Nazareth Hospital

Community Health Needs Assessment–May 2019

Trinity Health Mid-Atlantic | Nazareth Hospital

2601 Holme Avenue, Philadelphia, PA 19152

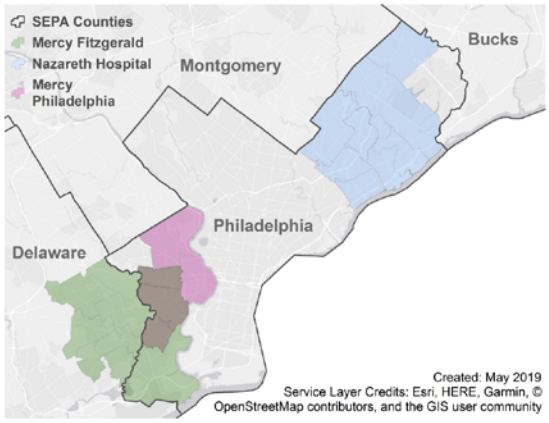
Mercy Health System
Community Health Needs Assessment At-A-Glance 2019

THE COMMUNITY WE SERVE

POPULATION SIZE**

The Mercy Health System (MHS) serves 883,086 residents. Of the 3 hospitals, Nazareth Hospital (NH) has the largest service area, with 329,300 residents. Mercy Fitzgerald Hospital (MFH) has 317,563 residents, followed by Mercy Philadelphia Hospital (MPH) with 236,223.

MHS SERVICE AREA MAP



ZIP codes 19139, 19142, and 19143 are in both MPH and MFH service areas

GLOBAL HEALTH*

- 75% of MFH and NH adult residents and 74% of MPH residents report *good* to *excellent* health

COMMUNITY CHARACTERISTICS**

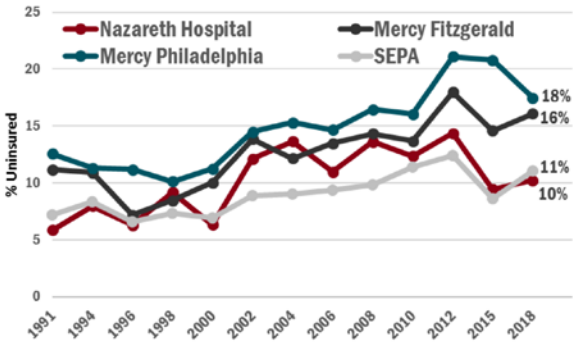
Race and Ethnicity	NH	MFH	MPH	SEPA
White	59%	28%	17%	64%
Black	19%	61%	70%	22%
Asian	11%	6%	7%	7%
Other	11%	5%	6%	7%
Latino	15%	4%	4%	9%
Income	**NH**	**MFH**	**MPH**	**SEPA**
Median Household Income	$51,690	$46,964	$31,307	$70,807
Housing Unit Type	**NH**	**MFH**	**MPH**	**SEPA**
Renter-occupied	37%	43%	56%	34%
Owner-occupied	63%	57%	44%	66%

POPULATION OF INTEREST: OLDER ADULTS*

- Between 2018-2023, the older adult (OA) population is expected to increase 13% for MPH and NH, and 16% for MFH
- 54% of MFH and 51% of MPH OA residents have an instrumental activities of daily living limitation, compared to 34% NH residents

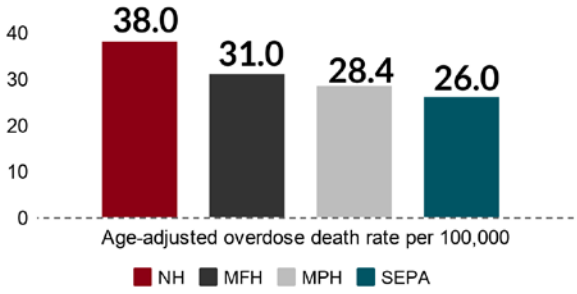
INSURANCE STATUS TRENDS*

Uninsured rates have increased since 2000, peaking in 2012, with some recent improvement due to the ACA Medicaid expansion



OVERDOSE DEATHS**

Overdose rates in the MHS service areas are higher than the Southeastern Pennsylvania (SEPA) region



MHS SERVICE AREA AND SEPA: SELECT HEALTH INDICATORS*

The remainder SEPA region is performing better along a number of health indicators when compared to MHS' service areas*:**

Indicator	NH	MFH	MPH	SEPA
Ever diagnosed with mental health condition	25%	25%	22%	22%
Visited the ER in the past year	33%	38%	40%	29%
Low social capital	44%	40%	38%	26%
Meals cut due to lack of money	14%	24%	23%	13%

RESEARCH & EVALUATION GROUP

Notes: Age-adjusted mortality rates are calculated per 100,000 population utilizing the standard 2000 U.S. population distribution. 627 residents responded to the 2018 SEPA HHS in the Mercy Fitzgerald service area, as well as 566 in the Nazareth and 472 in the Mercy Philadelphia service areas. **Sources:** *PHMC's 2018 Southeastern Pennsylvania Household Health Survey; **2018 CHDB Demographic Product with primary data sources: 2012-2016 mortality data from PA Department of Health, Bureau of Health Statistics and Registries, Claritas 2018 Pop-Facts Data Base. ***Chi square p values: ER visits significantly worse than SEPA across all 3 hospitals at p<.001 ; Social capital MFH and NH p<.001, MPH p<.01 ; Food insecurity MFH and MPH p<.001 , (NH not significant)

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EXECUTIVE SUMMARY

Community Definition

This report presents the findings from the Mercy Health System (MHS)[1] Community Health Needs Assessment (CHNA), adopted in fiscal year 2019 for fiscal years 2020-2022 (July 2019-June 2022). MHS conducted this CHNA to inform population health and social services planning across the communities it serves. MHS, a not-for-profit health system, serves Northeast as well as West and Southwest Philadelphia, and portions of Eastern Delaware County in Southeastern Pennsylvania (SEPA).

MHS is the largest Catholic healthcare system serving the Delaware Valley region, is part of Trinity Health, and sponsored by Catholic Health Ministries. Its total population size is 883,086 residents. MHS is comprised of three acute care hospitals and each Hospital's community is defined as its service area:

- Nazareth (population size: 329,300 residents)
- Mercy Fitzgerald (population size: 317,563 residents)
- Mercy Philadelphia (population size: 236,223)

In addition to its three acute care hospitals, MHS includes a centralized home healthcare organization (available across all hospitals), several wellness and ambulatory centers, physician practices, and a federal PACE program.

This CHNA report focuses on the **Nazareth Hospital (NH)** community. Established in 1940, NH is a community hospital (203 acute beds and 28 long-term care SNF beds) located in Philadelphia. The NH service area is comprised of eight (8) zip codes in Northeast Philadelphia. NH is home to comprehensive acute care services for bariatrics, cancer care, cardiac rehabilitation, cardiology, diabetes, emergency care, endoscopy, and gastroenterology.

Community Health Priority Needs

This CHNA report identified several unmet health needs in the NH service area, as well unique areas and opportunities where NH can develop implementation strategies and focus efforts to maintain and elevate its area residents' health status, including: : **1) Navigational and Equitable Access to Care, 2) Healthy living, 3) Behavioral health and, 4) Chronic Disease Care Management**.

Navigational and Equitable Access to Care was identified as the number one community health need, since, it remains a persistent barrier or facilitator for individuals seeking health care, in receiving adequate health care, and in utilizing health care regularly and ongoing. *Inequitable* access to healthcare in turn leads to disparate morbidity and mortality for some communities (i.e., racial/ethnic minorities, disabled, older adults), poorer health outcomes.[2] While NH is not performing significantly better or worse than the remainder SEPA region for several health indicators, NH service area residents are significantly more likely to utilize the emergency room[3] and report being in *worse health* than SEPA region area residents. Equitable access to healthcare also

[1] The 2019 Community Health Needs Assessment was completed under the oversight of Mercy Health System. As of July 1, 2019 Mercy Health System will transition to Trinity Health Mid-Atlantic

[2] World Health Organization (2018). Health Impact Assessment [webpage]. Retrieved from https://www.who.int/hia/about/glos/en/index1.html

[3] Peason's chi square test of significance p<.001

influences all other identified unmet community health needs (healthy living, behavioral health, and chronic disease management).

Overall, "combined with physical activity, your diet can help you to reach and maintain a healthy weight, reduce your risk of chronic diseases, and promote your overall health."[4] **Healthy Living** was identified as the number two community need, since 70% of adults in the NH service area are overweight or obese, which is significantly higher than the remainder of SEPA region (64%).[5] In addition, when compared to the remainder SEPA region, NH adult area residents are significantly more likely to eat less than four servings of fruits and vegetables per day (82% vs. 77%)[6] and exercise for 30 minutes, *less than* three days per week. In addition, children 3+ years old in the NH service area are less likely to engage in physical activity for at least 30 minutes 3 days a week compared to remainder SEPA region (23% versus 12%).[7]

Based on available evidence and vigorous discussion during prioritization meeting, mental health care, drug related causes of death, as well as tobacco use and smoking cessation were identified as the key areas comprising **Behavioral Health**, and ranked third in terms of community priority needs for the NH service area to consider focusing expansion of efforts over the course of the next (FY2022) CHNA cycle. For example, 24% of adult residents in the NH service area smoke cigarettes, which is significantly greater than for adult residents in the remainder SEPA region (16%).[8] Further, 51% of smokers in the NH service area did not attempt to quit in the past year, compared to 38% of smokers who did not attempt to quit within the last year in the remainder SEPA region.[9] Drug-induced deaths, a broader category of drug related deaths, accounted for 38.8 deaths per 100,000 people in the NH service area, over three times the Healthy People 2020 (HP 2020) target of 11.3 deaths per 100,000 people.

Chronic diseases are on the rise in the U.S., with asthma, diabetes, obesity, as well as smoking-related health issues among the top 10 chronic conditions with high financial and non-financial costs to individuals, families, and communities, particularly given comprehensive, ongoing, and long-term health, social, and other demands and needs associated with **Chronic Disease Care Management**.[10] Chronic disease care management was identified, as the fourth unmet community health need since 30% of adults in the NH service area have been diagnosed hypertension, compared to 26% in the in the remainder SEPA region.[11]

NH is concurrently in the process of completing its Community Health Implementation Strategy Plan over the next three-year CHNA cycle. The Implementation Strategy Plan will identify the needs to be addressed, including specific programs and strategies for each of the four priority areas above. The Implementation Strategy Plan is updated annually. See Appendix B for more information about implementation strategy planning for MHS.

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[4] President's Council on Sports, Fitness, & Nutrition. (2017). Retrieved from https://www.hhs.gov/fitness/eat-healthy/importance-of-good-nutrition/index.html
[5] Pearson's chi square test of significance p<.01
[6] Healthy People 2020. (2019). Access to health services. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services
[7] Pearson's chi square test of significance p<.01
[8] Percentages use age-adjusted calculations. Pearson's chi square test of significance p>.001, NH 20% verses SEPA 15%
[9] Pearson's chi square test of significance p>.01
[10] Centers for Disease Control and Prevention (CDC). (2019). Health and Economic Costs of Chronic Diseases. Retrieved from https://www.cdc.gov/chronicdisease/about/costs/index.htm
[11] Percentages use age-adjusted calculations. Pearson's chi square test of significance p<.05, NH 36% verses SEPA 31%

MISSION AND VISION

NH is dedicated to being a transforming, healing presence in the community it serves while addressing the diverse health needs of individuals at every stage of life and ensuring quality care is available to every patient regardless of their socioeconomic status. This is the core of NH's Catholic identity and mission.

Vision

As a mission-driven regional health ministry, we will become the recognized leader in improving the health of our communities and each person we serve. We will be known as the most trusted health partner for life.

Mission

We, Mercy Health System and Trinity Health, serve together in the spirit of the Gospel as a compassionate and transforming healing presence within our communities. In fulfilling our mission, we have a special concern for persons who are poor and disadvantaged.

Governing Board Review

Nazareth Mission Integration presented the CHNA (including its findings and significant health needs priorities) to the Nazareth Hospital Board of Directors on May 28, 2019 and the Board adopted it. On April 9, 2019, the Mission & Ministry Committee of the MHS Board of Directors reviewed and approved the CHNA findings and prioritization of the significant health needs.

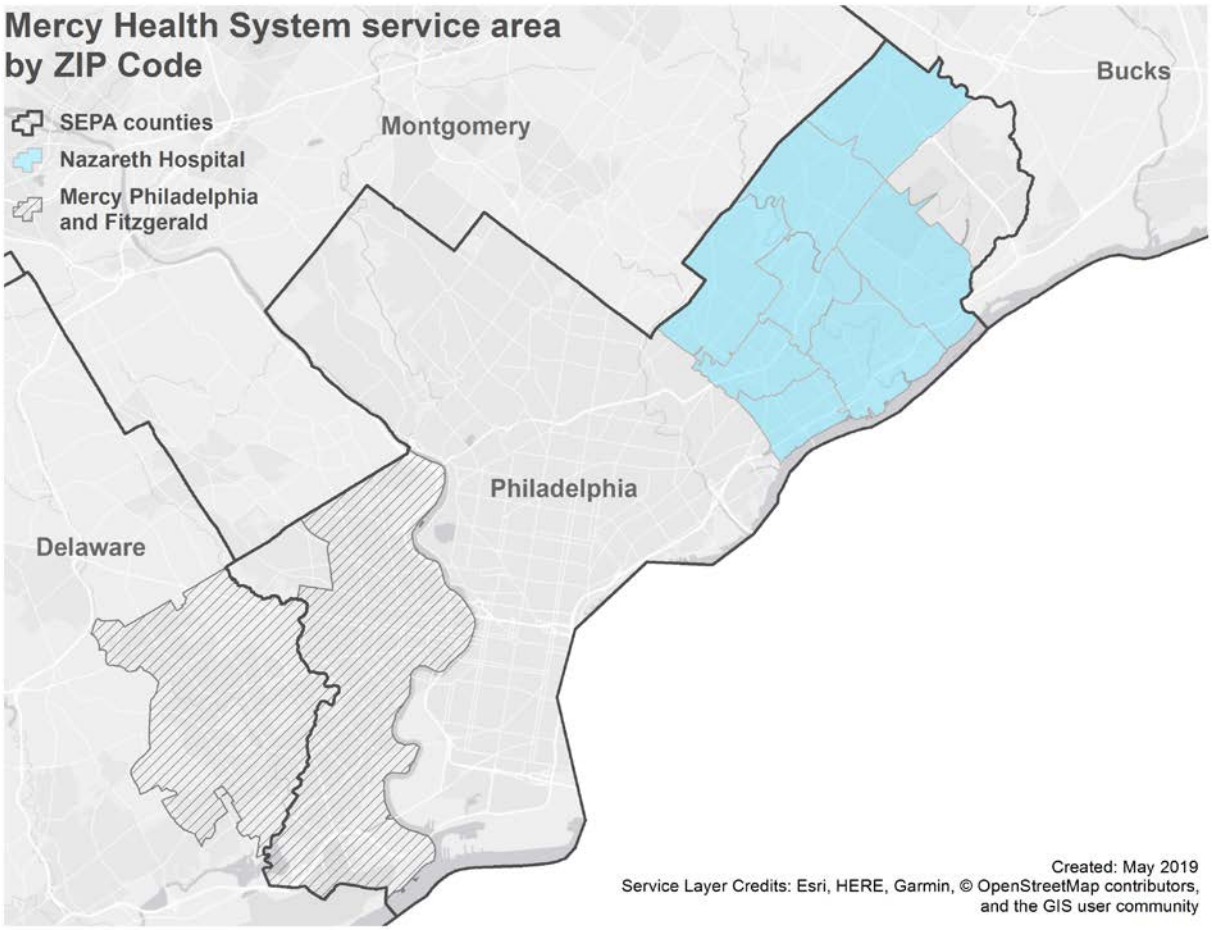
Communication

MHS and Nazareth's Mission Integration contacted the community representatives to share the results of the CHNA findings, the identified unmet healthcare needs. In addition, the community representatives had the opportunity to comment on the previous CHNA by contacting PHMC directly and no comments were received. Written comments and feedback on this CHNA can be sent to IAtMercy@mercyhealth.org. Furthermore, Nazareth's CHNA will be available on its website https://www.mercyhealth.org/about/. Copies will also be available by contacting: Nazareth Hospital Administrative Office, 2601 Holme Avenue, Philadelphia, PA 19152.

