rural West service areas reported the highest percentage of high school degree/GED (30%) and Anderson and Easton reported the lowest (20%) (Figure 21).

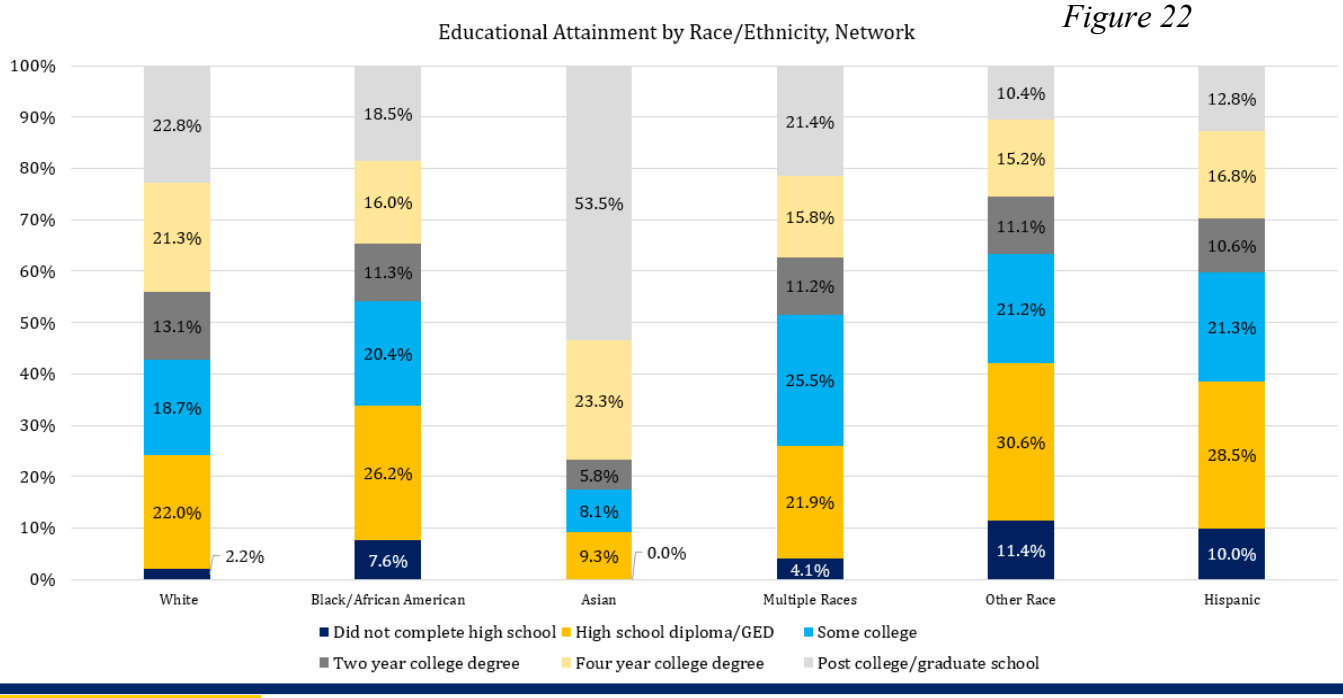
Network-wide, 75% of respondents reported education beyond high school. The Anderson and Easton and Quakertown and Upper Bucks service areas reported the highest percentage of respondents beyond high school (78%), with the Anderson and Easton service area having the highest percentage of respondents with post college or graduate school (25%). The Geisinger St. Luke's service area respondents reported the lowest percentage of post college or graduate school respondents (11%).

Figure 21



The relationship between educational attainment, race, and ethnicity also differs within the Network. For respondents that did not complete high school, none were Asian and only 2.2% White, compared to Other Race (11.4%), Black (7.6%), and Multiple Races (4.1%). Additionally, 10% of Hispanic respondents reported not graduating from high school. The majority of Asian respondents (53.5%) reported post college/graduate studies compared to only 10.4% of Other Race and 12.8% of Hispanic respondents.

Figure 22



Physical Environment

Community Safety

Perceived safety is an important component of integrating into one's community. People who do not feel safe in their neighborhood are less likely to participate in outdoor activities and are more likely to isolate themselves, which can have negative impacts on both physical and mental health. The majority of survey respondents agreed (53.3%) or strongly agreed (35.6%) with the statement that their community is a safe place to live.

Quakertown and Upper Bucks service area respondents had the highest percentage (90.8%) of respondents who agreed or strongly agreed with the statement that their community is a safe place to live. However, 17.3% of Allentown and Sacred Heart service area respondents either strongly disagreed, disagreed, or neither agreed or disagreed with the statement that their community is a safe place to live.

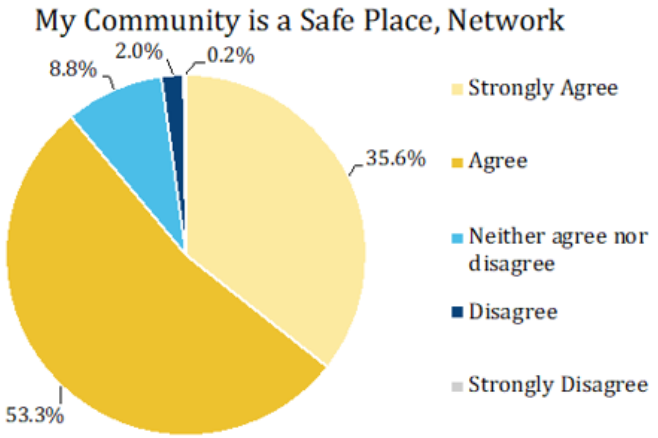
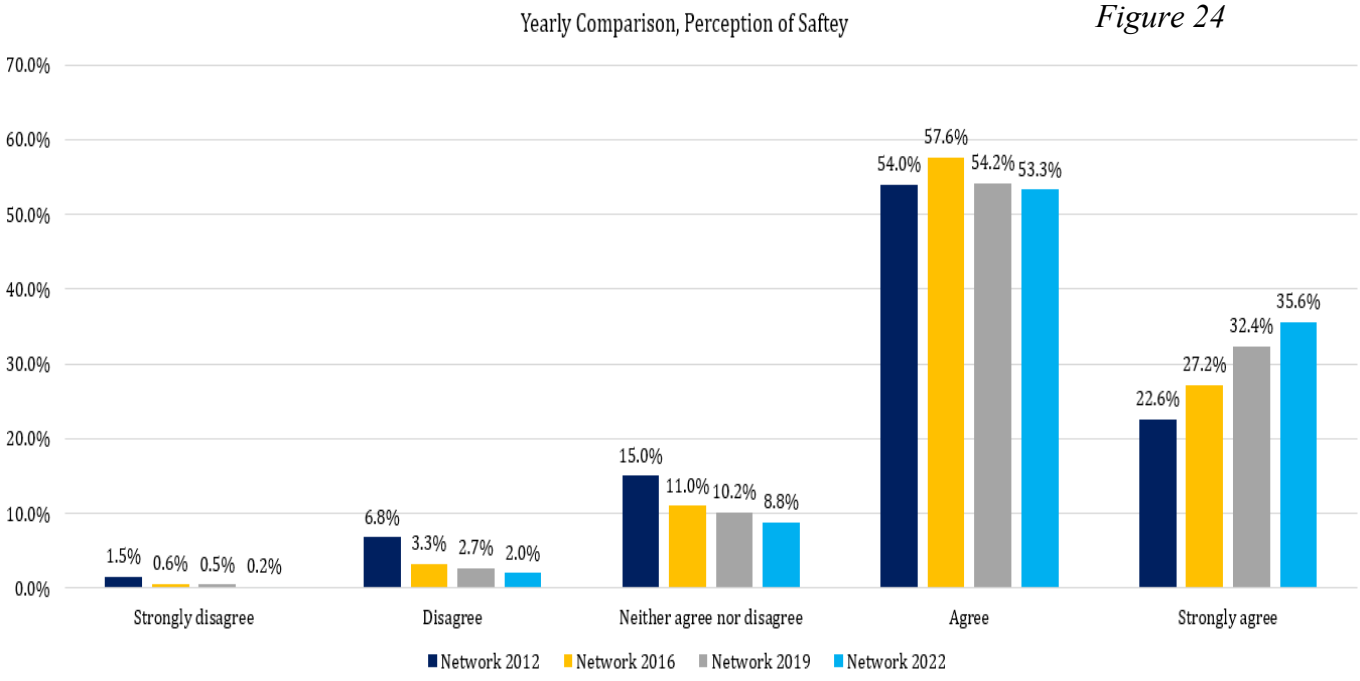


Figure 23

Trends in survey respondents perceived safety in the community has positively increased over time, with only 2.2% of respondents in the 2022 CHNA cycle reporting that they strongly disagreed or disagreed that their community was a safe place to live compared to 8.3% of respondents in 2012. Additionally, 76.6% of respondents in 2012 agreed or strongly agreed that their community was a safe place to live compared with 88.9% in 2022.

Figure 24



The 2022 CHNA indicated small differences within service areas related to perceived safety in the community. Overall, all campuses and service areas had a majority of respondents either agree or strongly agree that their community was a safe place to live, with the Quakertown and Upper Bucks service area reporting the highest percentage of respondents that agreed or strongly agreed that their community was a safe place to live. The Geisinger St. Luke's service area reported the lowest percentage of respondents that agreed or strongly agreed (84.8%).

The Allentown and Sacred Heart service area had the highest percentage of respondents that reported they disagreed or strongly disagreed that their community was a safe place to live (3.6%). The Quakertown and Upper Bucks service area respondents reported that only 0.9% disagreed or strongly disagreed that their community was a safe place to live, the lowest in the Network.

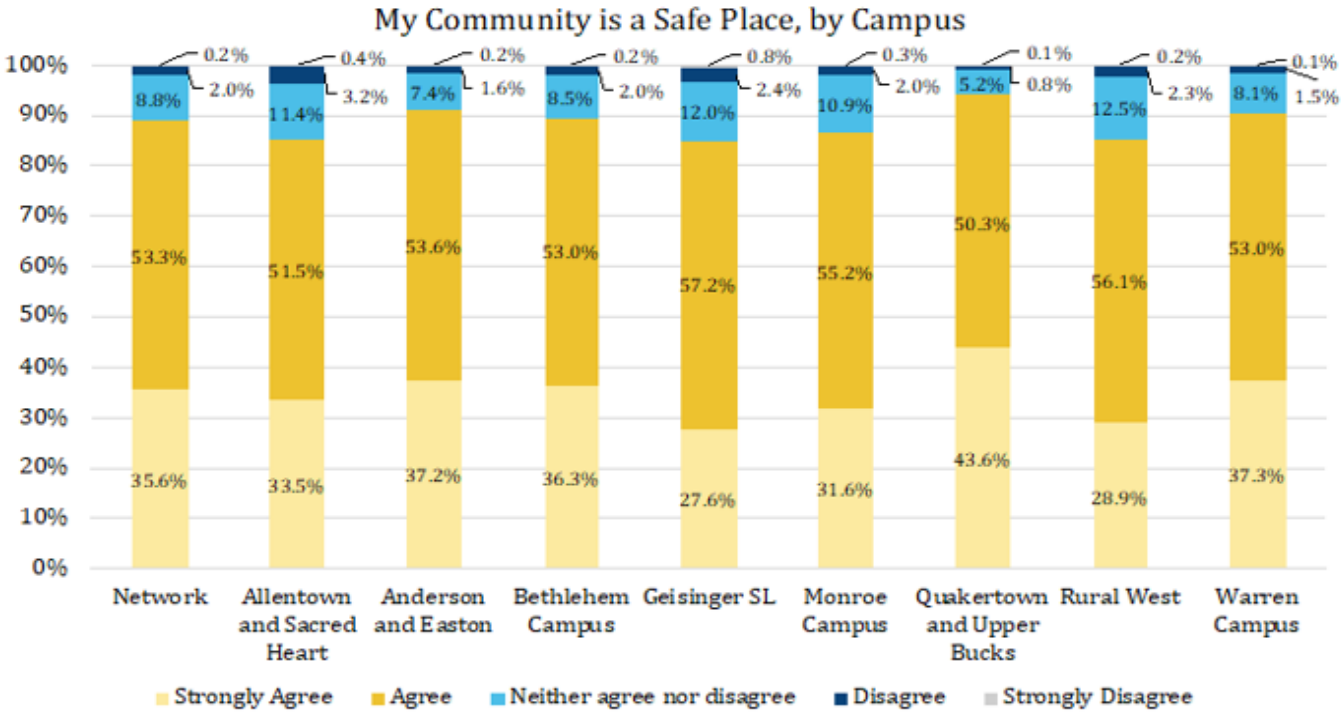
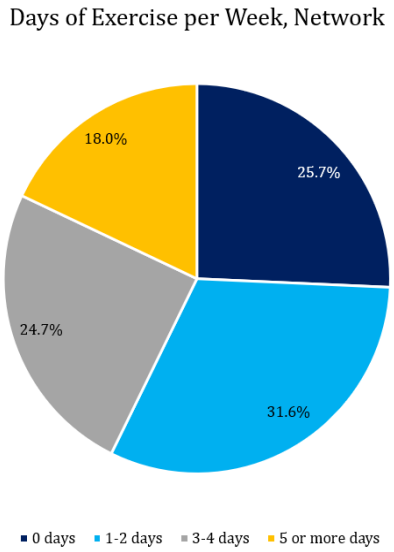


Figure 25

Health Behaviors

Physical Activity

Figure 26

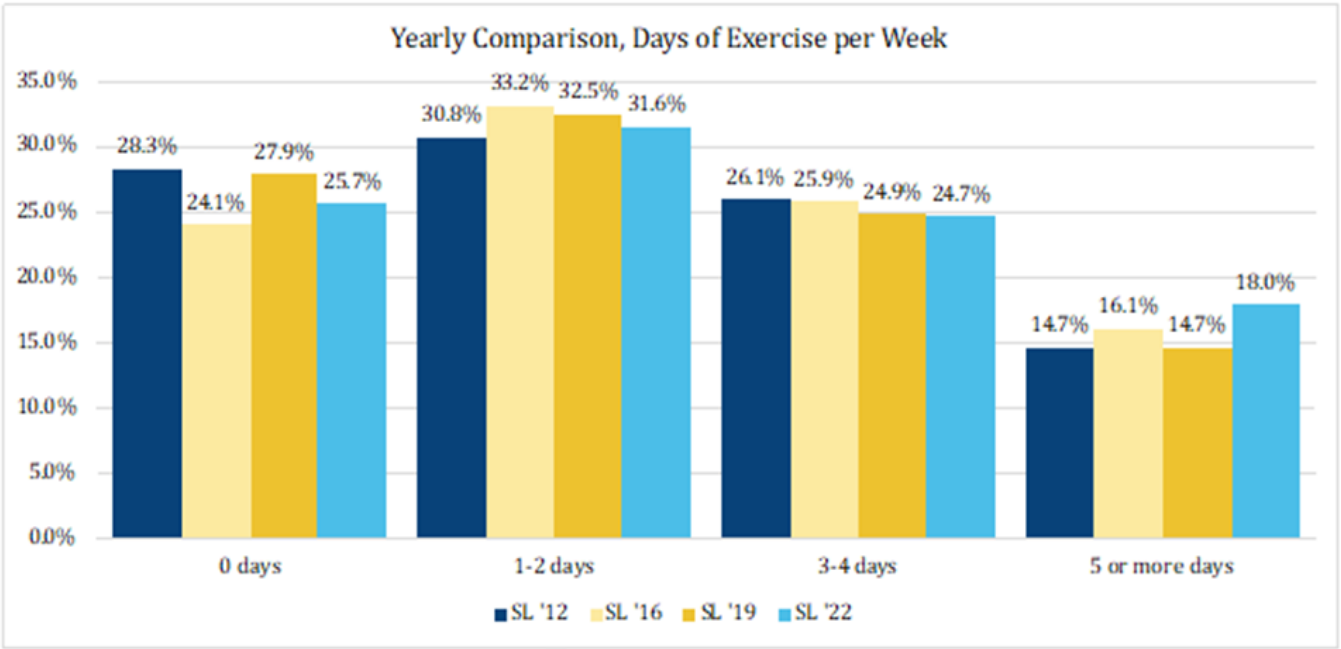


The Healthy People 2030 target recommends that adults should be exercising 150 minutes per week, an average of 30 minutes a day, five days a week. The target for 2030 is 28.4% of adults aged 18 and older meet the guidelines, and only 24.0% of adults met the guidelines in the United States in 2018.

The 2022 CHNA asked survey respondents on average, how many days per week they exercise for at least 30 minutes. Only 18% reported exercising at least five days per week and 25.7% reported not exercising at all.

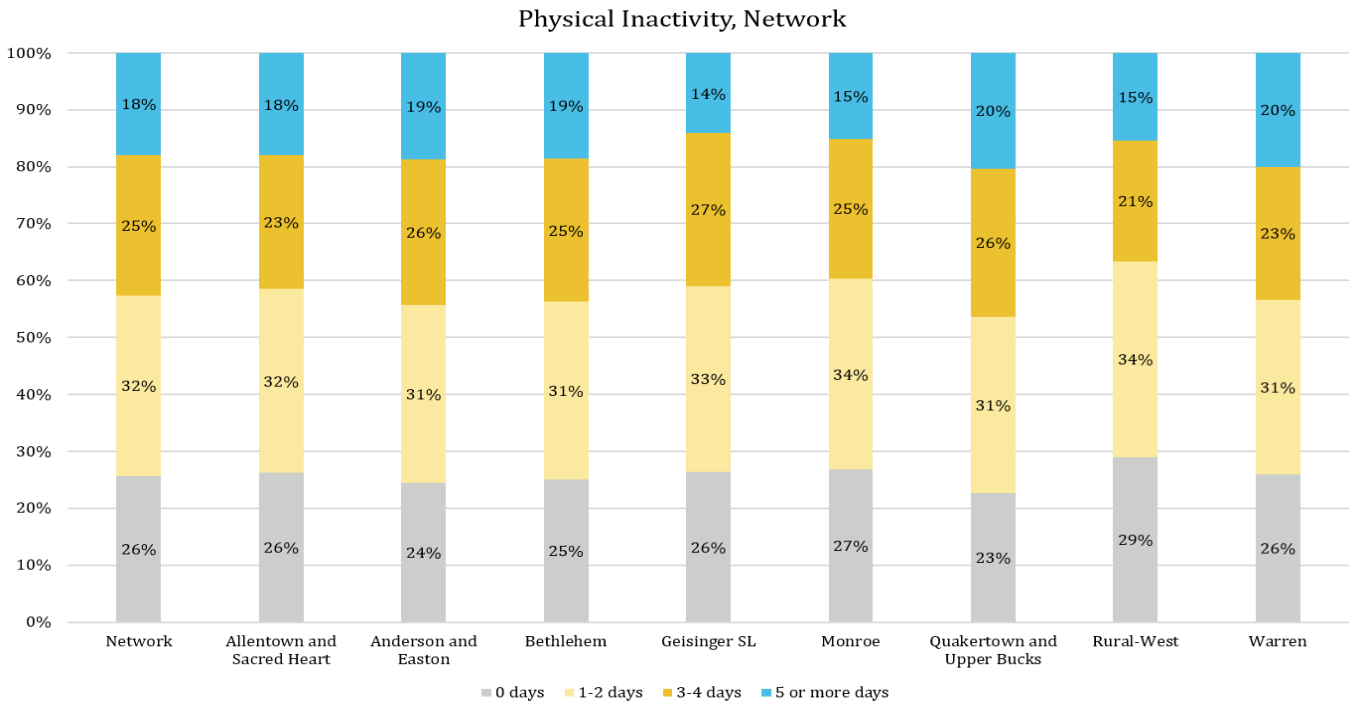
While these numbers remain low and well below both the national average and Healthy People 2030 target, trends indicate some improvement in exercise over time. The number of people who reported exercising five or more days per week increased from 14.7% in 2019 to 18% in 2022. Additionally, the number of respondents that reported no exercise at all dropped from 27.9% in 2019 to 25.7% in 2022.

Figure 27



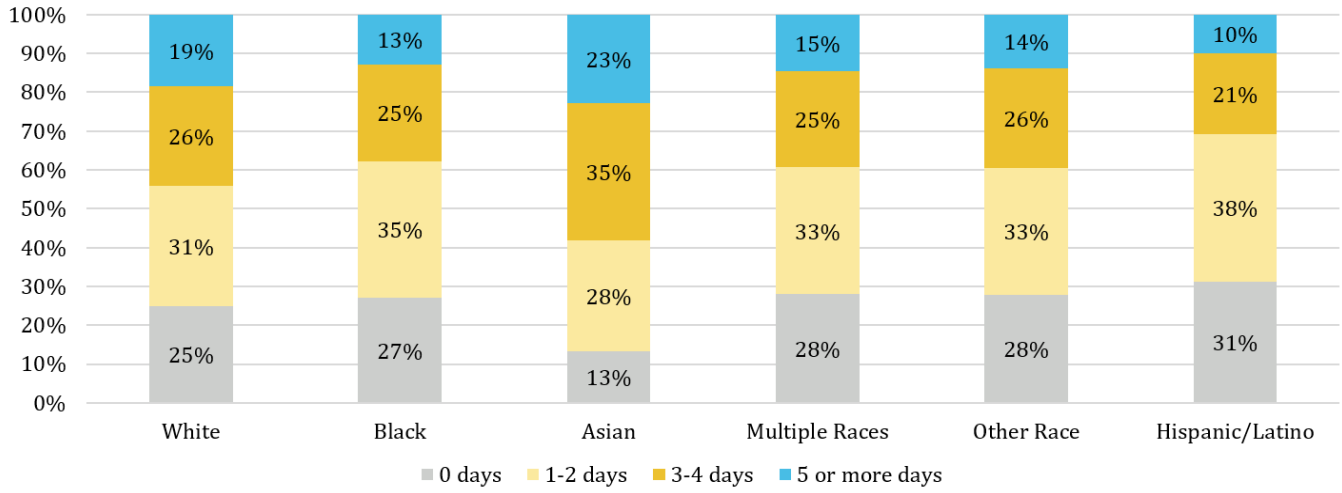
When looking at reported physical activity by service area, most service areas fall between 18-20% of respondents exercising five or more days per week, while Monroe and Rural West had lower percentages (15%) and Geisinger St. Luke's the lowest (14%). Respondents that reported no days of exercise had the highest percentage in the Rural West service area (29%) and the lowest in the Quakertown and Upper Bucks (23%).

Figure 28



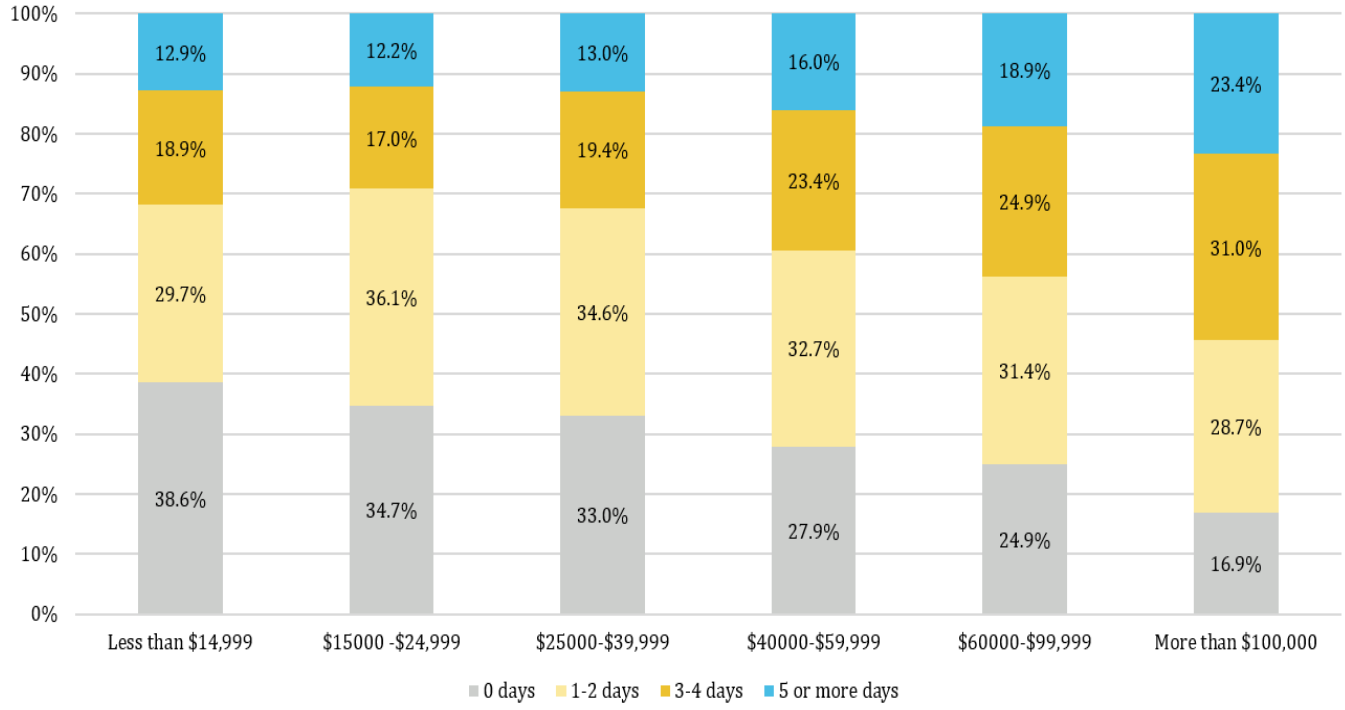
When looking at reported physical activity by race and ethnicity in the Network, Hispanic (10%) and Black (13%) populations had the lowest percentage of respondents that exercised five or more days per week, while Asian populations reported the highest percentage (23%). While only 13% of Asian respondents reported not exercising, 28% of Multiple Races and Other Race respondents and 31% of Hispanic respondents reported not exercising at all (Figure 29).

Physical Inactivity by Race and Ethnicity, Network *Figure 29*



Physical inactivity by household income results indicate that the higher the household income the more likely respondents are to exercise the recommended amount, with 23.4% of respondents that have a household income of more than $100,000 exercising at least five times per week compared to only 12.9% of respondents making $14,999 or less.

Physical Inactivity by Household Income, Network *Figure 30*



Fruit & Vegetable Consumption

The Food and Drug Administration (FDA) recommends that people eat five or more servings of fruits and vegetables per day. Only 8.3% of survey respondents reported eating at least the five daily recommended servings of fruits and vegetables, and 40.4% reported consuming three or more servings per day. It is important to note that surveys were conducted during the summer and fall months when local produce is readily available.

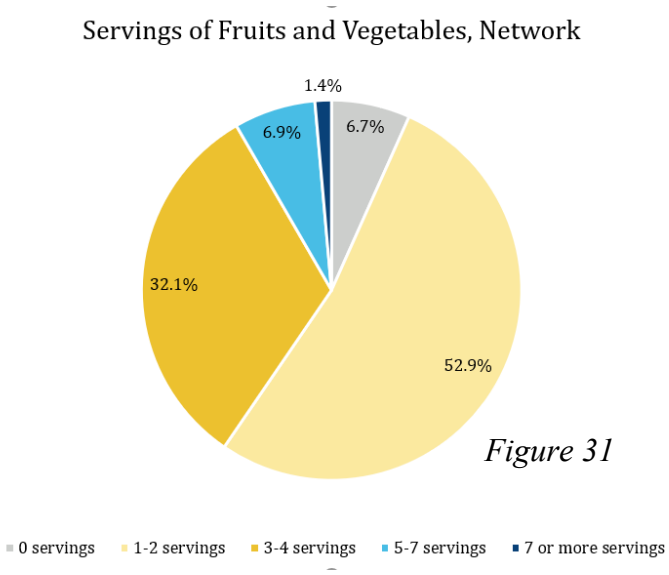
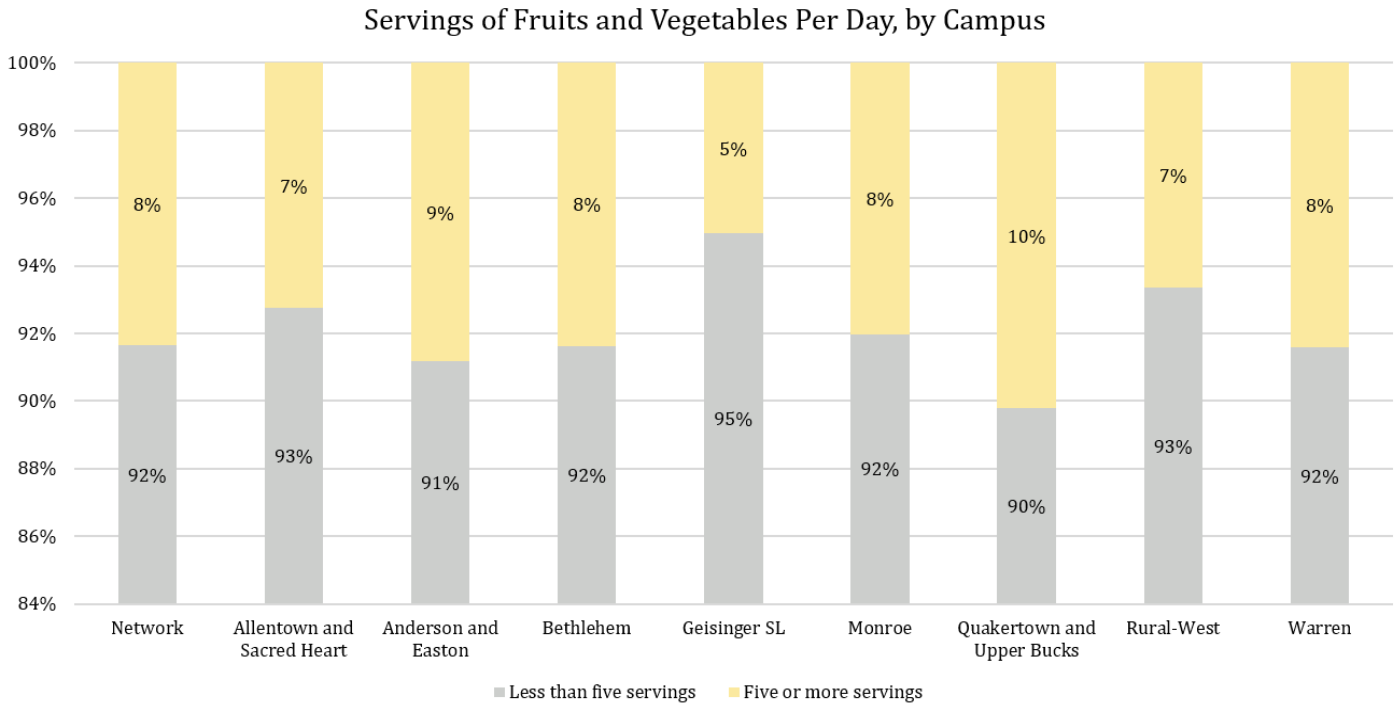


Figure 31

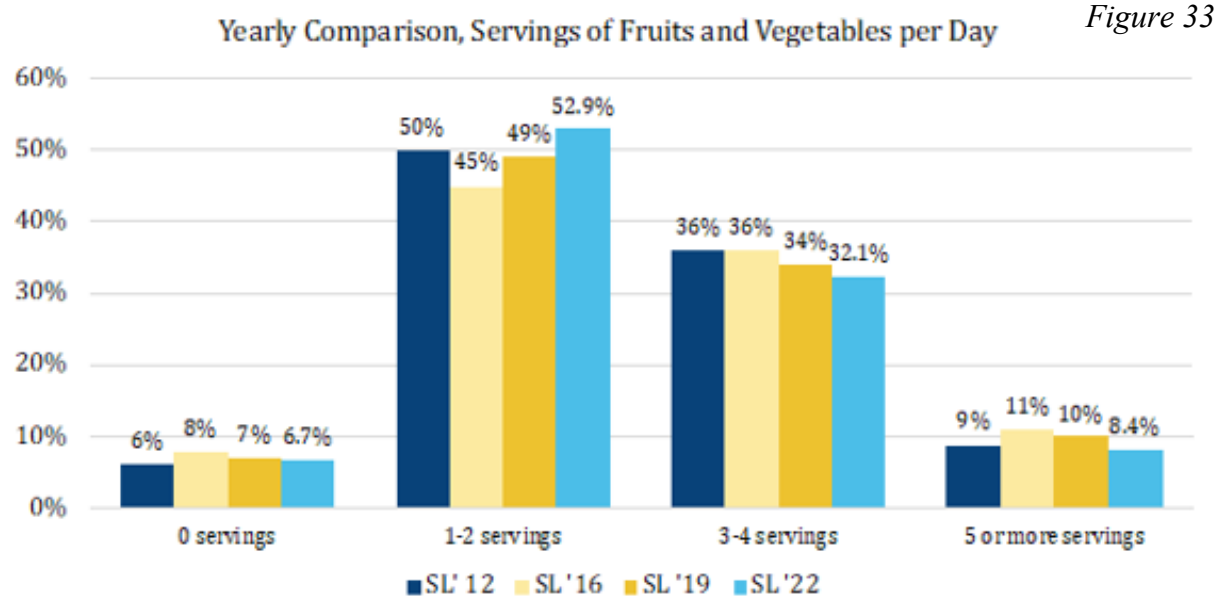
The Quakertown and Upper Bucks service area respondents reported the highest percentage that consume at least five or more servings of fruits and vegetables per day (10%) while Geisinger St. Luke's had the lowest percentage (5%). This is a concern across the Network, as roughly only one in ten people are meeting the FDA recommendations for fruit and vegetable consumption. All campuses have Community Supported Agriculture (CSA) farm shares offered to employees. Anderson campus is the home of the St. Luke's Rodale Institute Organic Farm, where produce is grown for cafeterias across the Network, in addition being sold to employees.