INTRODUCTION

NH regularly maintains and develops strong community-based partnerships and is highly committed to the communities it serves. A comprehensive community outreach program offers free education, screenings and health events throughout the year, including the popular and free Dine with the Docs series. Additional information about NH and its services is available at https://www.mercyhealth.org/locations/nazareth-hospital/

As mentioned, the NH community is defined as its service area and its population size is 329,300 residents. For this CHNA report, the NH service area, also referred to as the NH community, includes eight (8) ZIP codes in the Northeast and Philadelphia: 19152, 19136, 19115, 19149, 19114, 19135, 19111, 19116 - illustrated in the service area map below.



Key Demographic Facts

- NH has 51% females (n = 168,602) and 49% males (n = 160,698)
- NH area residents identify as: 59% white, 19% black, 11% Asian; 15% identify as Latino
- The median household income is $51,690
- 16% of NH area residents are 65+ years old; The older adult population is projected to increase 13% between 2018-2023

METHODOLOGY AND DATA SOURCES

This CHNA was completed using a data and partnership driven approach to inform its development. As part of this process, MHS contracted with Public Health Management Corporation's (PHMC) Research & Evaluation Group (REG), to collect and analyze data, as well as engage the community residents, key stakeholders and constituents serving the community (PHMC qualifications in Appendix D).

This CHNA incorporates broad measures related to health and well-being, a combination of evidence-based sources, methods and approaches, including:

- Administering the **2018 Southeastern Pennsylvania Household Health Survey (SEPA HHS)** to 566 adult residents (including 245 65+ years old adults) in the NH service area, then analyzing and comparing the results with the remainder SEPA region (N = 6,864, including 2,842 65+ year old adults)
- Comparing to national **Healthy People 2020 (HP2020) targets** (national benchmark data) using the **vital statistics** data from the Pennsylvania Department of Health[12]
- **2018 United States Census data estimates provided by Claritas Pop-Facts® Premier** identifying state level demographic indicators (such as race, income, employment status) and corresponding maps to inform geographical relationships and demographic determinants thought to disproportionately impact certain communities
- **Community Needs Index scores,** calculated from 2018 Claritas census estimates, used by Catholic Health Ministries to describe social and economic barriers to the health care system
- **County Health Rankings**, a Robert Wood Johnson Foundation program, for Montgomery and Philadelphia counties
- **2018 Claritas Market Prevalence** by disease category as provided by MHS
- Conducting **community meetings** with stakeholders, community members, and partner organizations

Data sources and more detail on methods can be found in Appendix C. In addition to the above, as part of the methods for developing this CHNA report, a **cross-functional workgroup** of MHS internal and external stakeholders (and including a community representative) was convened to review, identify and prioritize unmet health needs for the NH service area. In identifying the *unmet* health needs initially evidence of need for each hospital service area, as well as taking into account NH's available resources, and aligning with the hospital's mission, goals and strategic priorities were all taken into account.

Representatives across the MHS organization, and including a community representative, were convened as part of a prioritization workgroup, tasked with vigorous group discussion and consensus building to rank and prioritize the identified unmet health needs. Based on group discussion and agreement, the health needs were grouped into four categories ranked from 1 to 4, beginning with the most important to address for this CHNA cycle: 1) Navigational and Equitable Access to Care, 2) Healthy living, 3) Behavioral health and, 4) Chronic Disease Care Management.

Appendix B details full work group meeting methods, the prioritization table below reflects the four (4) umbrella prioritization categories, along with specific areas the workgroup identified as important to address. The prioritization tables used in the voting meeting are provided in Appendix G.

[12] Pennsylvania Department of Health, Bureau of Health Statistics and Registries. (2018). *2012-2016 Mortality* [Data file]. Calculations by PHMC.

Prioritization and Ranking of Health Needs (NH Community)

1. Navigational & Equitable Access to Care	2. Healthy Living	3. Behavioral Health	4. Chronic Disease Care Management
1. Access to health care 2. Access to care for immigrants	1. Nutrition 2. Overweight and obesity 3. Physical activity	1. Mental health care 2. Drug related causes of death 3. Tobacco use and smoking cessation	1. Diabetes 2. Hypertension 3. Heart disease 4. Cancer 5. Stroke

COMMUNITY HEALTH PRIORITY NEEDS

The NH service area is performing better across a couple of health indicators when compared to the remainder SEPA region.[2] For example,

- 38% of NH area residents who are current smokers have not tried to quit in the past year compared to 51% of remainder SEPA area residents who are current smokers
- Older adults in the NH service area may be less at risk of social isolation; 3% of older adults (65+ years old) in the NH service area talk with relatives less than once a week compared to 6% of older adults in the remainder SEPA region

The NH service area is not performing better across several health indicators when compared to the remainder SEPA region.[13] For example, 25% of NH service area residents said their health was fair or poor compared to 19% of residents in remainder SEPA region. According to the SEPA 2018 HHS, some additional health indicators reveal that:

- 26% of NH area residents have been diagnosed with a mental health condition compared to 22% of remainder SEPA region area residents [14]
- 16% of NH adult area residents have been diagnosed with diabetes compared to 12% of remainder SEPA region adult residents [15]
- 24% of NH adult residents report smoking cigarettes currently compared to 16% of remainder SEPA region area residents [16]
- 33% of NH area residents have visited the emergency room compared to 27% of residents in remainder SEPA region[17]
- 19% of women aged 18-64 in the NH service area have not had a pap test in the past 3 years compared to 14% of women of comparable age in the remainder SEPA region[18]

[13] PHMC's 2018 Southeastern Pennsylvania Household Health Survey
[14] Pearson's chi square test of significance p=.05
[15] Pearson's chi square test of significance p<.05
[16] Percentages use age-adjusted calculations. Pearson's chi square test of significance p<.001, NH 20% vs. SEPA 15%
[17] Pearson's chi square test of significance p<.001
[18] Percentages use age-adjusted calculations. Pearson's chi square test of significance p<.01, NH 25% versus SEPA 18%

This CHNA report reveals notable differences between the NH service area and SEPA region, increasing the likelihood of huge variation in health needs and experiences with the healthcare system for "pockets" of NH area residents. MHS should focus on the priority areas identified herein to maintain and elevate its area residents' health status, community health, and quality of life, highlighted below.

Navigational and Equitable Access to Care

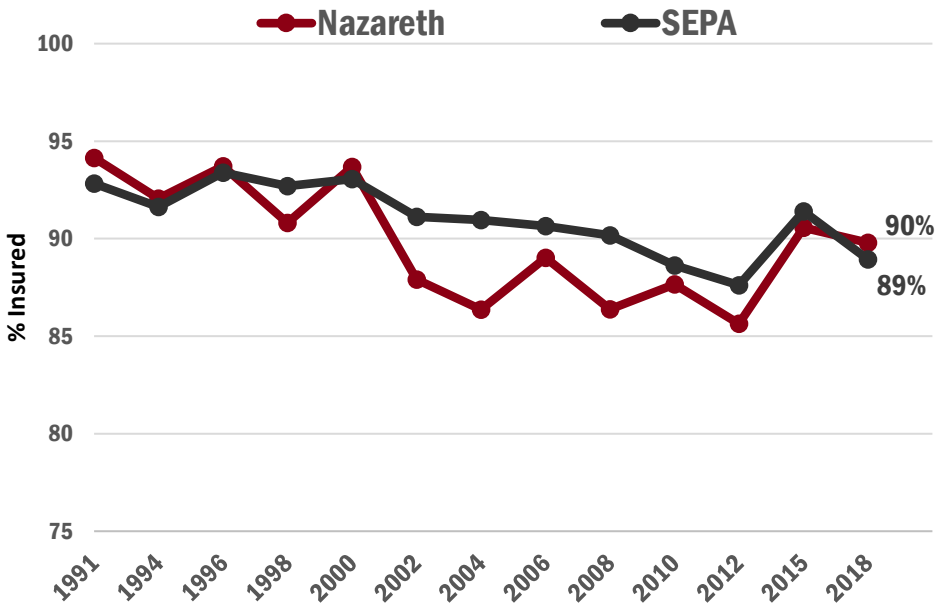
The number one ranked community priority need for the NH service area for the FY2020-2022 CHNA cycle is **navigational and equitable access to care**.

Access to equitable health care remains a persistent barrier (i.e., low social disadvantage, socio-economic status, educational attainment, literacy) or facilitator (i.e., high household income, educational attainment) of affordable and adequate care. Inequitable access to healthcare leads to disparate morbidity and mortality for some communities (i.e., racial/ethnic minorities, disabled, older adults), poorer health outcomes, and lower quality of life.

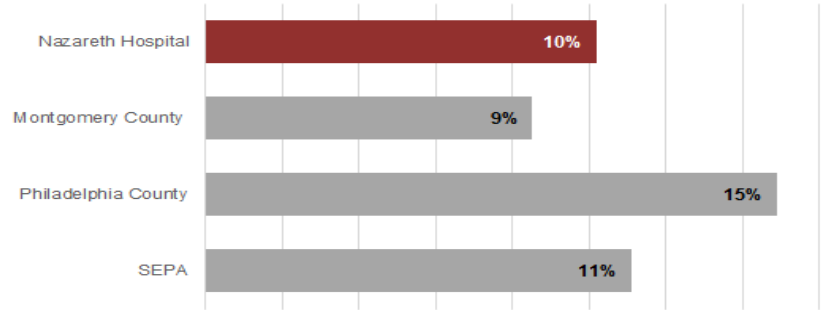
Health insurance provides individuals with the ability (i.e., insurance coverage) to access medical care regularly and with less cost incurred to the individual. Without health insurance individuals may face barriers to accessing care and incur significant personal costs when they do receive health care.

- The NH service area does not meet the HP 2020 goal of having health insurance coverage for *all* adults
- 10% of adults (age 18-64) in NH service area were uninsured in 2018; this is slightly lower than the remainder SEPA region (11%)

The percent of adults with health insurance in the NH service area increased after the passage of the Affordable Care Act (ACA) in 2012, and then slightly declined. Also, for the first time since 2000, NH *caught up* to SEPA in terms of percent of adults insured with the passage of the ACA.



The percent of uninsured adults in the NH service area is lower than in Philadelphia County and comparable to that in Montgomery County.



In other cases, individuals may be inadequately insured, and experience barriers accessing care as well as receiving quality care. Those with a regular source of health care (e.g., a medical provider to call when they are sick) are typically able to obtain care quicker and easier compared to those without a regular source of care.

In addition, when care is sought at a place where the individual has been a regular patient, the care provided can be offered in view of the patient's history (e.g., medical records) and ideally within a relationship with a trusted provider. Having a usual source of health care is associated with better health outcomes, lower costs, and fewer health disparities.[19]

- 12% of adults in the NH service area report not having a regular source of care compared to 14% of adults in the remainder SEPA region

When examining **access and utilization of care**, NH service area is not performing significantly better or worse than the remainder SEPA region along several health indicators (see Appendix G for complete significance testing tables), including, for example:

Indicator	MHS Nazareth	Remainder of SEPA
Did not seek health care due to the cost during a time they were sick or injured in the past year	10%	10%
Did not fill a prescription due to the cost in the past year	14%	13%
Currently uninsured	10%	11%
Does NOT have a USUAL person or place of care to go when they are sick or need health advice	12%	14%
Has NOT visited a healthcare provider in the past year	10%	13%

[19] Healthy People 2020. (2019). Access to health services. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

However, NH area residents are significantly more likely to visit the emergency room than the remainder SEPA region (33% vs. 27%)[20]. Ultimately, while the NH service area and SEPA region are comparable along several health indicators as earlier outlined, NH residents are in worse health generally when compared to remainder SEPA region area residents and utilize the emergency room [21] with substantially greater frequency than residents in the remainder SEPA region.

Based on this information, MHS should consider dedicating resources (financial and non-financial) to reducing emergency room utilization. More broadly, considering the percent of NH area residents reporting poor or fair health when compared to remainder SEPA region area residents, MHS should consider ways to improve the health and quality of life of NH area residents, and opportunities to mitigate factors impeding good quality of life for its area residents.

Healthy Living

"Good" nutrition and regular physical activity are important parts of leading a healthy lifestyle and **healthy living** broadly. Relatedly, there is general consensus that for example:

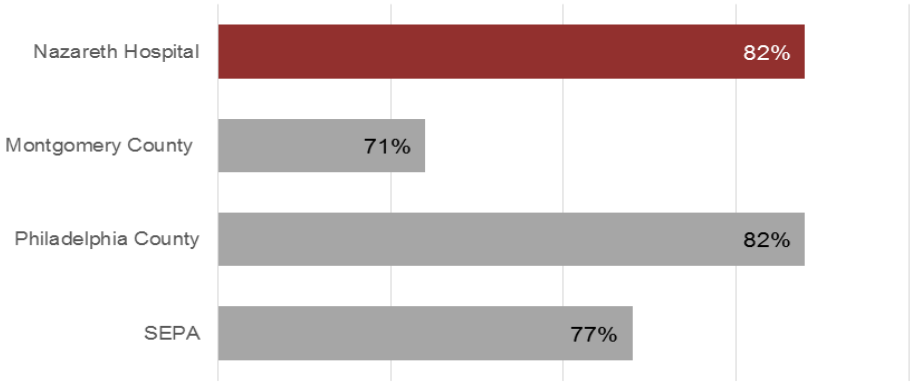
- Regular consumption of sugary sweetened beverages (SSB), such as soda, sports drinks, sweetened teas, and fruit drinks, is associated with obesity and other poor health outcomes such as type-2 diabetes, and cardiovascular disease
- Lack of exercise predisposes adults to related health issues such as obesity, hypertension, diabetes, depression, and cardiovascular disease
- Eating a vegetable and fruit rich diet as part of an overall healthy diet may help protect against certain types of cancers as well as reduce risk for heart disease, including heart attack and stroke[22]

Overall, "combined with physical activity, your diet can help you to reach and maintain a healthy weight, reduce your risk of chronic diseases, and promote your overall health".[23] When compared to remainder SEPA region, NH adult area residents are more likely to:[24]

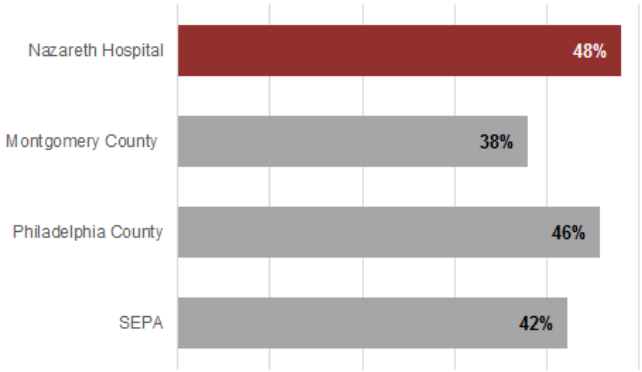
- Have had sugary drinks at least once per day in the past month (33% vs. 26%)[25]
- Eat less than 4 servings of fruits and vegetables per day (82% vs. 77%)[11]
- Exercise for 30 minutes, *less than* 3 days per week (48% vs. 42%)[26]

[20] Peason's chi square test of significance p<.001
[21] Peason's chi square test of significance p<.001
[22] United States Department of Agriculture. (2016). Retrieved from www.choosemyplate.gov/vegetables-nutrients-health
[23] President's Council on Sports, Fitness, & Nutrition. (2017). Retrieved from https://www.hhs.gov/fitness/eat-healthy/importance-of-good-nutrition/index.html
[24] PHMC's Southeastern Pennsylvania Household Health Survey 2018
[25] Pearson's chi square test of significance p<.001
[26] Pearson's chi square test of significance p<.01

The percent of adults *not* eating the recommended servings of fruits and vegetables is highest for NH and Philadelphia County area residents and lowest for Montgomery County area residents



The percent of adults in NH service area who exercise for 30 minutes, *less than* 3 days per week is comparable to Philadelphia County and higher than Montgomery County and SEPA.



In addition, children ages 3+ years were less likely to engage in physical activity for at least 30 minutes 3 days a week compared to remainder SEPA region (23% versus 12%).[27] Physical inactivity in children can increase risk of becoming overweight, as well as risk of developing various health conditions in adulthood, such as obesity, diabetes, hypertension, and heart disease.[28] Ultimately, understanding healthy living indicators, and how NH compares to the SEPA region where healthy living is concerned, can help inform how MHS allocates and invests resources across its service areas, as well as help consider ways to adapt and support overall community wellness efforts.

[27] Pearson's chi square test of significance p<.01
[28] US Department of Health and Human Services. Physical Activity Guidelines Advisory Committee report. Washington, DC: US Department of Health and Human Services; 2008

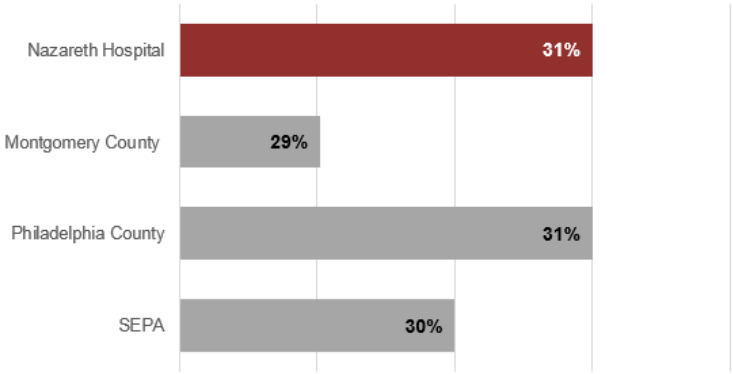
Food Access

Fourteen percent of NH service area residents cut meals due to lack of money.[23] Cutting meals due to lack of money, is an indicator food insecurity , is defined as the disruption of food intake or eating patterns because of lack of money and other resources. Food insecurity disproportionately influences certain racial/ethnic groups, lower income families, and single parent households. NH should consider allocation of resources (financial and non-financial) to expanding education initiatives and program about healthy food planning, recognizing the possible economic constraints that may be affecting certain families and/or pockets of the community disproportionately every day.

Overweight and Obesity

Body mass index (BMI) has been a major predictor of overall health, with a BMI of 25-29.9 considered overweight, and 30+ considered obese. Using age-adjusted rates:

- 31% of adults in the NH service area are considered obese, which, is a percentage point



  higher than the remainder SEPA region (30%)
- 70% of adults in the NH service area are overweight or obese, which is significantly higher than the remainder of SEPA region (64%)[29]

The percent of adults considered obese in the NH service area is the same as Philadelphia County, at 31%.

Behavioral Health

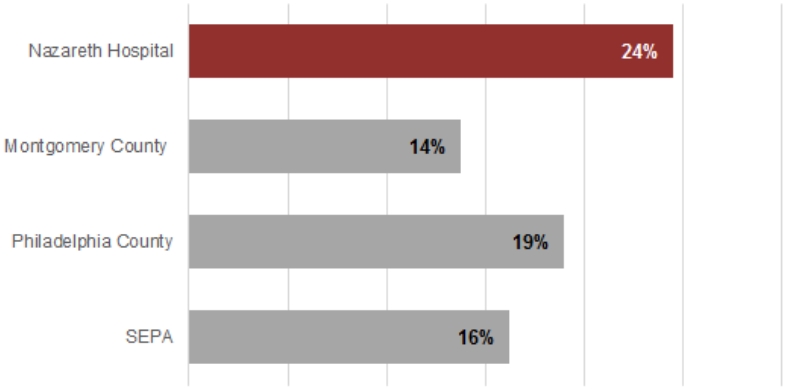
Behavioral health is an increasing public health concern with impacts to individuals across the life span and whole communities. Behavioral health is inextricably tied to physical health, mental health, intra and inter-personal relationships, and the ability to live a good quality of life. Assessing behavioral health and associated health outcomes. Also, understanding influences on behavioral health is important to optimizing quality of life and mitigating sub-optimal health outcomes. Based on available evidence (see Appendix G) and vigorous discussion during prioritization meeting, mental health care, drug related causes of death, as well as tobacco use and smoking cessation were identified as the key areas comprising **Behavioral Health**, and ranked third in terms of community priority needs for the NH service area to consider focusing expansion of efforts over the course of the next (FY2022) CHNA cycle.

[29] Pearson's chi square test of significance p<.01

Smoking

Smoking is a neurologically addictive habit that creates immediate and sustained health problems for individuals who smoke. It is also a public health concern and risk, particularly to those exposed to secondhand cigarette smoke regularly. Twenty-four percent of adult residents in the NH service area smoke cigarettes, which is significantly greater than for adult residents in the remainder SEPA region (16%).[30] Further, 51% of smokers in the NH service area did not attempt to quit in the past year, compared to 38% of smokers who did not attempt to quit within the last year in the remainder SEPA region.[31]

The percent of current smokers in NH service area (24%, age-adjusted) is higher than the surrounding Counties and SEPA region.



Additionally, with the introduction of e-cigarettes to the market, smoking patterns have changed. Smoking is now on the rise in youth and younger adult populations due to the introduction of e-cigarettes, vapes, and juuls. These e-cigarette devices typically carry more nicotine than traditional cigarettes, are odorless, and also sold in a variety of scents and flavors, attracting a younger market. Current cigarette smokers may use both e-cigarettes and traditional cigarettes.[32]

- Among current smokers, NH service area saw significantly more smokers who have also used an e-cigarette in the past month when compared to SEPA (11% vs. 8%)[33]

Drug Overdose Mortality Rate

Co-occurring mental illness and substance use disorders are increasing substantially in the US, with deaths due to suicide and overdose imposing a major public health concern. Drug overdose (all substances) is the sixth leading cause of death in the NH service area (with an average of 122 deaths per 100,000 people annually between 2012-2016).[34] In terms of drug overdose mortality:

- The NH service area drug overdose mortality rate (38.0 deaths per 100,000 people) exceeded that of SEPA (26.0 deaths per 100,000 people), Philadelphia County (33.6 deaths per 100,000 people) and Montgomery County (19.9 deaths per 100,000 people)

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[30] Percentages use age-adjusted calculations. Pearson's chi square test of significance p>.001, NH 20% verses SEPA 15%

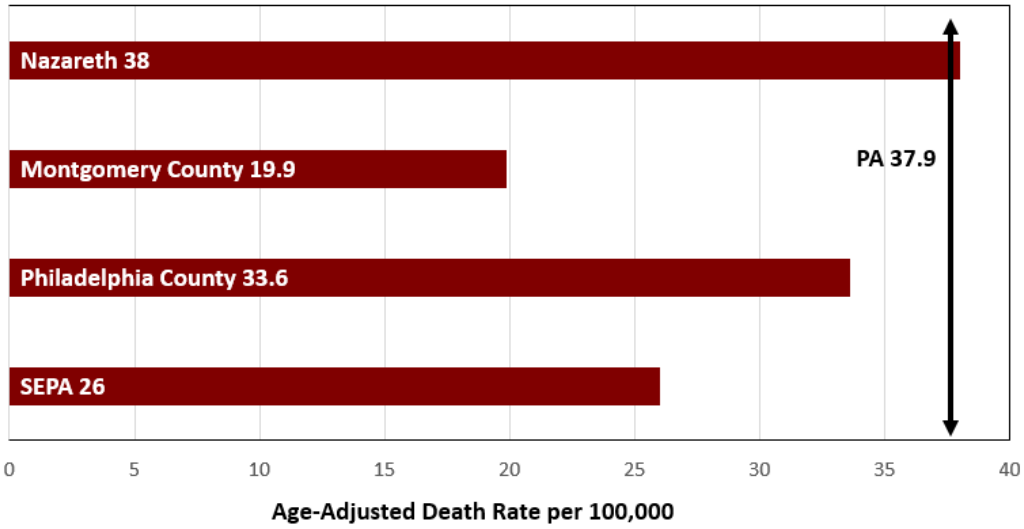
[31] Pearson's chi square test of significance p>.01

[32] U.S. Department of Health and Human Services. NIH News in Health. What Are Electronic Cigarettes? https://newsinhealth.nih.gov/2018/10/what-are-electroniccigarettes; Centers for Disease Control and Prevention. Office on Smoking and Health. About Electronic Cigarettes. https://www.cdc.gov/tobacco/basic_information/ecigarettes/about-e-cigarettes.html#health-effects-of-using-e-cigarettes

[33] Pearson's chi square test of significance p<.05

[34] Pennsylvania Department of Health, Bureau of Health Statistics and Registries. (2018). *2012-2016 Mortality* [Data file]. Calculations by PHMC.

- Drug-induced deaths, a broader category of drug related deaths, accounted for 38.8 deaths per 100,000 people in the NH service area, over three times the HP2020 target of 11.3 deaths per 100,000 people (See Appendix H for a complete list of mortality rates and coinciding HP2020 targets)



Mental Health and Suicide

The estimated 2018 prevalence of anxiety/depression was 14,927 cases. Fifty five percent of adults diagnosed with a mental health condition in the NH service area are not receiving treatment for their condition compared to 42% in the remainder SEPA region.[35] The NH service area had higher rates of suicide (12.7 deaths per 100,000 people) followed closely by Montgomery County (11.2 deaths per 100,000 people), than the SEPA region (10.6 per 100,000), and Philadelphia (9.6 deaths per 100,000 people). Suicide by firearm accounted for 5.2 of these deaths per 100,000 people on average each year.

Chronic Disease Care Management

Chronic diseases are on the rise in the U.S., with asthma, diabetes, as well as smoking-related health issues among the top 10 chronic conditions with high costs (financial and non-financial) to individuals, families, and communities, particularly given comprehensive, ongoing, and long-term health, social, and other needs.[36] Relatedly, chronic conditions increase risk of premature mortality (due to stroke, for example).[37]

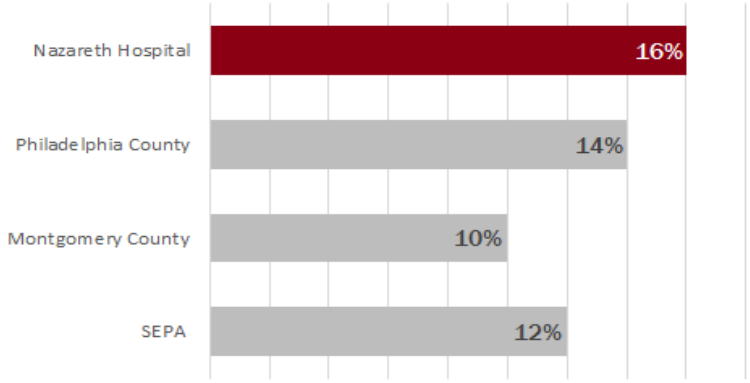
Diabetes

Diabetes is a debilitating and costly health condition that can reduce the quality of life for an individual. Diabetes is the 7th leading cause of death in the US, and the 8th leading cause of death in the NH service area.[38] The NH service area has a notably higher percentage of individuals

[35] Pearson's chi square test of significance p<.01
[36] Centers for Disease Control and Prevention (CDC). (2019). Health and Economic Costs of Chronic Diseases. Retrieved from https://www.cdc.gov/chronicdisease/about/costs/index.htm
[37] Centers for Disease Control and Prevention (CDC). (2018). Conditions That Increase Risk for Stroke. https://www.cdc.gov/stroke/conditions.htm
[38] See *Nazareth Hospital Leading Causes of Death, 2012-2016* figure on page 12. According to Claritas Market Prevalence data set, the estimated 2018 prevalence of diabetes in the NH service area was 23,769 cases. Centers for Disease Control and Prevention. (2017). About Diabetes. https://www.cdc.gov/diabetes/basics/diabetes.html

diagnosed with diabetes (16%), followed by Philadelphia County (14%), with Montgomery County having the lowest percentage of individuals told they have diabetes (10%).

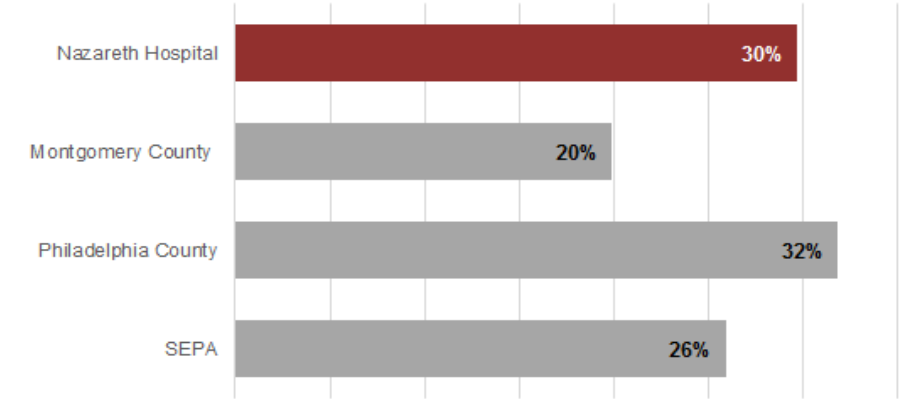
In the NH service area, 16% of adult residents have been told they have diabetes, compared to 12% in the remainder SEPA region.



High Blood Pressure

In the U.S. 33% of adults have high blood pressure (or hypertension).[39] The estimated 2018 prevalence of hypertension in NH service area was 78,568 cases.[40] Thirty percent of adults in the NH service area have been diagnosed hypertension, compared to 26% in the in the remainder SEPA region.[41] Uncontrolled hypertension is a dangerous condition that can lead to heart disease and stroke, two leading causes of death for Americans, with heart disease being the leading cause of death in the NH service area.[42]

The percent of adults ever diagnosed with high blood pressure in NH service area (30%, age-adjusted) is higher than in Montgomery County and SEPA, while comparable to Philadelphia County.



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

[40] Claritas 2018 Market Prevalence by Disease Category

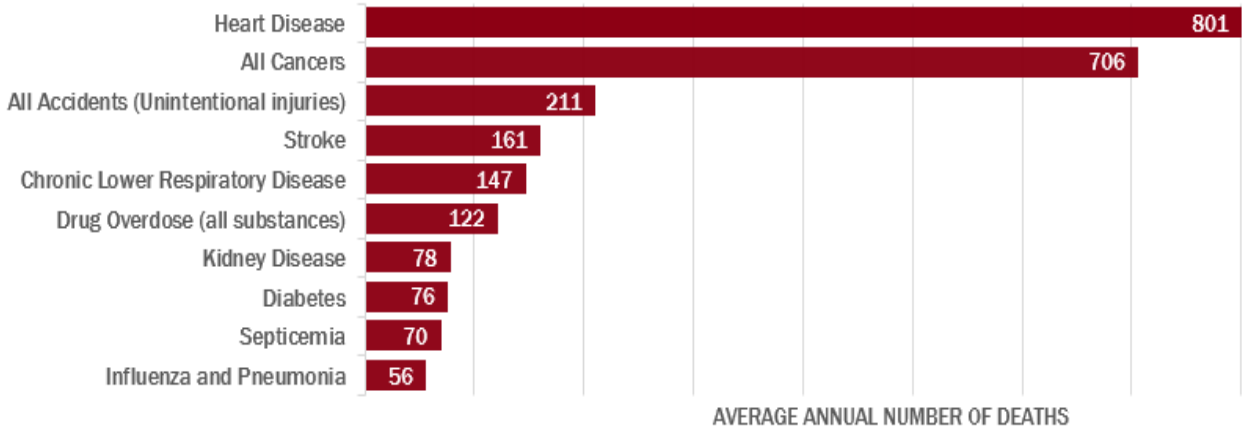
[41] Percentages use age-adjusted calculations. Pearson's chi square test of significance p<.05, NH 36% verses SEPA 31%

[42]Centers for Disease Control and Prevention. (2019). High Blood Pressure. https://www.cdc.gov/bloodpressure/; Pennsylvania Department of Health, Bureau of Health Statistics and Registries. (2018). *2012-2016 Mortality* [Data file]. Calculations by PHMC.

Mortality and Leading Causes of Death: Heart Disease, Cancer

Between 2012-2016, heart disease and all cancers were the top two causes of death in the NH service area, accounting for nearly half (47%) of all deaths on average each year. Accidents, stroke, and chronic lower respiratory diseases followed as leading causes of death, illustrated below.