Figure 32



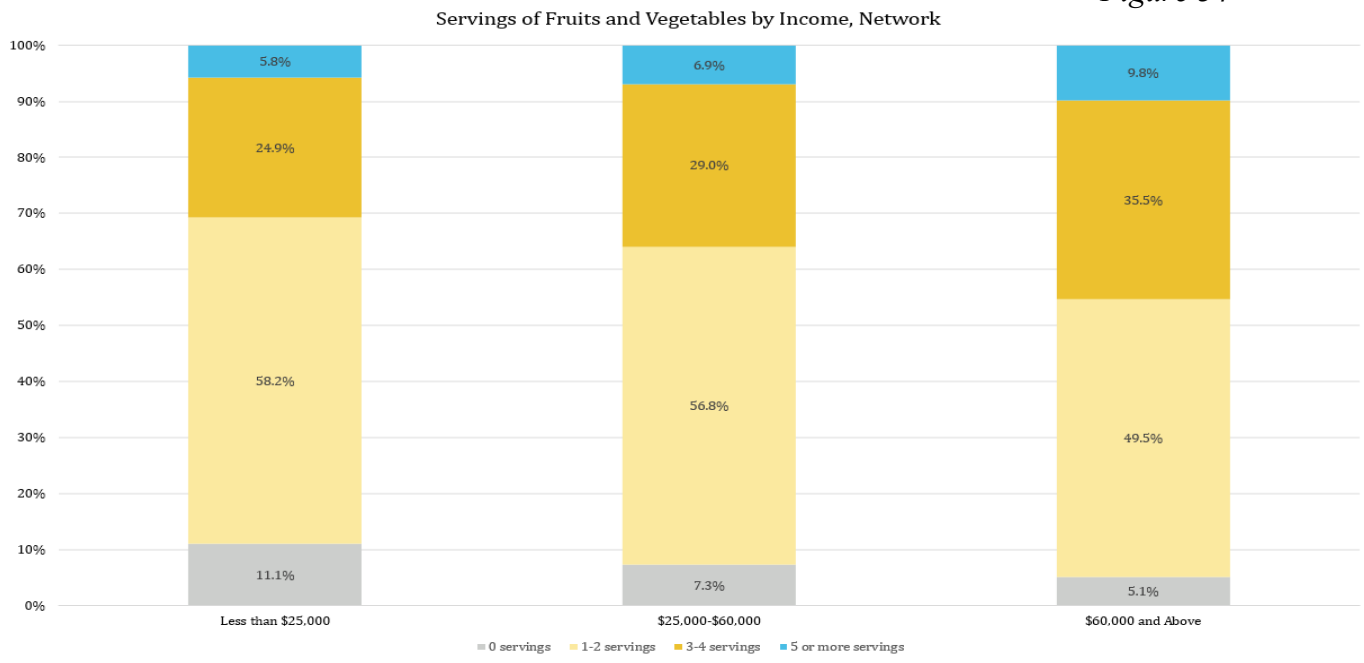
Rates of respondents reporting that they consumed five or more servings of fruits and vegetables (8.4%) decreased from 2019 (10%). However, the rate of respondents that reported consuming zero servings of fruits and vegetables (6.7%) decreased slightly from 7% in 2019. Respondents reporting consuming one to two servings of fruits and vegetables increased from 49% in 2019 to 52.9% in 2022.

Figure 33



Although low fruit and vegetable consumption is a concern across Network respondents, survey responses showed a positive relationship between fruit and vegetable consumption and household income, where fruit and vegetable consumption increased with income. Only 5.8% of respondents making less than $25,000 reported eating five or more servings of fruits and vegetables compared to 9.8% making $60,000 and above.

Figure 34

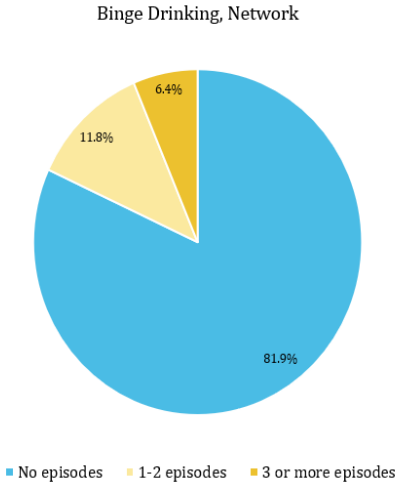


Alcohol Consumption

We asked participants how many episodes of binge drinking they had in the past month, which was defined as having five or more drinks on one occasion. Out of Network respondents, 18.2% indicated at least one episode of binge drinking in the last month, with 6.4% indicating that they had three or more episodes in the last month.

When looking at binge drinking trends over time, there was an increase in respondents that reported no episodes of binge drinking, from 80.6% in 2019 to 81.9% in 2022. There was a decrease over time with respondents reporting with 1-2 episodes or three or more episodes, with a 1.1% decrease in respondents with 1-2 episodes and only a slight decrease, 0.1% in respondents with three or more episodes.

Figure 35



The Geisinger St. Luke's service area respondents reported the highest percentage of any binge drinking episodes, with 25.1% reporting at least one binge drinking episode in the past month. The Warren campus respondents had the lowest percentage of respondents reporting at least one binge drinking episode in the last month (15.7%).

Figure 36

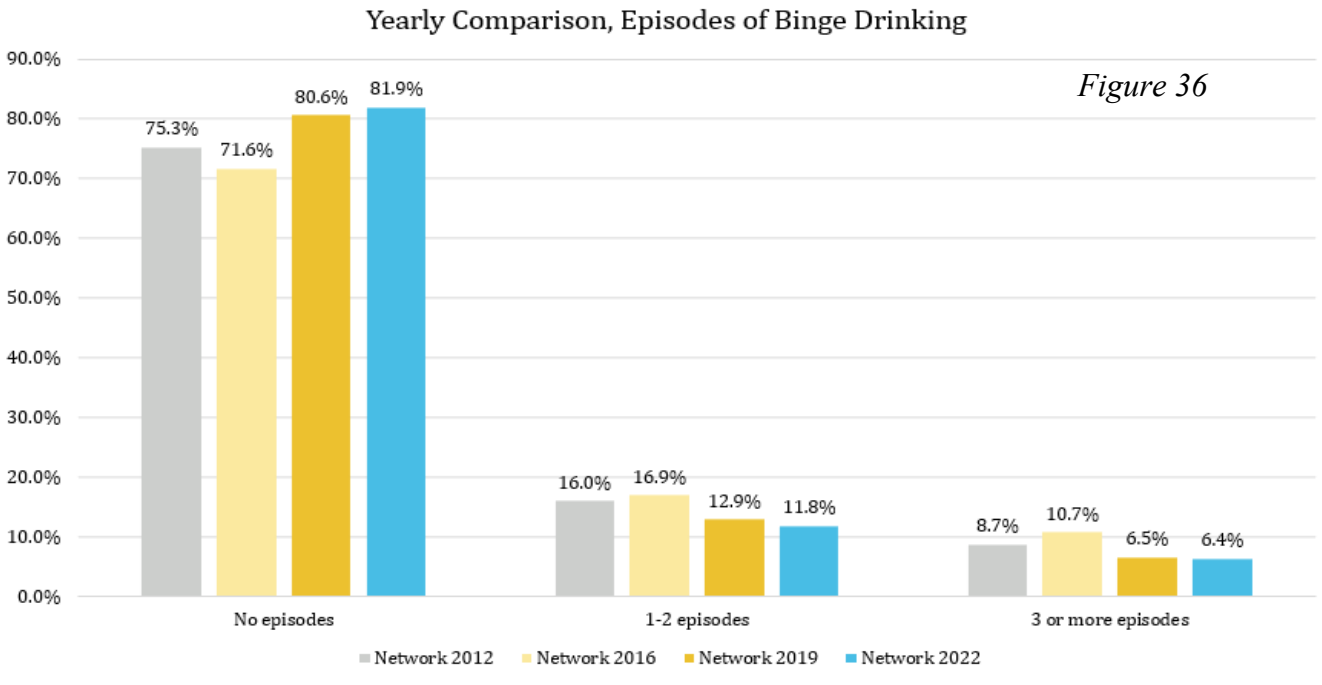
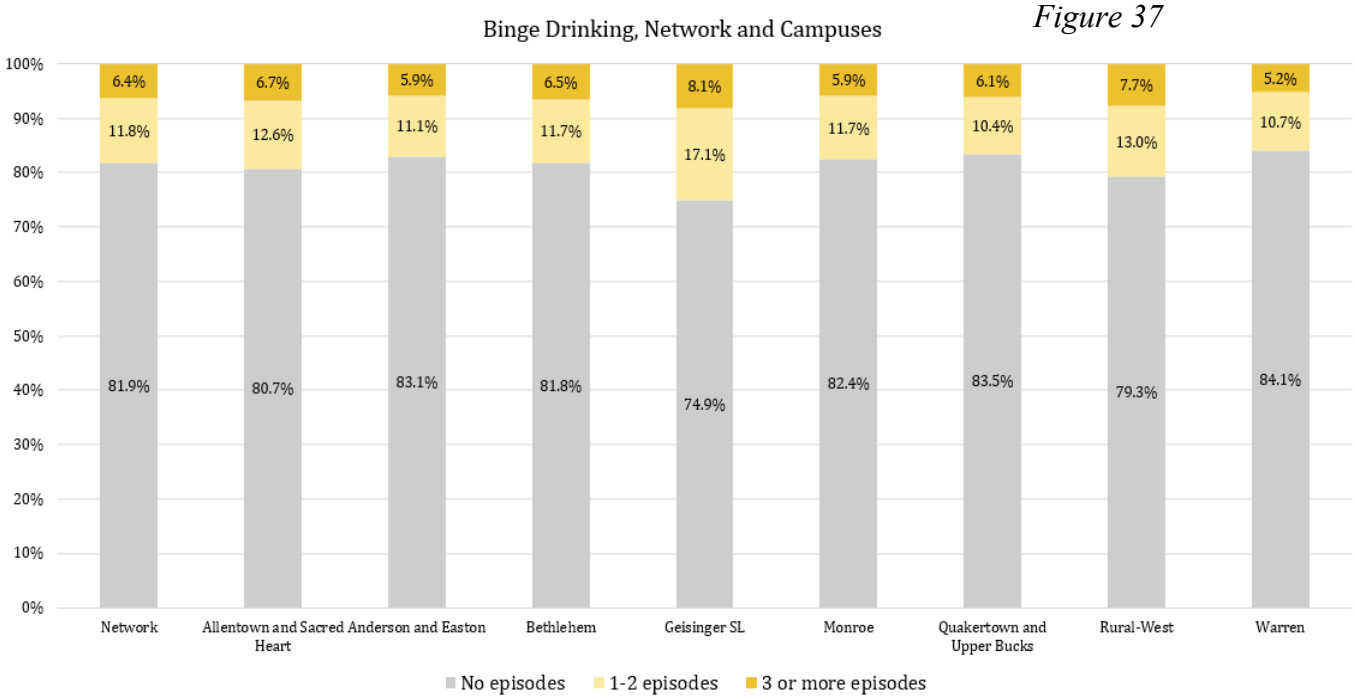


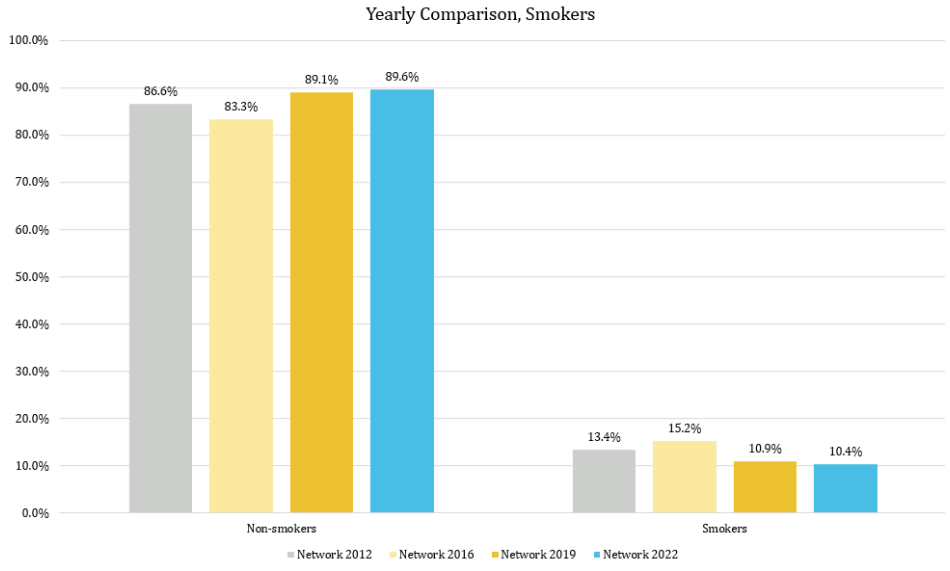
Figure 37



Smoking

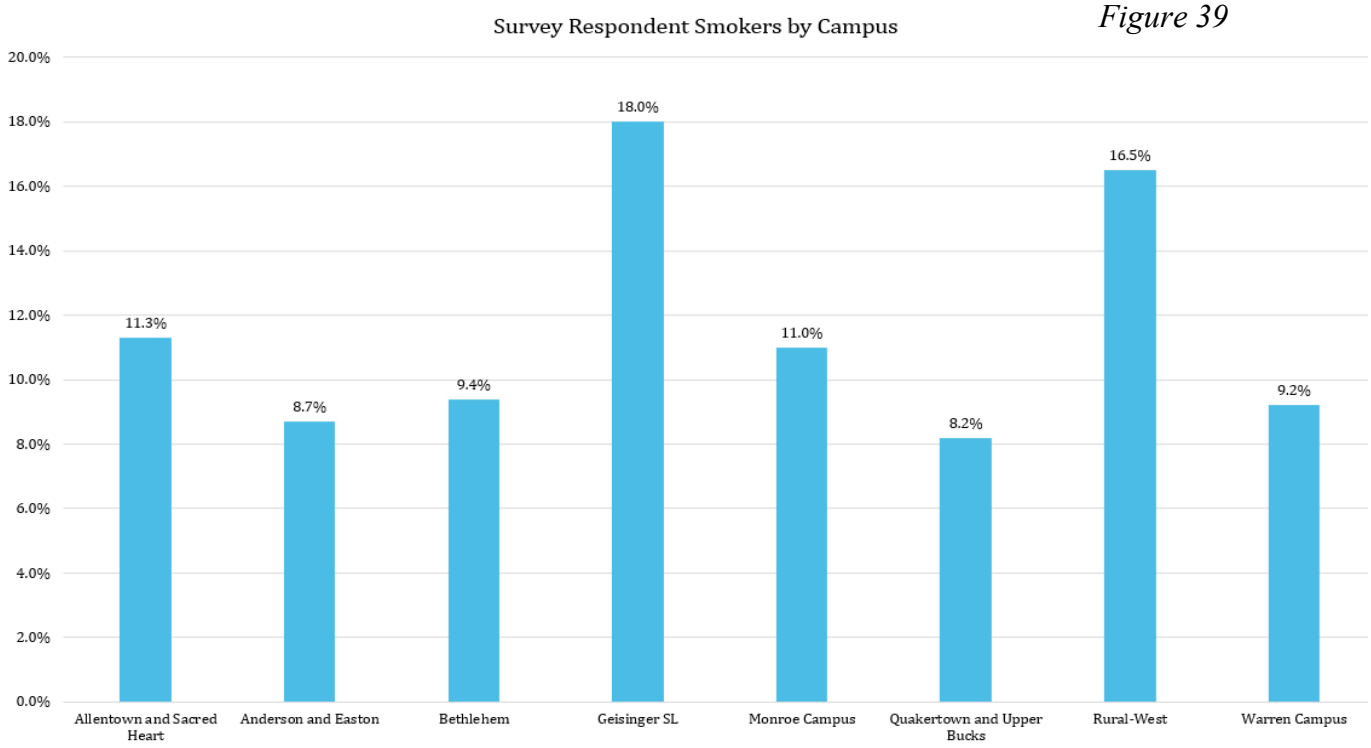
When asked if respondents smoke, 10.4% of respondents indicated "yes" they smoked. Of those who reported smoking, cigarettes were the most common form of tobacco (9.2%). Healthy People 2030 target is for 16.2% of adults aged 18 years and over to smoke, a decrease from 20.1% in 2018. The percentage of smokers in 2022 decreased slightly from 10.9% in 2019 to 10.4% in 2022.

Figure 38



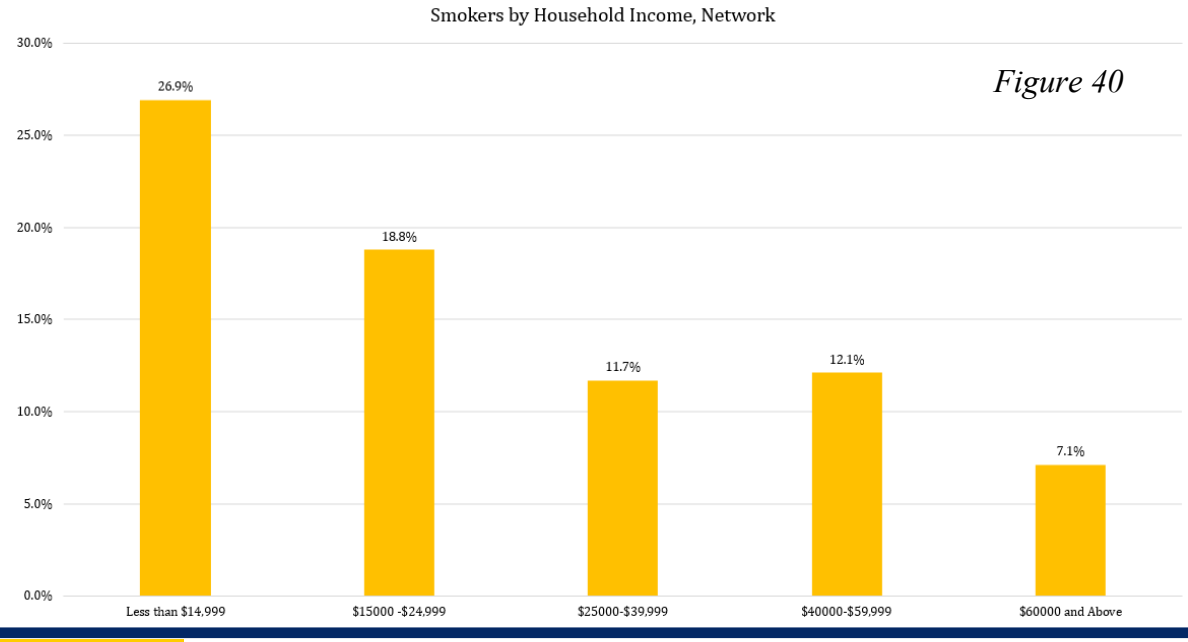
The Geisinger St. Luke's campus reported the highest percentage of smokers in the Network (18%), followed by the Rural West campuses (16.5%). The Quakertown and Upper Bucks service area reported the lowest number of smokers (8.2%). Overall, all campuses except for Geisinger St. Luke's and the Rural West campuses fall below the Healthy People 2030 target of 16.1%.

Figure 39



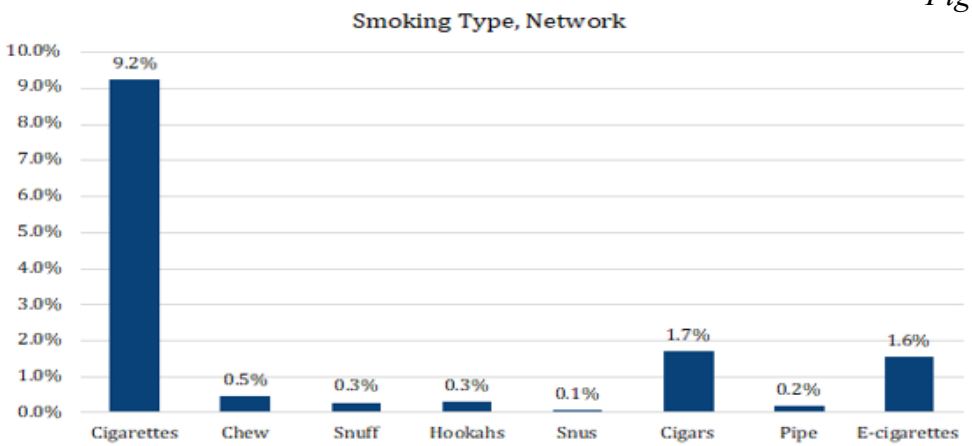
Additionally, when smoking status was compared to annual income ranges of respondents, direct trends were observed. There was a distinct inverse relationship between income and percentage of respondents who smoked. Respondents who made less than $14,999 had the highest percentage of smokers (26.9%) and those making $60,000 and above had the lowest percentage of smokers (7.1%).

Figure 40



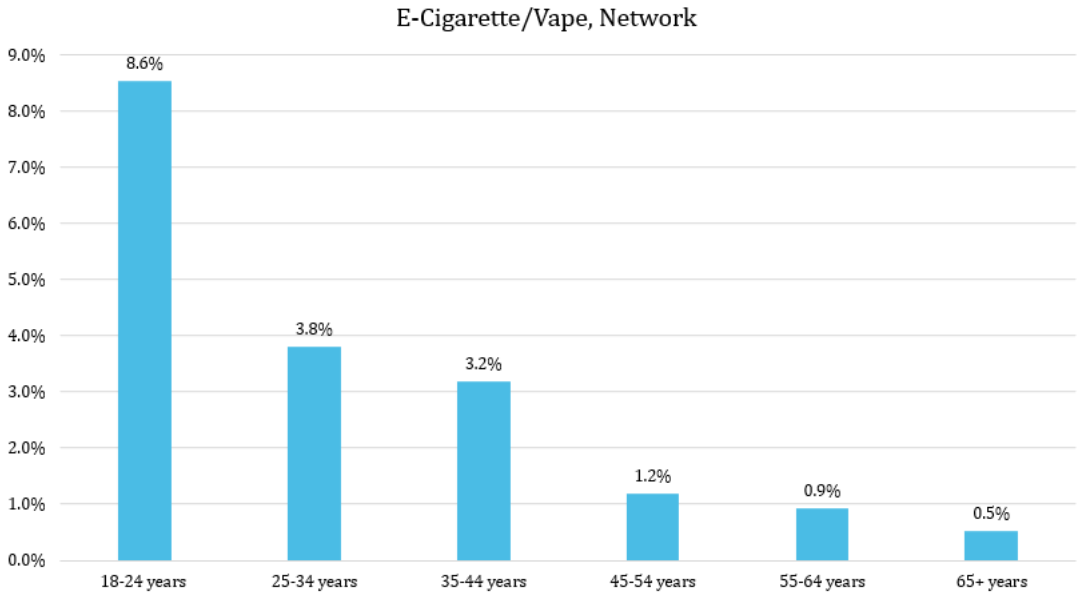
When data regarding usage of tobacco products was disaggregated by type of product, it became apparent that cigarettes were the predominant tobacco product of choice among all respondents. However, in recent years, there has been a proliferation of e-cigarettes and other similar products, as evidenced by e-cigarettes being the third most commonly used product (1.6%).

Figure 41



When looking at the respondents who reported using e-cigarettes, it is apparent that e-cigarette usage is especially high among younger respondents (Figure 42). Given current popular trends towards e-cigarettes, it is important to note that 53.8% of people who reported using e-cigarettes classified themselves as non-smokers.

Figure 42



Sleep

Healthy People 2030 reports that approximately 1 in 3 adults do not get enough sleep. Ongoing sleep deficiency has been linked to numerous health conditions such as heart disease, stroke, depression, and anxiety. Objectives for Healthy People 2030 include the reduction of motor vehicle crashes due to drowsy driving, to increase the proportion of children who get enough sleep, and to increase the proportion of adults who get enough sleep.

The CHNA asked respondents to estimate the amount of sleep they get on a daily basis. Overall, the majority of respondents (81.7%) reported sleeping between 6-8 hours, while only 13.6% reported sleeping less than five hours. Geisinger St. Luke's service area respondents had the highest percentage that slept five hours or less (17.6%) and the Quakertown and Upper Bucks service area reported the lowest (10.5%). Small percentages of respondents across the Network reported sleeping nine or more hours per night, with the Quakertown and Upper Bucks service area at the highest percentage (5.5%) and Warren the lowest (3.9%).

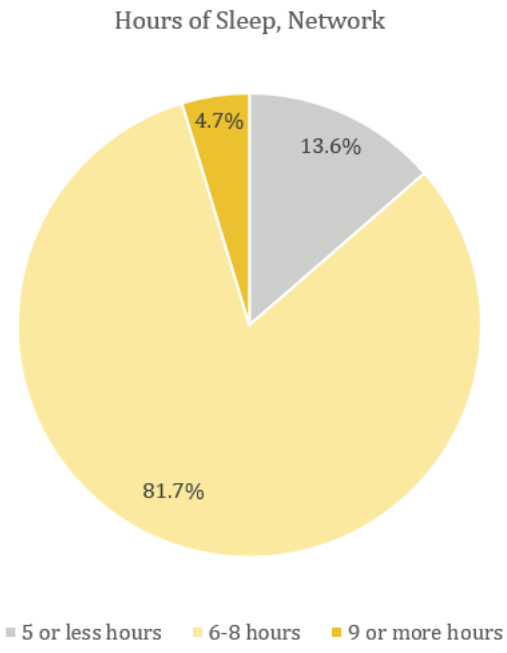
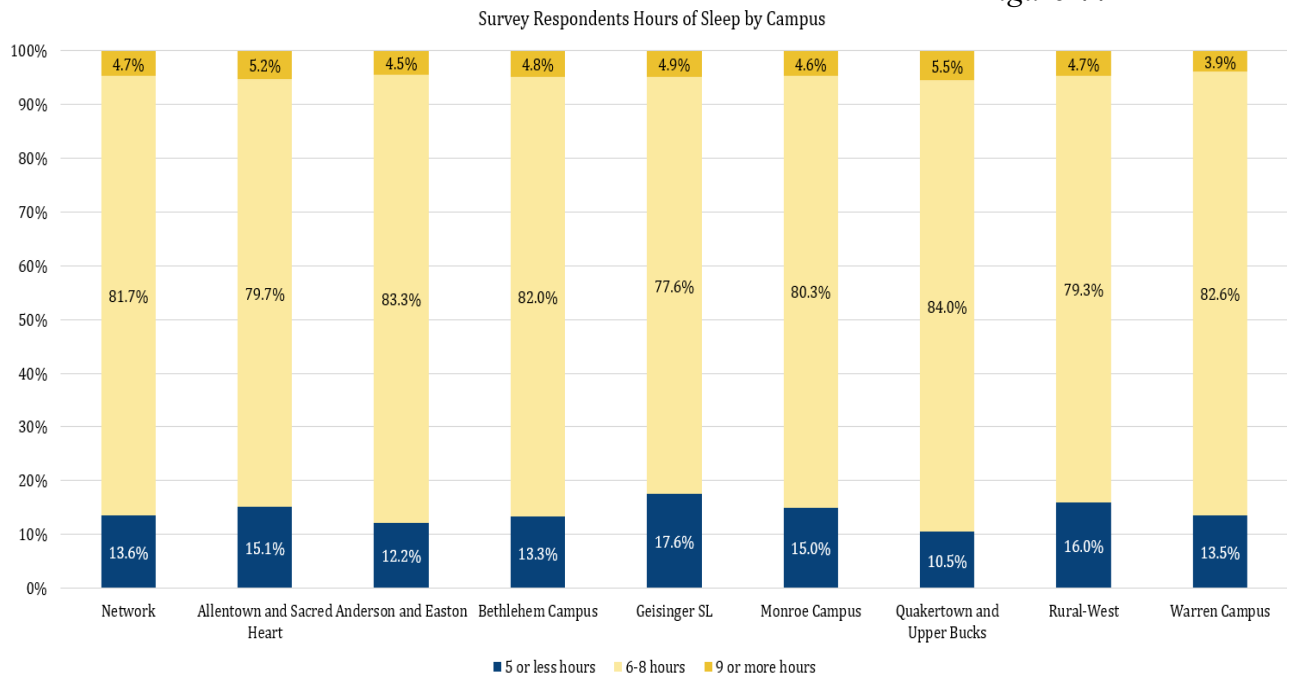


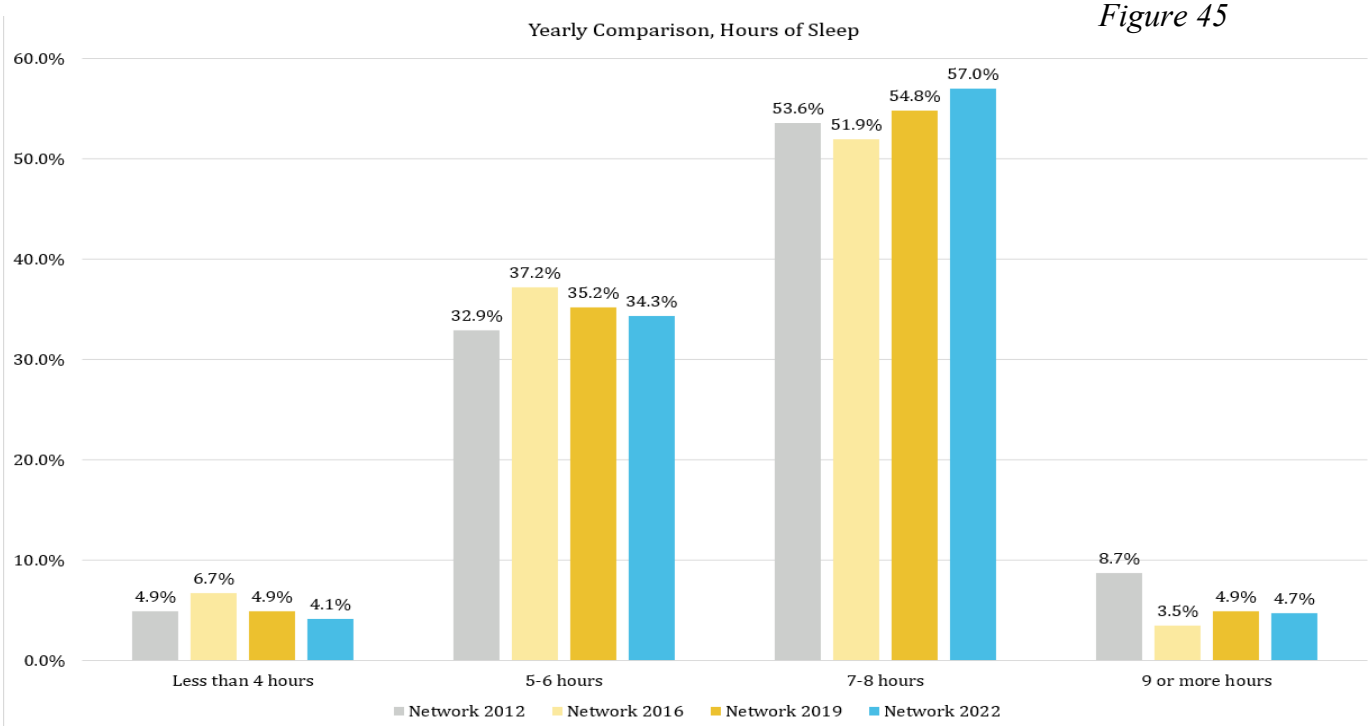
Figure 43

Figure 44



Trends in the amount of sleep reported by survey respondents have slightly fluctuated over time, with a decrease in the amount of respondents sleeping four hours or less and an increase in respondents sleeping 7-8 hours (Figure 45).

Figure 45



Health Outcomes

Overall Health

According to the CHNA survey, most individuals in the service area reported excellent or very good health (49.7%), followed by good (44.1%), and poor or very poor (6.2%). These results are similar to those collected during previous CHNA cycles, which also showed that most respondents ranked their health as good or better. Because this question is subjective, it is difficult to use on its own to assess health outcomes for the community, but it can be used in conjunction with more specific data to obtain a more accurate image of health in the SLUHN service area.

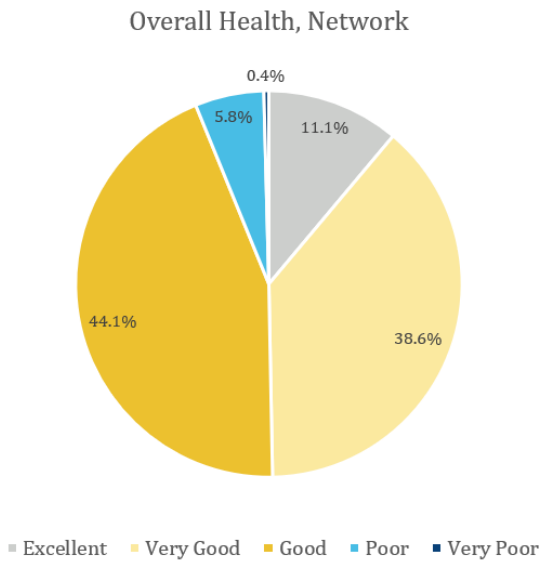


Figure 46

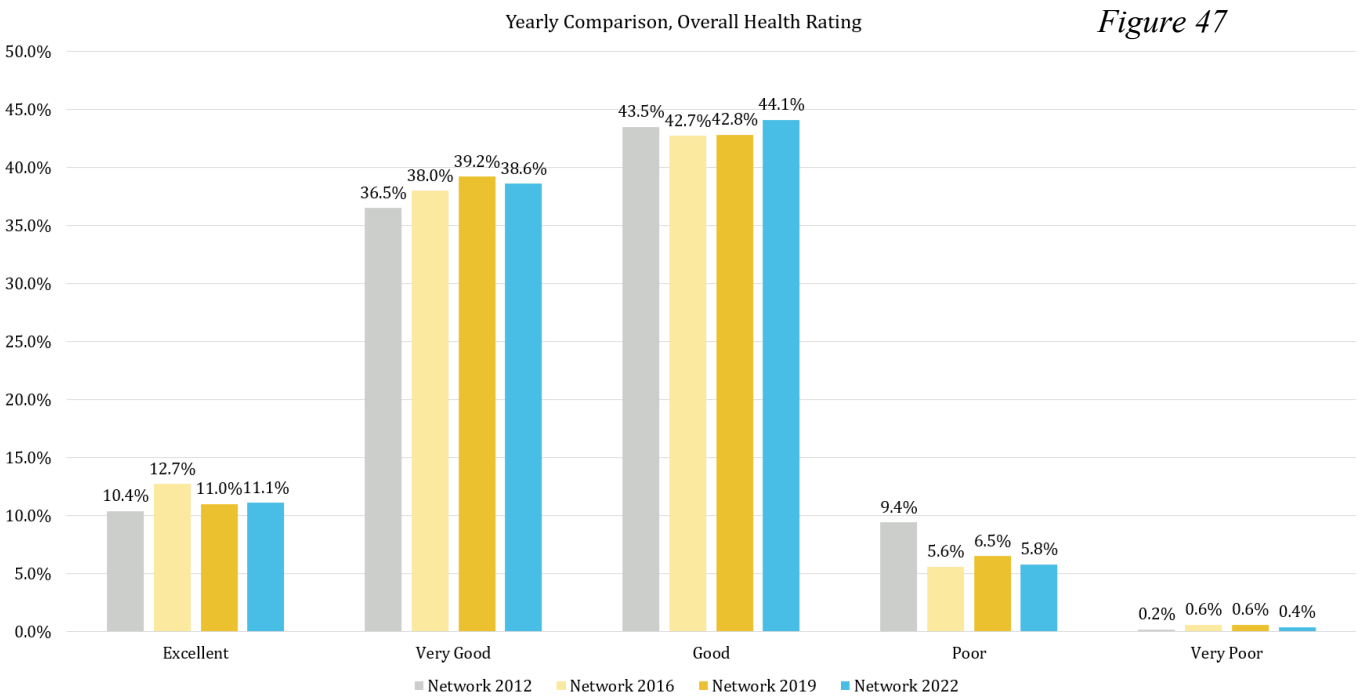
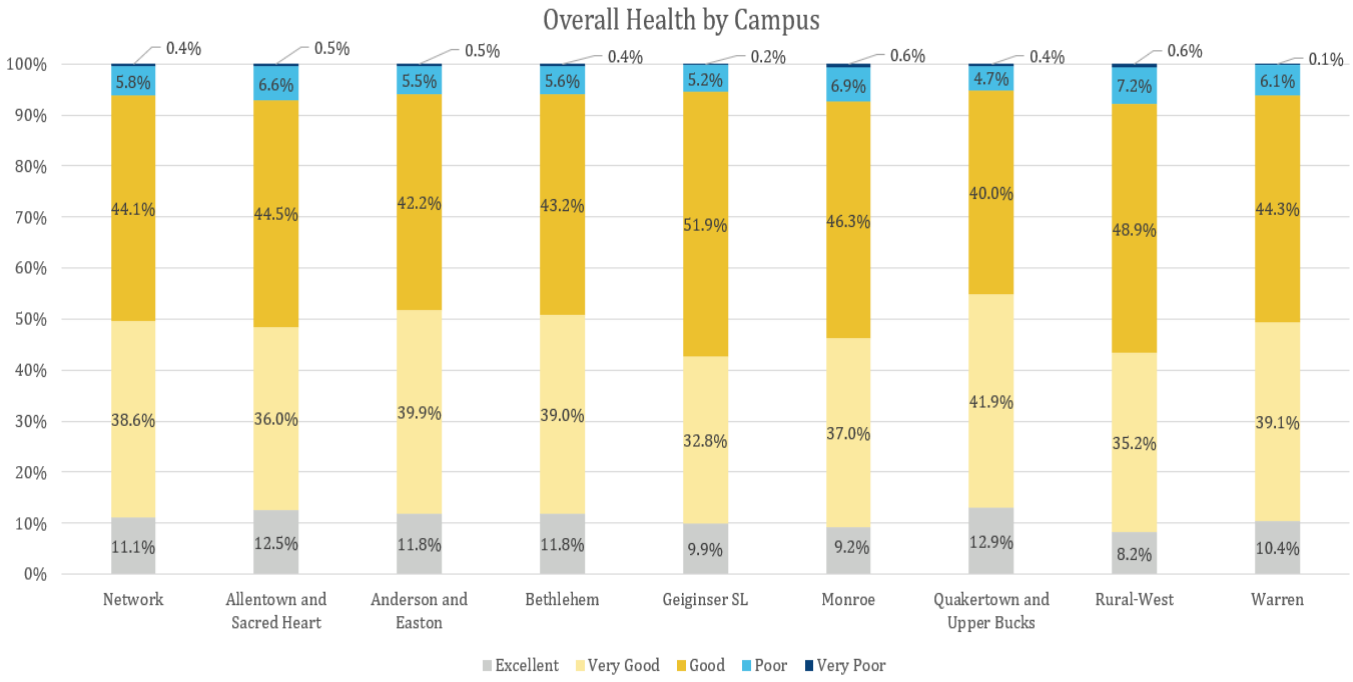


Figure 47

Overall health by campus shows similar responses, with the Quakertown and Upper Bucks service area respondents having the highest percentage of perceived overall health as excellent (12.9%) and the Rural West campuses had the lowest percentage (8.2%).

Figure 48



Obesity

The survey asked respondents for their height and weight. The Body Mass Index (BMI) was calculated using these parameters. Obesity is determined by BMI, which is an indirect measure of an individual's body fat. For a person who has a healthy weight, the BMI range is from 18.5-24.9, for someone who is overweight the range is 25-29.9, and for someone who is obese the BMI is 30.0 or more.

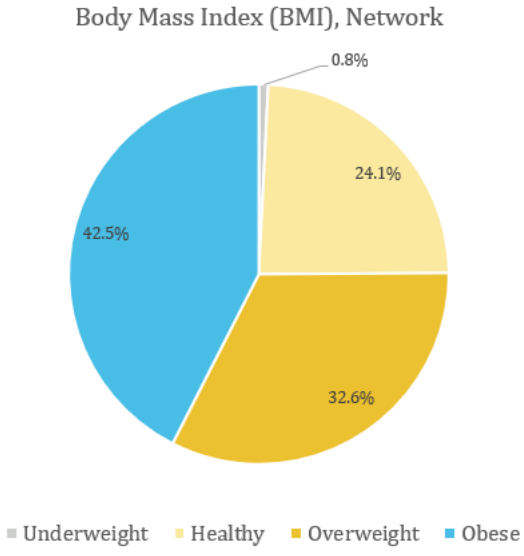


Figure 49

Based on standardized BMI calculations, 75.1% of the survey respondents fell into the overweight or obese category. This number represents a continuation in the area's trend towards obesity, which is mirrored in the United States as a whole. With 51 being the least obese state and one being the most obese, Pennsylvania is ranked at 27 and New Jersey at 45. Recent data show 31.5% of Pennsylvania residents, 27.7% of New Jersey residents, compared to 42.5% of the network. Obesity can be further broken down into the following categories: obese (BMI ranges of 30 - 34.9), severely obese (BMI ranges of 35 – 39.9), and morbidly obese (BMI of 40 or greater).

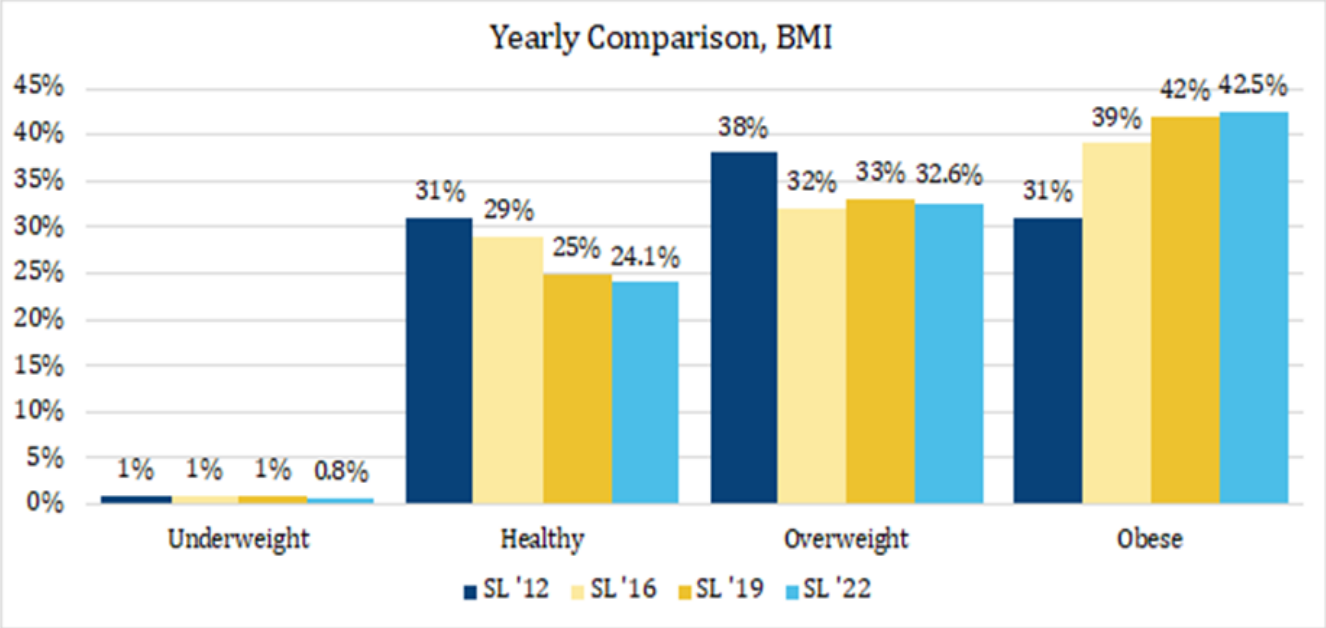


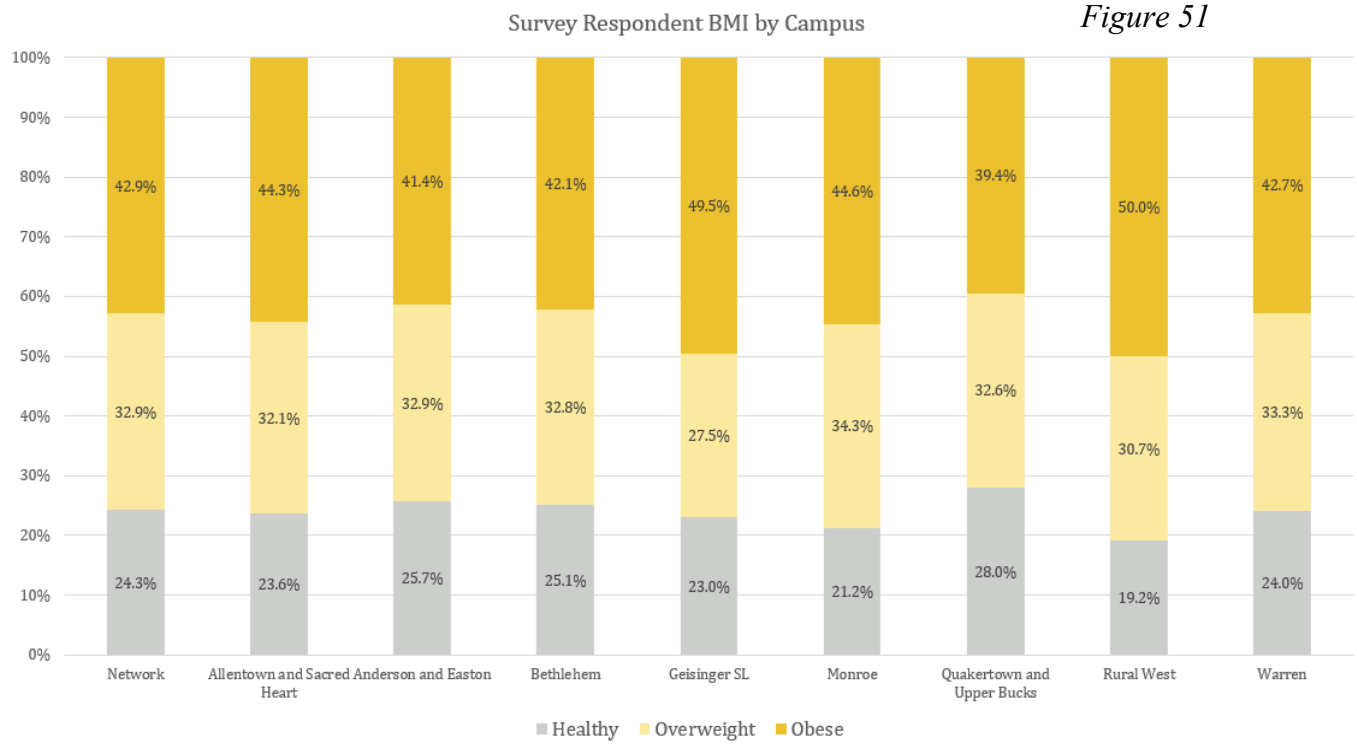
Figure 50

BMI trends in the Network since 2012 show a decrease in the percentage of respondents in the healthy weight category and an increase in the percentage in the obese category. Any decrease in percentage of respondents at healthy or overweight seems to have been translated to an increase in the percentage of respondents in the obese category. This might indicate that those who are already overweight are likely to slip into obesity as time passes.

When information about BMI is broken down by campus, results show that most campuses reported obesity rates that are higher than national (41.9%) and state (31.5%) levels, with the exception of the Quakertown and Upper Bucks service area (39.4%). The Rural West service area had the highest percentage of obese adults at 50%, with 14.9% of those obese individuals falling into the morbidly obese category. Of the respondents identified as obese, the Rural West service area had the highest percentage of morbidly obese people at 14.9%, and the Warren campus had the lowest at 8% (Figure 51).

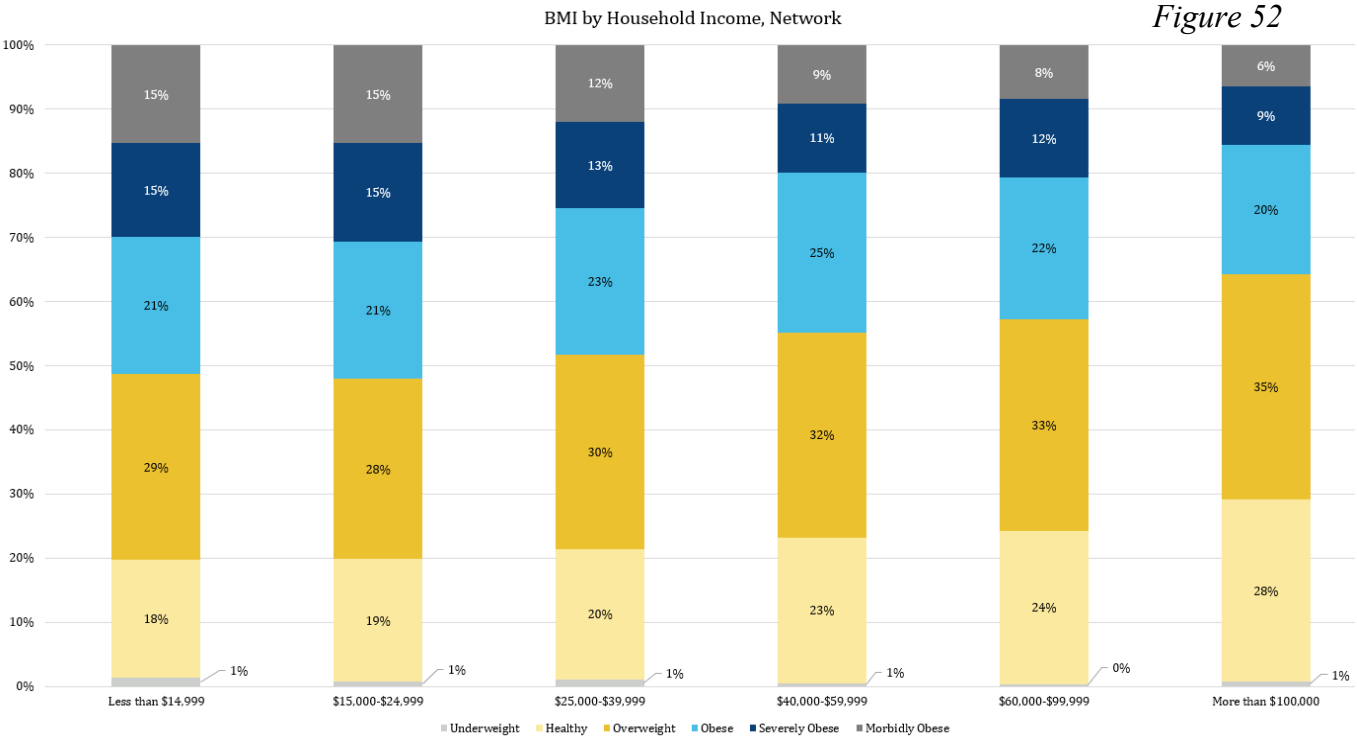
The percentage of women falling into the healthy BMI category (27.3%) was higher than men (18.9%). Only 29.1% of women were overweight compared to 39.0% of men. For all categories of obesity, 42.6% of women and 41.5% of men fell into the obese category.

Figure 51



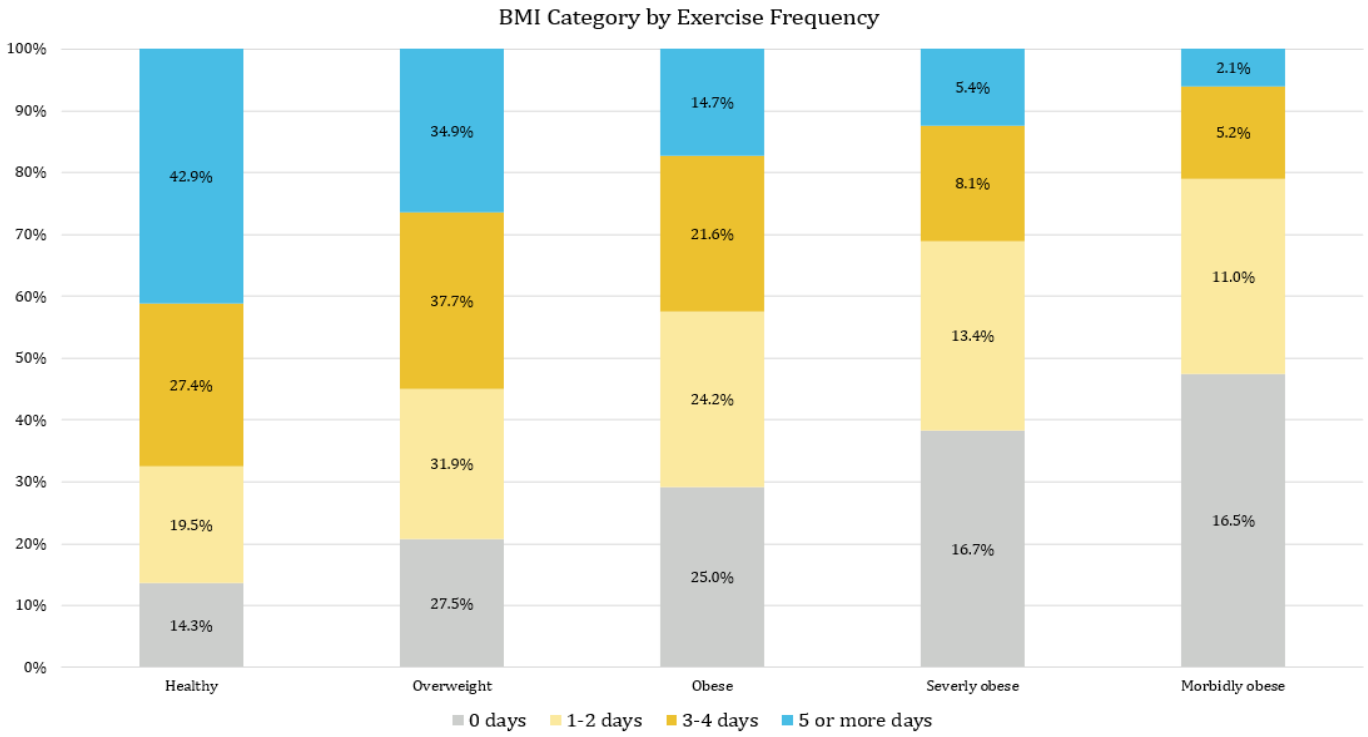
Income is an additional socioeconomic factor that can have an influence on BMI. As shown in Figure 52, obesity rates increase in lower income brackets. 50% of respondents making less than $25,000 were obese, compared to 42% of those making more than $60,000 and 35% making more than $100,000. This gradient is especially apparent in the morbidly obese category, where percentage of morbidly obese respondents in the lowest income brackets was more than double compared to the highest income bracket.

Figure 52



When looking further into BMI and health outcomes, 42.9% of respondents who reported exercising 5 or more days per week were in the healthy BMI range, compared to 19.5% of respondents exercising 1 to 2 days per week, and 14.3% of those not exercising at all. Only 2.1% of respondents that exercise 5 or more days per week are morbidly obese. Additionally, 14.7% of respondents who reported exercising 5 or more days per week fell into the obese category, compared to 24.2% of those exercising 1 to 2 days per week, and 25% of those not exercising at all.

Figure 53



Similarly, increased fruit and vegetable consumption showed an inverse relationship with obesity, with 41.1% of respondents eating more than 7 servings of fruits and vegetables, and 35.2% of respondents eating 5 to 7 servings of fruits and vegetables were in the healthy BMI range, compared to 20.8% of those eating 1 to 2 servings and 18.6% of those eating zero servings. Conversely, 28.4% of those eating 7 or more servings, and 28% of those eating 5 to 7 servings of fruits and vegetables were in the obese categories, compared to 44.9% of those eating 1 to 2 servings, and 53% of those eating zero servings (Figure 54).

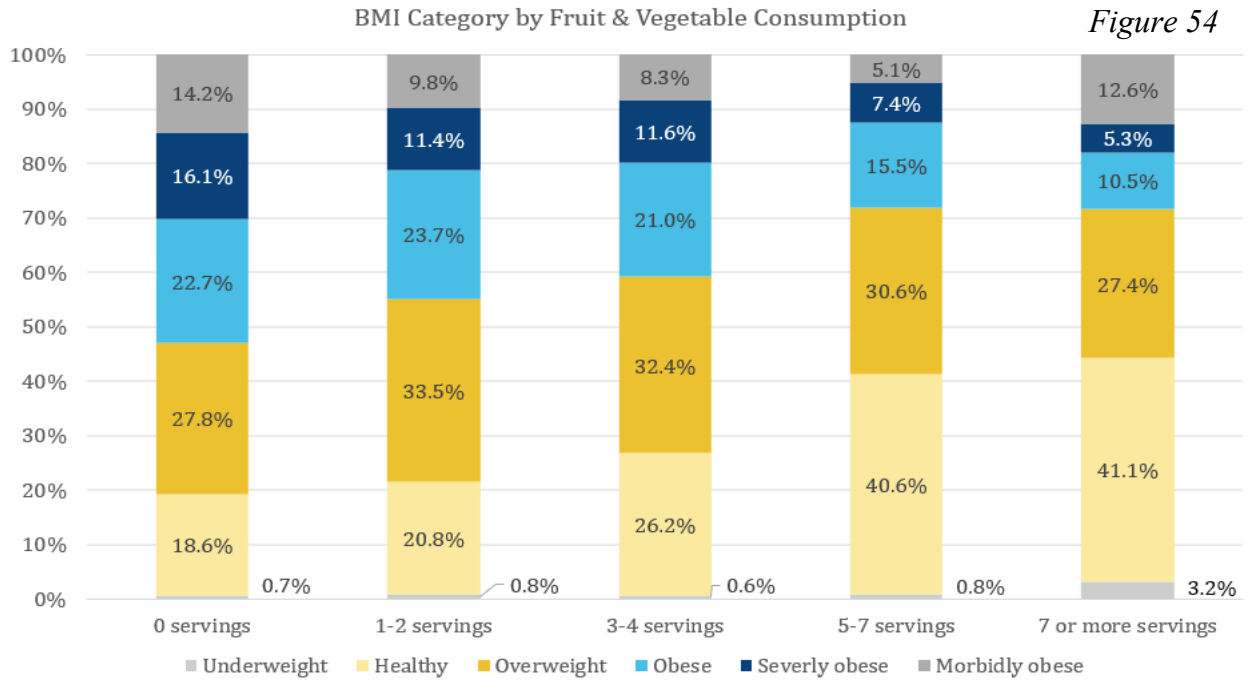


Figure 54

Education levels can also provide interesting information when correlated. Among those with a healthy BMI, 29% received a post graduate degree compared to only 12.8% of respondents who were morbidly obese. Overall, obesity levels are lowest among those with a four-year college degree or higher. Based on the correlation between BMI and the social determinants of health, it is critical to address the rising obesity rates in our service area.

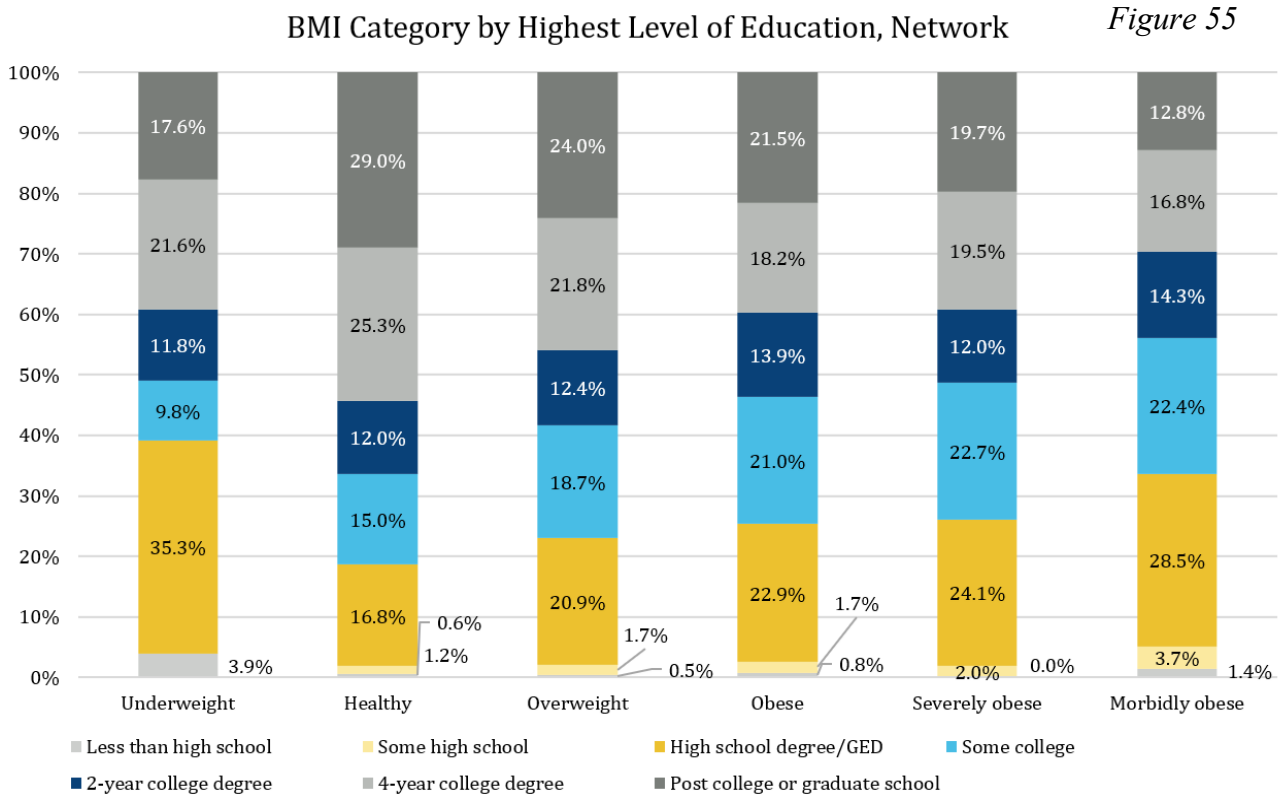
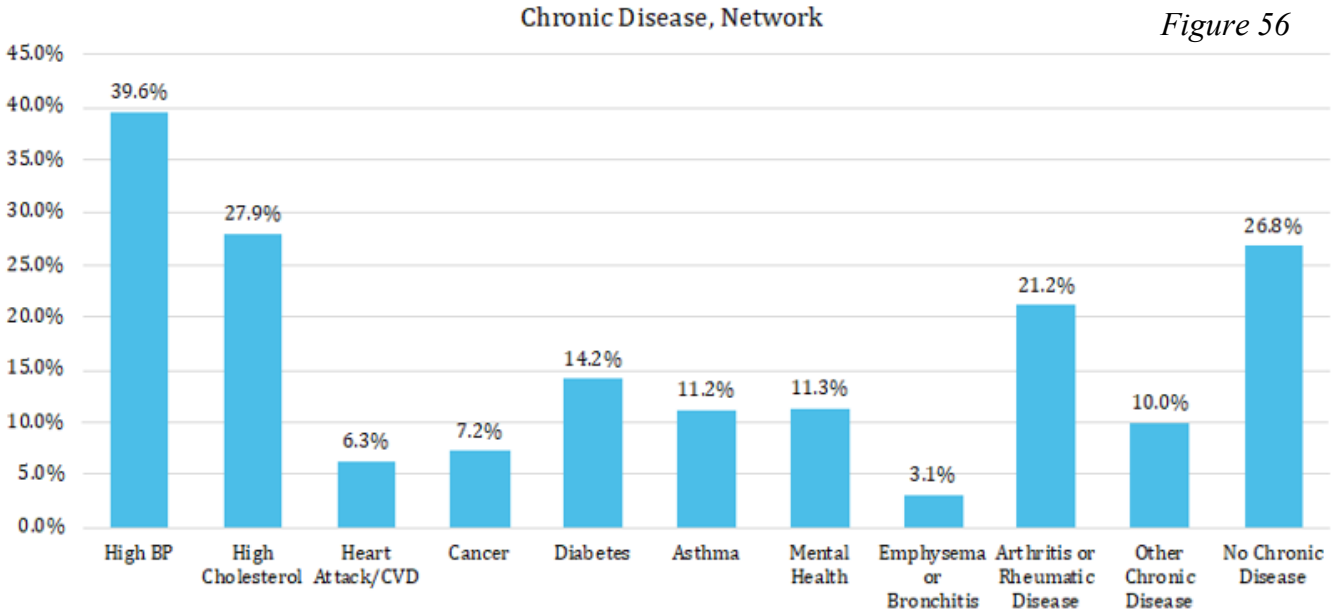


Figure 55

Disease Rates

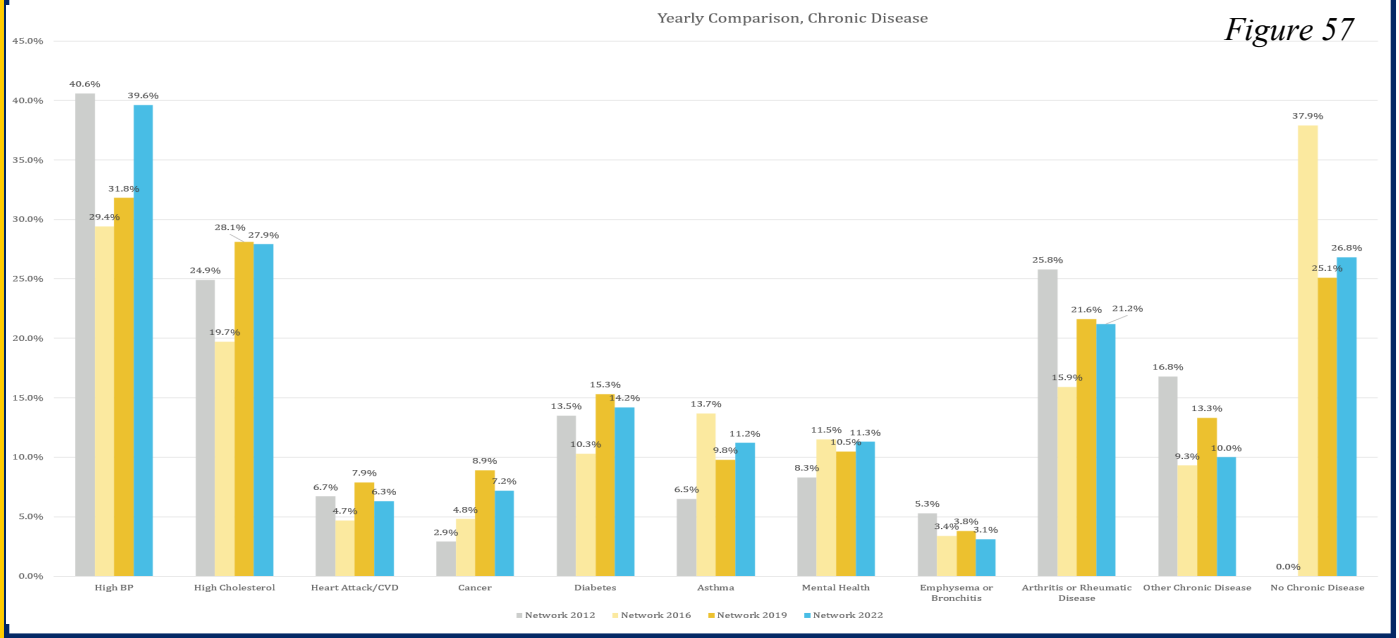
The CHNA survey results conveyed that the highest percentage of respondents in the service area have high blood pressure (39.6%), followed by high cholesterol (27.9%), arthritis or a rheumatic disease (21.2%), and 26.8% of respondents reported no to have any chronic diseases. For respondents age 45 and older, only 21.2% reported they did not have a chronic disease of any kind.

Figure 56



Data collected for the 2012 survey broke up responses into 'currently', 'in the past' and 'never'. We used the 'currently' category for comparison. Additionally, it is important to note that the 2012, 2019, and 2022 surveys had higher rates of respondents over the age of 65 – this might explain why some of the 2012, 2019, and 2022 percentages seem higher than 2016 percentages. There was no option for 'none' in 2012, and therefore Figure 57 only shows this option for 2016, 2019, and 2022.

Figure 57



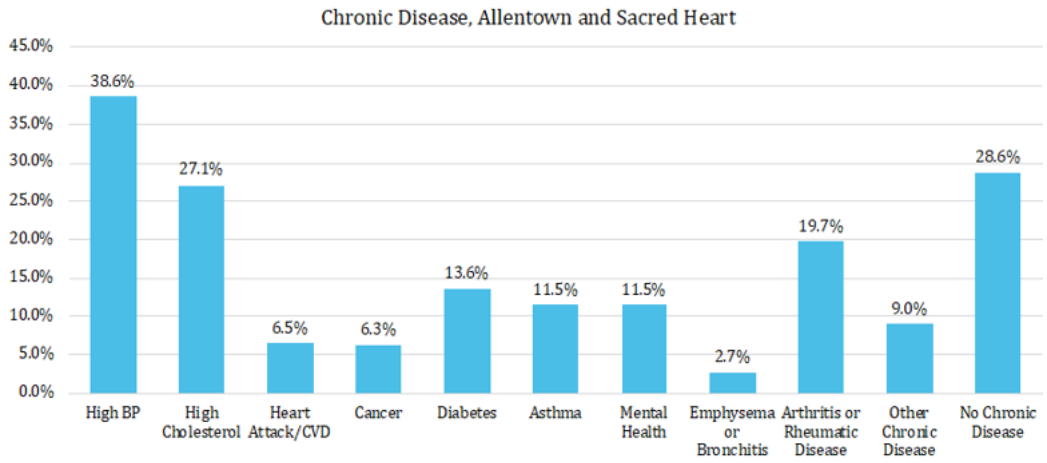


Figure 58

The Allentown and Sacred Heart service area reported 28.6% without a chronic disease. For respondents age 45 and older, only 23% reported they did not have a chronic disease of any kind.