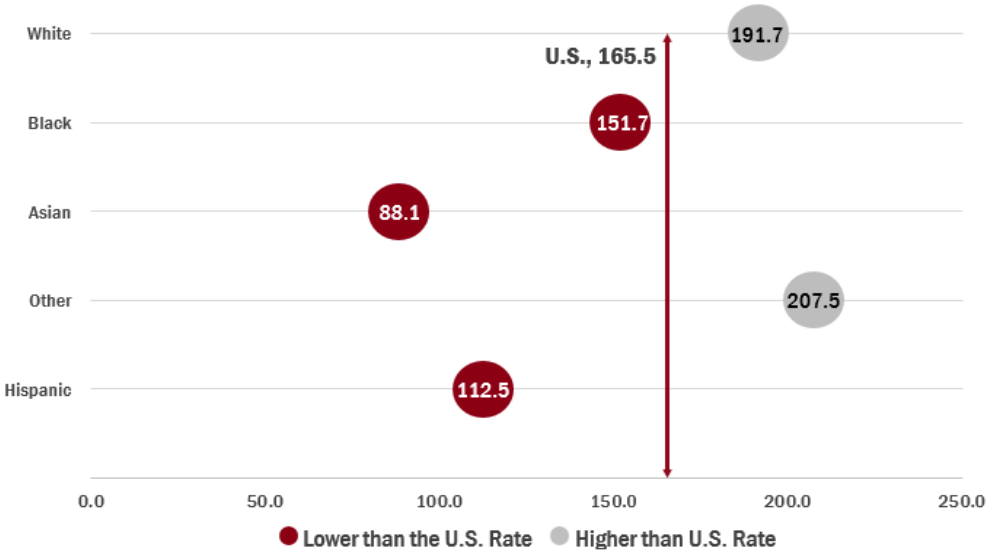
NH Service Area Leading Causes of Death | 2012-2016



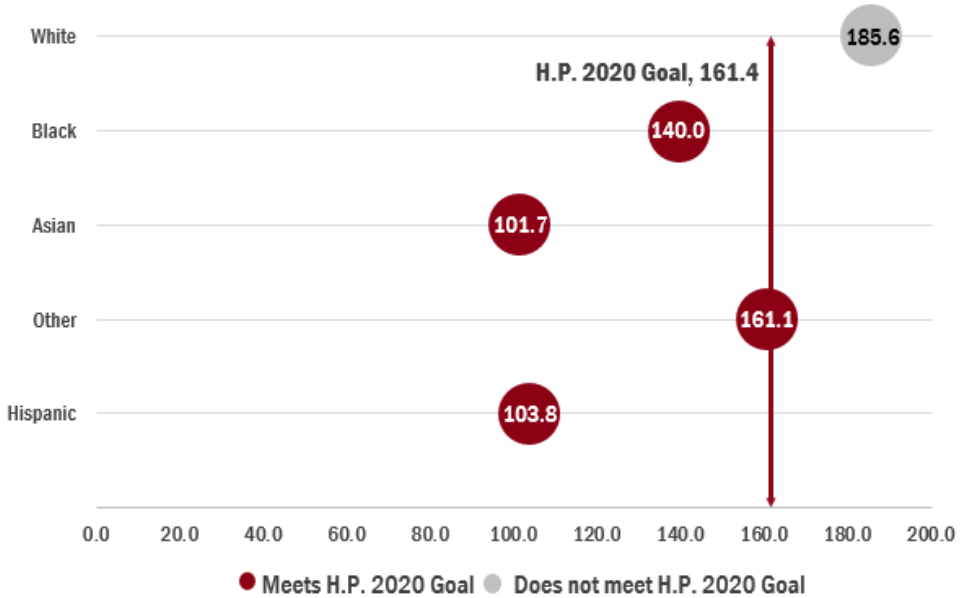
- The mortality rate due to heart disease was 184.9 deaths per 100,000 residents[43]
- The estimated 2018 prevalence of coronary heart disease in NH service area was 11,816 cases, and congestive heart failure was 7,416 cases[44]
- The NH service area had a lower rate of stroke mortality than Montgomery county, Philadelphia, and SEPA
    - Stroke mortality rate was 36.6 deaths annually per 100,000 residents in the NH service area, compared to 41.5 deaths per 100,000 in Philadelphia, 43.5 deaths per 100,000 in Montgomery county, and 39.2 deaths per 100,000 in SEPA
- The NH service area had lower rates of cancer mortality (178.8 deaths per 100,000 residents) compared to Montgomery (150.7 deaths per 100,000 residents), Philadelphia county (195 deaths per 100,000 residents) and the SEPA region (168.4 deaths per 100,000 residents)

[43] Age-adjusted death rates are used here to account for differences in age distribution.
[44] Claritas 2018 Market Prevalence by Disease Category

Heart disease mortality was highest among those identifying as "other" race, followed by area residents identifying as white.



Cancer mortality rates were below the HP 2020 goal for all racial and ethnic groups other than white.



DEMOGRAPHIC INDICATORS

Population size and trends impact the number of persons using and needing services in an area and are important to consider in characterizing and prioritizing health needs. Relatedly, demographic characteristics, such as age, gender, race/ethnicity, and language, can disparately affect the prevalence of specific diseases, morbidity and mortality, and create downstream barriers to equitable care.

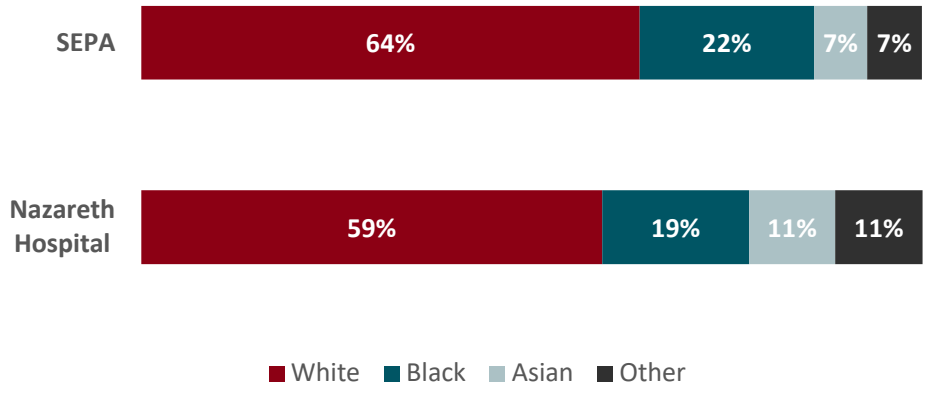
Similarly, educational attainment, employment, and income impact health status and access to care. For example, high levels of educational attainment are related to health literacy, healthier behaviors, and improved health status.[45] Employment and income affect insurance status and the ability to pay for out of pocket for health care expenses. NH service area demographic characteristics are highlighted below.

Population Size

The population of the NH service area is 329,300. The 65+ age population is predicted to grow 13% between 2018-2023, more than any other age group. Programming involving the needs of older adults will continue to be needed and likely increase in demand in the near future given projected population growth for this age group, and gradually increasing medical needs associated with older age.

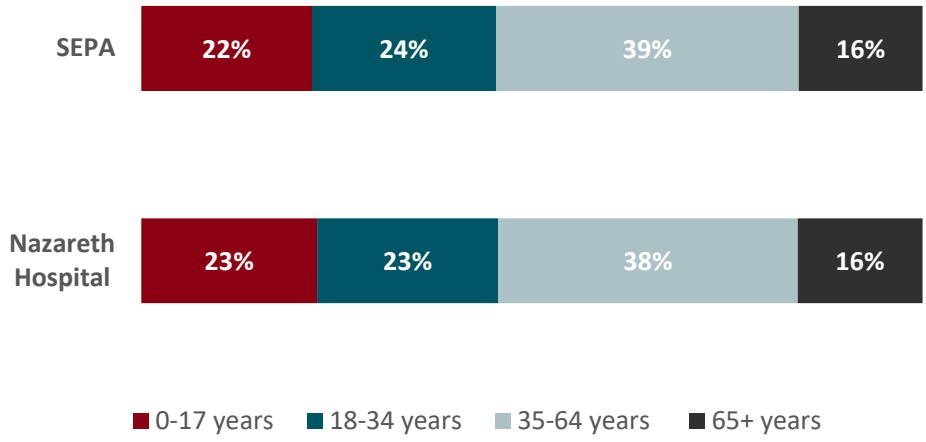
Gender, Race/ethnicity, Age distribution

The NH service area has 51% females and 49% males, which is comparable to SEPA (52% and 48%). Fifty-nine percent of NH residents are white, 19% are black, 11% are Asian, and 11% identify as another race. While there are a lower percentage of self-identifying White and Black NH area residents than reside in the remainder SEPA region (59% vs. 64% white and 19% vs. 22% respectively), 11% of NH area residents self-identify as Asian or Other, compared to 7% of individuals self-identifying as Asian or Other in the remainder SEPA region. Though not illustrated below, 15% of NH area residents identified as Latino versus 9% of remainder SEPA region area residents.



[45] Mirowsky, J, Ross, CE. *Education, Social Status, and Health*. New York, NY: Aldine de Gruyter: 2003.

Age
Twenty-three percent of residents in the NH service area are under 18 years old, 23% are 18-34, 38% are 35-64, and 16% are 65 years and older. The child aged population (0-17 years old) is predicted to grow 5% between 2018-2023, while the 18-34 year old age group is projected to decrease by 10%, and the 35-64 age group is projected to remain relatively stable (0.6% predicted growth between 2018-2023).



Income, Poverty, Employment, Education

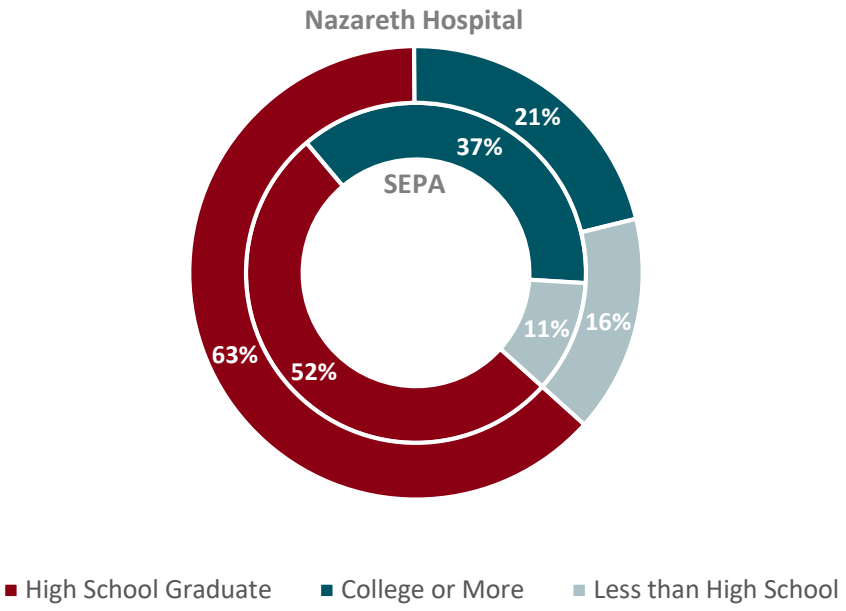
Socioeconomic characteristics such as educational attainment, employment, and income impact health status and access to care. High levels of educational attainment are related to increased health literacy, healthier behaviors, and improved health status. Employment and income affect insurance status and the ability to pay for out of pocket for health care expenses.

NH service area has lower levels of educational attainment, employment, and income, as well as higher poverty rates compared with SEPA.

- The 2018 median household income in the NH service area is $51,690,[46] which is lower than the median household income compared in SEPA ($70,807) and Pennsylvania ($60,993)[47]
- Among families *with children* in the NH service area, 20% are living in poverty compared to just 16% living in power across SEPA; 8% of families *without children* live in poverty in the NH service area, higher than the 5% of families living in poverty across SEPA
- 9% of adults 16 years and older in the NH service area are unemployed, slightly higher than the SEPA region (8%)
- More residents in the NH service area rent their homes (37%) than that of SEPA (34%); only 63% own their housing unit compared to 66% in the SEPA region

[46] Median income is calculates the U.S. Census by dividing the income distribution into two equal groups, half having income above that amount, and half having income below that amount. For households and families, the median income is based on the distribution of the total number of households and families including those with no income. The median income for individuals is based on individuals 15 years old and over with income. https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2017_ACSSubjectDefinitions.pdf
[47] 2018 Claritas Pop Facts Data Base. Calculations by PHMC.; US Census Bureau. Quick Facts Pennsylvania. 2013-2017. https://www.census.gov/quickfacts/pa

- There are less adults with a bachelor's degree or higher in the NH service area (21%) compared to SEPA (37%), Pennsylvania (30%), and the U.S. (31%)[48]



Social Determinants of Health

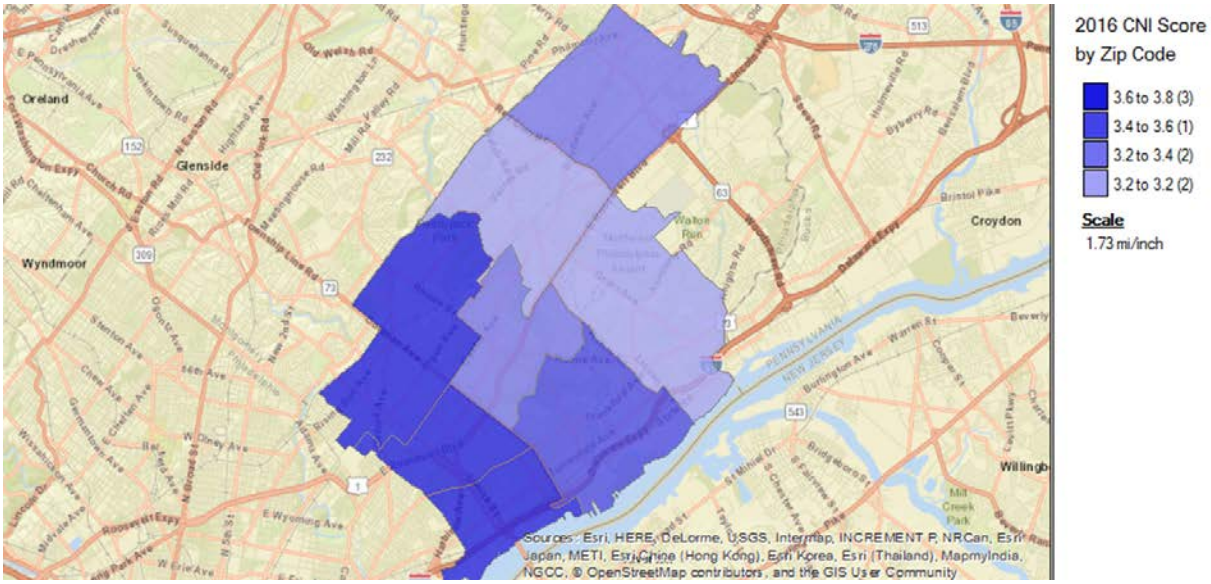
Social determinants of health, such as education, income, and employment (described in previous section) effect the health of the community, and influence health outcomes. The NH service area is generally less affluent and performing below the SEPA region along a number of demographic indicators, putting NH service area risks at elevated risk for poorer health outcomes.

Community Need Index (CNI) uses many of the socioeconomic indicators from the U.S. Census to assign a community need score to each zip code in the U.S. The indicators are drawn from five major, common, and persistent barriers to "good" health (income, culture/language, education, insurance, and housing). They are used to measure the multiple factors which are known to limit health care access.

The total CNI score for NH service area is 3.6, which is lower than the score posted from the prior year (3.7), indicating an improvement in overall health care access.[49] The socioeconomic factors with the highest CNI are ***housing*** (4.7) and ***culture*** (4.6), meaning, these two barriers play a significant role in NH area residents' interactions with the local health care system. The socioeconomic factors with the lowest CNI, or the least possible barriers to accessing the local health care system, are insurance (2.0) and income (2.7).

[48] 2018 Claritas Pop Facts Data Base. Calculations by PHMC.; US Census Bureau. Quick Facts Pennsylvania. 2013-2017. https://www.census.gov/quickfacts/pa
[49] © 2018 The Claritas Company, © Copyright IBM Corporation 2018, Community Need Index.

The eight zip codes within the NH service area rank at the median of Philadelphia County's zip codes, meaning barriers to access are moderate compared to what the rest of Philadelphia County residents experience. The map below displays total CNI score by zip code in the NH service area.

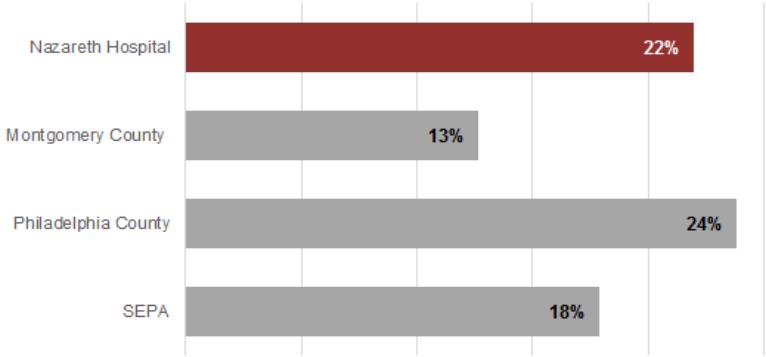


HEALTH STATUS AND HEALTH OUTCOMES

Health Status

Self-assessed health is a commonly used measure of quality of life and a predictor for mortality.[50]

The percent of NH service area adults who rate their health as fair or poor is notably higher than the remainder SEPA region (22% vs. 18%; age-adjusted).[51]



Adolescent Birth Rates

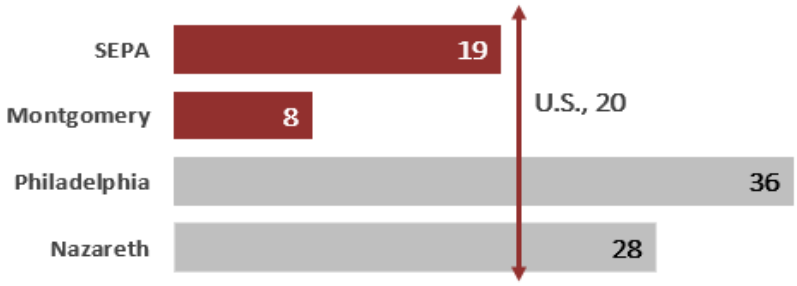
The teen (females aged 15-19 years old) birth rate in the NH service area was 28 births per 1,000 teens age 15–19 between 2012-2016, over triple the Montgomery teen birth rates (8 births per 1,000 teens) and also notably higher than SEPA teen birth rates (19.3 births per 1,000 teens). Comparatively, Philadelphia County teen birth rates (35.7 births per 1,000 teens) were higher than NH service area.

Among racial groups in the NH service area, black teenage females had the highest birth rates (48.9 births per 1,000 teens aged 15-19), followed by self-identified “other” teens (41.2 births per 1,000 teens). Latina birth rates (47.2 births per 1,000 teens) followed closely behind rates for black teens. Birth rates were lowest for Asian teens (8.2 births per 1,000 teens) between 2012-2016.

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

[51] Chi square test of significance p<.001, NH 25% verses SEPA 19%

The NH service area has a higher teenage birth rate (28.0 births per 1,000 teens) compared to remainder SEPA region and Montgomery county, and a notably lower rate than Philadelphia County.

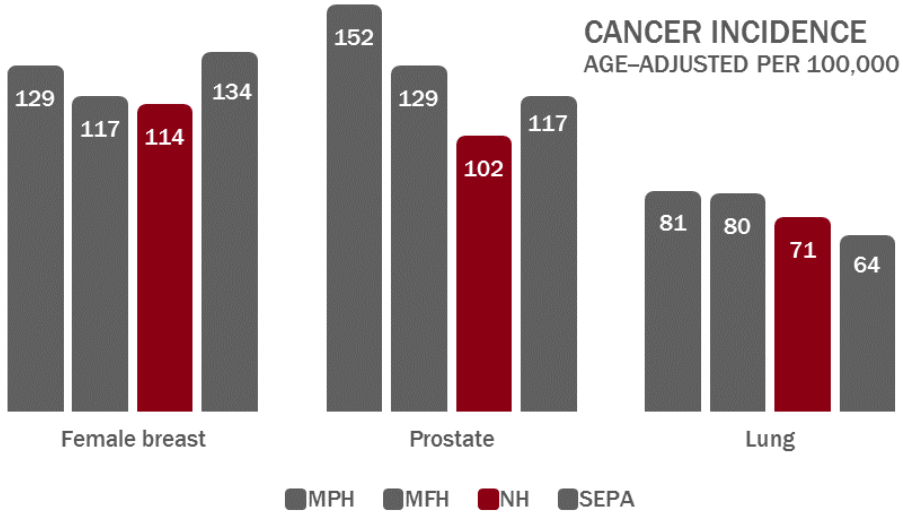


Cancer Incidence and Screenings

From 2012-2016, the age-adjusted cancer incidence rate for the NH service area was 493 new cancer diagnoses per 100,000 people, comparable to SEPA (491 new cancer diagnoses per 100,000 people in the same years).[52]

- Lung cancer rates in the NH service area (71 new diagnoses per 100,000 people) are higher than in SEPA (64 new diagnoses per 100,000 people)
- Incidence rates for female breast and prostate cancers in the NH service area are lower than they are compared with remainder SEPA region
  - 114 new female breast cancer diagnoses per 100,000 people in NH vs. 134 new diagnoses per 100,000 people in SEPA
  - 102 new prostate cancer diagnoses per 100,000 people in NH vs. 117 new diagnoses per 100,000 people in SEPA

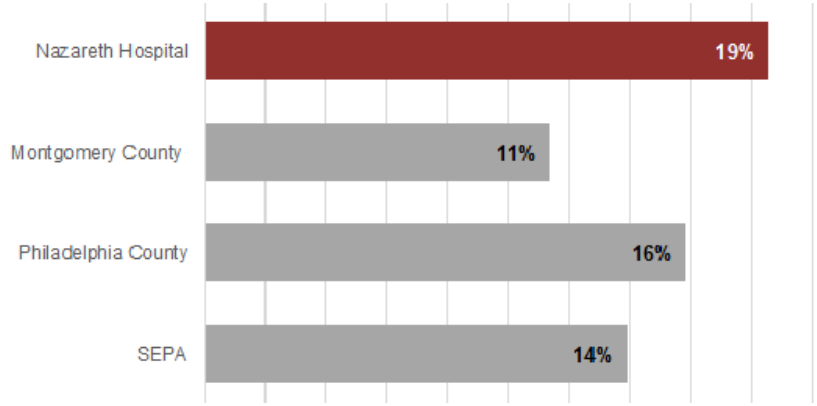
The table below illustrates the age adjusted cancer incidence rates for female breast, prostate, and lung across the MHS service area (NH, MPH, MFH), in addition to SEPA.



[52] Pennsylvania Department of Health, Bureau of Health Statistics. Retrieved from https://www.health.pa.gov/topics/HealthStatistics/CancerStatistics/Pages/Cancer-Statistics.aspx

In terms of screenings, the percent of women (50-74 years old) receiving a recent mammogram and men over 45 years old receiving a recent prostate exam, as well as the percent of adults 50 or older not having received a sigmoid colonoscopy in the past 10 years are not significantly better or worse than SEPA (see Appendix H). However, there are significantly more women 18-64 years old who have *not* had a Pap test (or pap smear) in the past 3 years in the NH service area compared the remainder SEPA region (25% vs. 18%). A Pap test is important, as it helps to prevent cervical cancer or find it early.[53]

More women (age 18-64) in NH service area did not obtain a pap test in the past three years than in the neighboring counties and SEPA[54]



[53]Centers for Disease Control and Prevention. (2018). What Should I Know About Screening? https://www.cdc.gov/cancer/cervical/basic_info/screening.htm

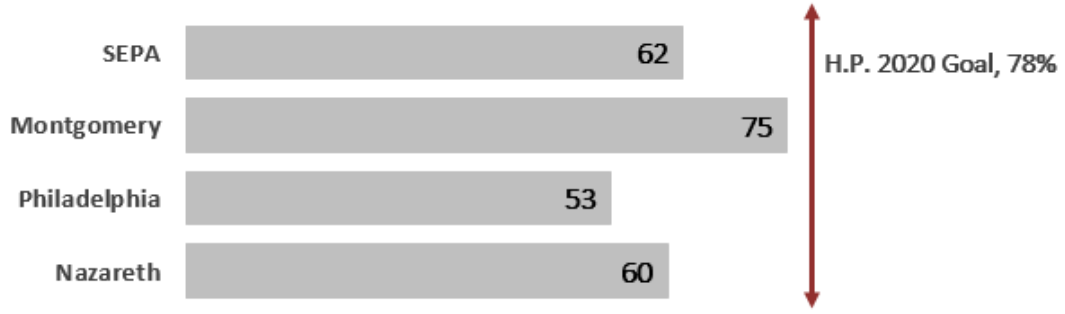
[54]Percentages use age-adjusted calculations. Pearson's chi square test of significance p<.01, NH 25% versus SEPA 18%

POPULATIONS OF INTEREST

Maternal Health

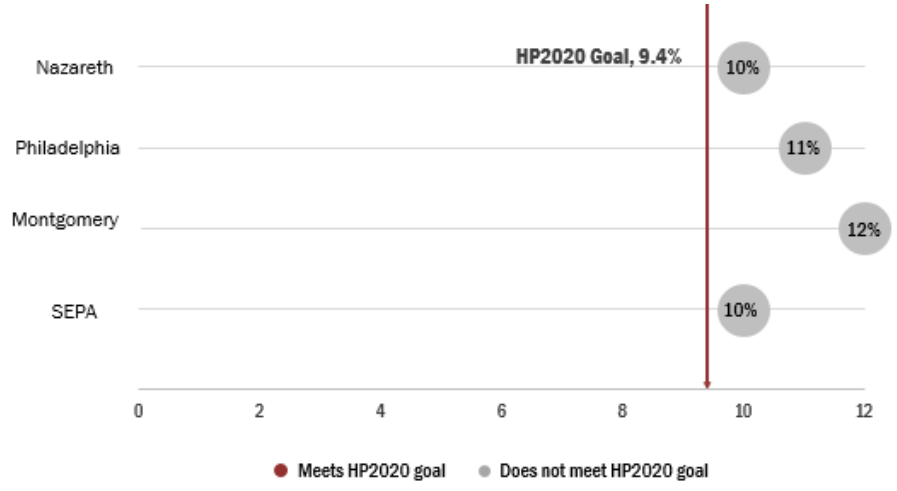
Sixty-percent of women in the NH service area initiated on-time prenatal care, or in the first trimester of pregnancy, which is higher than Philadelphia (53%), though lower than Montgomery County (75%) and SEPA region totals (62%). In the NH service area, among white women, 67% of self-identified white women initiated on-time prenatal care, slightly less among Asian women (59%), and lowest for black women (53%).

The NH service area does not meet the HP2020 goal of 78% of women initiating on-time prenatal care, though Montgomery County comes the closest, illustrated below.[55]



The percent of infants born preterm (less than 37 weeks completed of gestation) in the NH service area (10%) is comparable to Philadelphia (11%), Montgomery (12%), and the SEPA region (10%) The NH service area as a whole did not met the HP 2020 goal of no more than 9% of live births born preterm.

NH service area did not meet the HP 2020 goal for preterm births between 2012-2016.

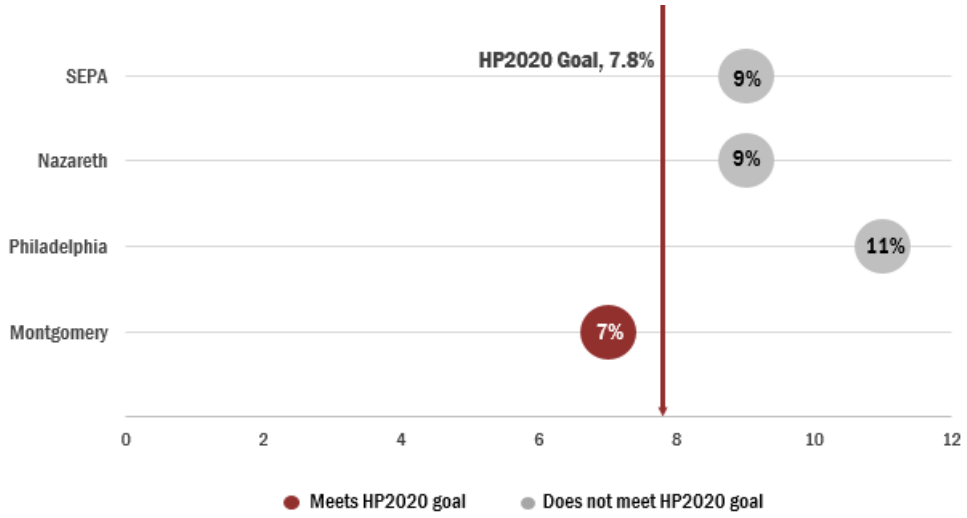


[55] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2020. Maternal, Infant, and Child Health Objectives. Healthy People 2020. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives.

The percent of infants born low birth weight (born at less than 2,500 grams or 5 pounds) in the NH service area (9%) is lower than Philadelphia (11%) and higher than Montgomery (7%) and the SEPA region (9%).

Racial differences in infants born low birth weight (LBW) is notable in the NH service area; there were 72.1 LBW births per 1,000 white infants, compared to blacks (120.5 LBW births per 1,000 black infants), and 84.6 LBW births per 1,000 Latino/a infants.

NH service area did not meet the HP 2020 goal for low birth weight.



Older Adults

In 2018, the population estimate of adults 65+ in the NH service area is 52,901. As mentioned, the older adult population in this service area is projected to grow 13% between 2018-2023 (to an estimated 59,500). In the NH service area, 27% of adults 65+ report being in fair or poor health compared to 22% of the remainder SEPA region.[56] Considering one of the unmet community needs, *healthy living,* approximately one-third of older adults (60+) in the NH service area report having been told by a doctor or other health professional that they had diabetes compared to 22% of older adults in the remainder SEPA region.

For many older adults, “aging in place” and living in one’s own home is important to maintaining independence. Relatedly, interacting with neighbors and the community can have positive benefits on one’s mental health, and mitigate risks of social isolation. In the NH service area, 64% of older adults (65+ years old) prefer to remain in their home for 10+ years, 10% of older adults prefer to remain in their current home for 5-10 years, and 26% prefer to remain in their home for up to 5 more years.

Older adults (65+ years old) are at about equal risk of unintentional falls and injuries. Among NH service area residents (older adults living independently), 26%, reported having fallen in the past year, compared to 25% in the remainder SEPA region. Additionally,

- 17% of NH service area residents report at least one limitation in the Activities of Daily Living (ADLs), compared to 14% for remainder SEPA region

[56] This difference approaches statistical significance (p=.08).

- 34% of older adults, have at least one limitation in the Instrumental Activities of Daily Living (IADLs), compared to 30% for remainder SEPA region

Adults with ADLs and IADLs often receive informal help with their personal care needs, such as eating, dressing, bathing, and going to the bathroom. This informal help can come from family members, friends, neighbors, or others. When informal assistance from family or friends is not available or otherwise insufficient to meet their needs, older adults may opt to pay for formal care services in their home. This can be from someone from an agency or hired support, and these services may include medical injections, bandage changes, grooming, cooking, or shopping. Additional disparate impact can occur as a result of co-experiencing ADL limitations with socioeconomic constraints. For example, formal care services are often expensive, making it difficult for low-income individuals with ADL limitations without family or other informal social supports in place to access. People also seek out information from various sources, which influences how individuals make decisions to seek care.

Formal/Informal Supports and Sources of Information

- 38% of older adults in the NH service area report using informal help with ADLs, compared to 34% of older adults who report using informal help with ADLs in the remainder SEPA region
- 34% of older adults in the NH service area report using informal help with IADLs, compared to 30% of older adults who report using informal help with IADLs in the remainder SEPA region
- 10% of NH service area older adult residents report having formal care services in their home, compared to 11% of older adults in the remainder SEPA region
- 30%, or 15,123 ,400 of older adults in the NH service area report that their physician or other health care professional is their primary source of information for homecare/nursing facility information, followed by family members 23%, and fewer (14%) using the internet/searches as a primary source to seek health information

Regardless of whether or not assistance is formal or informal, support can be valuable for older adults living independently and for those who wish to return to or maintain independence, and to mitigate increased risk of social isolation and depression among older adults.