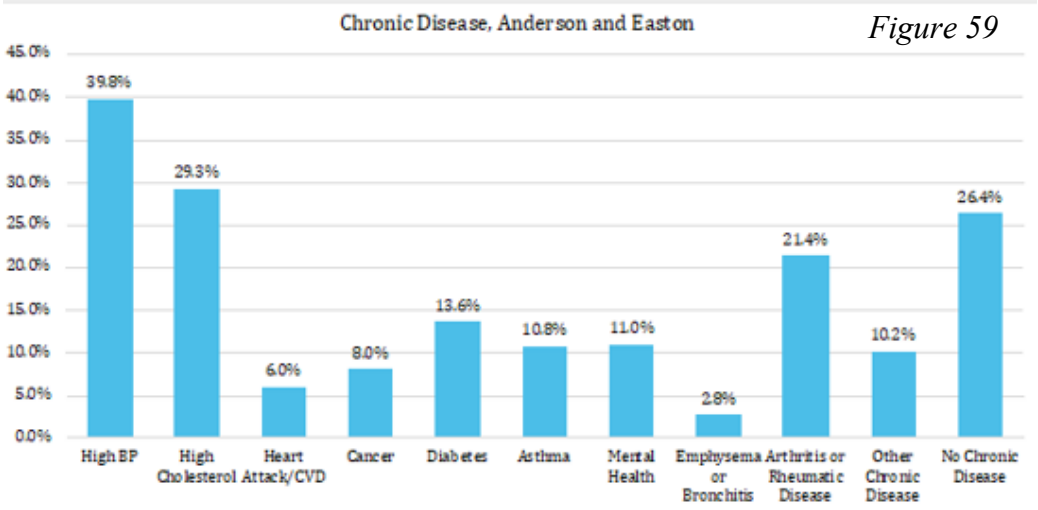


Figure 59

The Anderson and Easton service area reported 26.4% without a chronic disease. For respondents age 45 and older, only 21% reported they did not have a chronic disease of any kind.

The Bethlehem service area reported 27.6% without a chronic disease. For respondents age 45 and older, only 20% reported they did not have a chronic disease of any kind.

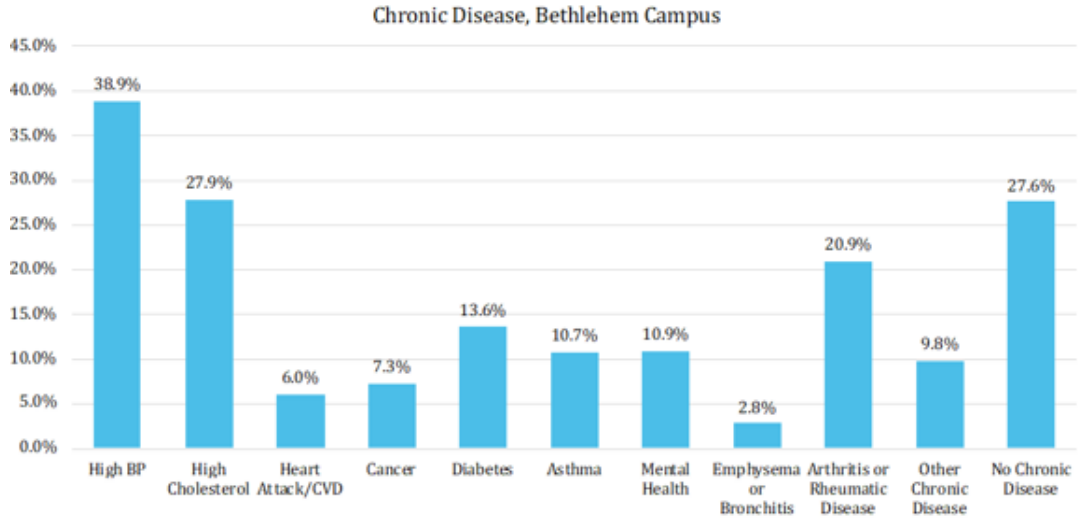


Figure 60

The Geisinger St. Luke's service area reported 33% without a chronic disease. For respondents age 45 and older, only 21% reported they did not have a chronic disease of any kind.

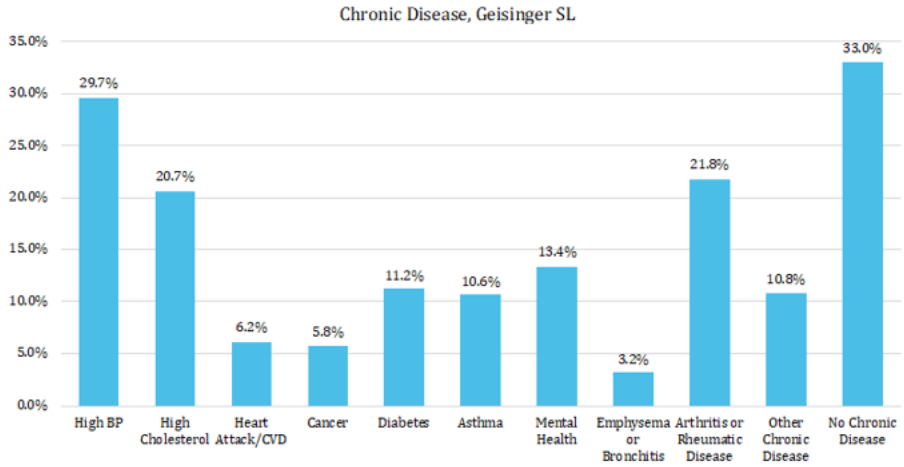
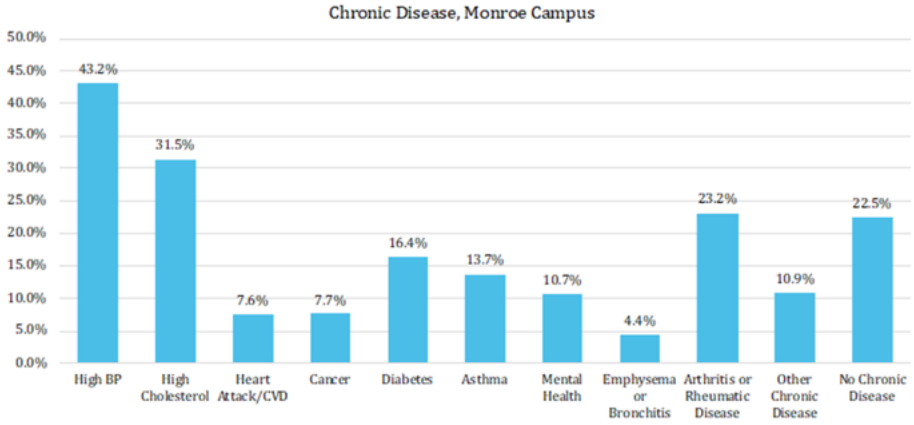


Figure 61



The Monroe service area reported 22.5% without a chronic disease. For respondents age 45 and older, only 20.7% reported they did not have a chronic disease of any kind.

Figure 62

The Quakertown and Upper Bucks service area reported 30.3% without a chronic disease. For respondents age 45 and older, only 25.5% reported they did not have a chronic disease of any kind.

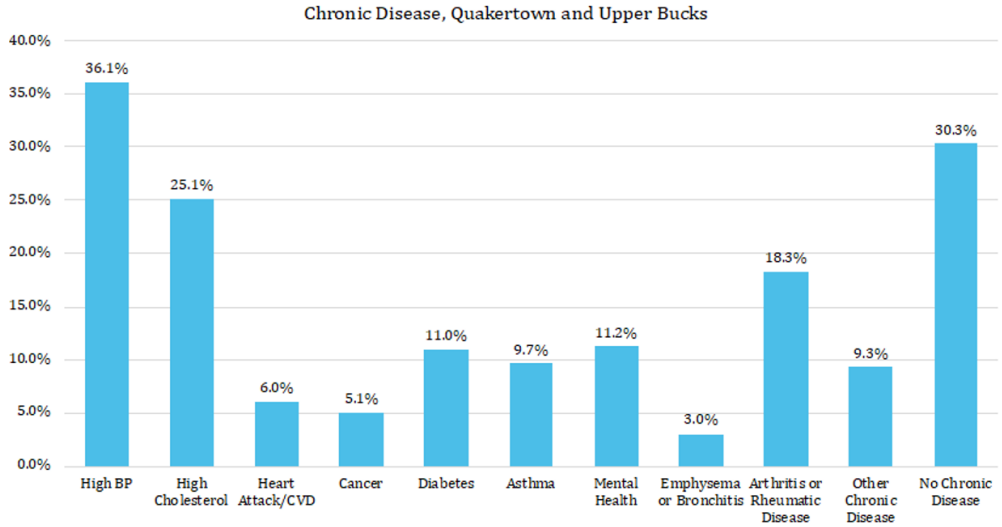


Figure 63

The Rural West service area reported 22.8% without a chronic disease. For respondents age 45 and older, only 17.4% reported they did not have a chronic disease of any kind.

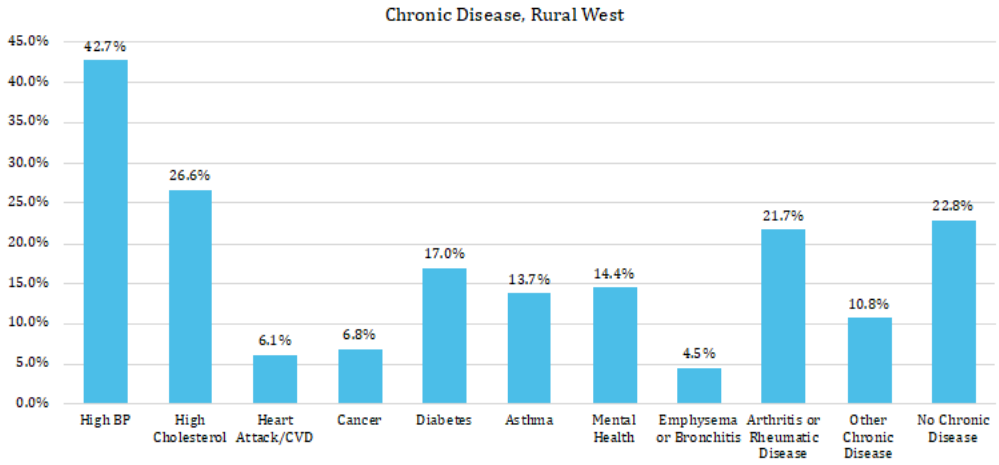
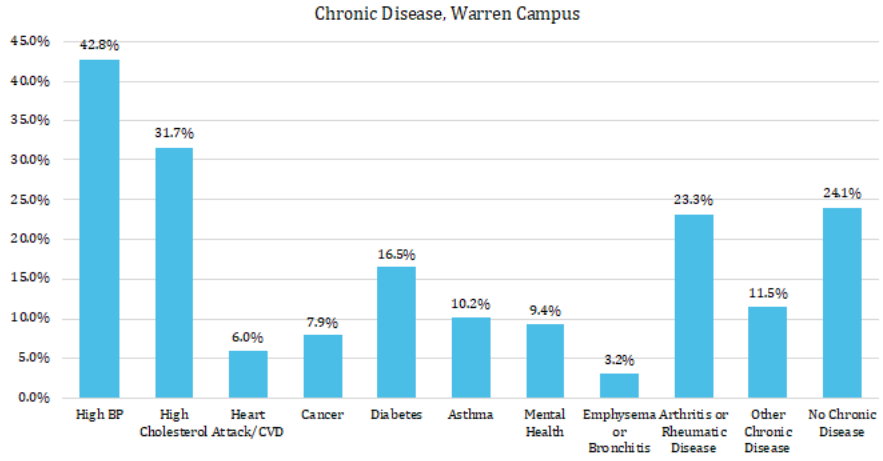


Figure 64



The Warren service area reported 24.1% without a chronic disease. For respondents age 45 and older, only 20.7% reported they did not have a chronic disease of any kind.

Figure 65

As previously discussed, obesity was most prevalent among respondents in lower income brackets. Therefore, chronic disease in general tends to be more prevalent as well. Our survey also looked specifically at two chronic diseases that tend to have an excess burden on community members in lower socioeconomic brackets – diabetes and asthma. As shown in Figures 66 and 67, both diabetes and asthma rates were higher among survey respondents in lower income brackets. Asthma rates among the lowest income bracket (19.7%) were higher than respondents in all other income brackets. Additionally, while percentages fluctuated slightly in lower income brackets, only 9.6% of respondents with a household income of $100,000 or more, less than half of respondents making less than $40,000.

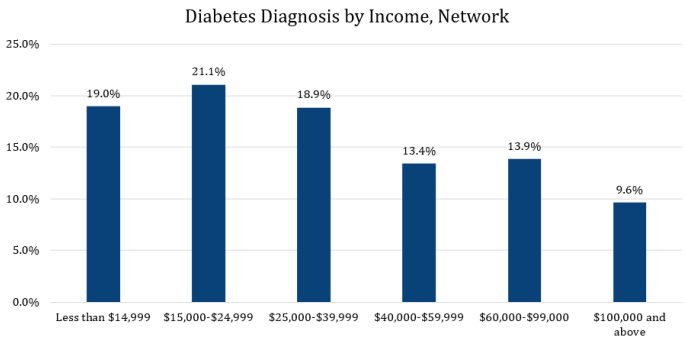


Figure 66

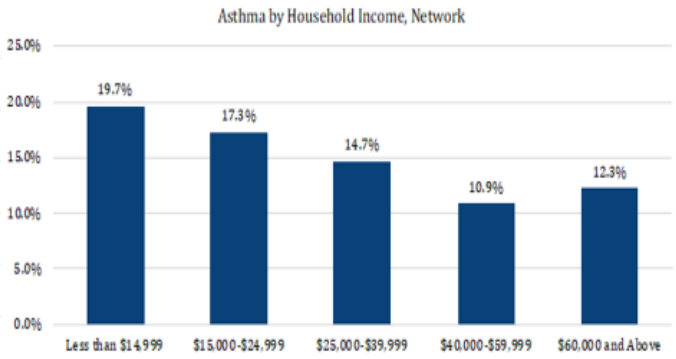


Figure 67

An additional measure of health that can be closely linked to chronic disease is BMI. As BMI of respondents increases, so does the prevalence of chronic disease. While 61.1% of respondents with a healthy BMI reported having chronic diseases, 86.9% of morbidly obese respondents reported having a chronic disease.

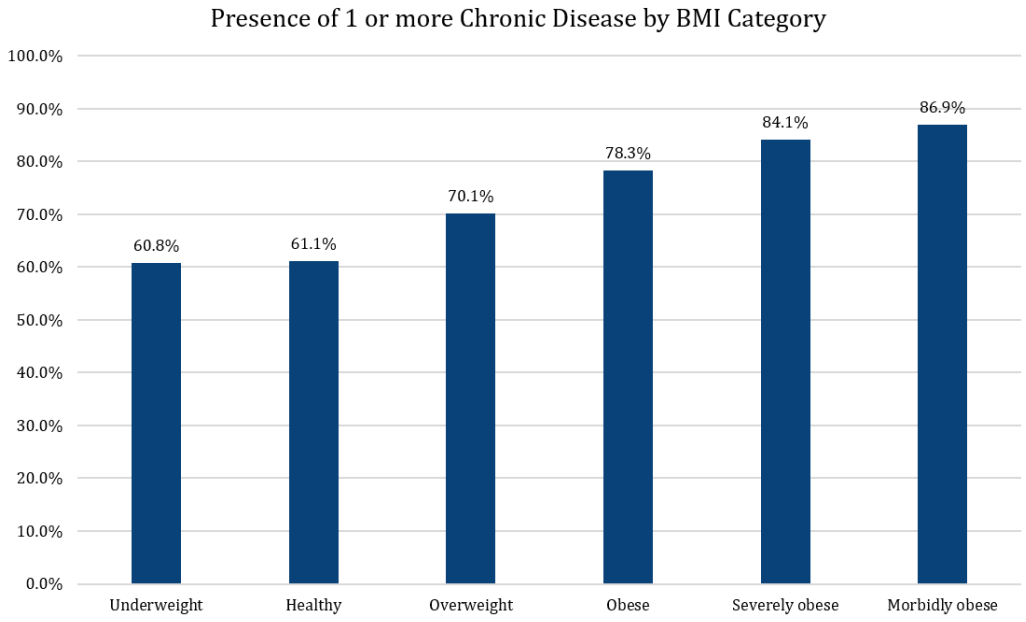


Figure 67

Of respondents that reported having a chronic disease, only 7.3% reported eating the Healthy People 2030 recommended servings of five or more fruits and vegetables per day, and the majority of respondents (60.5%) reported consuming less than three servings per day.

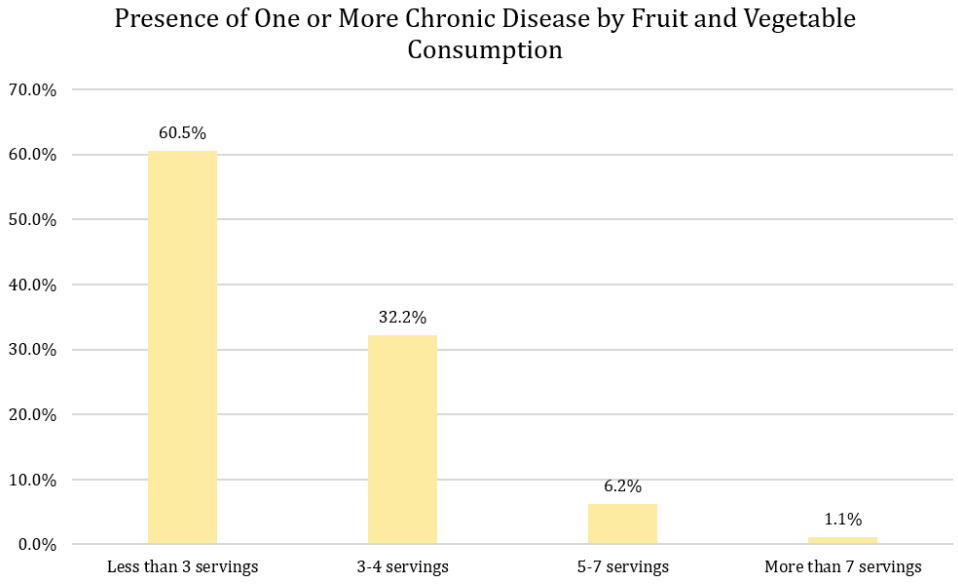
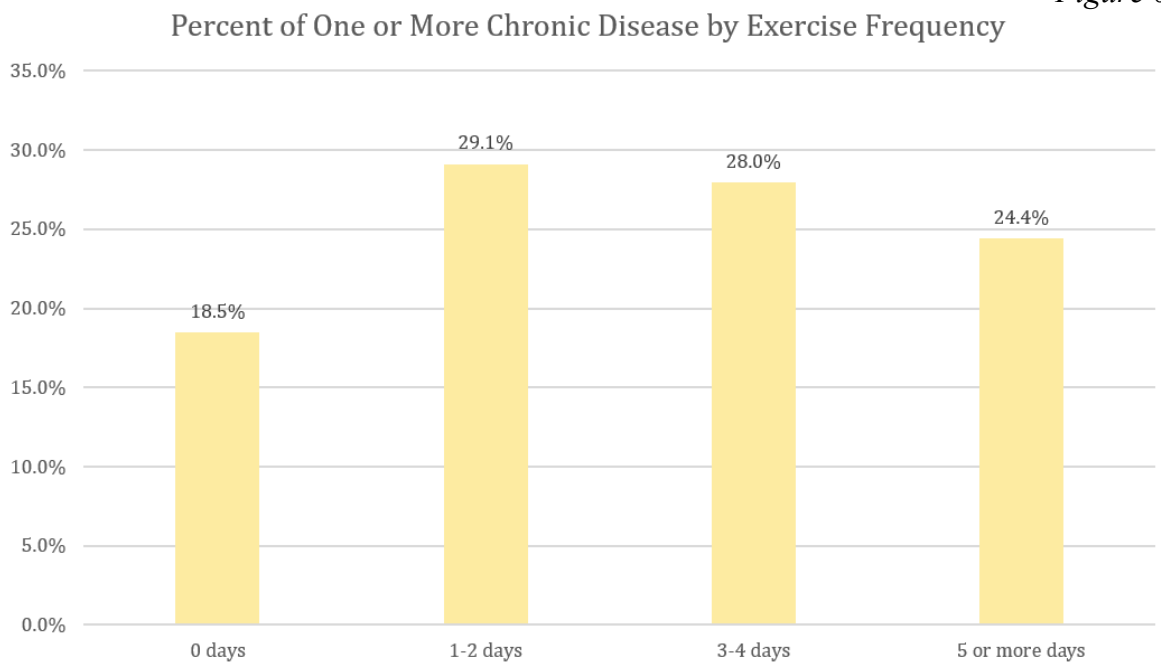


Figure 68

Of respondents that have at least one chronic disease, only 24.4% reported exercising the recommended weekly amount of five days per week.

Figure 69



Additionally, income has also been shown to play a role in the presence of chronic disease, with 80.8% of respondents making less than $14,999 reported having chronic disease, compared to 68.4% of respondents making more than $60,000.

Mental Health

According to survey responses, 39% of the population of the SLUHN service area respondents had at least one day of poor mental health within the last month; this is a slight increase from 39% in 2019. Overall trends indicate slight increases in days of poor mental health since 2012.

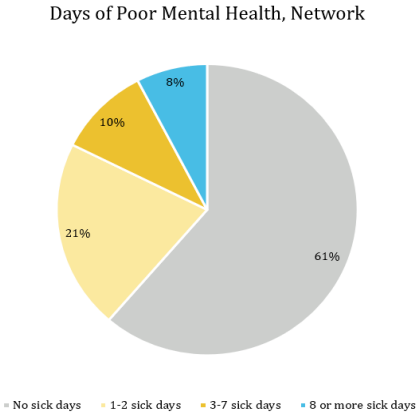
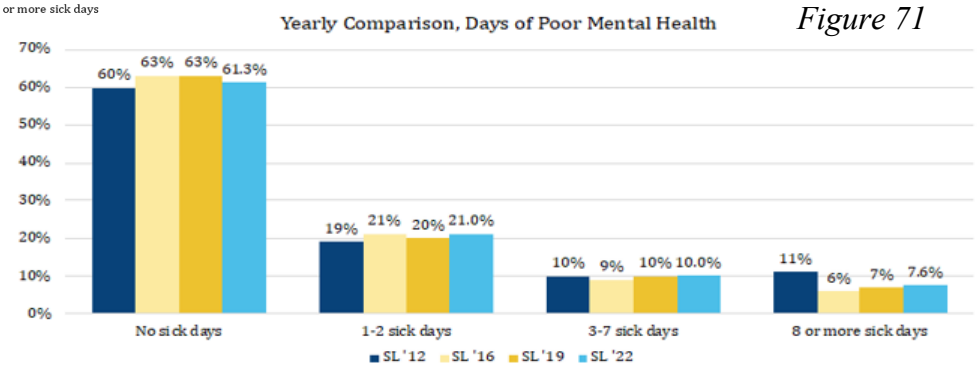


Figure 70

Figure 71



The ethnicity of respondents is an important factor to consider when examining days of poor mental health amongst survey respondents. A higher percentage of Non-Hispanic respondents (61.7%) reported having no days of poor mental health compared to Hispanic respondents (58.2%). Additionally, 7.8% of Hispanic respondents reported having 8 or more poor mental health days, whereas a slightly lower percentage (7.6%) of Non-Hispanic respondents reported this.

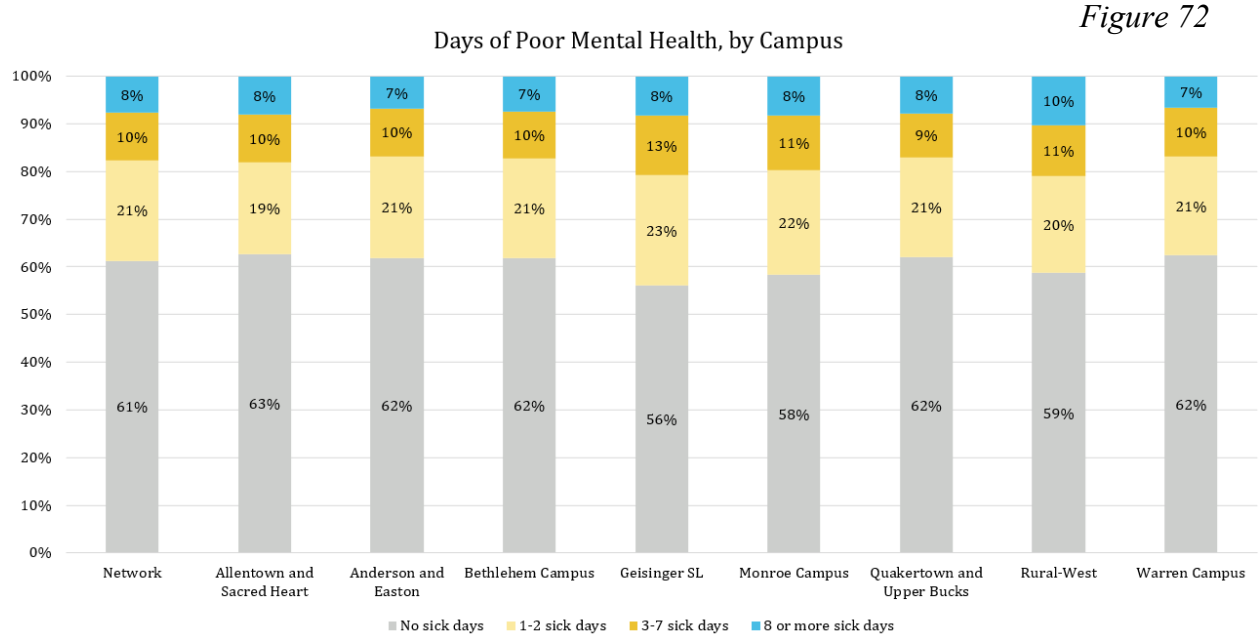
When income of respondents was compared to number of days of poor mental health, a few important trends emerged. As income increased, so did the percentage of respondents reporting no poor mental health days. Of those making more than $60,000, 64.9% had no poor mental health days compared to 45.2% of those making less than $14,999.

Several health behaviors can have an influence on days of poor mental health, including fruit and vegetable consumption and exercise, with 66.7% of those consuming 5 to 7 servings of fruits and vegetables, and 70.3% of those consuming more than 7 servings having no reported days of poor mental health, as compared to only 51.5% of those consuming 0 servings of fruits and vegetables. Additionally, 14.6% respondents who had no servings of fruit and vegetable experienced 8 or more sick days compared to 6.7% of those consuming 5 to 7 servings.

Exercise was also correlated with mental health sick days, with 74.2% of people exercising five or more days a week had no poor mental health days compared to 54.5% of those who did not exercise. Additionally, 12.3% of those who did not exercise had 8 or more poor mental health days, compared to 5.4% of people who exercised 3 to 4 days per week, and 5.1% of those who exercised 5 or more days per week.

When days of poor mental health was examined by service area, 63% of respondents in the Allentown and Sacred Heart service area reported no sick days, the highest in the Network. Further, Geisinger St. Luke's service area respondents reported the lowest percentage of no sick days (56%). The Rural West service area respondents reported the highest percentage of eight or more sick days (10%) while Anderson and Easton, Bethlehem, and Warren reported the lowest, all with 7% of respondents having eight or more sick days in the last month.

Figure 72



Physical Health

A number of symptoms fall under the umbrella of poor physical health and can lead to missing days of work. In the 2012, 2016, 2019, and 2022 surveys asked for the number of days in the past month during which they experienced poor physical health, including days missed from injury or illness. The number of 2022 CHNA survey respondents that claimed they had at least one day of poor physical health was higher than the number of people reporting at least one day of poor mental health, with 42% of respondents reported having at least one sick day in the past month due to poor physical health compared to 39% of respondents with at least one poor mental health day. This provides an interesting contrast to the earlier question in the CHNA that asked respondents to rate their overall health, where 94% of respondents rated their health as 'good' or better.

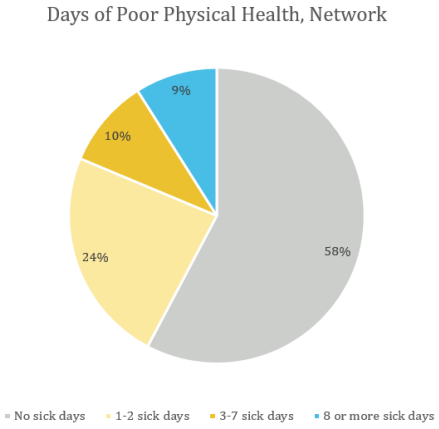


Figure 73

When comparing the 2022 data to the 2019, 2016, and 2012 data, physical health is trending slightly positive, with a 2.7% increase in respondents with no physical sick days compared to 2019, and a 1% decrease in eight or more sick days between 2019 and 2022. . The percentage of respondents indicating that they had zero to two sick days decreased, while the percentage of respondents indicating that they had three or more sick days has increased.

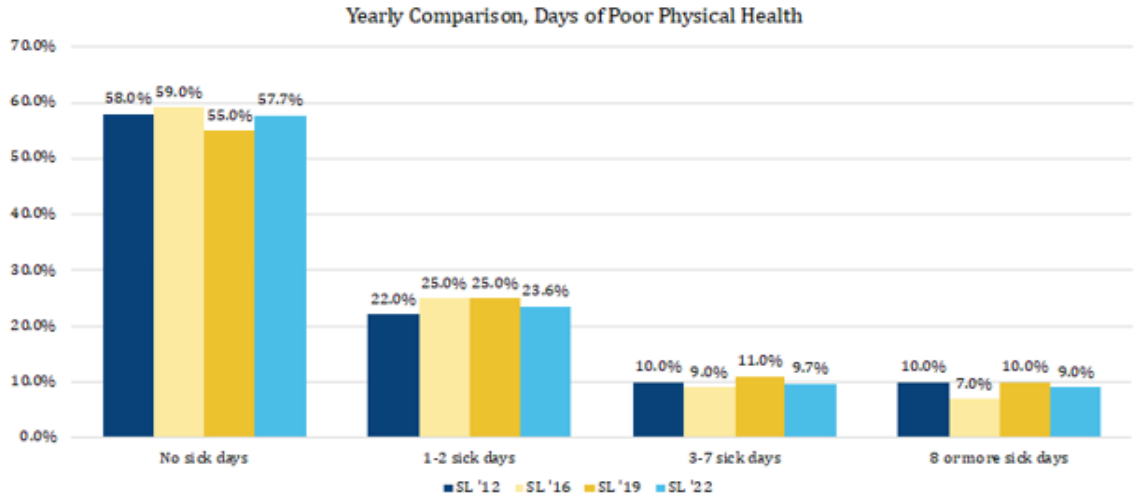


Figure 74

The ethnicity of respondents is an important factor to consider when examining sick days due to poor physical health. Non-Hispanic respondents had a slightly higher percentage of no sick days at 58.3% compared to the Hispanic respondents at 53.2%. While 12% of Hispanic respondents reported having 8 or more poor physical health days, only 8.7% of Non-Hispanic respondents reported this.

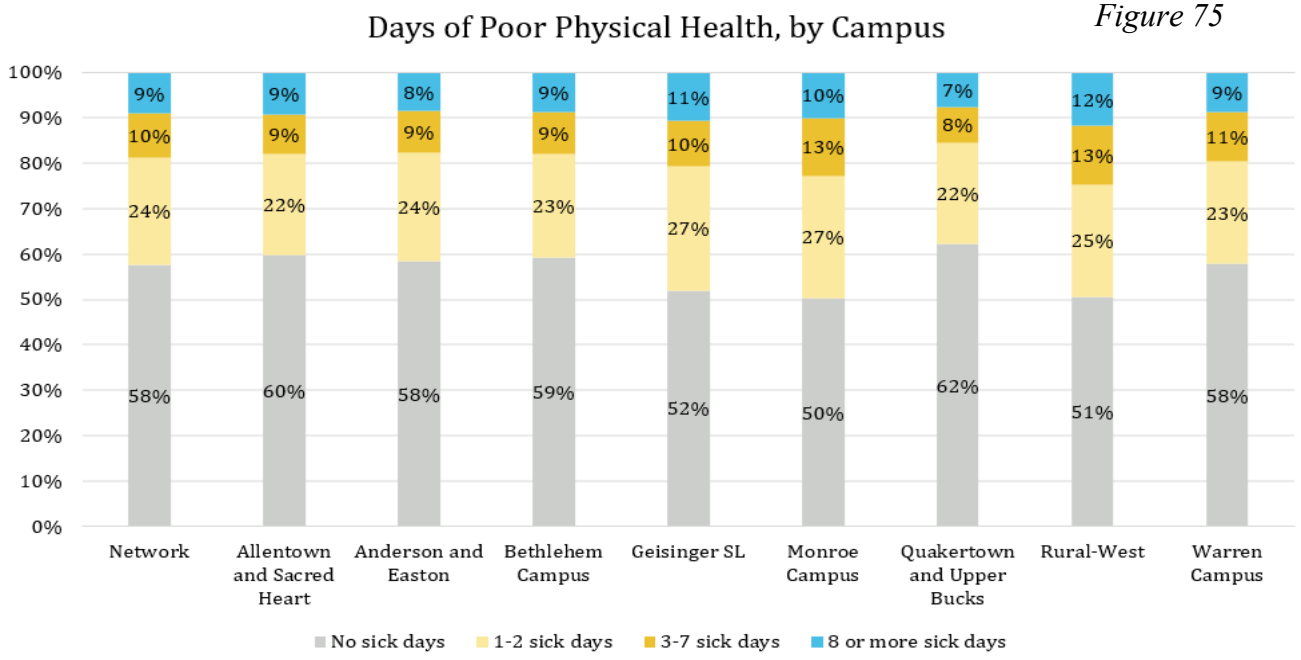
When income of respondents is compared to number of days of poor physical health, 63.3% of respondents making more than $60,000 reported having no physical health sick days compared to 41.2% among those making less than $14,999. Additionally, 21.6% of respondents making less than $14,999 and 17.4% of the respondents making $15,000 to $24,999 reported having 8 or more sick days due to poor physical health, compared to 5.7% among those making more than $60,000.

Several health behaviors can have an influence on sick days due to poor physical health, including fruit and vegetable consumption and exercise. While 63.7% of those consuming 5 to 7 servings of fruits and vegetables, and 73.3% of those consuming more than 7 servings suffered no sick days due to poor physical health, as compared to only 49.8% of those consuming no servings of fruits and vegetables. Additionally, 14.3% respondents who had no servings of fruits and vegetables experienced 8 or more sick days compared to 7.2% of those consuming 5 to 7 servings, and 7.9% among those who ate more than 7 servings.

The correlation between exercise and physical health was similar to other health behaviors, with 72.1% of people exercising five or more days a week had no sick days due to poor physical health compared to 48.9% of those who did not exercise. Of those who did not exercise, 15.3% had 8 or more poor physical health sick days, compared to 5.5% of people who exercised five or more days a week.

When looking at service areas across SLUHN, the Monroe service area had the lowest percentage of respondents that had no sick days (50%) and Quakertown and Upper Bucks had the highest (62%). The Rural West service area had the highest percentage of respondents with eight or more sick days (11%) while Quakertown and Upper Bucks respondents reported the lowest percentage (7%).

Figure 75



Falls

Survey respondents over the age of 45 were asked how many times they had fallen in the past year. 21.9% of respondents age 45 years or older reported falling at least one time in the past 12 months, 18% falling once or twice.