- One indicator of social isolation, “talking with friends or relatives once a week or less,” was 10% for the NH service area when compared to remainder SEPA region (14%)
- 14% of older adults in the NH service area reported having four or more signs of depression, compared to 12% in the remainder SEPA region

Mental health is also a related and increasing public health challenge impacting older adults. In the NH service area, 17% of older adults (13,300 older adult respondents) report being diagnosed with a mental health condition.[57] Among older adults with a mental health condition in the NH service area, 63% are currently receiving treatment compared to 56% in the remainder SEPA region.

Despite the socioeconomic disadvantages present for residents in Northeast Philadelphia compared to the majority of the suburban SEPA region, the gap between the NH service area compared to the remainder of SEPA, for older adults, is not steep. In fact, family and friend support for ADL and IADL limitations, is better for the NH service area, as is contact with friends and relatives. Still, the hardships facing this demographic sector should not be minimized. Many of the area residents do

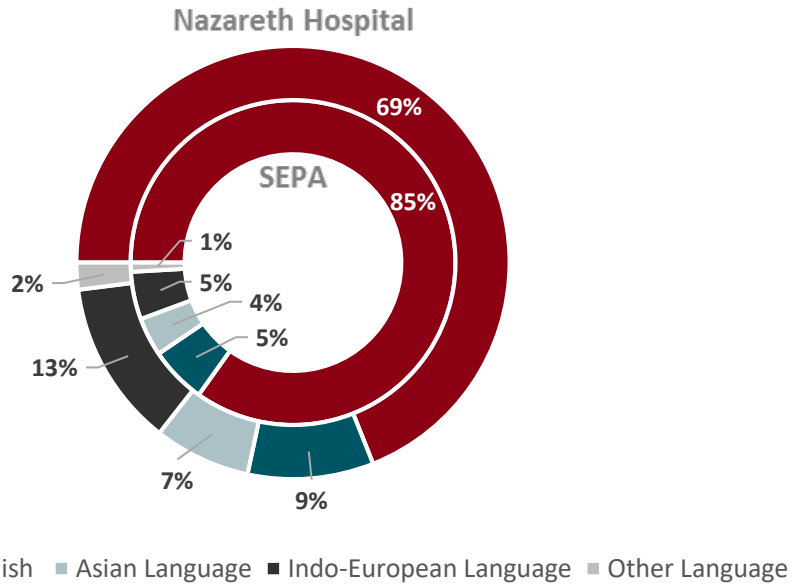
[57] This includes, but is not limited to, clinical depression, anxiety disorder, and bipolar disorder.

not have the formal and informal support they need, 14% are rated as clinically depressed, over a third have ADL or IADL limitations, and over 25% report being in fair or poor health.

Immigrant Communities

Immigrants have unique cultural challenges in accessing health care. The percent of residents with limited English skills ranges from 3% up to 14% depending on the zip code.[58]

Language
There is a notable difference in diversity in terms of languages spoken at home when comparing the NH service area to the SEPA region, with, 85% of residents in the SEPA region primarily speaking English in their home, compared to 69% of NH service area residents. Thirteen-percent of NH area residents speak Spanish in their home (compared to 5% of residents in SEPA region). Additional language breakdown in the NH service area and remainder SEPA region is illustrated below.



During a community meeting, one of the respondents noted, that, “Literacy is really difficult for them. I have many of them that they don’t know how to write their name, so how are they going to get information? And I ask them, they don’t have family here. It’s really difficult for them. In this moment I have one group in the building, I do programs in the building, and I ask who’s with you and they say ‘no, nobody’, so how are you going to do the paper for the medical, how are you going to the supermarket to get the food? So I think, and the language. They don’t know how to write Spanish. It’s very difficult for them. Literacy and the language.”

[58] © 2018 The Claritas Company, © Copyright IBM Corporation 2018, Community Need Index.

RECOMMENDATIONS AND NEXT STEPS

As earlier mentioned, this CHNA report identified several unmet health needs in the NH service area, including: **1) Navigational and Equitable Access to Care, 2) Healthy living, 3) Behavioral Health; and, 4) Chronic Disease Care Management**. This report identified areas and opportunities where NH can focus efforts (including ongoing implementation strategy development and planning) to maintain and elevate its area residents' health status. To better address health needs for NH area residents, NH should consider:

- Assessing priorities around access to affordable healthcare and identifying areas of opportunity and partnerships to increase access to care for uninsured and under-insured NH area residents
- Strengthening linkages and coordination between "usual" and emergency room care (to reduce frequent ED utilization)
- Expanding scope of services focused on behavioral health care across the service area, with special attention to older adults
- Strengthening cross-sector collaborations and partnerships with local health departments, police force, schools, transportation, sanitation, etc., to leverage shared assets across community (given CNI scores and persistent barriers to interacting with local healthcare system)
- Increasing partnerships with national guiding bodies (such as the American Heart Association) to provide education around healthy living globally and heart disease risk specifically; provide resources to those living with heart disease (focus on prevention and harm reduction)
- Educating patients about risk factors for stroke, such as obesity, smoking, high blood pressure, diabetes
- Program development and community program expansion around healthy living across life span, or partnerships with other civic and/or community based organizations to do so, with special attention on children and families
- Concentrating efforts and partnerships with grassroots community-based organizations to mitigate health disparities for immigrant communities and individuals experiencing homelessness (consider "pockets" of NH service area where low socioeconomic status and other social determinants of health, such as housing and culture are persistently present)
    - During community meetings, participants suggested that mobility and lack of housing among teenage populations often leads to homelessness and a rising phenomenon, "couch surfing," illustrated in sum by this quote: *I hear of a lot of couch-surfing, so many not traditionally what you think of as homeless, but there's teens moving back and forth from friend's houses because they don't have a particular place that is their [the homeless teen's] home. Or shuffling between distant family members.*
- Assessing NH area infrastructure and local resources, and expanding prevention services (particularly to areas or sub-populations disproportionately impacted by sociodemographic or other health disparities)

A 2018 report in Modern Healthcare also spotlights some important concepts:[59]

[59] Kacik, A. Flaws in reporting create knowledge vacuum regarding community benefits. Modern Healthcare InDepth. 2018; 20-26.

- Efforts to improve communities have largely been siloed across the country and little collaboration exists; hospitals would benefit from a cooperative approach
- Evidence shows that health fairs and screenings don't make a big difference, working on access and health equity and impacting social conditions does
- Hospitals are doing a better job of communicating with the community through these CHNAs, though without frequent re-assessments, "the disconnect between a hospital's mission and the community's expectations will likely grow"

NH can take a "deep dive" approach about its broad community, and assess locally, existing programs and implementation strategies, and, between CHNA cycles, conduct more deliberate and ongoing evaluation of its programs to understand program effectiveness, impact, and potential to be replicated and/or sustained across broader geographic areas. MHS may also want to consider priority areas and opportunities across its CHNA reports (and broad service area), and moving beyond goal setting in developing strategic implementation plans separately for NH, MFH and MPH, to develop multiple metrics assessing areas where the needle may be moved overall, though thoughtfully balancing in accord with unique service area needs.

Appendix A. List of tables and figures

Appendix B. Description of the prioritization process and voting results

Nazareth Hospital through Mercy Health System pulled together a cross functional Prioritization Workgroup which included a community representative. Nazareth Hospital's approach in prioritizing the significant community health needs is to focus on those needs that are both documented in the assessment and intersect with its strengths, vision and mission. Nazareth's resources and overall alignment with the hospital's mission, goals and strategic priorities were taken into consideration the ranking of the 13 significant health needs identified through the most recent CHNA process. The input that was gathered in our community interviews was used in the process to identify and prioritize the unmet needs.

The Mercy Health System Prioritization Workgroup reviewed and prioritized the defined health needs. The priority setting methods utilized to determine the ranking of the community health needs were (1) the Simplex Method and (2) the Nominal Group Planning Method.

First, under the Simplex Method each workgroup member prioritized the identified health need by scoring on a scale of 1-5 (5 = high; 1=Low) for each of the six criteria:

- Severity, Magnitude, Urgency
- Feasibility and Effectiveness of Possible Interventions
- Potential Impact on Greatest Number of People
- Importance of Addressing the Need
- Outcomes within 3 Years are Measurable and Achievable
- Consequences of Inaction

The Workgroup proceeded with the Nominal Group Planning Method where voting and ranking of the needs was determined after exhaustive group discussions. The specific questions considered for each identified priority healthcare need were:

- Does the healthcare need affect a specific vulnerable population?
- Do existing programs exist to address the healthcare need?
- Does Nazareth Hospital have the capability to address the healthcare need?
- Will the community support intervention to address the healthcare need?
- Will addressing the healthcare need be in alignment with the Nazareth Hospital mission?

Based on group discussion and agreement the 13 health needs were grouped into 4 categories ranked from 1 to 4 with 1 being the most important:

1. Navigational and Equitable Access
2. Healthy Living
3. Behavioral Health
4. Chronic Disease Care Management

The Group then prioritized the 13 significant health needs under its corresponding category. The following Table identifies the significant health need, impacted population(s), supporting evidence ranked by health need category.

Appendix C. Methodology and data sources: Full text

This CHNA was completed using a data and partnership driven approach to inform its development. As part of this process, MHS contracted with Public Health Management Corporation's (PHMC) Research & Evaluation Group (REG), to collect and analyze data, as well as engage the Greater Delaware Valley community residents, key stakeholders and constituents serving the community. Multiple data sources and a variety of data collection methods were used to comprehensively characterize the populations and inform understanding of community health needs. Data sources included:

- **The 2018 Southeastern Pennsylvania Household Health Survey (SEPA HHS)**, R&E Group developed and has fielded the SEPA HHS for the past 35 years. The 2018 SEPA HHS was administered to 7,501 households, using a random-digit dial phone survey method, across Montgomery, Chester, Delaware, Philadelphia, and Bucks Counties. The SEPA HHS provides a unique and comprehensive source of health-related data, solely focused on the SEPA region. Additionally, the SEPA HHS offers unique insights into the local health and social services issues and landscapes, and includes questions unavailable from other sources. It is the principal data source for this CHNA report. In-depth survey methodology and accompanying documentation can be found at http://www.chdbdata.org/

- **2018 United States Census** data estimates provided by Claritas Pop-Facts® Premier provided a picture of the socioeconomic and demographic characteristics of MHS's service area. Census-based demographic data are derived from 2018 Claritas Pop-Facts® Premier and processed by PHMC. Claritas Pop-Facts® Premier is a proprietary database comprised of demographic data adapted from the U.S. Census, American Community Survey (ACS) and other known and highly utilized data sources, such as residential data from the U.S. Postal Service, utility companies and marketing firms.

- **Vital Statistics** data from the Pennsylvania Department of Health details trends in leading causes of death, cancer incidence, and birth outcomes.[1]

- **Community Meeting** data from key community members and constituents was also collected from patients and community stakeholders in the MHS service area. MHS staff identified a list of potential participants based on their knowledge and involvement in the community. Thematic and descriptive analysis of data elucidated additional, unique health-related barriers, needs, resources, and strengths of prominent population subgroups for example, otherwise limited in scope or unable to be captured by broadband, quantitative means. Participants had the opportunity to comment on the previous CHNA by contacting PHMC directly and no comments were received. A list of participant organizations is given below.

  Nazareth community meeting: Holy Redeemer Health System, Boulevard SDA Church, various community residents, Immaculate Mary Home, Penn State Extension, Wesley Enhanced Living, Alzheimer's Association Delaware Valley Chapter, Premier Healthcare Management, Deer Meadows Retirement Community, Philadelphia Dept. of Public Health,

[1] Pennsylvania Department of Health, Bureau of Health Statistics and Registries. (2018). *2012-2016 Mortality* [Data file] and *2012-2016 Birth outcomes* [Data file]. *These data were provided by the Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions.*

The Common Market, Catholic Social Services, Vitas Healthcare, and SPIN Community & Fitness. See appendix F for a summary of the input received in the community meeting.

Mercy Fitzgerald community meeting: Senior Community Services, Montgomery County Department of Health, Friendship Circle Senior Center, Delaware County Planning Office, Darby Community Development Corp., Department of Public Welfare, Upper Darby Senior Center, YMCA, Darby Free Library, and The Common Market. See appendix F for a summary of the input received in the community meeting.

Mercy Philadelphia community meeting: Horizon House, Philadelphia Dept. of Public Health, Community member, senior health advocate, Various folks from Mercy Health, Patient Advisory Council at Mercy Philadelphia, Galilee Baptist Church, and French Catholic Association. See appendix F for a summary of the input received in the community meeting.

- The **Community Need Index Score**[2] (CNI) uses many of the socioeconomic indicators from the US Census, which were described in the previous section, to assign a community need score to each zip code in the U. S. The indicators are drawn from five major barriers to good health (income, culture/language, education, insurance, and housing). They are used to measure the multiple factors which are known to limit health care access. The CNI is a composite value derived from scores on five perceived barriers to better health status. The barrier values are based on quintile ranks of statistics for one or more socioeconomic measures.

  1. Income Barrier
     - Percentage of households over age 65 below poverty line
     - Percentage of families with children under 18 below poverty line
     - Percentage of single female families with children under 18 below poverty line
  2. Cultural Barrier
     - Percentage of population that is minority (including Hispanic ethnicity)
     - Percentage of population over age 5 that speaks a language other than English as their primary language at home
  3. Education Barrier
     - Percentage of population over 25 without a high school diploma
  4. Insurance Barrier
     - Percentage of population in the labor force, aged 16 or more, without employment
     - Percentage of population without health insurance
  5. Housing Barrier
     - Percentage of households renting their home

  A score of 1.0 to 5.0 is assigned to each community, with 1.0 indicating a community with the lowest need and 5.0 a community with the highest need. There is a high correlation between a high CNS and high rates of hospital utilization, including those which are preventable with adequate primary care. Rates of hospital use in communities with the highest needs (5.0) are 60% higher than those in communities with low needs (1.0).

The CHNA additionally incorporates broad measures related to health and well-being, including Healthy People 2020 goals, as a comparator for findings from secondary data analyses, and to assist with prioritization of health needs in NH's community.

[2]© 2018 The Claritas Company, © Copyright IBM Corporation 2018, Community Need Index Score.

Service area zip codes used in this CHNA report included: 19111, 19135, 19149, 19136, 19116, 19152, 19114, and 19115.

Health needs were identified and prioritized by chi-square tests of significance comparing the health status, access to care, health behaviors, and utilization of services for residents to results for SEPA in the 2018 SEPA HHS. Mortality and indicators from the HHS were compared to state and national benchmarks, such as Healthy People 2020 (H.P. 2020) goals, where possible. Input from community stakeholders was used to fill information gaps and to further identify and prioritize unmet needs, particularly for populations of interest. Additional data sources were also considered, such as the online surveys, and contributed to the evidence base behind identified need.

Appendix D. PHMC qualifications

Public Health Management Corporation (PHMC) is a 501(c)(3) non-profit corporation founded in 1972. PHMC serves as a facilitator, developer, intermediary, manager, advocate, innovator, and researcher in the field of public health.

The Research & Evaluation Group (R&E Group) at PHMC has extensive experience working in applied research and evaluation of health services, public health, social services, and education systems in the Southeastern Pennsylvania region. With more than 50 successfully completed Community Health Needs Assessments (CHNA) since 2013—including Main Line Health's CHNA reports in 2013 and 2016 —R&E Group brings a wealth of expertise and content knowledge to the CHNA process.

R&E Group develops CHNAs in partnership with our clients, using a number of data-oriented approaches, to best integrate secondary and primary data in order to describe the most pressing health-related needs of hospitals' service populations. We leverage data to produce actionable CHNAs that detail the health-related characteristics, real world implications, and community health needs of hospitals' communities. For more information about R&E Group, please visit us at www.phmcresearch.org

Core CHNA Team

Diana Harris, MBe, PhD, CHNA Director – gave oversight to the CHNA process, including, budget management, as well leading the data collection and analytic processes, and guiding the overarching architecture and design of all MLH CHNA report writing from pre-to post-production. Dr. Harris is a Research Scientist with 15+ years of combined professional work experience in nationally ranked academic medical settings, as well as public and private industry sectors. She is a health disparities researcher with excellent qualitative data and research design skills; an ability to conceptualize, initiate, and foster R&E collaborations with multiple stakeholders and constituents; as well as disseminate data orally and through peer reviewed publications to wide-ranging audiences. Dr. Harris has a PhD in Public Health from Temple University and a Masters in Bioethics from University of Pennsylvania.