When looking at number of falls by campus, the Rural West service area had the highest percentage of respondents over 45 years old having fallen at least once (25%) and Quakertown and Upper Bucks reported the lowest (20%).

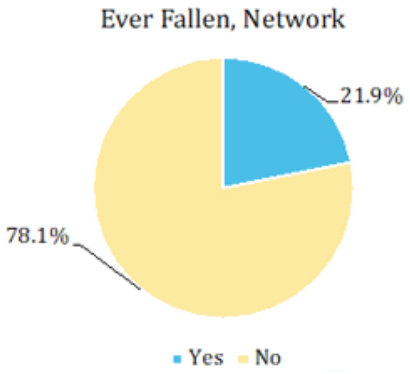


Figure 76

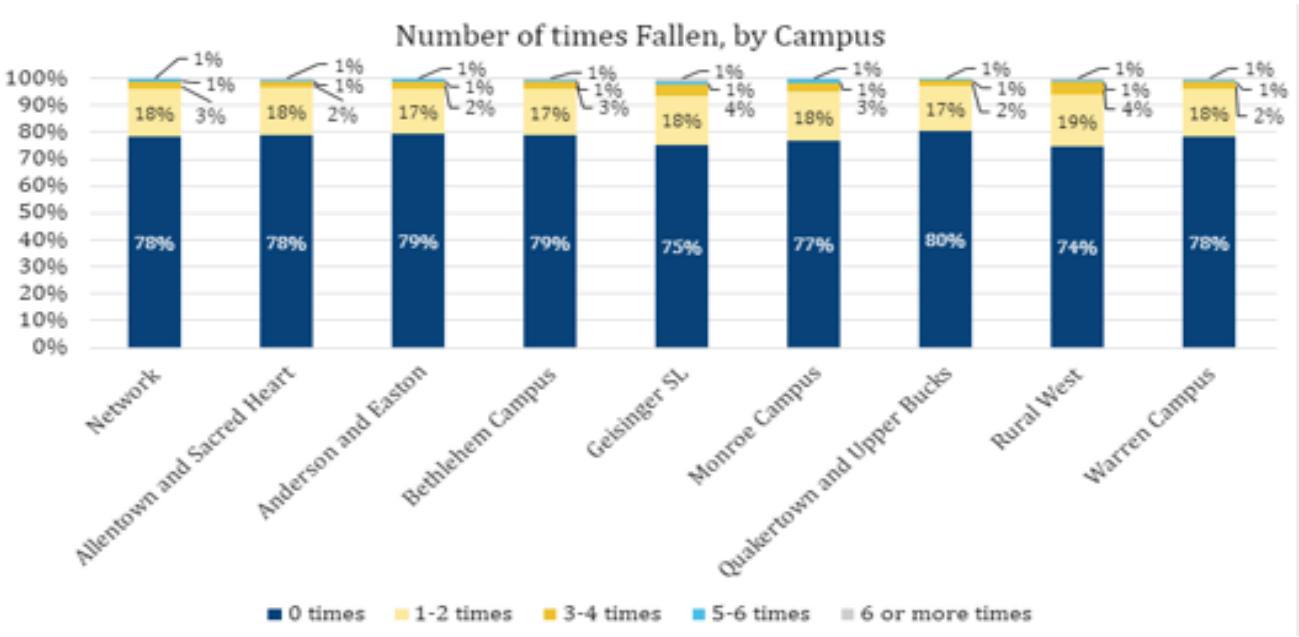


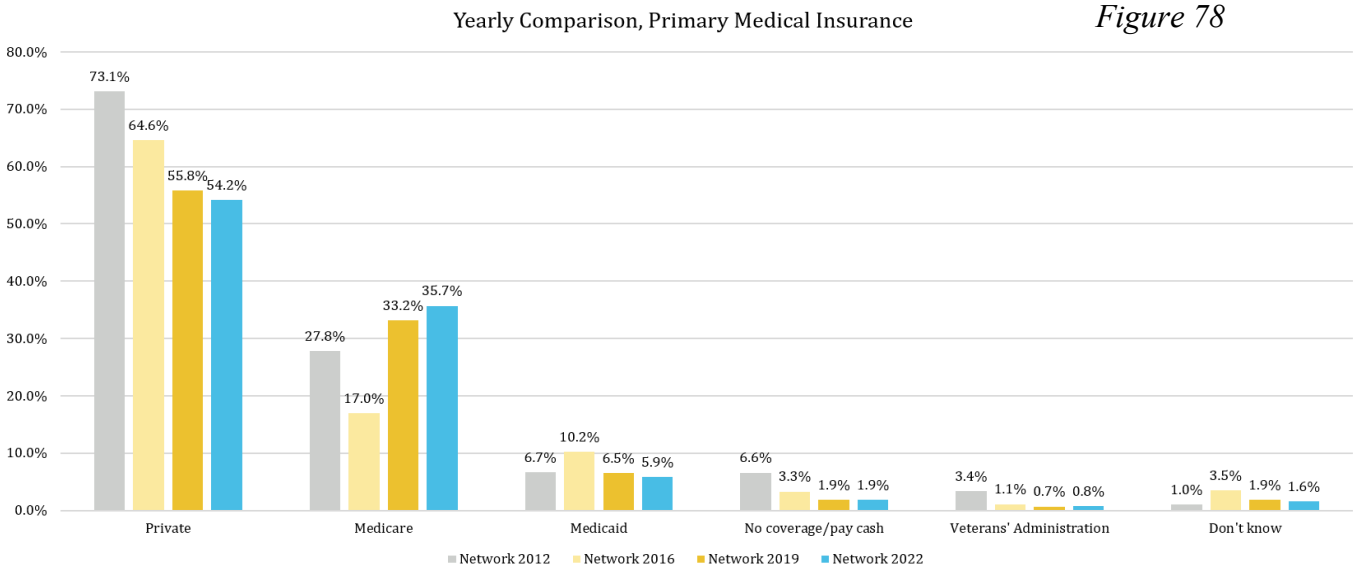
Figure 77

Clinical Care

Health Insurance

The 2022 CHNA survey data found that 54.3% of respondents used private insurance (including Veterans Administration), 5.9% of respondents had Medicaid – a government subsidized insurance, 35.7% of respondents had Medicare, and 1.9% of respondents did not have coverage and therefore paid cash.

Figure 78



The Geisinger St. Luke's service area had the largest percentage of people using Medicaid (14%) compared to the lowest at 4.2% in the Quakertown and Upper Bucks service area. Conversely, the Quakertown and Upper Bucks service area had the highest percentage of people using private insurance (61.1%) and Geisinger St. Luke's and Rural West both had the lowest percentage at 49.2%.

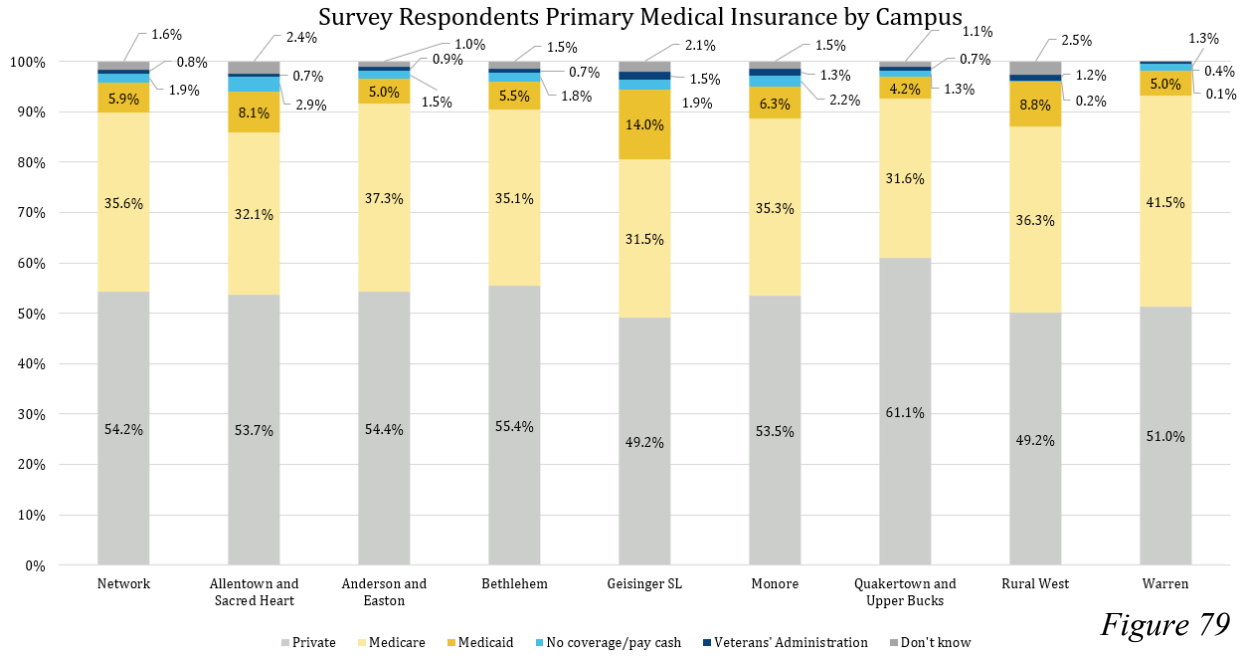
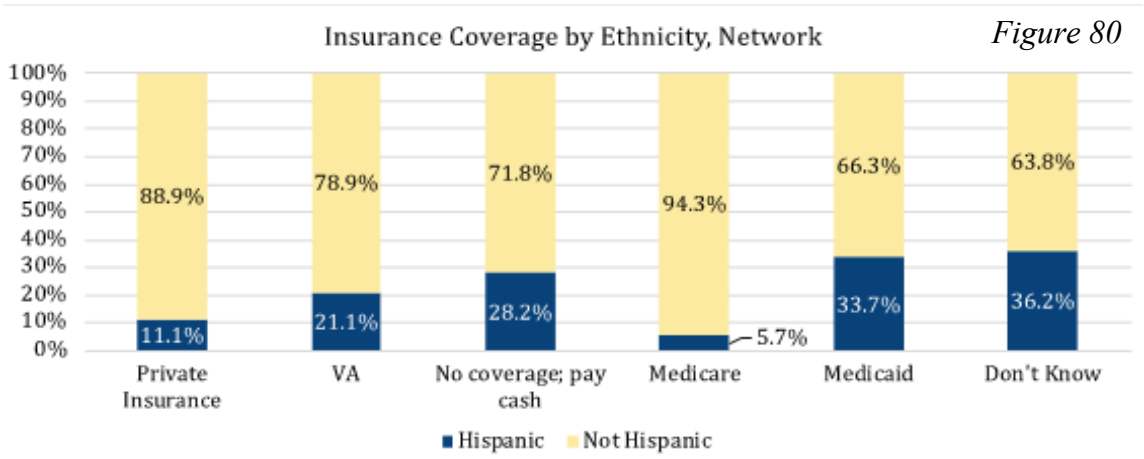


Figure 79

When examining the correlation between income and insurance, 5.5% of those making less than $14,999 were uninsured, while only 0.7% of those making $60,000 or more reported being uninsured. Additionally, 72% of survey respondents making $60,000 or more were privately insured compared to 32% of those making between $15,000 and $24,999, and 14% of those making less than $15,000.

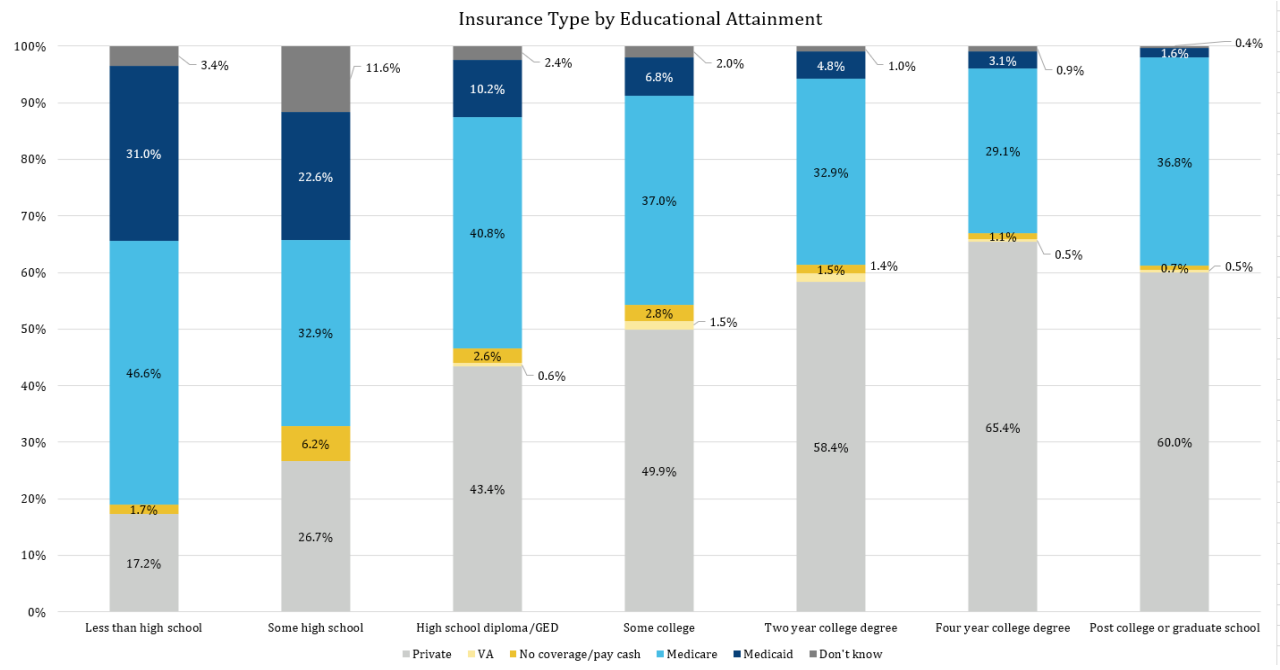
Of survey respondents who reported that they had Medicaid, 33.7% were Hispanic and 66.3% were Non -Hispanic. Additionally, 28.2% of those with no coverage also identified themselves as Hispanic and 71.8% were Non-Hispanic. When looking at those with private insurance, only 11.1% identified themselves as Hispanic and 88.9% were Non-Hispanic. Out of the Hispanic population, 36.2% of respondents didn't know what insurance they had, 33.7% had Medicaid, 28.2% were uninsured, 21.1% had VA, 11.1% VA, and 5.7% Medicare.

Figure 80



Of the respondents who had Medicaid, 53.6% had less than a high school education compared to only 4.7% of respondents with a four year degree or higher. Additionally, 7.9% of respondents that had less than a high school education, and 2.6% of high school educated respondents were uninsured, compared to 1.8% who had a four year degree or higher.

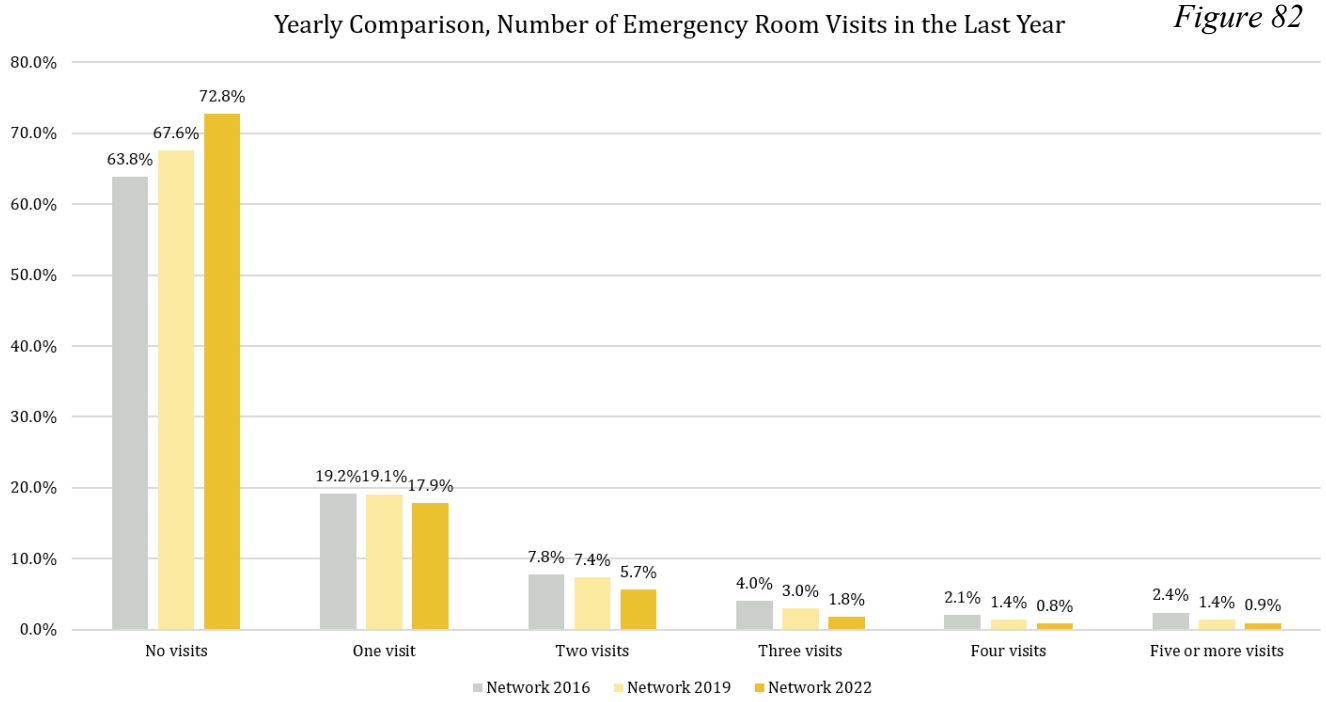
Figure 81



Emergency Room Visits

Respondents were asked about the number of times they used the Emergency Room (ER) in the past year. This measure is important to consider as ER utilization is an indicator for how the underinsured and low-income populations access medical care.
When looking at network data, 72.8% of survey respondents did not use the ER at all in the past year, and 23.6% of the respondents used the ER once or twice. This question was not asked on the 2012 survey, thus Figure 82 only represents the 2016, 2019, and 2022 survey data. Less respondents reported visiting the emergency room in 2022 compared to both 2019 and 2016.

Figure 82



The Quakertown and Upper Bucks service area reported the highest percentage of people who did not visit the ER in the past year (78.4%), and respondents in the Geisinger St. Luke's reported the lowest (58.5%). The Rural West service area had the highest percentage of people using
The ER four or more times (2.8%).

Of respondents with private insurance, 76.7% reported not using the ER in the past year, compared to 46.7% of respondents with Medicaid. Additionally, 3.7% of respondents with Medicaid used the ER five or more times compared to 0.4% with private insurance. Respondents with Medicaid used the ER two or more times at a rate of 27.5%, compared to 7% of those with private insurance.

Hispanic respondents reported 2.3% using the ER five or more times compared to 0.7% of Non-Hispanic respondents. Conversely, 74.6% of Non-Hispanic respondents did not use the ER in the past year, compared to 60.1% of Hispanic respondents. Hispanic and Non-Hispanic respondents reported using the ER once in the last year at similar rates (21.6% and 17.4%, respectively), but the Hispanic respondents had greater percentages of ER use for two or more visits at 18.3% compared to 8% of Non-Hispanic respondents.

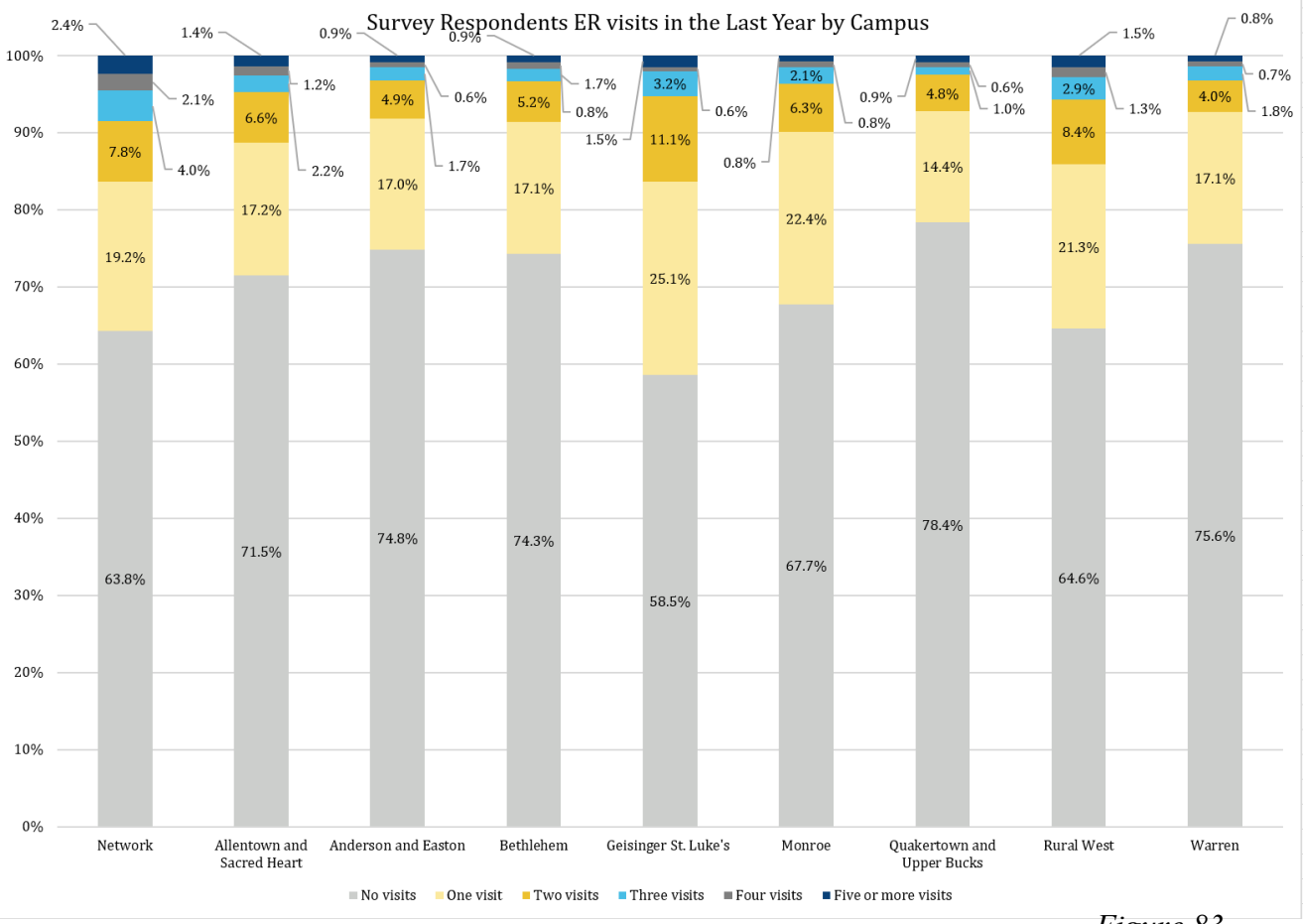


Figure 83

Income also plays a role in frequent use of the ER, with 56.7% of survey respondents making between making less than $25,000 did not use the ER in the last year, compared to 78.5% of those making over $60,000. Additionally, 16% of survey respondents making between $15,000 and $24,999, and 27% of respondents making less than $15,000 used the ER two or more times in the last year, compared to 6% of those making over $60,000.

Inability to Pay for Eyeglasses

The survey asked respondents if they were unable to purchase eyeglasses due to cost in the past year. 19.5% of survey respondents reported being unable to pay for eyeglasses, a decrease of 5.7% since 2019. A majority of respondents (71.1%) were able to pay for eyeglasses in 2022, an increase of 5% since 2019. A slight increase in respondents don't need eyeglasses in 2022, from 8.7% in 2019 to 9.4% in 2022. A third response of "I do not need eyeglasses" was added to the 2016 and 2019 surveys. This additional response may be a reason why the percentages are different when comparing the 2012 survey to the 2016 , 2019, and 2022 surveys. However, it is important to note that the 'yes' response remains comparable.

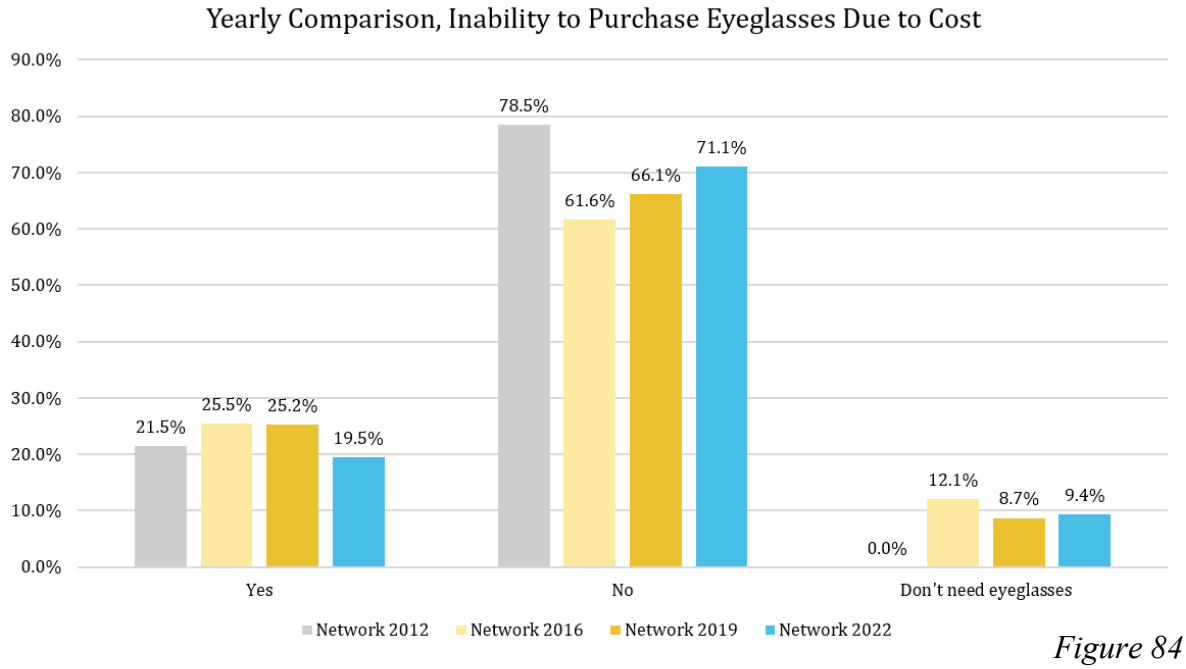


Figure 84

Both the Monroe and Rural West service areas reported the highest percentage (23%) of respondents who were not able to purchase eyeglasses due to cost. This was a 7% decrease from 2019, which was also the Rural West region (30%). For people without insurance that covers eyeglasses, medical expenses are a burden, especially given than all costs are paid out of pocket. It is important to note that each campus had approximately a 20% response rate of inability to purchase eyeglasses due to cost.

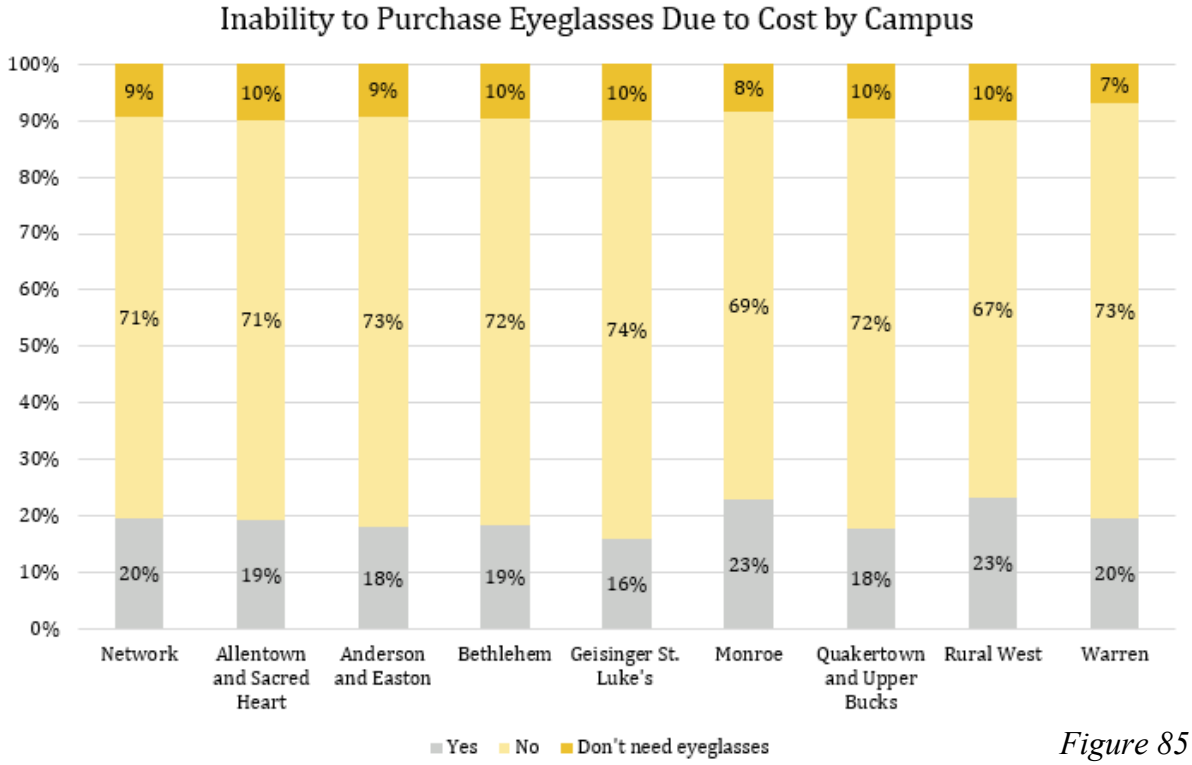
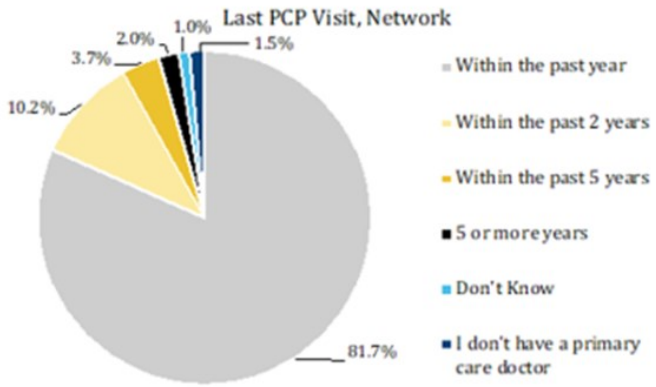


Figure 85

Primary Care Check Up

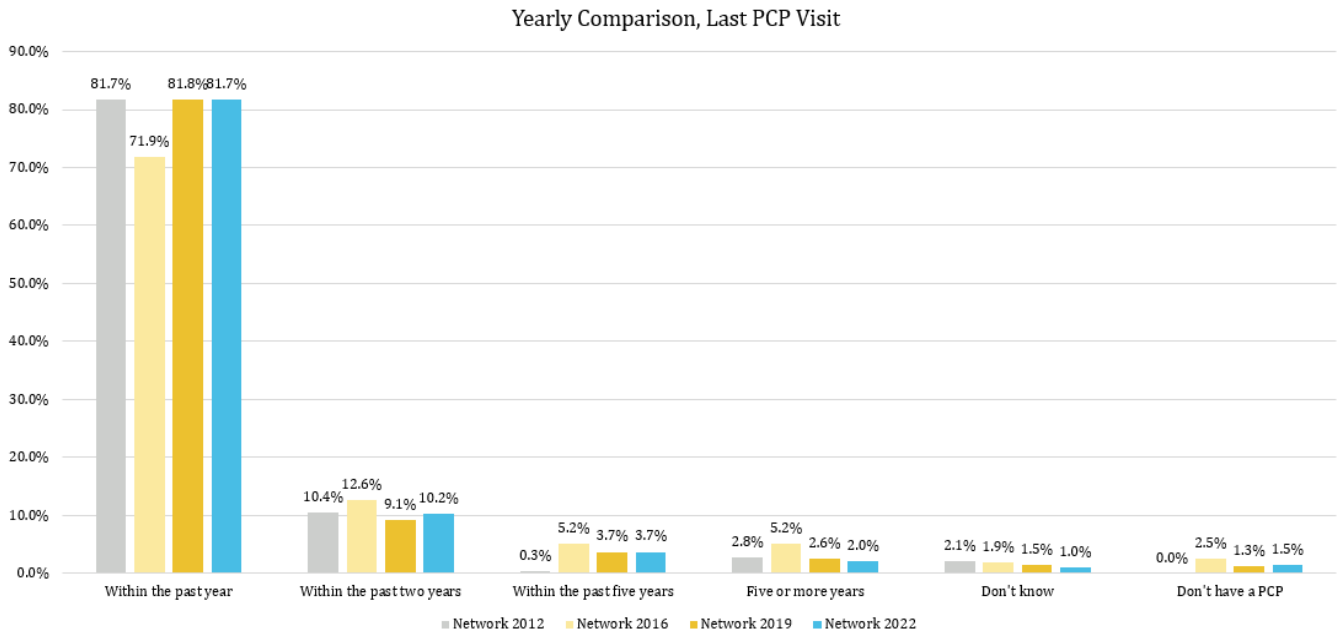
Primary care providers (PCPs) are gatekeepers to the healthcare system. Often, they are a patient's first point of contact and referral to further care by specialists. The CHNA asked how long it had been since respondents last visited a primary care doctor for a routine checkup. In 2022, the majority of respondents visited their PCP within the last year (81.7%), followed by within the past 2 years (10.2%), within the past 5 years (3.7%), and 5 or more years (2%), while 1% of respondents did not know the last time they saw a PCP and 1.5% do not have a PCP.

Figure 86



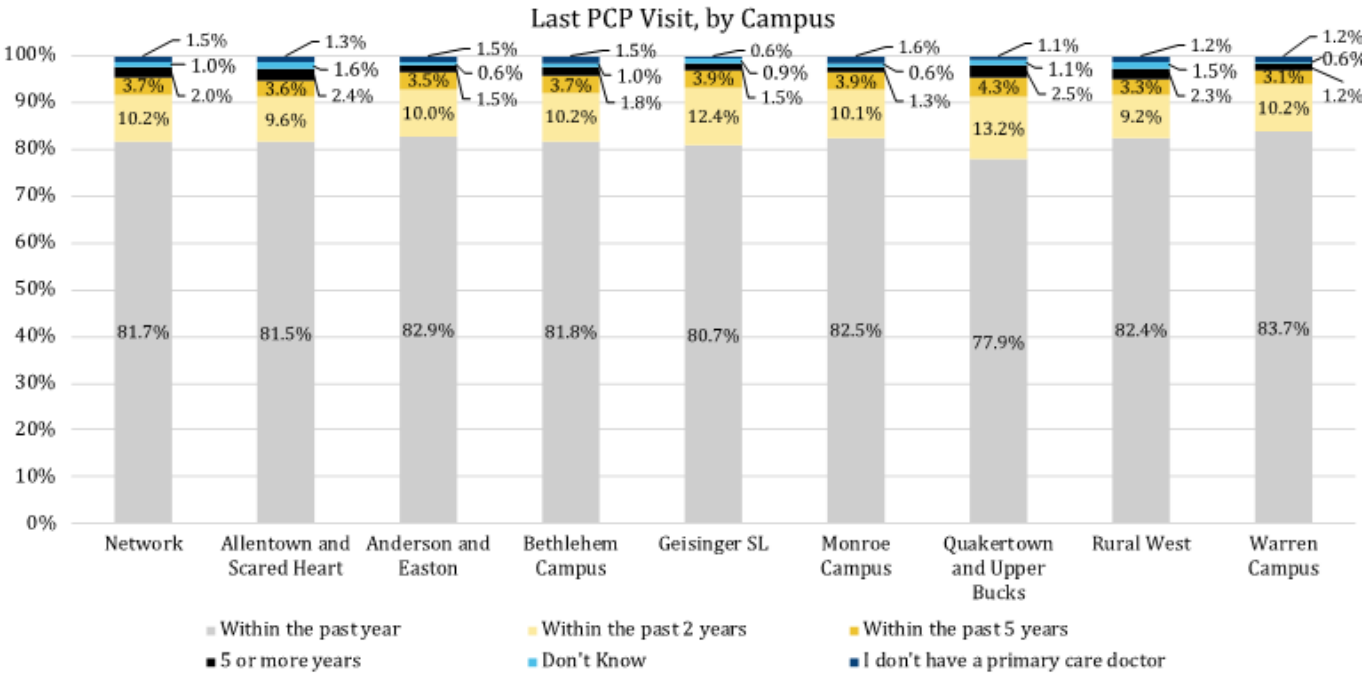
When looking at longitudinal trends the comparison remained mostly consistent with previous CHNA cycles, with a slight decrease in respondents that did not know the timing of their last PCP visit or those that had seen their PCP within the last five years.

Figure 87



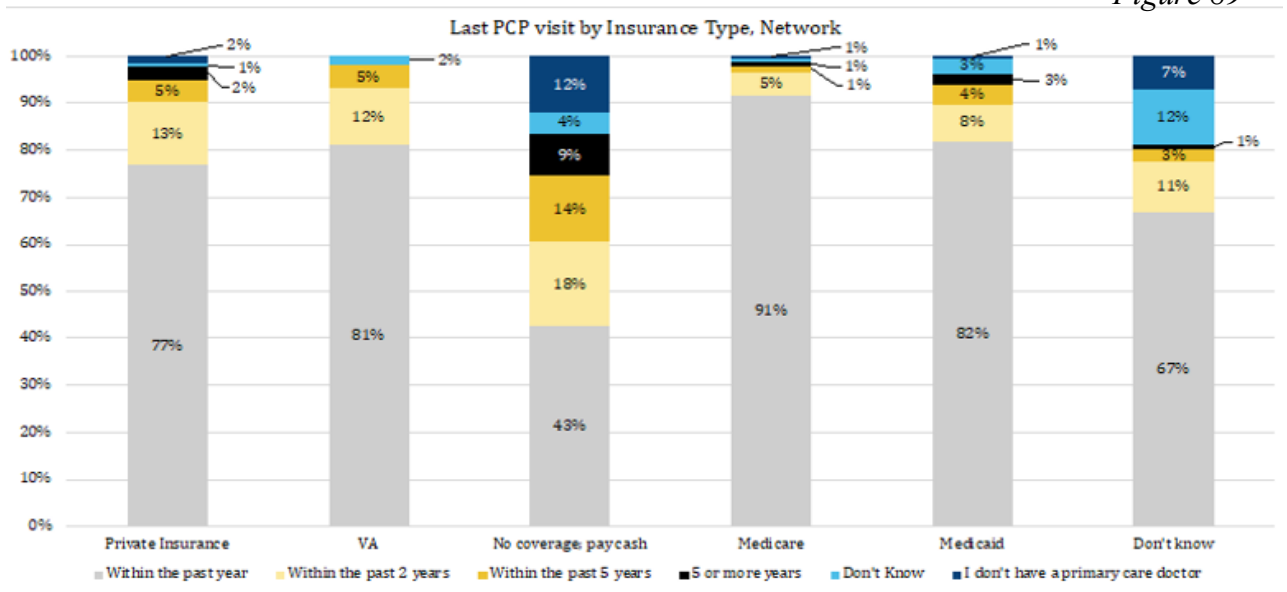
When comparing responses across the service area, the majority of respondents had seen their PCP within the past year. The Allentown and Sacred Heart service area had the highest percentage of respondents who did not know the last time they saw a PCP/do not have a PCP (2.9%) and Geisinger St. Luke's had the smallest percentage (1.5%).

Figure 88



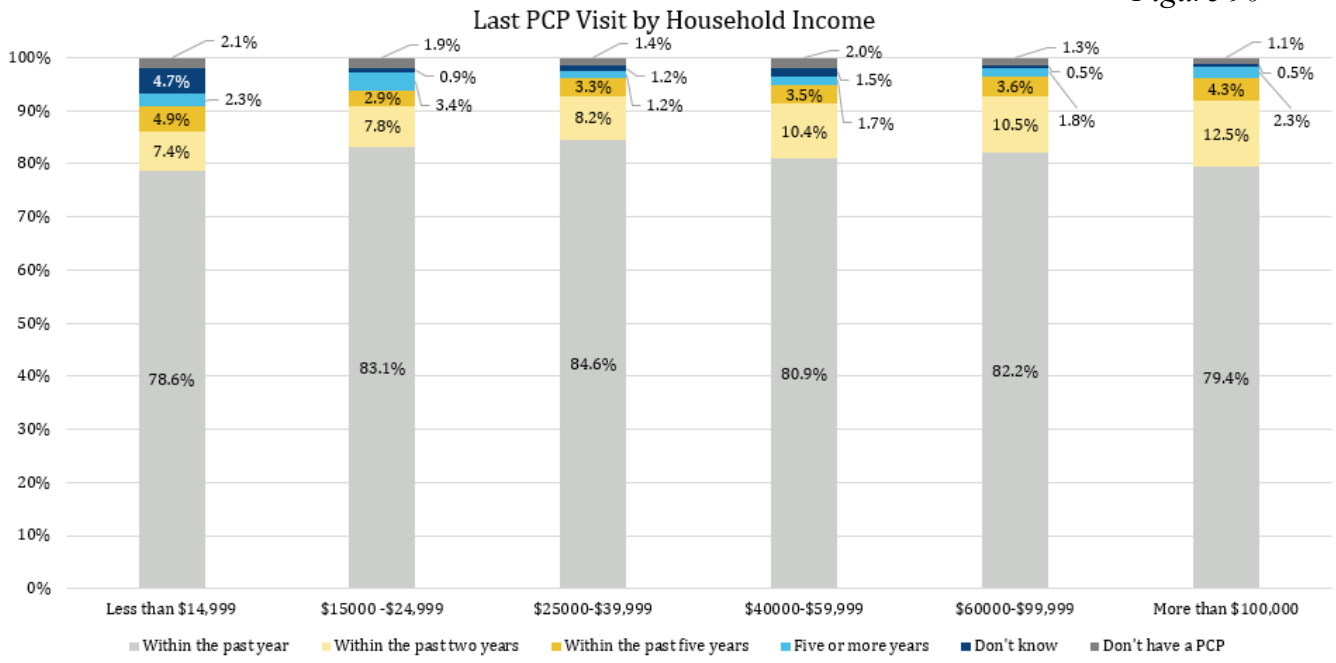
When looking at the relationship between respondents visiting their PCP and insurance, Figure 89 shows that 77% of respondents with private insurance saw their PCP within the last year compared to 43% with no insurance coverage. However, 82% of the people with Medicaid saw their PCP in the last year along with 91% of respondents with Medicare. Additionally, 12% of people with no insurance coverage did not have a primary care doctor compared to 1.5% of those with private insurance and 1% of those with Medicaid.

Figure 89



Household income has some variability when looking at PCP visit, with respondents across all income levels seeing their PCP in the last year within a range of 78.6% ($14,999 or less) to 84.6% ($25,000-39,000). Additionally, when examining rates for respondents that had a routine PCP visit in the last year, 91.9% of respondents making $100,000 or more seeing their PCP within the last two years, compared to 86% making $14,999 or less.

Figure 90



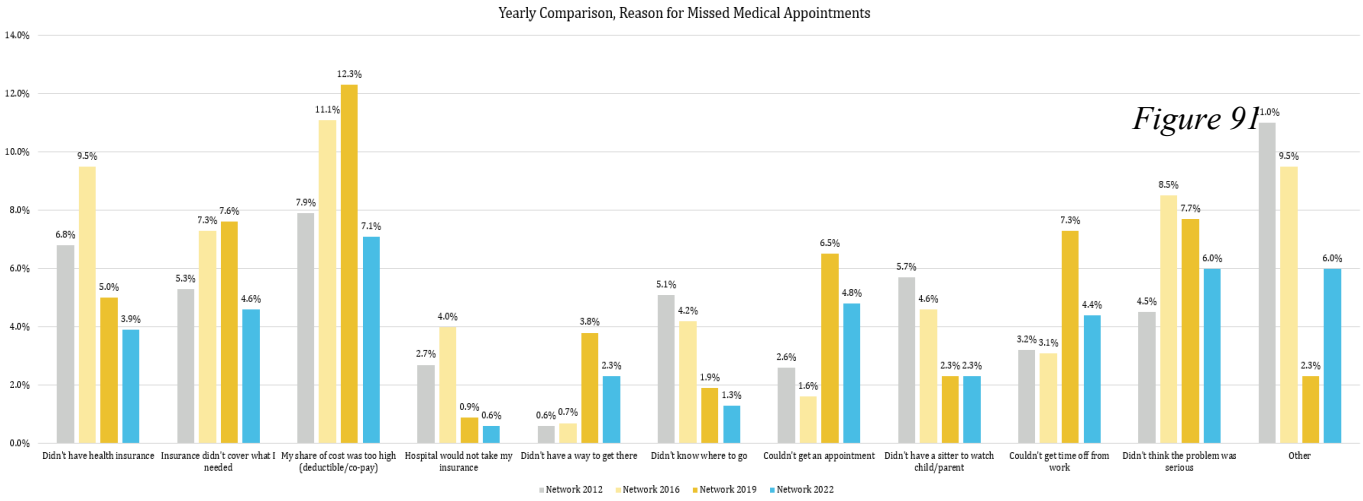


Figure 91

Reasons for Postponement of Care

The overall survey data revealed that 63.2% of respondents did not miss any doctor's appointments. However, respondents selected various reasons for missing an appointment. Rates of missed appointment have decreased over time, with the exception of transportation (i.e., didn't have a way to get there) which increased from .06% in 2012 to 3.8% in 2019, and decreased again to 2.3% in 2022. While there was variability over time, the highest percentage of respondents overall was that the share of cost was too high (e.g., deductible, copay).

According to the survey data, 69.6% of the people who paid cash missed an appointment because they did not have health insurance. Additionally, those who had government funded insurance, such as Medicaid (12.3%) and Medicare (2.8%) missed an appointment because their insurance did not cover what they needed. Respondents with private insurance (11.7%) and uninsured patients (14.1%) reported missing an appointment because their share of the cost was too high. Missed appointments also occurred due to the doctors not accepting an insurance plan. This was the reason for a missed appointment for 10.3% of respondents with VA insurance.

Additionally, 10.2% of respondents with Medicaid, 7.1% of privately insured respondents, and 3.4% of respondents with VA insurance missed an appointment because they could not get an appointment with the doctor. Not having a sitter to watch a child/parent was another reason for missing an appointment for those with Medicaid (7.9%). Those with Medicaid (9.5%) and those who did not know what coverage they have (9.8%) reported that they missed an appointment because they did not think the problem was serious. Of respondents with Medicaid, 12.3% missed an appointment because they didn't have a way to get there. Tables 3-10 indicate results by campus for the highest rates of response to the reasons for postponement of medical care.

Table 3. Reason for Postponement of Medical Care: Allentown/ Sacred Heart	**Responses Rates**
My share of the cost was too high (deductible/copay)	6.7%
Didn't think the problem was serious	6.1%
Insurance didn't cover what I needed	5.2%
Couldn't get time off from work	4.9%
Couldn't get an appointment	4.4%
Never missed an appointment	62.6%

Table 4. Reason for Postponement of Medical Care at Anderson/ Easton	**Responses Rates**
My share of the cost was too high (deductible/copay)	7%
Didn't think the problem was serious	5.5%
Couldn't get an appointment	4.9%
Couldn't get time off from work	4.4%
Insurance didn't cover what I needed	4.3%
Never missed an appointment	64.3%

Table 5. Reason for Postponement of Medical Care at Bethlehem	**Percentage of Responses**
My share of the cost was too high (deductible/copay)	7.1%
Didn't think the problem was serious	5.7%
Couldn't get an appointment	4.7%
Couldn't get time off from work	4.4%
Insurance didn't cover what I needed	4.4%
Never missed an appointment	64.1%

Table 6. Reason for Postponement of Medical Care: Geisinger St. Luke's	Responses Rates
Didn't have a sitter to watch child/parent	6.8%
Didn't think the problem was serious	6.2%
My share of cost was too high (deductible/copay)	6%
Couldn't get time off from work	5.3%
Couldn't get an appointment	5.1%
Never missed an appointment	60.8%

Table 7. Reason for Postponement of Medical Care: Monroe	Responses Rates
My share of the cost was too high (deductible/copay)	8.2%
Didn't think the problem was serious	7.3%
Couldn't get an appointment	5.5%
Insurance didn't cover what I needed	5.1%
Didn't have health insurance	4.5%
Never missed an appointment	58.7%

Table 8. Reason for Postponement of Medical Care: Quakertown and Upper Bucks	Responses Rates
My share of the cost was too high (deductible/copay)	6.7%
Didn't think the problem was serious	6.4%
Couldn't get an appointment	4.6%
Insurance didn't cover what I needed	4.4%
Couldn't get time off from work	3.9%
Never missed an appointment	64.2%

Table 9. Reason for Postponement of Medical Care: Rural West	Responses Rates
My share of the cost was too high (deductible/copay)	6.8%
Didn't think the problem was serious	6.8%
Couldn't get an appointment	6.4%
Couldn't get time off from work	5.1%
Insurance didn't cover what I needed	4.5%
Never missed an appointment	59.7%

Table 10. Reason for Postponement of Medical Care: Warren	Responses Rates
My share of the cost was too high (deductible/copay)	6.4%
Didn't think the problem was serious	4.6%
Couldn't get an appointment	4.5%
Insurance didn't cover what I needed	4.4%
Didn't have health insurance	3.8%
Never missed an appointment	65.4%

Resources for Advice about Health

The survey asked respondents to indicate where their primary source of advice comes from when they are sick or need guidance about their health. The responses may indicate entry points to the medical system that community members are able to easily access, in addition to whom they trust most about their health. The 2022 CHNA survey asks respondents where they went most often when they were sick or in need of medical advice to get and understanding of their use of service providers. The majority of respondents go to a doctor's office (81.5%), followed by an urgent care center (7.4%), using the Internet (5.7%), and using an emergency room (1.9%). While most respondents use a doctor's office, access to PCPs with diverse backgrounds and accept many types of insurances will allow more individuals to seek help at a doctor's office rather than on the Internet or an emergency room.

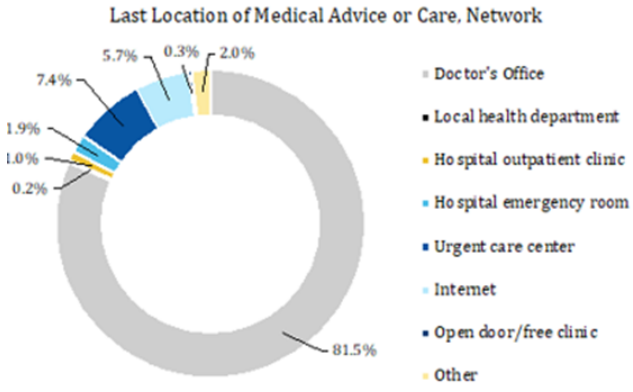


Figure 92

Trends from the 2012, 2016, 2019, and 2022 CHNAs indicate that there was a decrease of 9.5% between 2012 and 2022 of respondents that most commonly used a doctor's office for medical advice. Responses remained similar over time for use of local health departments, hospital outpatient clinics, and free/open door clinics. There was 5.3% decrease from 2016 to 2022 in respondent use of hospital emergency rooms. Additionally, from 2019 to 2022, there was a 4.1% decrease in urgent care center use, and a 4.5% decrease in Internet usage as sources for medical advice.

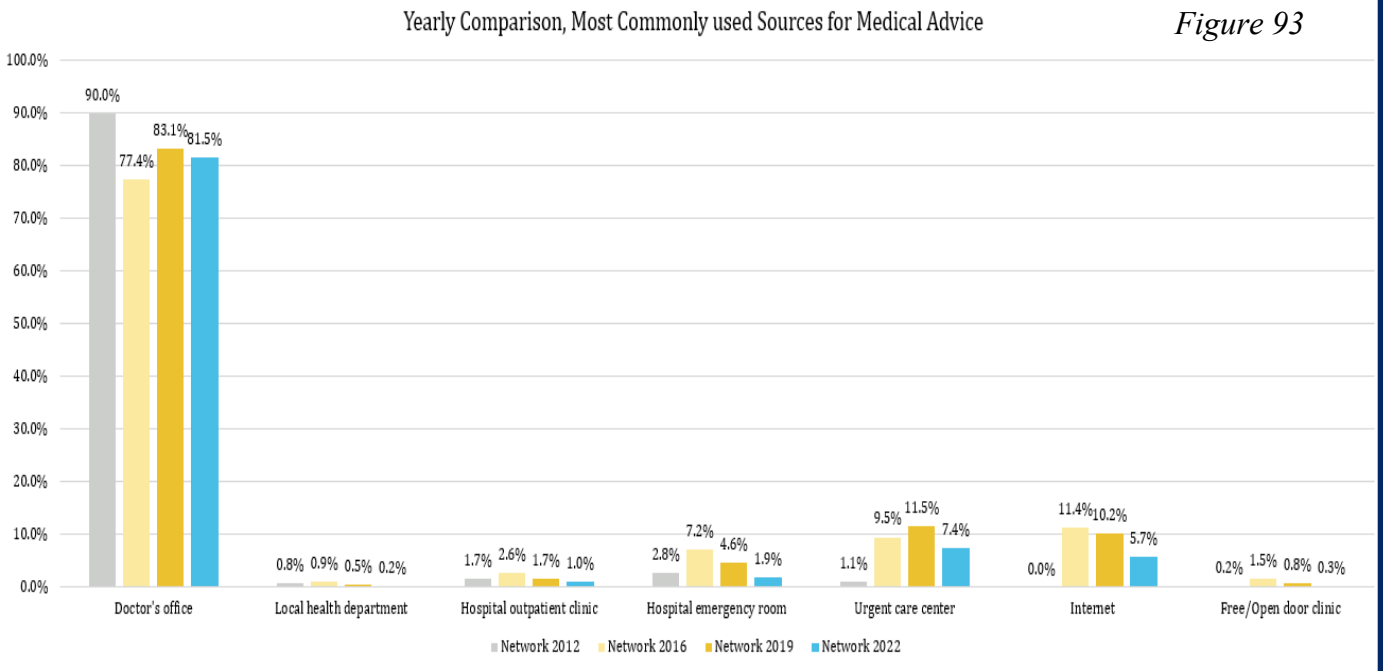


Figure 93

Figure 94

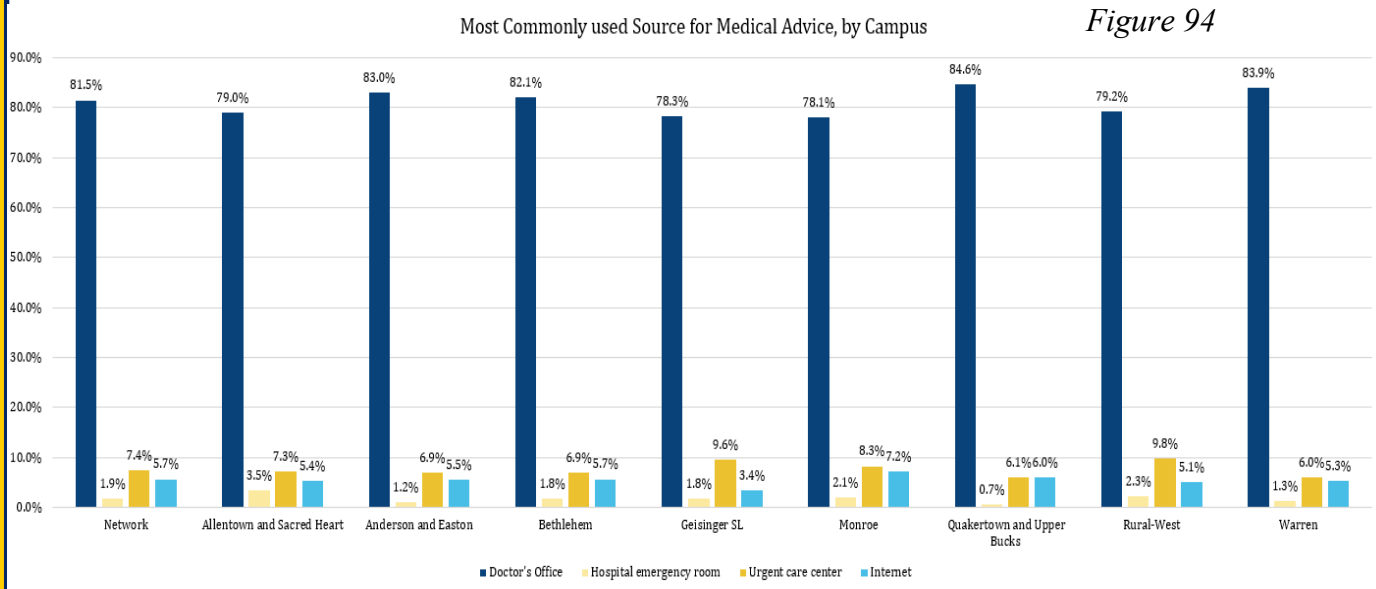


Figure 94 illustrates variability of responses by service area for sources of medical advice. There was only slight variability in responses across service areas related to use of local health departments, hospital outpatient clinics, and therefore not included. The Monroe service area only used a doctor's office 78.1% as the most common source of medical advice, compared to the Network average of 81.5%. The Quakertown and Upper Bucks service area had the highest percentage of respondents that used the doctor's office as the most common source of medical advice (84.3%).

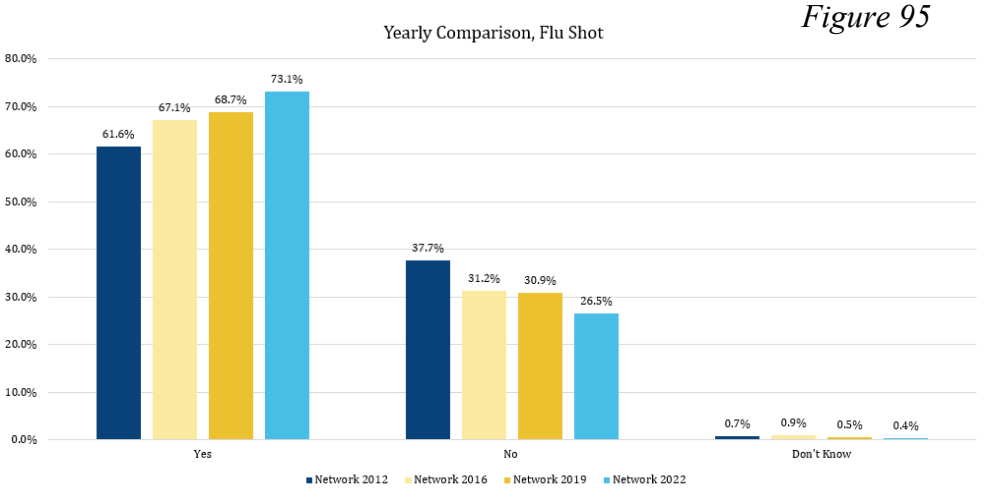
Urgent care center use was higher than the Network average (7.4%) in the Geisinger St. Luke's service area (9.6%), Monroe (8.3%), and Rural West (9.8%). The Monroe (7.2%) and Quakertown and Upper Bucks (6%) service areas used the Internet for medical advice more often than the Network average (5.7%). Additionally, the Allentown and Sacred Heart service area reported a higher rate of emergency room use (3.5%) than the Network and all other service areas. Using the ER as a common source of care and information is problematic because it is an expensive and unsustainable method for receiving care and information. Both ER and Urgent Care Center utilization can be an indicator that individuals/ families may not have a primary care doctor or are uninsured or underinsured.

Flu Vaccine

There was an overall increase in CHNA survey respondents that received a flu shot from 61.6% in 2012 to 73.1% in 2022.

In 2022, only 57.2% of respondents with a household income of less than $15,000 received a flu shot compared to 76.6% of respondents with a household income of $60,000 and above.

Figure 95



Slight differences in respondents that received a flu shot across the Network service areas. The Quakertown and Upper Bucks service area had the highest percentage of respondents that received a flu shot (75.4%) and Bethlehem (75.3%), Anderson and Easton (75.1%), and Warren (74.6%) were all above the Network average. The Rural West service area had the lowest percentage of respondents that received a flu shot (63.8%) followed by Geisinger St. Luke's (64.5%) and Monroe (67.1%).

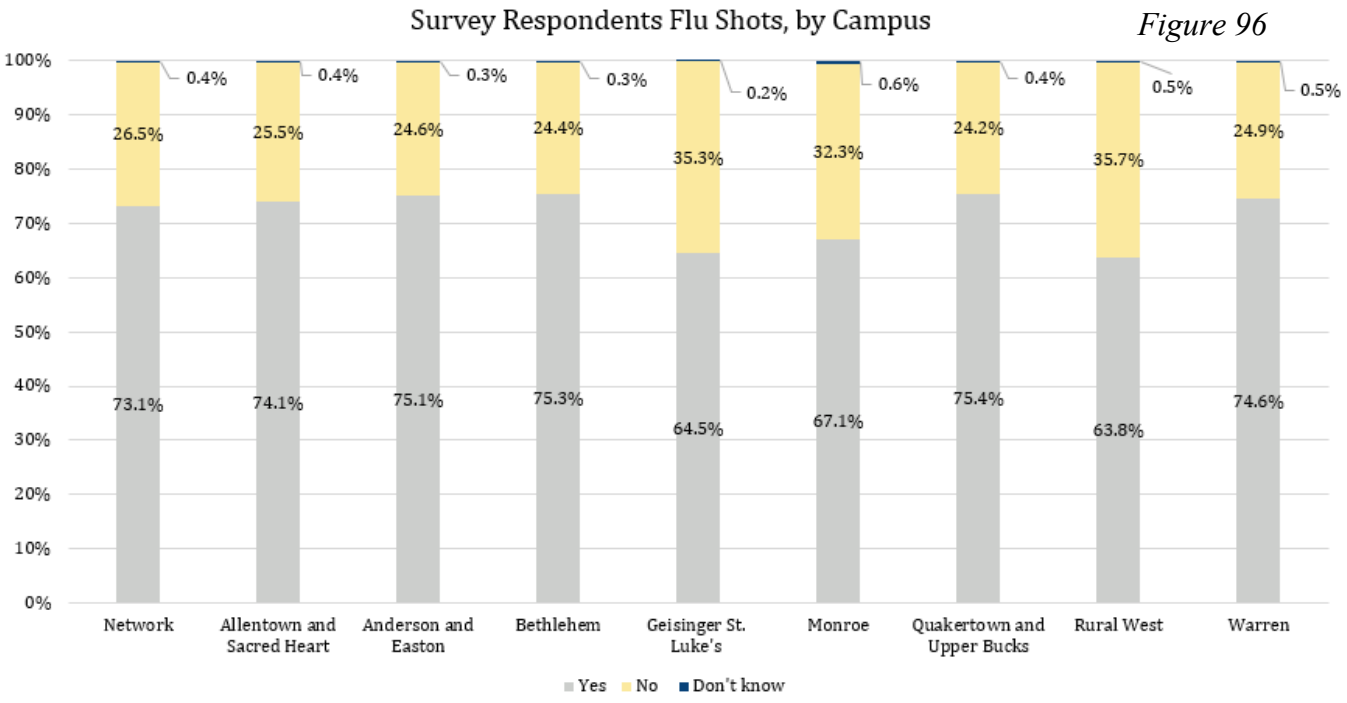


Figure 96

Pneumonia Vaccine

The pneumonia vaccine is recommended for individuals age 65 and older to protect against serious complications related to pneumococcal infections (e.g., pneumococcal pneumonia).

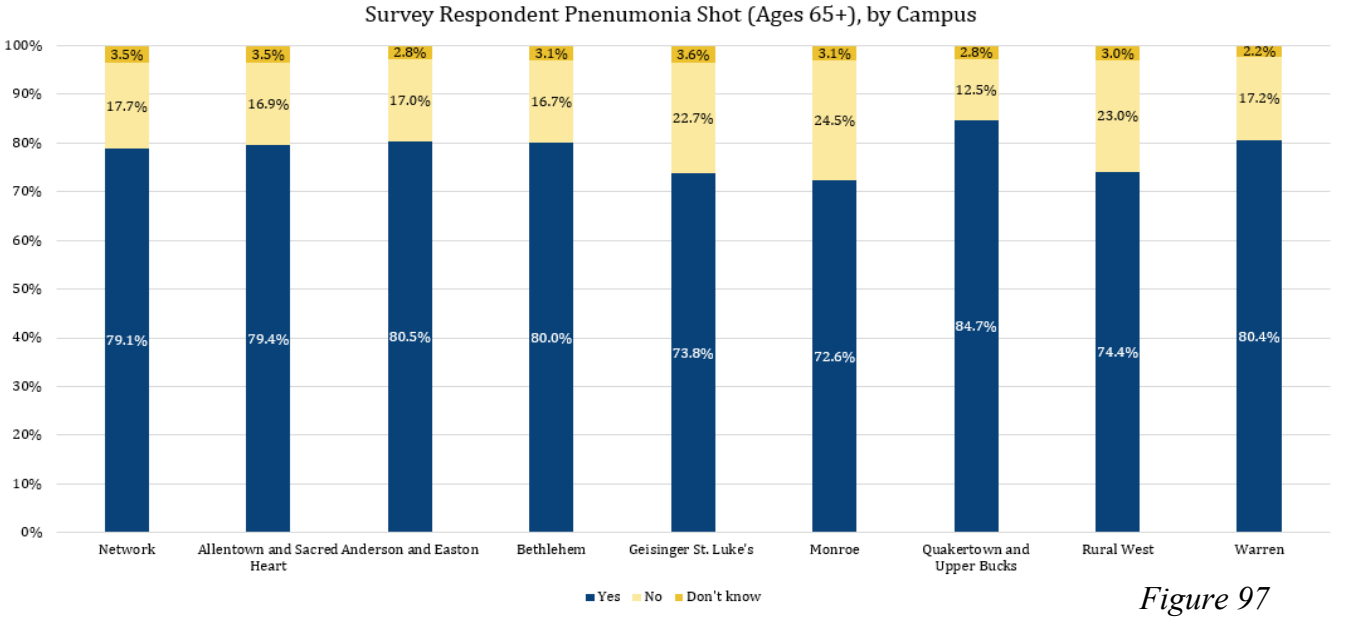


Figure 97

While the Network average for pneumonia vaccinations is high (79.1%), there was some slight variability throughout the service areas. The Quakertown and Upper Bucks service area had the highest percentage of respondents age 65 and older with a pneumonia vaccine (84.7%) and the Monroe service area had the lowest (72.6%).

Of respondents with a household income less than $15,000, only 69.4% reported pneumonia vaccination compared to 80.5% with a household income $100,000 or more.

Mammography

Although there are differing guidelines related to breast cancer screening, ranging from annual screening beginning at age 40, to biennial (once every two years) beginning at age 50, the CHNA survey results are measured against the United States Preventive Services Task Force (USPSTF), an independent group of national experts in prevention and evidence-based medicine. Therefore, the 2019 survey asked female respondents between the ages of 50 and 74 to indicate whether or not they have had a mammogram in the past two years and the 2022 CHNA survey included ages 40-74. Figure 98 illustrates the survey responses from 2012, 2016, 2019, and 2022 surveys.

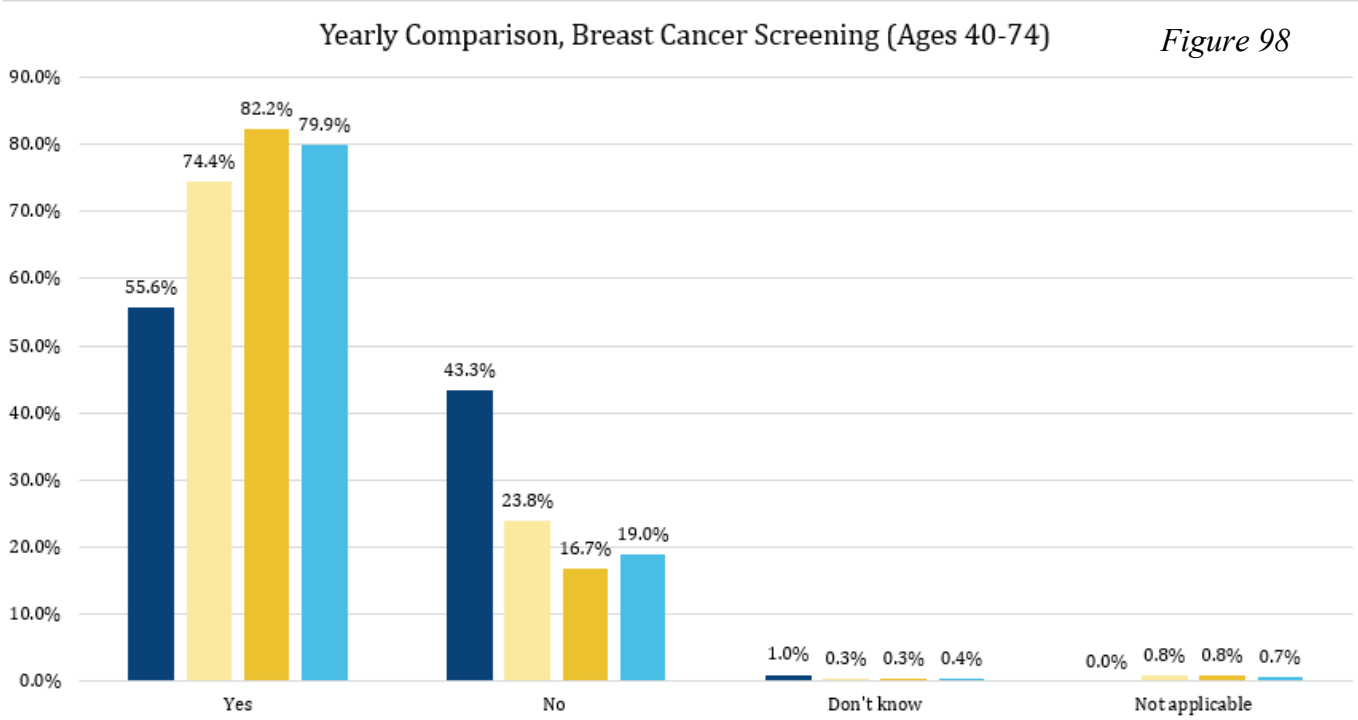


Figure 98

Trends indicate that the majority of women ages 40-74 have consistently had a mammogram in the past two years, with a slight decrease (2.3%) between 2019 and 2022. Variability in screenings and guidelines during this time leaves some inconsistency with the ages and frequencies recommended. The USPSTF guidelines were not used in 2012 or 2016, and survey responses for those CHNA cycles were calculated for women 40 years or older, the 2019 CHNA used the USPSTF guidelines and calculated totals for women between the ages of 50-74, and the 2022 CHNA also used the USPSTF guidelines that included women ages 40-74. Although there was variability in ages sampled, Network results consistently showed the majority of women were up to date with breast cancer screening.