Gary Klein, Senior Data Analyst, PhD – responsible for creating all data files and performing all statistical analyses of the quantitative data. Dr. Klein has over 25 years of experience working on diverse research and evaluation projects, including the Southeastern Pennsylvania Household Health Survey and supportive demographic-based files. He specializes in programming tasks to clean, merge, aggregate and analyze data as well as weighting survey data. Dr. Klein has a PhD in Sociology from Temple University.

Sarah String, M.P.H., Project Manager- earned her M.P.H. from Arcadia University in 2016; she also has a B.S. in Biology with a minor in Chemistry from Houghton College. Sarah has worked on the Community Health Database team since 2015, processing data and working with members to conduct meaningful program evaluations using the Southeastern Pennsylvania Household Health Survey data and supportive demographic files.

Mattie Bodden, Research Coordinator, B.S. - assisted with scheduling focus groups, development of qualitative instruments, facilitation of focus groups and interviews, extracting themes, and report writing. Ms. Bodden has also developed data visualization for the CHNAs, coordinated tasks around building reports, and assisted with technical logistics of CHNA implementation. Ms. Bodden has five years of experience in implementing research and program evaluation including qualitative and quantitative data coding, analysis and interpretation skills; visualization of both qualitative and quantitative data findings; ability to disseminate data orally and in writing; as well as ability to

communicate and collaborate with stakeholders broadly. Ms. Bodden has a Bachelor of Science in Public Health from Rutgers University- New Brunswick.

Darion Porter, Research Assistant, B.A. – assisted with the logistics of CHNA implementation, including developing flyers and recruitment materials, screening and tracking participants, and scheduling focus groups. He also assisted with focus group and interview development, facilitation, analysis, and report writing. Mr. Porter assisted Dr. Klein in secondary data file preparation and analysis and prepared maps that describe geovisualization of data findings. Mr. Porter also has experience in qualitative research including developing interview guides; conducting interviews, focus groups, and observations; and coding and analyzing data. Mr. Porter has a BA in Environmental Studies from Temple University.

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Shyanne Ruiz, Operations Assistant (formatting and visualization)

Emma Pitcher, B.S. Candidate 2019, Project Assistant (data and review)

Andrew Jones, M.P.A. Candidate 2019, Intern (data and review)

Venise Salcedo, M.P.H. Candidate 2020, Intern (data and review)

Justine Wilson, B.S. Candidate 2019, Intern (data and review)

Appendix E. Impact statement from 2016 CHNA

The previous 2016 needs assessment was developed using data from PHMC's 2015 Household Health Survey, the U.S. Census, the PA vital statistics, and other information on the health status and health care needs including community meeting of Nazareth's service area residents, public health representatives, service providers, and advocates knowledgeable about community health. The analysis of the data and information identified the 14 health needs and the following priority community health needs: (1) Improve access to healthcare services for persons who are poor and vulnerable; (2) Improve access to Mental and Behavioral Health Care; and, (3) Improve Chronic Disease Prevention and Management**.**

The priority setting methods utilized to determine the community health needs that Nazareth Hospital would respond to were (1) the Simplex Method and (2) the Nominal Group Planning Method.

First, under the Simplex Method each workgroup member prioritized the identified health need by scoring on a scale of 1-5 (5 = high; 1=Low) for each of the six criteria:

- Severity, Magnitude, Urgency
- Feasibility and Effectiveness of Possible Interventions
- Potential Impact on Greatest Number of People
- Importance of Addressing the Need
- Outcomes within 3 Years are Measurable and Achievable
- Consequences of Inaction

The Workgroup proceeded with the Nominal Group Planning Method where voting and ranking of the needs was determined after exhaustive group discussions. The specific questions considered for each identified priority healthcare need were:

- Does the healthcare need affect a specific vulnerable population?
- Do existing programs exist to address the healthcare need?
- Does Nazareth Hospital have the capability to address the healthcare need?
- Will the community support intervention to address the healthcare need?
- Will addressing the healthcare need be in alignment with the Nazareth Hospital mission?

Nazareth Hospital identified and prioritized 14 significant health needs. The Mercy Health System Prioritization Workgroup then ranked the needs by prevalence, severity, available data, magnitude of persons affected, and the ability of the hospital to impact the need. The result was that 11 of the 14 needs would be addressed - categorized by the following three categories. Specific programs/initiatives to address each need appear in the implementation strategy, adopted in September 2016:

1. **Improve access to healthcare services for persons who are poor and vulnerable by addressing the following three needs: (1) access to health care for low income residents, older adults, and uninsured; (2) prescription drug coverage for low income and older adults; and, (3) access to health care for immigrants.**
   Provided over 1500 uninsured patients with assistance in obtaining access to health care over a three-year time period that indicated a 10% increase over baseline.

- Assisted discharged patient's in the target population in scheduling primary care and specialty care visits.
- Offered resources for securing low cost prescription medications for patients as needed.
- Initiated the Mercy Health Promoter Model program and identified local congregations as prospective participants to address health issues of the immigrant population in Northeast Philadelphia.

2. **Improve access to Mental and Behavioral Health Care by addressing the need for this service for community residents.**
   Provided access to mental health education for adult community members that showed an increase in participation of 21% over 2017

   - Partnered with the Wesley Enhanced Living Pennypack and Mercy Home Health to provide education and resources for over 100 adult community members through the Adult Healthy Living Series
   - In FY17 and FY18, 60 persons participated in programs to maintain social contact and combat depression.
   - Identified and implemented an educational lecture series for adult community members on Alzheimer's disease and dementia in collaboration with the Alzheimer's Association.

3. **Improve Chronic Disease Prevention and Management needs per the implementation strategy plan to address and improve community health through screenings, early detection, and education for the following seven needs: (1) cancer; (2) smoking prevention and interventions; (3) high blood pressure; (4) heart disease; (5) stroke; (6) overweight and obesity; and, (7) diabetes.**
   Provided access to health education and screenings for the prevention and management of chronic conditions related to cardiovascular disease, smoking, overweight and obesity that showed a combined increase of 27% over 2017

   - In FY17 and FY18, colorectal rectal screenings were provided for 72% Mercy Physician Network patients each year.
   - In FY 17 and FY18 at combined total of 170 community members participated in cancer education and/or screenings.
   - Identified 20 patients for smoking cessation intervention, and referred for the Low Dose CT screening initiative process.
   - Partnered with Mercy Advocacy Team and Pennsylvania Breathe Free Coalition to support the Clean Indoor Air Act advocacy efforts.
   - In FY 17 and FY18 at combined total of 120 adults received blood pressure screenings and related education to address the risk factors for hypertension.
   - Provided health education to promote heart disease prevention and management for over 100 adult community members.
   - Provided education regarding healthy nutrition and exercise to 40 adult community members to address the risk factors for obesity.
   - In FY17 and FY18 a combined total of 85 adult community members received education regarding blood glucose regulation to address the risk factors for diabetes.

Summary of Coach Initiative

The Collaborative Opportunities to Advance Community Health (COACH) initiative is a community health collaborative sponsored by the Hospital and Healthsystem Association of Pennsylvania (HAP) to bring together hospitals, public health, and community partners to address community health issues in southeastern Pennsylvania. Pennsylvania. The collaborative launched in September 2015 with 8 health systems and public health stakeholders (including U.S. Department of Health & Human Services, Region III; the Philadelphia Department of Public Health; and the Montgomery County Department of Health COACH health system participants include Aria Health, the Children's Hospital of Philadelphia, Einstein Healthcare Network, Holy Redeemer Health System, Jefferson Health (including Abington Jefferson Health), Mercy Health System (MHS), Temple Health, and the University of Pennsylvania Health System). In 2016/2017 the need(s) that the COACH members began to focus on was (1) Food Insecurity; and, (2) Mental Health. Both are aligned with the needs that Nazareth Hospital will address. Each member identified a patient access point to begin screening for food insecurity with in the community.

Appendix F. Community meeting interview guide and summary

Good morning. My name is [NAME] and I will be facilitating today's discussion [introduce additional PHMC staff as appropriate]. We work for the Public Health Management Corporation (PHMC), as part of the Research & Evaluation Group. We are a private nonprofit public health institute and PHMC's R&E Group tagline, *Where Numbers Count and Communities Matter,* reflects our commitment to engaging a diverse set of external stakeholders and constituents and making meaning of that data accordingly. We are partnering with Mercy Nazareth staff, and the larger Mercy Health System, to develop its 2018 Community Health Needs Assessment report.

You were all invited to participate in this group and SPEAK UP FOR HEALTH because of the work you do in your organizations and services you provide to local communities. This discussion will take about an hour and a half. As you know, there are no right or wrong answers, we want to hear your gut reactions and perspectives. We will be recording what you say and taking notes. We are not taking down who said what, and everything you say here is confidential. Your name will never be used in connection with anything you say in either our report, to any agency, or to any hospital staff. The information from the focus groups and other sources will be used to help the Mercy Nazareth CHNA team to consider what types of health programs are needed for residents, how to prioritize, etc. While a final CHNA report will be made publicly available on our website in 2019, the real work rests with all of us, as we continue to strive to improve the quality of life and health of all of fellow Mercy Nazareth community members – which is why we have asked you to, together, engage in this dialogue today!

Before we start, I'll share some housekeeping info and basic ground rules. Please feel free to use the rest room at any point during the discussion. We have refreshments for you, take freely. We have quite a few questions to cover, so I may need to cut short the discussion of a question or move on, a bit more abruptly than I would like. Also, because we want to get as many viewpoints as possible, let's please be mindful when a fellow participant is speaking. Any questions before we get started?

Ice breaker (if group of <10) otherwise start w/ Q1 below.
Please share your name, a little bit about the community(ies) you see yourself as a part of, and why you agreed to participate in today's discussion.

1. For starters, we are interested in hearing about how you think about "the community," since we want to make sure that everyone knows how everyone else in our group understands or defines community. So, let's begin with a brief conversation …When we say 'the community' what do you think about? How do you define community*? (This should be a brief conversation—intended to gain focus, get everyone thinking about community in the same way…).*

Everyone defines community in different ways, as we have just heard. For the remainder of the discussion, when we say community, we would like for you to think about and reflect on the communities that you work with, that surrounding area, and that your organization serves.

2. When we say 'your community' within this "revised" scope, what do you think about? (Brief)

3. Sometimes in communities, groups of people who share things in common cluster together. Things in common can include: age, values, nationality, and so on. What are the groups, or clusters in your community?
   (Probe: For example, is there an immigrant population in your community? Who are they? Elderly? A particular ethnic or racial group?)

4. Who are the underserved populations in your community?

5. Based on your experiences, what makes the community you serve a healthy place to live?
   (Probe – health care services, health clinic, hospital, walking paths, access to nature, access to healthy food)

6. Based on your experiences, what are some strengths of the existing health care resources in the area?
   (Probes)
   i. Place to go for help with heating or cooling a home
   ii. Place to go with a sick elderly friend
   iii. Place to go for health care when someone has no health insurance
   iv. Place to go for help with getting food
   v. Place to go for help with getting a mammogram? Diabetes treatment?
   vi. Place to go to learn about health and wellness?

7. What is the TOP health care issue in this community that you think people are the most concerned about? Why?

8. In general, what types of health problems, if any, do you see or hear about in the community(ies) you serve?

   Follow up to 8: Does *access* to healthcare services play a role in these health problems? If yes, how?

9. What else do you think keeps people in your community from achieving health and wellness?

   Follow up/probe to 9: What health *behaviors* do people struggle with that keep them from good health?

This last set of questions will focus on how Mercy Nazareth partners with you.

10. In what ways, if any, has Mercy Nazareth supported your organization's mission or strategic goals?
    Probe to 10: What programs, if any, are you familiar with that represent a partnership between the community and Mercy Nazareth?

11. What is missing? What is needed? In other words, what can Mercy Nazareth do better in their partnerships with community organizations?

12. How do community organizations learn about programs offered by other organizations? How does collaboration and cooperation happen between organizations in the community?

13. What other community concerns related to health and quality of life that we have not addressed?

14. What else, if anything, would you like to share about the community's needs?

    Probe to 14: Any unique needs related to specific populations or neighborhoods? (Ex. Immigrant families, individuals experiencing homelessness, or a geographically defined neighborhood living on x-y-z streets)

Thank you for your time!

Mercy Fitzgerald Hospital Community Meeting Summary (November 28, 2018):

When asked what they see as the most pressing issue in their community is, participants in this group mentioned various issues like access to care, elder care, affordability of care, and substance abuse disorders. This group defined community as the people that you associate with and that community should give everyone a sense of welcome. The participants also noted that their community was expanding and comprised of many different people, meaning that the way they care and work with the community must change and evolve as well.

The participants noted that the underserved populations in their community are the ones that they need to reach out to and those populations may be hard to define because we don't know who they are. There are also other complexities that may keep one from getting the services they need (i.e. complex instructions, regulation issues).

The participants in this group believe that Mercy has a responsibility to know what resources are out there and how they can better collaborate with other organizations to bring those services to the forefront for community members. It was also mentioned that the CHNA process is good for getting hospitals thinking about these issues. Hospitals are responsible for coordination of care for a few reasons according to the participants: non-profits have a mission to give back to the community, hospitals are hubs of the community and therefore are in a unique positions to help the community, and the fact that a healthier community costs less money to care for.

When asked if they have seen any positive impacts on how hospitals connect with the community after implementation of the ACA, participants noted that they may actually see more issues since implementation. They see more bureaucracy, and more challenges as a whole. These take a toll on communication and have reduced people's trust in the healthcare system.

Participants also noted that they do see issues with having access to healthy food as well. This is getting better (with more grocery stores and healthier options), but access isn't enough, people need education as well.

- Start (00:12:55) “It’s not necessarily increasing [the immigrant population], but we are the people that they come to, like when you have children, you’re bringing your children to the safe health center so that they can start school. Or, if they have a positive tuberculosis skin test, they’re coming for treatment. That sort of thing. So its people who don’t have insurance, are coming to us.” End (00:13:16)
- Start (01:13:56) “I think we’re getting better [access to food]. Darby didn’t have a supermarket for a very long time, but we do now. The William Penn School District has farmer markets on different schools on different times.” End (00:01:10)
- Start (01:13:56) “I think maybe the question is not ‘is there better access to healthier foods’, but ‘is there better affordable access to healthier foods.’ I’m sure everyone has seen it, that it’s cheaper for a parent to go to McDonald’s and buy a lunch than it is to make a lunch, in some cases. So you have that going on. It makes it difficult. I also think there’s a need for education around healthier foods. I mean, so many generations have grown up with McDonald’s being a ‘that’s the food you go to on Friday nights.’” End (01:16:46)

- Start (01:17:39) “One kind of neat thing that hospitals might be able to start doing with healthy food education is they’re actually having someone come to their local food bank and kind of giving a workshop on okay here’s things that you can get from a food bank, here’s how you can transform these into an actual meal.” End (01:17:58)

Mercy Philadelphia Hospital Community Meeting Summary (November 27, 2018):

The participants in this focus group identify what they see as "community." They note that they see the homeless population as part of the community. They believe that the hospital would agree with that sentiment, but not necessarily other people in the community and that is part of the issue. It is important to note that the homeless population is not homogenous as well, so addressing needs must be done in an efficient and effective way.

The participants suggested that the categorization of people leads to loss of resources for some, and that we may be able to do more if we pooled our resources. Another common theme was that in order to provide better care, we need to limit the bureaucracy; many people agree that that is an issue that needs to be addressed.

Roughly 75% of the participants in this group believe that Mercy has some responsibility to help remove the barriers to care. The hospital is a "pillar of the community," and it is tasked with trying to strengthen the community around it. This may take the form of collaborating with organizations to promote better health or to disseminate information about health to the community.

Though not all encompassing, there are already resources in existence that can be used. Multiple participants explain that Philadelphia already has a great behavioral health system in place. There is already a shared network of providers and resources in place as well (though making that 'net' stronger isn't a bad idea.