When broken down further by campus, slight differences in breast cancer screenings emerged. The Allentown and Sacred Heart, Anderson and Easton, and Bethlehem service areas had the highest percentages of respondents indicating they had a mammogram in the last two years and the Geisinger St. Luke's service area respondents had the lowest (75.3%).

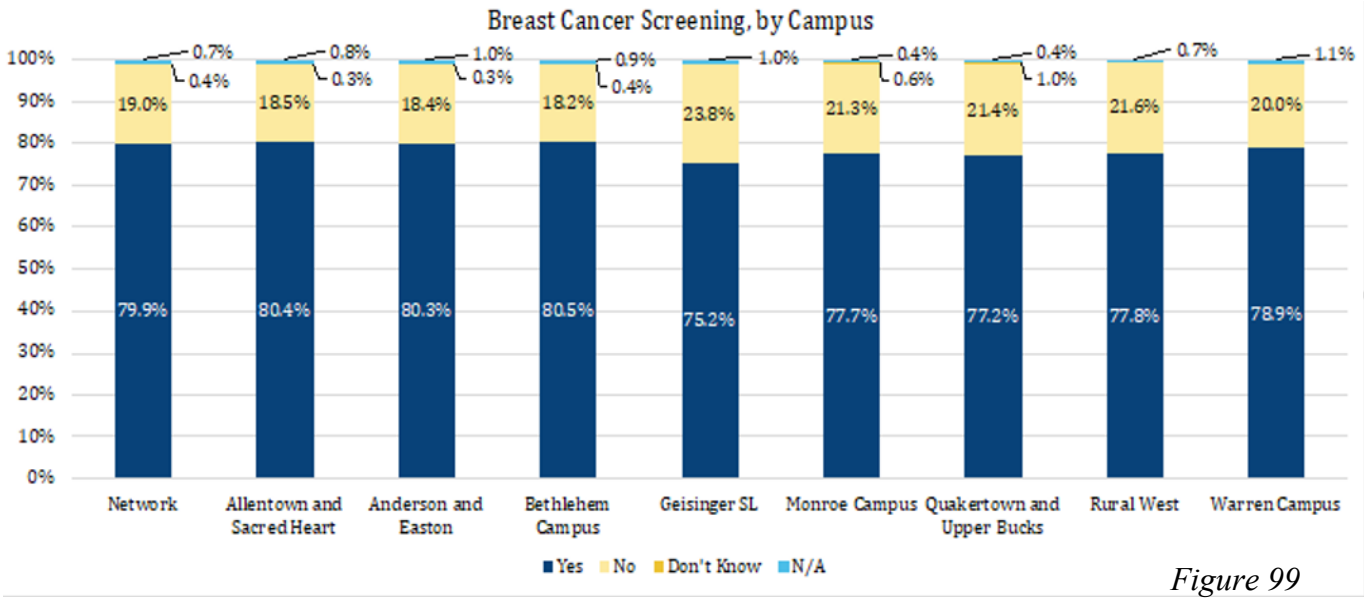


Figure 99

When examining mammogram rates by insurance type, significant disparities emerge. Women without insurance had lower rates of up to date breast cancer screenings (26.4%) than any other type of insurance, including those with Medicaid (69.6%) or women that reported not knowing what type of insurance they had (70.7%). These findings highlight the significant health disparities and inequities related to access to care due to lack of health insurance.

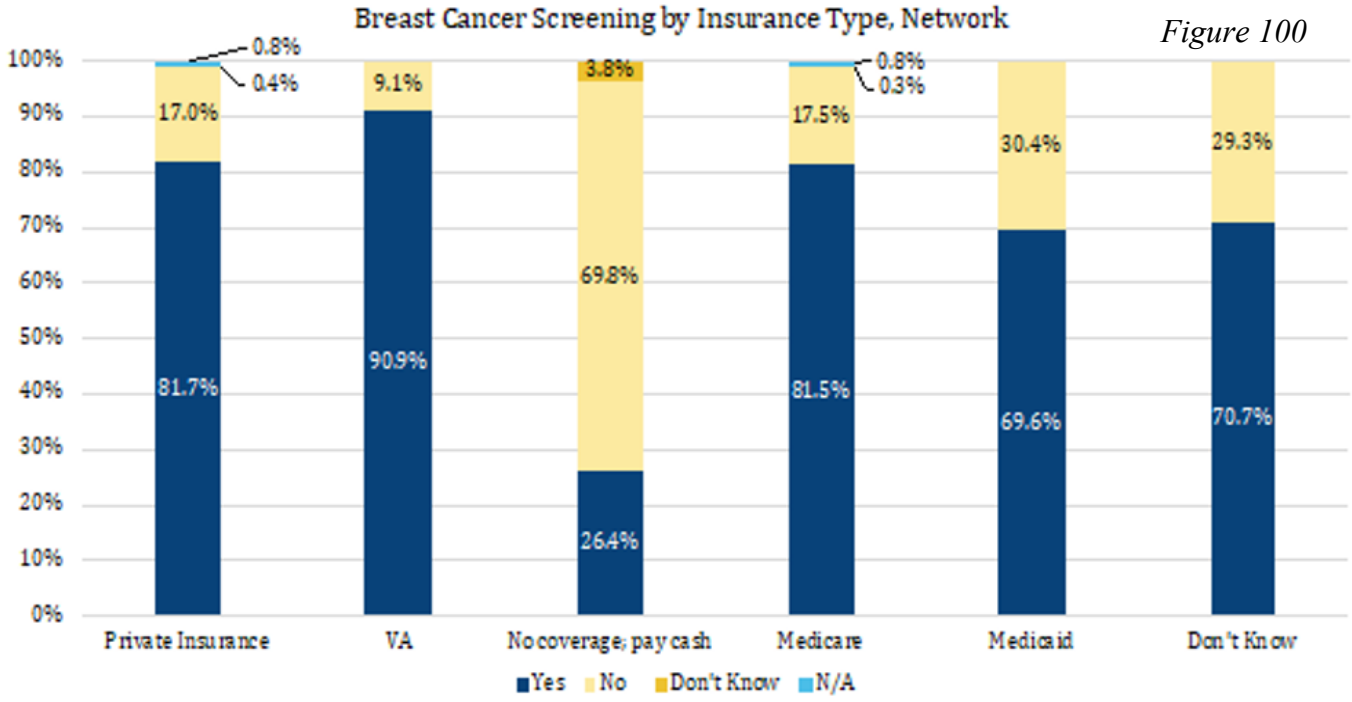


Figure 100

Colorectal Cancer Screening

The USPSTF colorectal cancer screening guidelines were followed to ask patients about their colorectal cancer screening. In order to more accurately gauge whether or not survey respondents were up to date on colorectal cancer screenings, the question was modified, with the 2012 and 2016 CHNA surveys asked "have you ever had a screen test for colon cancer". This question was modified for the 2019 and 2022 surveys. Two questions were included to determine if respondents were up to date on colorectal cancer screening. The first question asked respondents age 50-74 to indicate which of the following ways they had been screened for colorectal cancer: colonoscopy; sigmoidoscopy; stool blood test (i.e., FIT/ FOBT); don't know; never been screened; or Not Applicable. Respondents were then asked the approximate date of their last screening. In order to be considered up to date with screenings for this analysis, respondents must have had a screening date fall in the recommended time frame for their screening type (Table 11). If a respondent was missing an answer to one of the questions, their screening status was marked "Unknown".

Time Frame for Colorectal Screening based on Screening Type	
Colonoscopy	Within 10 years
Sigmoidoscopy	Within 5 years
Stool Blood Test (i.e.: FIT/FOBT)	Within 1 year

Table 11

Trends indicate consistent increases over time of respondents indicating up to date colorectal cancer screenings, with only 51% in 2012 and 69% in 2022. Increases in "I don't know" from 2012 and 2016 to 2019 and 2022 is may be due to the change in questioning on the CHNA.

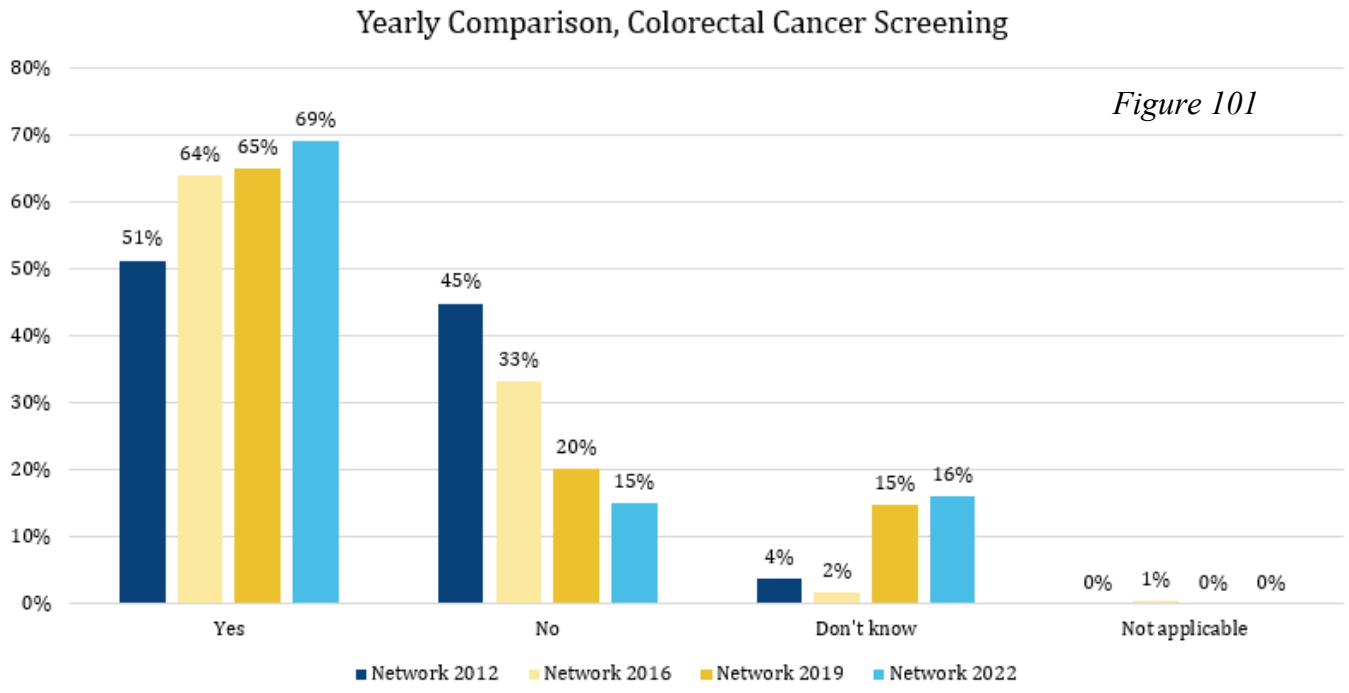


Figure 101

There is a noticeable difference in colorectal cancer screening when looking at screening rates by insurance type. Of respondents that reported having private insurance, 67% reported having a colorectal cancer screening compared to only 24% of uninsured respondents. Additionally, 74% of Medicare respondents reported having a colorectal cancer screening compared to 61% of Medicaid

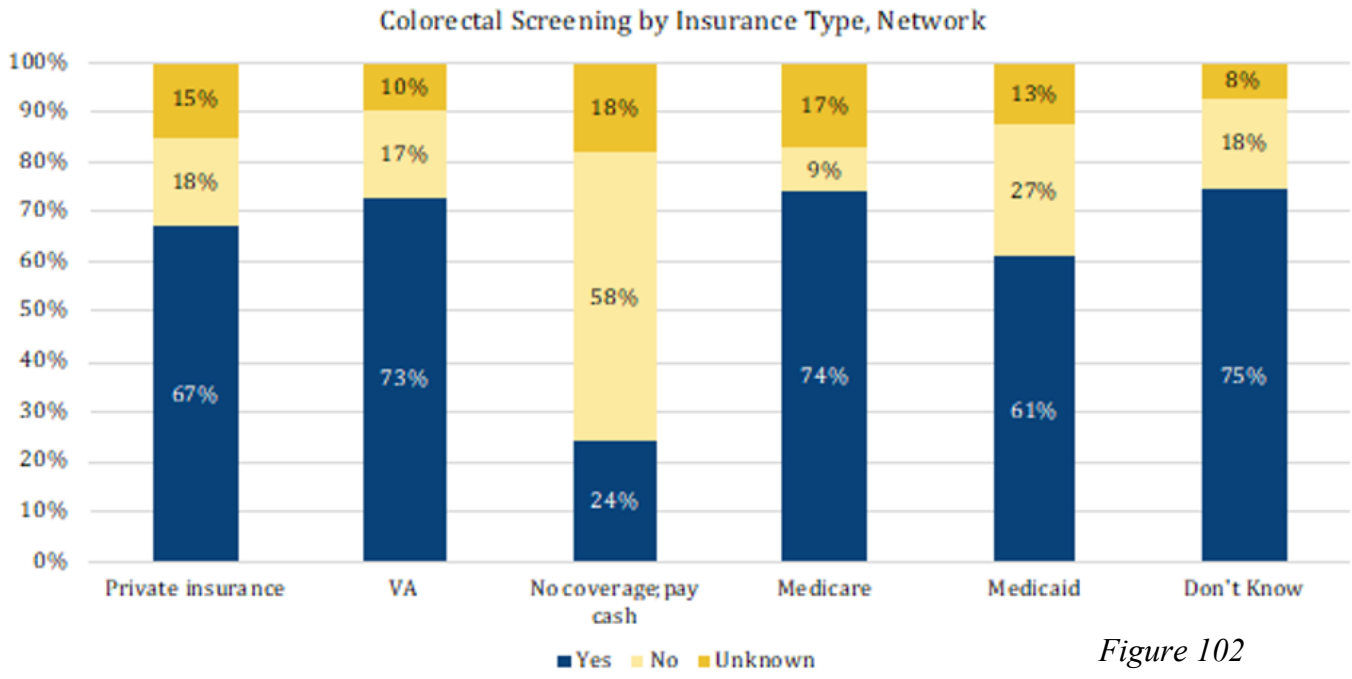


Figure 102

Screening rates varied by campus, with the Anderson and Easton service area (71%) reporting the highest percentage of respondents up to date with colorectal cancer screening and the Quakertown and Upper Bucks service area the lowest (59%). However, the Quakertown and Upper Bucks service area also had the highest percentage of respondents that did not know they type of screening they had or were unsure of their last screening, which may account for the low percentage of up to date respondents. Overall, the high rates of unknown respondents may skew the results, with more respondents being up to date than reported.

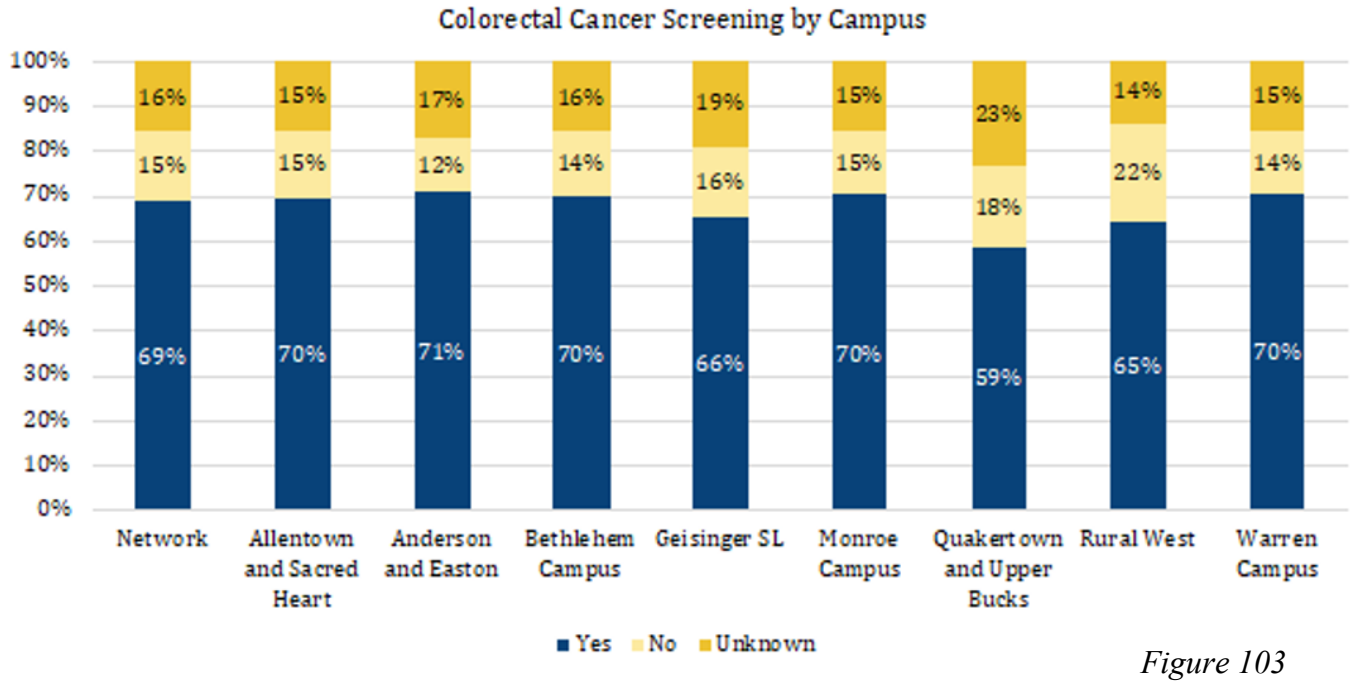


Figure 103

Dental Visits

The 2022 CHNA survey assessed the last time respondents visited the dentist and the type of dental insurance that respondents use in order to gauge the limits of dentist availability and insurance coverage. Only 68.3% of respondents visited a dentist within the past year, 67% of which had private insurance. Additionally, 14% visited a dentist within the past 2 years, 6.8% within the past 5 years, 6% had a dental visit five or more years ago, and 4.8% of all respondents did not have a dentist. When broken down by ethnicity, only 57% of Hispanic respondents visited the dentist in the past year compared to 70% of non-Hispanic respondents. It is crucial to increase access to dental care moving forward, which will help strengthen overall health outcomes. Oral pain can be debilitating, and oral health can affect one's overall daily life, impacting their ability to go to work or school. Poor oral health can also lead to a host of other issues in the body, causing respiratory, digestive, and cardiovascular diseases.

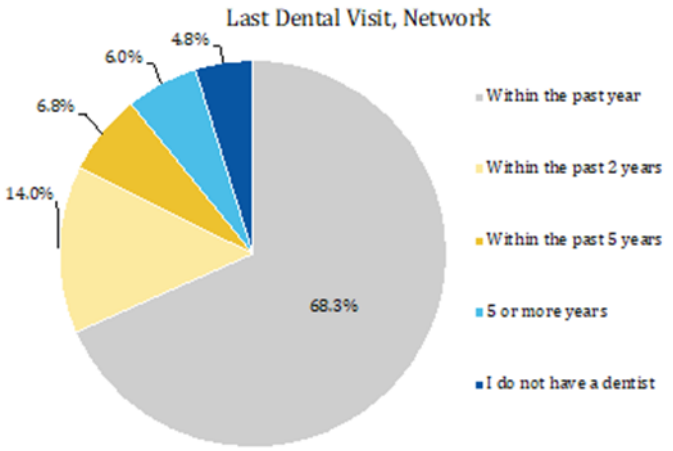


Figure 104

Trends in dental visits over time indicate a 5.7% decrease in respondents that visited a dentist within the last year in 2022 (68.3%) from 2019 (74%). An increase of 4.4% of respondents in 2022 indicated a dental visit in the past two years (14%) compared to 9.6% in 2019. Only slight variations in respondents indicating within the past five years, five or more years, or don't have a dentist were reported between 2012 and 2022, with the exception of a larger amount of respondents in 2012 (10.4%) indicating a dental visit five or more years ago compared with 2016, 2019, and 2022.

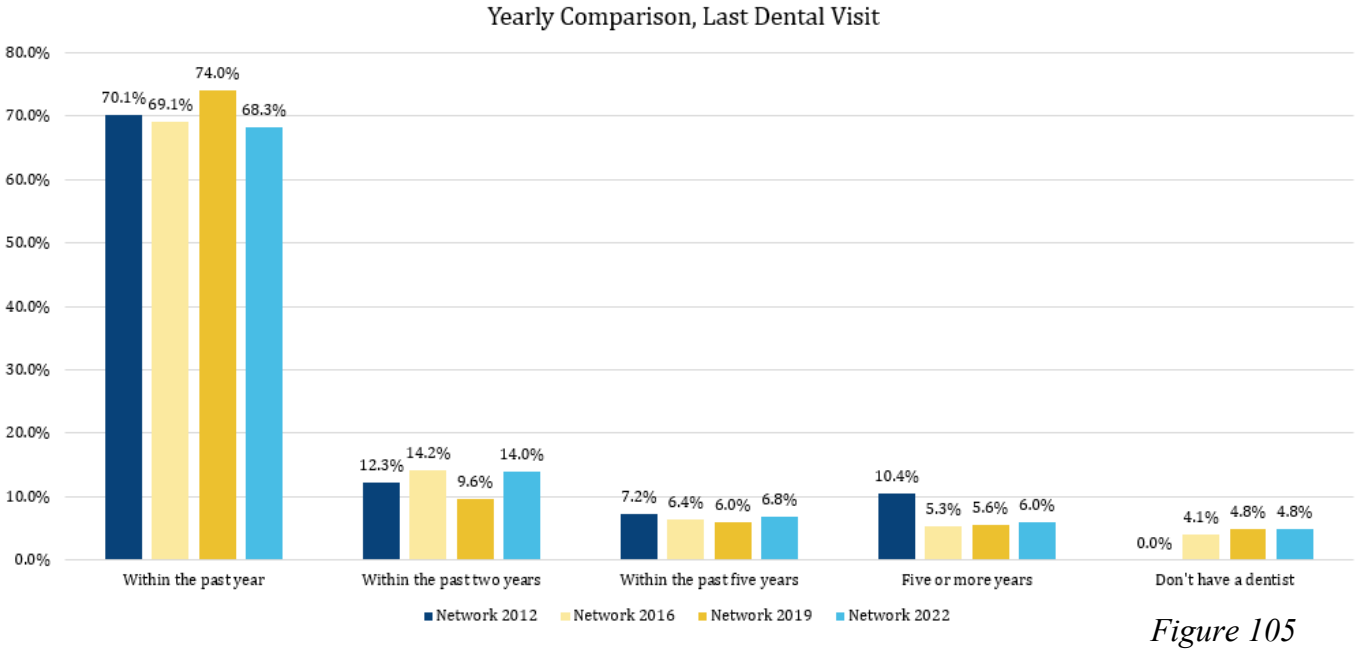
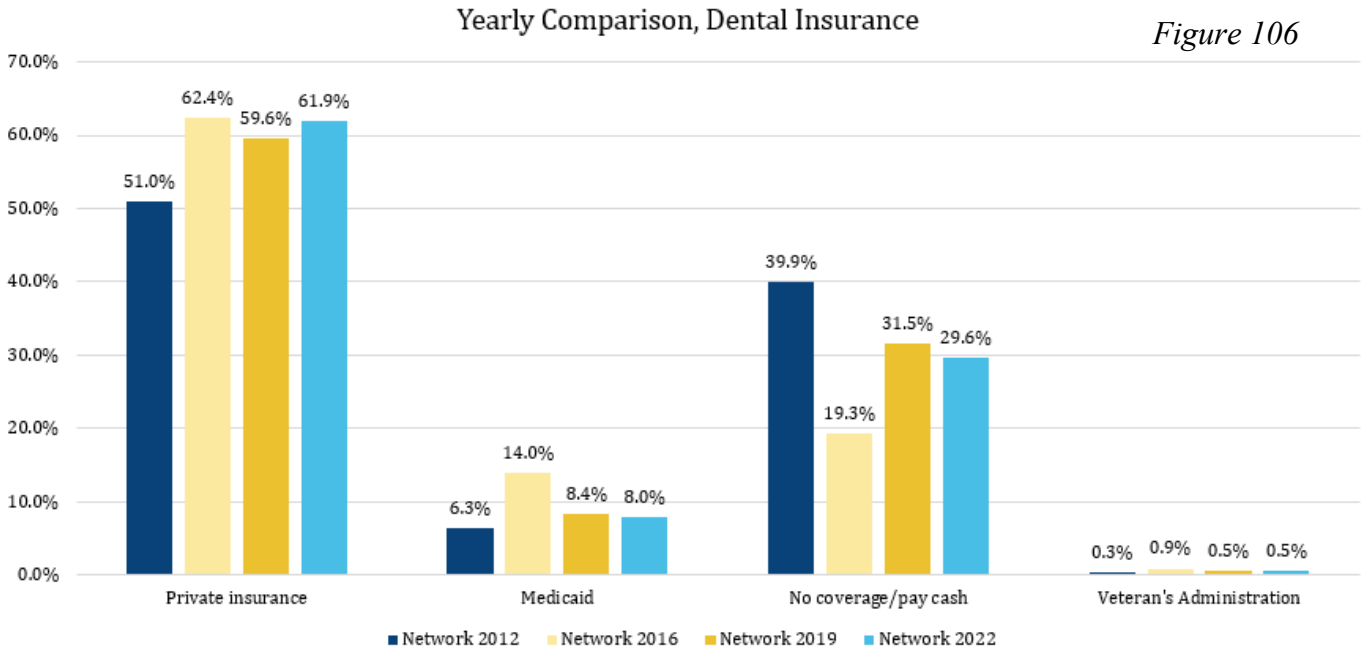


Figure 105

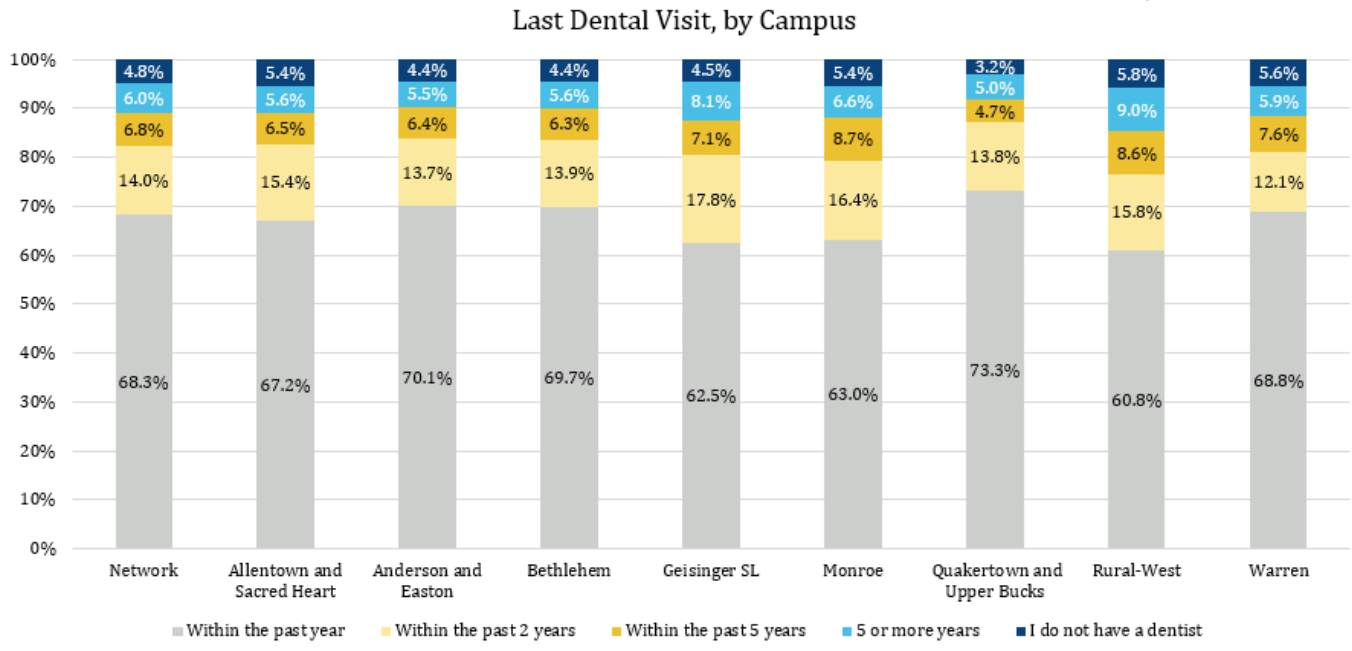
Private insurance continues to be the main type of insurance used for dental care (61.9%), followed by no coverage (29.6%), Medicaid (8%), and Veteran's Administration (0.5%). The number of people without coverage decreased since the 2019 CHNA.

Figure 106



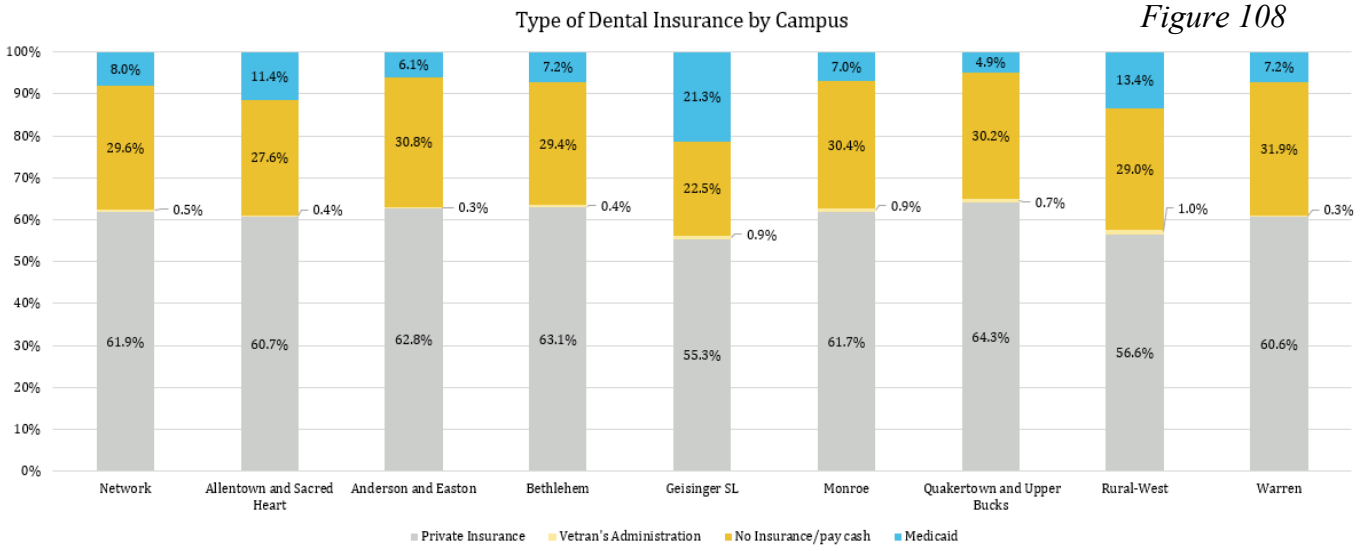
The Rural West service area had the lowest percentage of respondents that reported visiting a dentist within the last year (60.8%) as well as the highest percentage of respondents not having a dentist (5.8%). The Quakertown and Upper Bucks service area reported the highest percentage of respondents that visited a dentist within the last year (73.3%) as well as the lowest percentage of respondents that reported not having a dentist (3.5%).

Figure 107



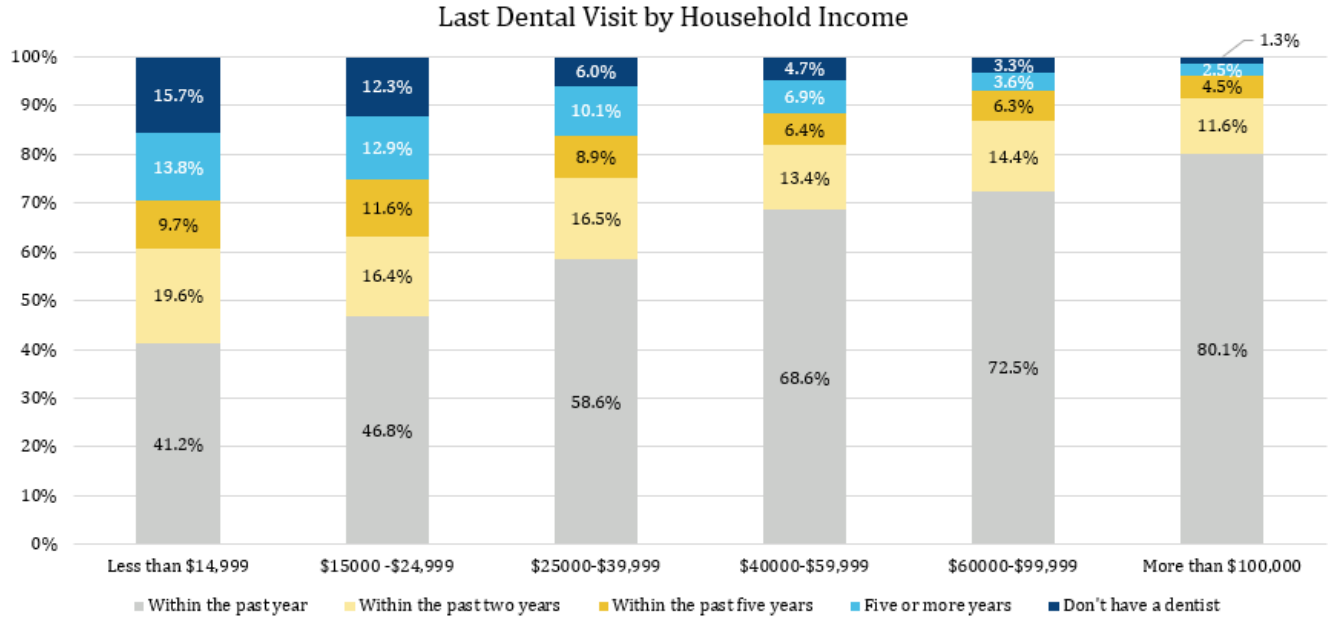
When dental insurance is broken down by campus, the majority of respondents in all service areas reported having private dental insurance. Veteran's Administration insurance accounted for a small percentage of respondents in all service areas, with Rural West the highest (1%). The Anderson and Easton, Monroe, Quakertown and Upper Bucks, and Warren service areas had slightly more than 30% of respondents that did not have dental insurance, while other service areas reported uninsured rates less than 30%. The Geisinger St. Luke's service area had the highest rate of respondents with Medicaid for dental insurance (21.3%) and Quakertown and Upper Bucks had the lowest (4.9%).

Figure 108



Income was also correlated with the last time a respondent visited the dentist. Only 41.2% of respondents making less than $15,000 and 46.8% of respondents making between $15,000 and $24,999 had a dental visit in the past year compared to 80.1% with a household income $100,000 or above. Additionally, 15.7% of those with a household income less than $15,000 and 12.3% of those making between $15,000 and $24,999 did not have a dentist compared to 1.3% of those making more than $100,000.

Figure 109



COVID-19

To get an understanding as to how COVID-19 impacted the St. Luke's service areas, we asked respondents to indicate if any of the categories in Figure 110 applied to them. Of those who indicated they had been impacted by COVID-19, the highest number of respondents say their mental health has been affected (22.4%), 15.4% of respondents say they have lost money due to the pandemic, 8.1% say they got COVID-19 and fully recovered, while 8% say someone else in their household got COVID-19. However, 2.6% say they got COVID-19 and are still having long term effects; 1.9% have had limited food access, 3.2% have had housing instability due to the pandemic, and 6.6% have gained money due to the pandemic.

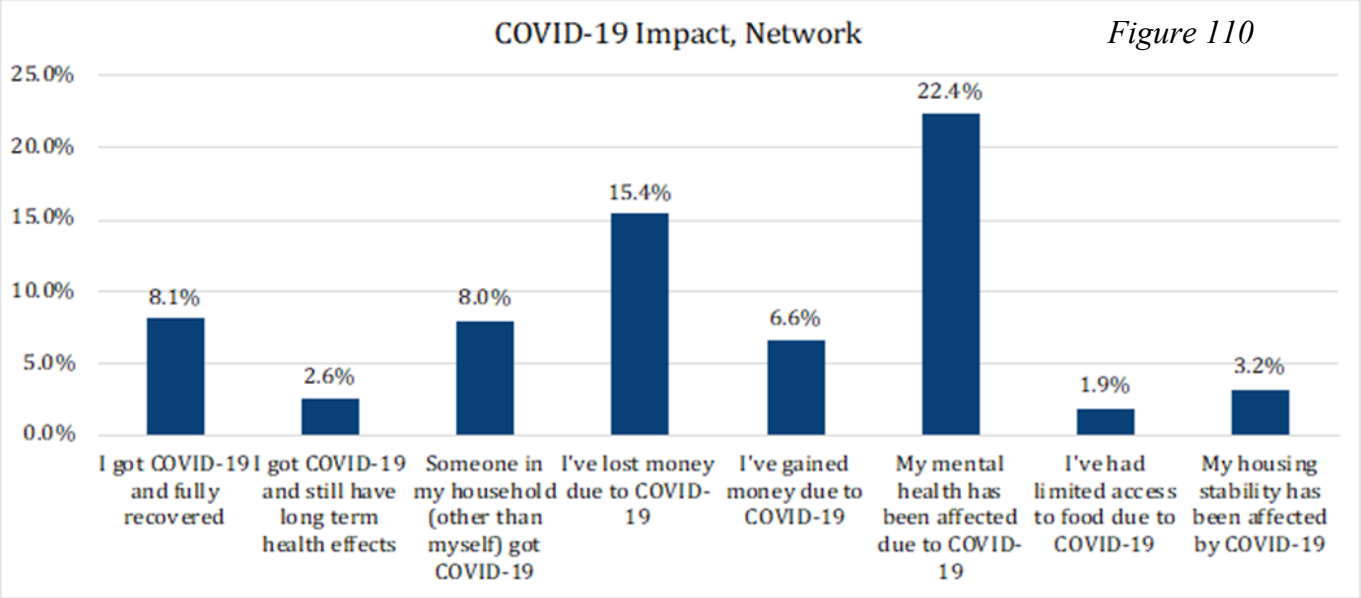


Figure 110

Network survey respondents that reported excellent/very good health were less likely (45%) to report being impacted by COVID-19 compared to respondents reporting good health (50%) or poor/very poor health (60%).

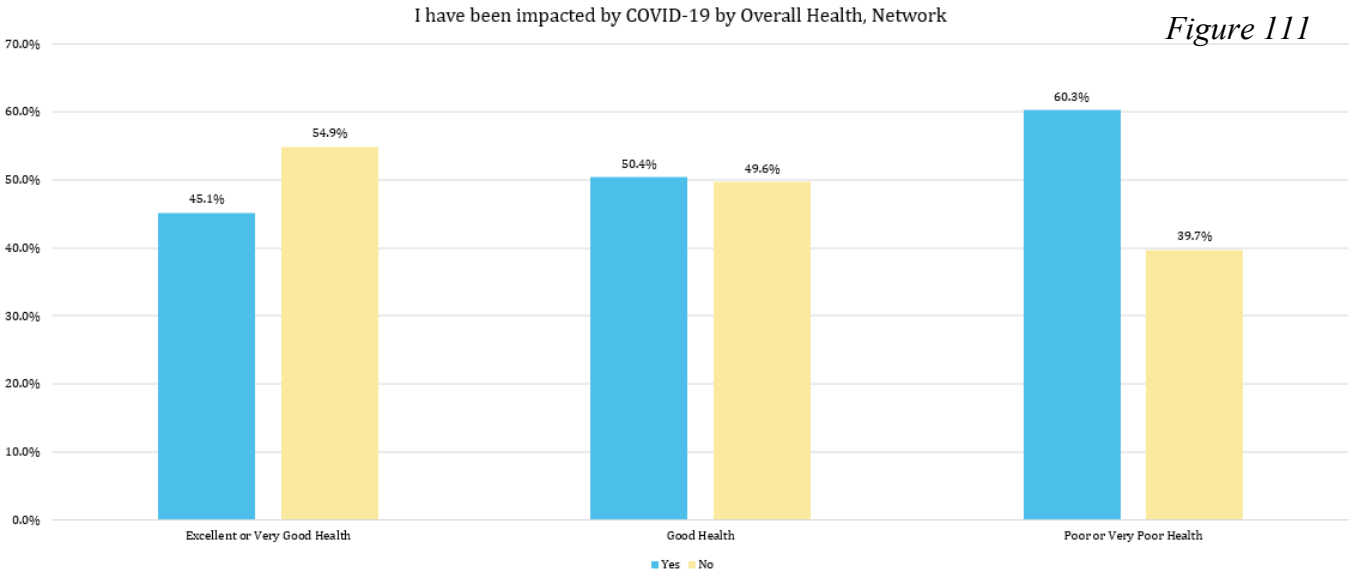
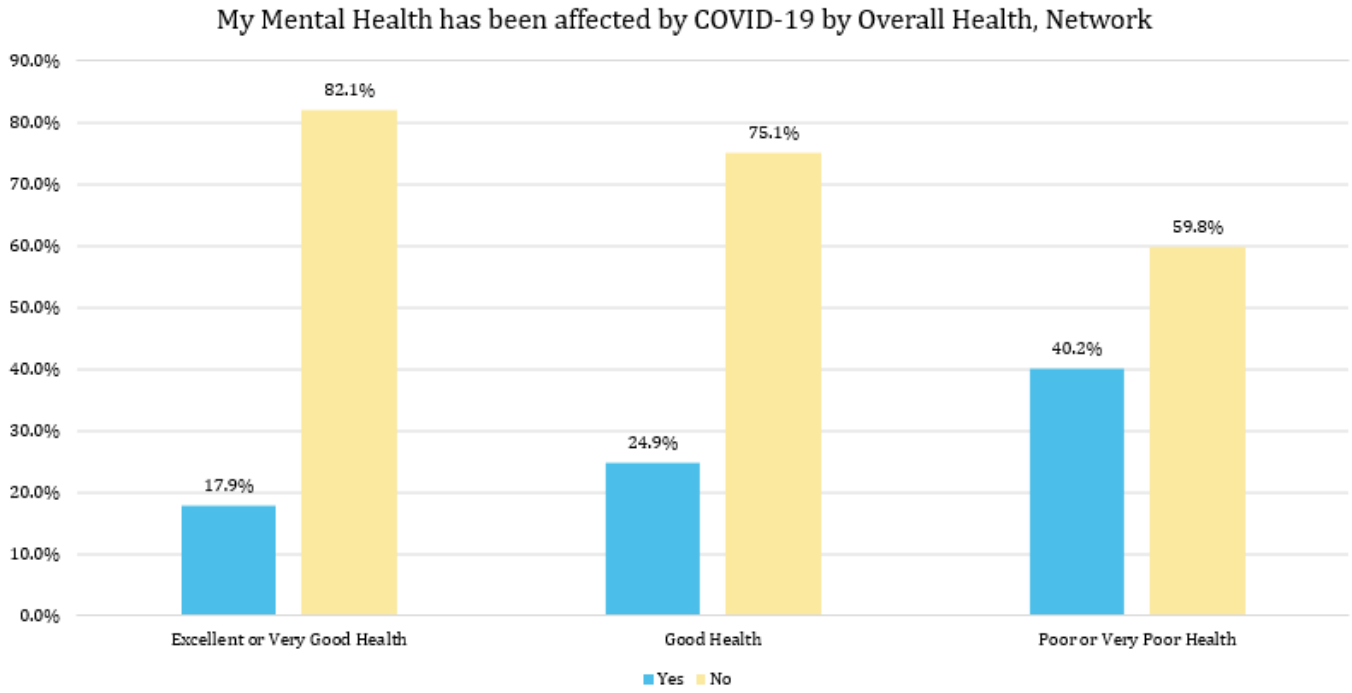


Figure 111

This is also the case when reporting the impacts of COVID-19 on mental health, with 18% of respondents in excellent/very good health, 25% in good health, and 40% in poor/very poor health reporting mental health issues due to the pandemic.

Figure 112



The LGBT population also faces significant challenges related to the COVID-19 pandemic, and nationally the LGBT population faces more economic hardships and mental health issues than their peers. Survey results from the SLUHN service area also reflect these differences, with more than 66% responding that they had been impacted by the pandemic, compared to 48% of non-LGBT respondents. In addition, 47% of the LGBT respondents said their mental health had been affected by the COVID-19 pandemic, compared to 22.4% of total respondents in the network service area.

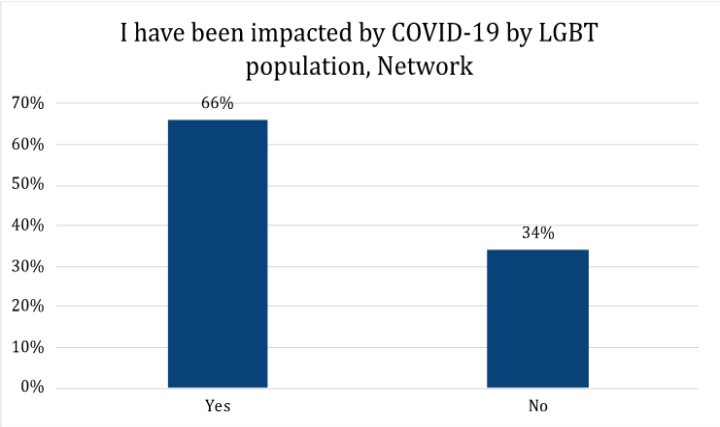


Figure 113

Obesity puts people at risk for having serious complications and illness from COVID-19 and triples the risk of hospitalization when infected. Obesity is shown to have negative impacts on COVID-19 recovery and outcomes. With a large population of the SLUHN service area struggling with obesity (42%), the survey results reflect the correlation between obesity and COVID-19, with only 47% of respondents with a healthy weight being impacted, compared to 52% of people living with obesity.

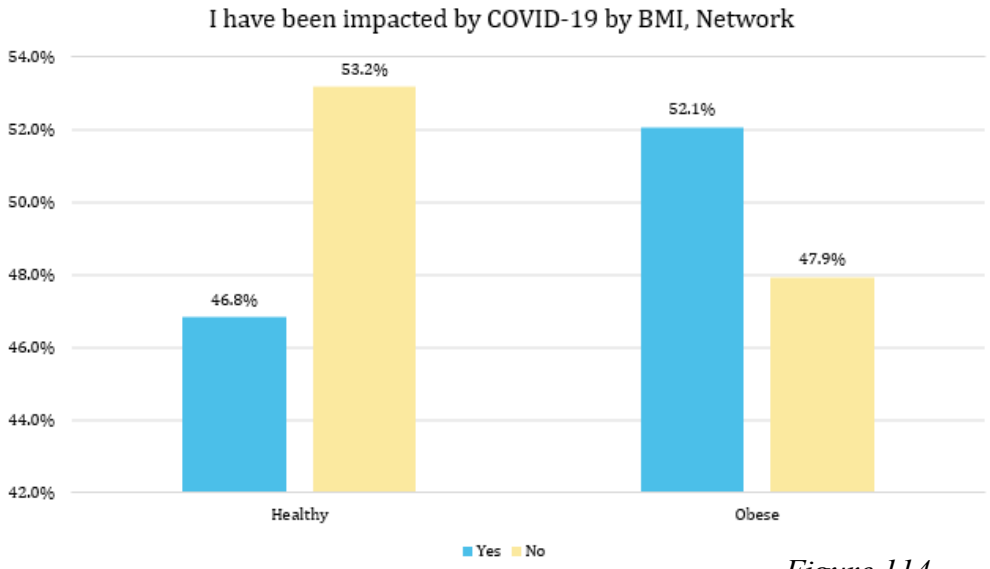


Figure 114

The COVID-19 pandemic highlights the systemic issues of inequity in the public health sector, and the rates of illness and death are significantly higher for minority populations. While social determinants of health and health equity historically illustrate the marginalization of minority populations, issues such as discrimination, employment, education, and housing all contribute to the discrepancies in rates of illness and access to care during the pandemic. When asked if the COVID-19 pandemic had impacted their lives, 57% of Hispanic respondents said yes, compared to 47% of non-Hispanic respondent

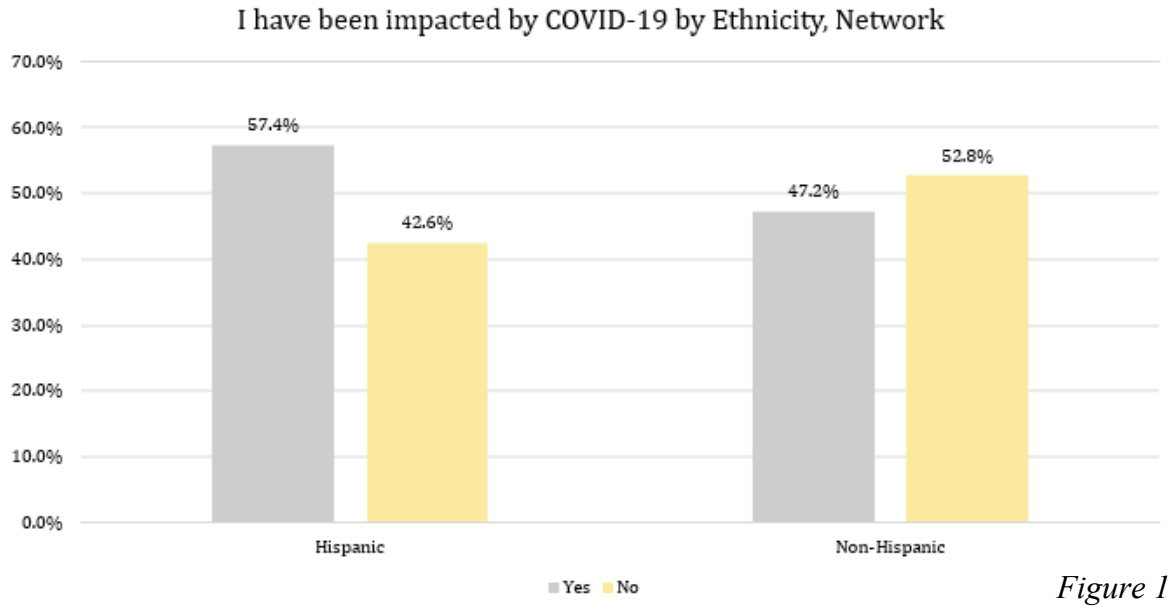


Figure 115

Conclusion

From analysis of the 2022 CHNA data, longitudinal trends from past CHNA data, and other primary and secondary sources, significant issues facing our communities that impede healthy lifestyles emerged. Our efforts in prevention, care transformation, research, and partnerships help support our work to promote sustainable programs and opportunities for our reach to focus on a wide range of health promotion and quality of life initiatives. These initiatives are grounded in evidence-based practices to increase access to care and promote health equity to improve the social and economic conditions that influence peoples' lives (e.g., social determinants of health). The social determinants of health (SDOH) are the conditions in the environment where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life (Healthy People, 2030). In review of the 2022 CHNA survey data, the snapshot of the health of the SLUHN communities indicate that the social determinants of health play a vital role in health outcomes. While there are many issues that need to be addressed, the results from the 2022 CHNA found the top priorities for the St. Luke's network include:

2022 Community Health Needs Assessment
Top Priorities
COVID-19
Access to Care
Workforce Development
Food Insecurity
Obesity Reduction
Physical Activity Promotion
Mental Health
Opioids and other Substance Use
Housing
Transportation

Table 12

The needs discussed within the health categories outlined in this document will serve as our guide in creating a detailed network implementation plan to best address the needs of the St. Luke's University Health Network service areas using three pillars:

*Wellness and Prevention	*Care Transformation	*Research and Partnerships

We will work collaboratively in partnership with our community and network partners to create a more equitable society with better health outcomes, especially among our most vulnerable populations such as our Hispanic communities, seniors, women, and children.

Reference

Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from https://health.gov/healthypeople

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
Note: Question 1 was consenting to participate in the survey. Percentages have been rounded up.				
What language are you using to complete this survey?				
English	100%	95.1%	97.3%	97.9%
Spanish	N/A	4.9%	2.5%	2%
Arabic	N/A	N/A	0.2%	0.1%
How are you completing this survey?				
iPad/Tablet	N/A	38.2%	10.1%	11.9%
iPhone/Smartphone	N/A	6.1%	26.9%	52.7%
SLUHN website/other website	N/A	12.6%	2.8%	0.9%
Social media outlets (Facebook, Twitter, etc.)	N/A	0.4%	0.2%	0.2%
Computer	N/A	29.6%	43.6%	30.1%
Hard copy	N/A	12.6%	16.4%	3.4%
Other	N/A	0.0%	0.0%	0.8%
How would you rate your overall health?				
Excellent	10.4%	12.7%	11.0%	11.1%
Very good	36.5%	38.0%	39.2%	38.6%
Good	43.5%	42.7%	42.8%	44.1%
Poor	9.4%	5.6%	6.5%	5.8%
Very poor	0.2%	0.6%	0.6%	0.4%
My community is a safe place to live.				
Strongly agree	22.6%	27.1%	32.4%	35.6%
Agree	54.0%	57.6%	54.2%	53.3%
Neither agree nor disagree	15.0%	11.0%	10.2%	8.9%
Disagree	6.8%	3.3%	2.7%	2%
Strongly disagree	1.5%	0.6%	0.5%	0.2%
What kind of health insurance do you use to pay for most of your medical care?				
Private insurance	73.1%	64.6%	55.8%	54.2%
Department of veterans administration	3.4%	1.1%	0.7%	0.8%
No coverage; pay cash	6.6%	3.3%	1.9%	1.9%
Medicare	27.8%	17.0%	33.2%	35.7%
Medicaid	6.7%	10.2%	6.5%	5.9%
Don’t know	1.0%	3.5%	1.9%	1.6%

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
In the past five years, has a doctor, nurse, or other health professional told you that you have any of the following health problems or conditions?				
High blood pressure	N/A	29.4%	40.6%	39.6%
High blood cholesterol	N/A	19.7%	28.1%	27.9%
Heart attack or other heart disease	N/A	4.7%	7.9%	6.4%
Cancer	N/A	4.8%	8.9%	7.2%
Diabetes	N/A	10.3%	15.3%	14.2%
Asthma or other lung disease	N/A	13.7%	13.0%	11.2%
Mental health	N/A	11.5%	10.5%	11.3%
Emphysema or bronchitis	N/A	3.4%	3.8%	3.1%
Arthritis or rheumatic disease	N/A	15.9%	21.6%	21.2%
None of the above	N/A	37.9%	25.1%	26.8%
Other chronic disease	N/A	9.3%	13.3%	10%
How many times have you used the Emergency Room in the past year?				
None	N/A	63.8%	67.6%	72.9%
1-2 times	N/A	27.0%	26.5%	17.9%
3-4 times	N/A	6.1%	4.4%	5.7%
5 or more times	N/A	2.4%	1.4%	1.8%
Was there a time in the past year that you have gone without getting eyeglasses because they cost too much?				
Yes	21.5%	25.5%	25.2%	19.5%
No	78.5%	61.6%	66.1%	71.1%
I do not need eyeglasses	N/A	12.1%	8.7%	9.4%
How long has it been since you last visited a primary care doctor for a routine checkup?				
Within the past year	81.7%	71.9%	81.8%	81.7%
Within the past 2 years	10.4%	12.6%	9.1%	10.2%
Within the past 5 years	3.0%	5.2%	3.7%	3.7%
5 or more years	2.8%	5.2%	2.6%	2%
Don’t know	2.1%	1.9%	1.5%	1%
I don’t have a primary care doctor	N/A	2.5%	1.3%	1.5%

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
Was there a time in the past year when you missed or postponed medical care because of any of the following?				
Didn't have health insurance	6.8%	9.5%	5.0%	4.6%
Insurance didn't cover what I needed	5.3%	7.3%	7.6%	5.4%
My share of cost was too high (deductible/co-pay)	7.9%	11.1%	12.3%	8.3%
Doctor would not take my insurance	2.7%	4.0%	4.1%	3%
Hospital would not take my insurance	0.6%	0.7%	0.9%	0.7%
Didn't have a way to get there	5.1%	4.2%	3.8%	2.7%
Didn't know where to go	2.6%	1.6%	1.9%	1.5%
Couldn't get an appointment	5.7%	4.6%	6.5%	5.7%
Didn't have a sitter to watch child/parent	3.2%	3.1%	2.3%	2.7%
Couldn't get time off from work	4.5%	8.5%	7.3%	5.2%
Didn't think problem was serious	11.0%	9.5%	7.7%	7%
No, I have never missed an appointment	N/A	55.5%	58.9%	63.2%
Other	4.4%	2.5%	2.3%	7%
If you are 45 years or older continue with question 12, otherwise go to the next section. In the past 12 months, how many times have you fallen? (Note: By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level).				
Number of times (ranged from 1 to 30)	N/A	N/A	22.0%	21.8%
None	N/A	N/A	75.8%	78.2%
Don't know/not sure	N/A	N/A	2.2%	N/A
If you have fallen at least once in the past 12 months continue with question 13, otherwise go to the next question. 13. How many of these falls caused an injury? (Note: By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor).				
Number of times (ranged from 0 to 15)	N/A	N/A	27.5%	42.8%
None	N/A	N/A	68.5%	57.2%
Don't know/not sure	N/A	N/A	4.0%	N/A
Where do you go most often when you are sick or need advice about your health?				
Doctor's office	90.0%	77.4%	83.1%	81.5%
Local health department	0.8%	0.9%	0.5%	0.2%
Hospital outpatient clinic	1.7%	2.6%	1.7%	1%
Hospital emergency room	2.8%	7.2%	4.6%	1.9%
Urgent care center	1.1%	9.5%	11.5%	7.4%
Internet	N/A	11.4%	10.2%	5.7%
Open door/free clinic	0.2%	1.5%	0.8%	0.3%
Other	3.5%	2.8%	1.9%	2%

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
During the past year have you had a flu shot? *Note: "or intranasal spray" was removed for 2019 and 2022 surveys.*				
Yes	61.6%	67.1%	68.7%	73.1%
No	37.7%	31.2%	30.8%	26.5%
Don't know	0.7%	0.9%	0.5%	0.4%
Have you ever had a pneumonia shot? (Note: This is usually given only once or twice in a person's life and is different from the flu shot). *[Respondents age 65+ years]*				
Yes	35.8%	26.2%	80.3%	79.1%
No	52.3%	59.6%	17.0%	17.7%
Don't know	12.0%	11.6%	2.6%	3.5%
Not Applicable	N/A	2.3%	0.1%	0%
If you are a woman continue to question 17, otherwise go to the next section. Women only: Have you had a mammogram in the past two years? *[Women age 40 + in 2012/16, 50 -74 years in 2019 and 40-74 in 2022]*				
Yes	55.6%	74.4%	82.2%	79.9%
No	43.3%	23.8%	16.7%	19%
Don't know	1.0%	0.3%	0.3%	0.4%
Not applicable	N/A	0.8%	0.8%	0.7%
18. What was your most recent colon cancer screening test? *[Respondents age 50-74 years]*				
Colonoscopy	N/A	N/A	73.3%	70.6%
Sigmoidoscopy	N/A	N/A	0.6%	0.3%
Stool Blood Test (FIT/FOBT)	N/A	N/A	7.2%	10.8%
Don't know	N/A	N/A	3.1%	3%
Never been screened	N/A	N/A	13.9%	12.8%
Not applicable	N/A	N/A	1.9%	2.6%
Note: Question 19 asked respondents when their most recent colon cancer screening was. This information was used to calculate if they were up to date with screening, based on their screening type selected in Question 18.				
[2012 and 2016 responses] Have you ever had a screen test for colon cancer?				
Yes	51.3%	63.9%	N/A	N/A
No	44.9%	33.3%	N/A	N/A
Don't know	3.8%	0.3%	N/A	N/A
Not applicable	N/A	0.8%	N/A	N/A
On average, how many days a week do you exercise at least 30 minutes?				
0 days per week	28.3%	24.1%	27.9%	25.7%
1 to 2 days per week	30.8%	33.2%	32.5%	31.6%
3 to 4 days per week	26.1%	25.9%	24.9%	24.7%
5 or more days per week	14.7%	16.1%	14.7%	18%

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
How many total servings of fruits and/or vegetables did you eat yesterday?				
0 servings	6.1%	7.9%	7.4%	6.7%
1 to 2 servings	49.5%	44.8%	49.2%	52.9%
3 to 4 servings	36.3%	36.1%	33.8%	32.1%
5 to 7 servings	7.8%	8.7%	7.9%	7%
More than 7 servings	0.5%	1.8%	1.7%	1.4%
Note: Questions #22 and #23 ask respondents to list height and weight. These variables were used to compute BMI indices.				
On average, how many hours of sleep do you get in a 24-hour period?				
Fewer than 4	0.7%	2.1%	1.6%	1.3%
4	4.2%	4.6%	3.3%	2.8%
5	8.5%	13.4%	10.4%	9.5%
6	24.4%	23.8%	24.9%	24.7%
7	28.4%	32.9%	33.4%	34.6%
8	25.2%	19.0%	21.4%	22.4%
9 or more	8.7%	3.5%	4.9%	4.7%
Do you Smoke?				
Yes	13.4%	15.2%	10.9%	10.4%
No	86.6%	83.3%	89.1%	89.6%
Do you use any of the following? (Please check all that apply).				
Cigarettes	N/A	14.2%	8.9%	8.7%
Chew	N/A	0.3%	0.4%	0.5%
Snuff	N/A	0.4%	0.2%	0.3%
Hookahs	N/A	1.0%	0.7%	0.3%
Snus	N/A	0.1%	0.1%	0.1%
Cigars	N/A	1.2%	2.1%	1.6%
Pipe	N/A	0.4%	0.4%	0.2%
E-cigarettes	N/A	1.8%	1.9%	1.5%
None	N/A	77.8%	83.3%	80.6%
Other	N/A	0.2%	0.2%	0.8%
Considering all types of alcoholic beverages, how many times during the past month did you have 5 or more drinks on one occasion?				
No episodes	75.3%	71.6%	80.6%	81.2%
1 episode	11.7%	11.4%	8.7%	7.9%
2 episode	4.3%	5.5%	4.2%	3.9%
3 episode	8.3%	4.0%	2.2%	2%
4 episode	N/A	2.5%	1.4%	1.4%
5 episode	N/A	1.8%	0.7%	1%
6 or more episodes	N/A	2.4%	0.2%	1.9%

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
How long has it been since you last visited a dentist or dental clinic for any reason?				
Within the past year	70.1%	69.1%	74.0%	68.4%
Within the past 2 years	12.3%	14.2%	9.6%	14%
Within the past 5 years	7.2%	6.4%	6.0%	6.8%
5 or more years	10.4%	5.3%	5.6%	6.1%
I do not have a dentist	N/A	4.1%	4.8%	4.8%
How do you pay for dental care?				
Private insurance	51.0%	62.4%	59.6%	61.9%
Veteran's Administration	0.3%	0.9%	0.5%	0.5%
Pay cash; no insurance	39.9%	19.3%	31.5%	29.6%
Medicaid	6.3%	14.0%	8.4%	8%
Thinking about your mental health, which includes stress, depression and problems with emotions, how many days during the past month would you say that your mental health was not good?				
No sick days	59.6%	62.7%	62.9%	61.3%
1-2 sick days	19.4%	20.7%	19.7%	21%
3-7 sick days	10.1%	8.8%	9.8%	10%
8 or more sick days	11.0%	6.0%	7.6%	7.6%
Thinking about your physical health, which includes physical illness and injury, for how many days during the past month would you say that your physical health was not good?				
No sick days	57.8%	58.5%	54.5%	57.6%
1-2 sick days	22.2%	24.6%	25.1%	23.7%
3-7 sick days	10.1%	9.1%	10.8%	9.7%
8 or more sick days	9.9%	6.7%	9.7%	9%
What county do you live in?				
Lehigh	52.8%	23.8%	24.9%	25.4%
Northampton	43.3%	34.1%	33.1%	36.4%
Berks	N/A	N/A	N/A	0.2%
Bucks	1.3%	5.9%	7.0%	7.7%
Warren	N/A	10.6%	5.9%	6.6%
Carbon	N/A	7.0%	6.2%	9%
Monroe	N/A	7.0%	11.3%	10.5%
Montgomery	N/A	N/A	N/A	1.6%
Schuylkill	N/A	6.5%	4.8%	2.3%
Other	0.5%	4.5%	6.7%	0.4%

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
What is the town/municipality where you currently live? (Note: Additional municipality and zip code data available) *We didn't analyze this for 2019 or 2022*				
Bethlehem	8.5%	19.2%	N/A	N/A
Allentown	15.4%	9.1%	N/A	N/A
Easton	5.0%	4.9%	N/A	N/A
Phillipsburg	N/A	3.8%	N/A	N/A
Tamaqua	N/A	3.2%	N/A	N/A
Quakertown	N/A	2.5%	N/A	N/A
Jim Thorpe	N/A	1.8%	N/A	N/A
East Stroudsburg	N/A	1.7%	N/A	N/A
Question #34 asks respondents for their home ZIP code. ZIP codes were analyzed from 80% of each hospital's population				
Question #35 asks respondents for their age.				
Are you:				
Male	46.5%	23.2%	38.1%	36.4%
Female	53.5%	75.9%	61.7%	63.1%
Other	N/A%	0.1%	0.1%	0.5%
Which of the following best describes you?				
White	83.8%	83.0%	93.3%	89.2%
Black/African American	2.5%	6.3%	4.3%	3.5%
American Indian/Alaskan Native	0.9%	0.5%	0.3%	0.02%
Asian	4.2%	1.2%	1.1%	1.1%
Other	8.6%	6.2%	1.0%	6.2%
What is your ethnicity?				
Hispanic	13.4%	18.4%	8.8%	11.4%
Non-Hispanic	86.6%	77.9%	91.2%	88.7%
What is your employment status?				
Employed	46.9%	63.6%	47.2%	44.1%
Self-employed	3.8%	3.0%	4.1%	4.3%
Homemaker	6.1%	4.1%	4.0%	3.6%
Retired	30.8%	12.4%	34.5%	38.1%
Student	1.1%	3.8%	1.2%	0.8%
Out of work less than 1 year	4.1%	2.4%	1.9%	1.9%
Out of work more than 1 year	2.6%	2.5%	1.1%	2.4%
Unable to work	4.6%	7.0%	6.0%	4.8%

Answer Choices	2012 Responses	2016 Responses	2019 Responses	2022 Responses
Where do you currently live?				
I own (or have a mortgage on) the home where I currently live	80.5%	60.6%	73.1%	74.1%
Rental apartment/home	19.5%	36.1%	18.1%	16.9%
Relative's home	N/A	N/A	5.6%	5.8%
Friend's home	N/A	N/A	1.3%	1%
Shelter	N/A	N/A	0.1%	0.04%
Group home	N/A	N/A	0.2%	0.2%
Senior living	N/A	N/A	1.0%	0.7%
Homeless	N/A	N/A	0.7%	0.2%
Other	N/A	0.3%	N/A	1.1%
What is the highest level of education you have completed?				
Less than high school	N/A	2.4%	1.2%	0.8%
Some high school	11.7%	5.1%	2.5%	2.1%
High school degree/GED	32.9%	21.7%	20.7%	22.3%
Some college	18.0%	20.9%	19.2%	19%
2-year college degree	4.7%	14.3%	13.2%	12.8%
4-year college degree	19.0%	18.6%	21.2%	20.6%
Post college or graduate school	13.7%	15.9%	22.0%	22.4%
What was your family's/household's income before taxes in 2011/2014/2017?				
Less than $14,999	9.4%	15.5%	9.2%	6.4%
Between $15,000 and $24,999	12.8%	12.0%	9.5%	8.6%
Between $25,000 and $39,999	21.3%	12.5%	12.8%	12.2%
Between $40,000 and $59,999	17.5%	15.1%	17.4%	17%
Between $60,000 and $99,999	17.6%	20.5%	25.2%	27.5%
More than $100,000	21.4%	19.0%	25.9%	28.4%

Department of Community Health

Community Health
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