Participants noted that Mercy needs to find more ways to be present and active in the community. (i.e. health fairs, information dissemination). The participants also noted that Mercy most likely needs more resources themselves, like more staff (more nurses, therapists, etc., and a larger facility), though some of the strain could be taken off of the hospital with more diversionary resources.

- Start (00:59:58) “…as a hospital, I think we are very committed to our community, but what we need help with is there are certain people in our community that believe it is our total responsibility. And so, we have families that come and leave their family member here for us to totally care for. Full time dialysis, lifetime dialysis, housing. I mean we support people in area homes that we’re paying for because families have put that responsibility on us. Including immigrants that come for care and have no other resources, we become the source – no, we can’t do that endlessly because there’s no bottomless pit. So it is our best interest to partner with everybody.” End (01:01:00)

Nazareth Hospital Community Meeting Summary (December 12, 2018):

The participants in this focus group identified many pressing issues in their communities. Some of the most common themes were lack of health resources, issues with continuity of care and/or lack of information on health resources.

This group also identified some health disparities like language barriers, lack of support among neighbors and the community (i.e. we used to talk to each other about this information and do not anymore). One participant also brought up that there may be some sense of "information overload" as well. There is so much information out there that it is difficult to parse through it and make sense of what is actually relevant.

This group of participants generally agreed that the role of a community hospital like Mercy is to be a health resource to the community. They aren't necessarily responsible to take care of all health related issues, but are to be able to disseminate information and create partnerships for other types of care when necessary. Ultimately, their goal should be to keep people out of the hospital...(as counterintuitive as that may seem). Participants noted that there are already many resources available, and that the hospital should act more like a conduit to those resources rather than expanding and trying to "cover all bases."

When asked about possible solutions to the issues faced, there was a consensus among participants that there needed to be a network of care providers and organizations that provide services. The idea of "partners" was mentioned as well. This was seen as a way to expand the reach of the organizations and also a way to help bolster the ‘network of care’ idea. PDPH has already used public-private partnerships to a great deal of success...so possibly more like this are useful, especially when funding is an issue.

The group also mentioned that the hospital should become more active in the community. They should be more visible in the community, possibly be attending (or throwing) health fairs. Not to diminish what they already do, but the community sees ways in which this outreach can be improved.

- Start (00:11:14) “I’m specifically sensitive to what we call injustices, or cultural injustice. My one and only daughter lives in Guadalajara, Mexico, and so we kind of - even though she’s a US citizen, we live through different issues that regard the culture. So, I’m very sensitive to the culture, so everything we just talked about, in my head I’m going ‘wow, I wonder if access is gonna include the Spanish speaking individuals’ because a lot of the community that we represent, even though they’ve been here, since - some of them, since the early 50’s, they still do not have a mastery of the English language.” End (00:12:09)
- Start (00:12:29) “I’m super educated and I still struggle with navigating for my special needs child… I can’t imagine what it’s like for an immigrant parent, for a parent who has limited language skills, for a parent who just doesn’t know who to call and where to go. So, I don’t, and that’s definitely real and that’s definitely here because my neighbors come to me to ask me what to do for their kid. And I struggle myself. So, I think that’s huge.” End (00:12:59)

- Start (00:16:37) “Literacy is really difficult for them. I have many of them that they don’t know how to write their name, so how are they going to get information? And I ask them, they don’t have family here. It’s really difficult for them. In this moment I have one group in the building, I do programs in the building, and I ask who’s with you and they say ‘no, nobody’, so how are you going to do the paper for the medical, how are you going to the supermarket to get the food? So I think, and the language. They don’t know how to write Spanish. It’s very difficult for them. Literacy and the language.” End (00:17:21)
- Start (00:18:25) There is a translation issue for people coming in for the food pantry. It’s not just Spanish [and] English right, we have a lot of immigrants from all over from Russia, the Ukraine, Afghanistan. So they’re speaking multiple languages so we do have, we pay for a translation line, and I know that hospitals and health centers are required to have that, but I think that is an issue. That is a huge barrier to access services. And I think in Northeast Philadelphia, right now in this area, there’s a problem historically with tolerance. So I think there’s a cultural intolerance to difference, and we don’t do enough for that. Start (00:19:22)
- Start (00:19:58) “There’s a lot of people moving, from ‘those’ people outside of the area instead of wanting to get to know their neighbor, and build a community, and say ‘let me help you.’” End (00:20:07)
- Start (00:21:51) “I think an important issue, I think Nazareth has tackled it, is making sure there are medical staff available who speak the different languages, dialects. Even from one country there’s different dialects, especially in the Asian culture. And there’s a lot of large Asian population in the Northeast.” End (00:21:11)
- Start (00:25:46) “It goes back to the basics of community, we don’t socialize together anymore, we don’t know each other anymore, we don’t help each other out. End (00:25:54)
- Start (00:30:50) “…having people from the community at the table. When we talk about plans, and events, and outreach, and resources. Where are the people we are serving?” End (00:31:00)
- Start (00:33:52) “We have to understand the audience… It has to be in a way that is easy for them. Forget a language barrier, how about just – everyone has different reading levels or comprehension, and it needs to be that they feel it is written for them, not something above them. End (00:34:13)

Appendix G. 2018-2019 NH Health Needs table

Table 1. Nazareth Hospital Service Area

Primary Health Need	Impacted Population(s)	Evidence around health need[1,2,3,4]
Heart disease: 1st leading cause of death	All residents	▪ The mortality rate due to heart disease was 184.9 per 100,000 residents[1] ▪ Prevalence of coronary heart disease: 11,816 cases [2] ▪ Prevalence of congestive heart failure: 7,416 cases[2]
Cancer: 2nd leading cause of death	All residents	▪ The overall cancer mortality rate was 178.8 deaths per 100,000 residents in 2018[1] ▪ Lung cancer has the highest mortality rate (46.0 deaths per 100,000), followed by breast cancer (21.9 deaths per 100,000)[1] ▪ Prevalence of breast cancer: 4,002 cases[2] ▪ Prevalence of prostate cancer: 2,632 cases[2] ▪ One-quarter (24.9%) of women 18-64 years old have not had a pap test in the past 3 years; this is significantly higher than the remainder SEPA region(17.6%)(p<.01)[4]
Stroke: 3rd leading cause of death	All residents	▪ Stroke caused on average 161 deaths annually (stroke mortality rate was 36.6 per 100,000 residents)[1]
Hypertension		▪ Prevalence of hypertension: 78,568 cases[2] ▪ The percent of adults who have ever been told they have high blood pressure (36%) is significantly higher than the remainder SEPA region(31.2%)(p<.05)[4]
Drug related causes of death	All residents	▪ Avg. annual number of deaths from drug induced causes: 125 deaths[1] ▪ Drug induced causes mortality rate (38.8 deaths per 100,000 residents) in the NH service area is higher than in SEPA (26.8 per 100,000), Philadelphia (34.4 per 100,000), and Montgomery Counties (20.4 per 100,000)[1] ▪ The mortality rate due to drug overdose was 38.0 per 100,000 residents[1]
Mental health care for residents	All residents Low income Older adults	▪ Prevalence of depression/anxiety was 14,927 cases[2] ▪ Suicide rate in the NH service area is 12.7 per 100,000, which is higher than in SEPA (10.6 per 100,000), Philadelphia (9.6 per 100,000), and Montgomery Counties (11.2 per 100,000)[1] ▪ Over one-half (54.5%) of people diagnosed with a mental health condition are not receiving treatment for their condition[4]

Primary Health Need	Impacted Population(s)	Evidence around health need[1,2,3,4]
Access to care	Low income Older adults Uninsured	▪ Nearly one in five (19%) families with children are living in poverty, and 34% of single parents with children live in poverty[3] ▪ Of older adults, age 65+, 16% live in poverty[3] ▪ The unemployment rate in the NH service area is 9%[3] ▪ Almost 10.2% of residents are uninsured[4]
Access to health care for immigrants	Immigrants	▪ About 9% of residents speak limited English[3]
Overweight and obesity	Adults	▪ Over two-thirds (69.8%) of adults in the NH service area are overweight or obese, which is significantly higher than the remainder SEPA region(63.6%)(p<.01)[4] ▪ About one-third (30.9%) of adults in the NH service area are obese[4]
Diabetes	All residents	▪ The percent of adults in the NH service area who have ever been told they have diabetes (15.8%) is significantly higher than the remainder SEPA region(12.2%)(p<.05)[4]
Nutrition	All residents	▪ The percent of adults in the NH service area who eat less than four servings of fruits or vegetables a day (82.3%) is significantly higher than the remainder SEPA region(76.8%)(p<.01)[4] ▪ The percent of adults who drank soda, a fruit drink, or bottled tea once or more a day in the past month (33.2%) is significantly higher than the remainder SEPA region (25.9%)(p<.001)[4]
Smoking cessation	All residents	▪ One in five (20.1%) adults currently smoke in the NH service area, which is significantly higher than the remainder SEPA region(14.9%)(p<.001)[4] ▪ The percent of adults in the NH service area who cut the size of meals or skipped a meal due to cost in the past 12 months is 14% ▪ The percent of smokers in the NH service area who used an e-cigarette in the past month (10.6%) is significantly higher than the remainder SEPA region(7.8%)(p<.05)[4]
Physical activity	Children Adults	▪ The percent of children who participate in physical activity less than three times per week (22.5%) is significantly higher than the remainder SEPA region (11.6%)(p<.01)[4]

Data Sources

1. Public Health Management Corporation. Community Health Data Base. (2018). Demographic Product 2018. Retrieved from http://CHDBDataPortal.phmc.org Underlying primary data sources: 2012-2016 birth and birth outcomes data from PA Department of Health, Bureau of Health Statistics and Registries; and 2012-2016 mortality data from PA Department of Health, Bureau of Health Statistics and Registries
2. © 2018 The Claritas Company, © Copyright IBM Corporation 2018; Market Prevalence by Disease Category.
3. © 2018 The Claritas Company, © Copyright IBM Corporation 2018; Community Needs Index.
4. Public Health Management Corporation. Community Health Data Base. (2018). Household Health Survey.

Appendix H. Chi square tests of significance tables

Nazareth Hospital Service Area &
Remainder of Southeastern Pennsylvania (SEPA) Comparison

Key: **ns** = not significant, **.05** = statistically significant,
.01 = very statistically significant, **.001** = very highly statistically significant
Green = Region is statistically significantly better than the other
Red = Region is statistically significantly worse than the other

Health Measure	Nazareth Service Area	Remainder of SEPA	P Value
	(%)	(%)	
ADULT (18 – 64)	**N = 566**	**N=6,864**	
In fair or poor health	**25.1**	**18.8**	**.001**
Has ever been told by a health professional they have or had high blood pressure	**36.0**	**31.2**	**.05**
Has ever been told by a health professional they have or had Diabetes	**15.8**	**12.2**	**.05**
Has ever been told by a health professional they have or had Asthma	**19.3**	**18.0**	**ns**
Currently overweight or obese (BMI 25+) compared to neither (BMI < 25)	**69.8**	**63.6**	**.01**
Currently obese (BMI 30+) compared to not obese (BMI < 30)	**30.9**	**30.0**	**ns**
Ever been diagnosed with a mental health condition	**25.6**	**22.1**	**ns (p=.053)**
Is NOT currently receiving treatment for said mental health condition	**54.5**	**42.1**	**.01**
Did not seek health care due to the cost during a time they were sick or injured in the past year	**10.2**	**10.4**	**ns**
Did not fill a prescription due to the cost in the past year	**14.4**	**13.2**	**ns**

Currently uninsured	**10.2**	**10.9**	**ns**
Does NOT have a USUAL person or place of care to go when they are sick or need health advice	**12.3**	**13.6**	**ns**
Has NOT visited a healthcare provider in the past year	**10.3**	**12.6**	**ns**
Has not seen a dentist in the past year	**29.2**	**29.9**	**ns**
Has visited the emergency room in the past year	**33.3**	**26.7**	**.001**
Has not had a blood pressure reading in the past year	**5.6**	**7.5**	**ns**
Adult 50 years or older that has NOT had a sigmoid/colonoscopy in the past 10 years	**31.2**	**26.3**	**ns (p=.052)**
Women 18 to 64 years old that have NOT had a pap test in the past 3 years	**24.9**	**17.6**	**.01**
Women ages 50 to 74 that have not had a mammogram in the past 2 years	**24.5**	**19.5**	**ns**
Men over the age of 45 that have not had a prostate exam in the past year	**53.8**	**48.3**	**ns**
Usually has LESS than 4 servings of fruits or vegetables a day	**82.3**	**76.8**	**.01**
Usually exercises for 30+ minutes LESS than 3 days a week	**47.9**	**41.9**	**.01**
Currently smokes cigarettes	**20.1**	**14.9**	**.001**
Smokes and has NOT tried to quit in the past year	**37.5**	**50.8**	**.01**
Smokes and has used an e-cigarette in the past month	**10.6**	**7.8**	**.05**
Rated as having low social capital	**44.3**	**28.4**	**.001**

Has drank soda, a fruit drink, or bottled tea once or more a day in the past month	**33.2**	**25.9**	**.001**
OLDER ADULTS (65+)	**N=245**	**N=2,842**	
In fair or poor health	**27.1**	**22.2**	**ns (p=.08)**
Has an ADL limitation	**17.4**	**14.4**	**ns**
Has an IADL limitation	**33.8**	**29.8**	**ns**
Has signs of major depression	**13.9**	**11.5**	**ns**
Talks with friends or relatives less than once a week	**2.6**	**5.8**	**.01**
CHILDREN (0-17)	**N=87**	**N=1,149**	
In fair or poor health	**1.1**	**4.0**	**ns**
Participates in physical activity less than 3 times per week (Ages 3+)	**22.7**	**11.6**	**.01**
Currently obese (BMI 95-100 percentile) (Ages 6+)	**22.5**	**26.1**	**ns**
Currently overweight (BMI 85-94 percentile) (Ages 6+)	**18.4**	**26.7**	**ns**
Has NOT seen a dentist in the past year	**30.1**	**23.0**	**ns**

Appendix I. Data tables: County Health Rankings

Measures	Montgomery	Philadelphia	PA	US *
Health Outcomes	4	67		
Length of Life	4	64		
Premature death /100,000	5,400	9,700	7,500	7,500
Quality of Life	3	67		
% Adults reporting fair or poor health	12%	20%	15%	16%
Avg. physically unhealthy days/month	3.1	4.5	3.9	3.8
Avg. mentally unhealthy days/month	3.4	4.6	4.3	3.8
% Live births with low birth weight <2500g	7%	11%	8%	8%
Health Factors	1	67		
Health Behaviors	2	66		
% Adults report currently smoking cigarettes	13%	20%	18%	17%
% Adults reporting BMI >= 30	26%	29%	30%	31%
Food environment index (0-worst; 10-best)	8.7	6.9	8.2	7.3
% Adults 20+ reporting no leisure-time physical activity	17%	24%	22%	26%
% Pop. with adequate access to locations for physical activity	96%	100%	84%	62%
% Adults reporting binge drinking	19%	22%	21%	17%
% Alcohol-impaired driving deaths	27%	18%	28%	30%
Newly diagnosed chlamydia cases /100,000	304.1	1,275.50	444.7	497.3
Teen birth rate /1,000 female pop., ages 15-19	8	37	20	38
Clinical Care	2	65		
% adults under age 65 without health insurance	5%	10%	7%	14%
Ratio of pop. to primary care physicians	710:1	1,480:1	1,230:1	2,030:1
Ratio of pop. to dentists	930:1	1,340:1	1,460:1	2,570:1
Ratio of pop. to mental health providers	330:1	420:1	530:1	1,105:1
Preventable hospital stays /1,000 Medicare enrollees	36	56	45	56
% Diabetic Medicare enrollees receiving HbA1c test * Source: County Health Rankings, 2017 (Not in 2019 data)	88%	83%	86%	86%
% Female Medicare enrollees receiving mammography	47%	40%	44%	61%
Social & Economic Factors	4	67		
% Students who graduate HS in 4 years	87%	79%	87%	84%
% Adults, age 25-44 with some college education	79%	60%	64%	57%
% Pop. age 16+ unemployed but seeking work	3.90%	6.20%	4.90%	5.30%
% Under age 18 in poverty	7%	32%	17%	22%
Income Inequality	4.5	6.7	4.8	4.4
% Children in single parent households	21%	59%	34%	32%
# of member associations per 10,000	10.9	7.5	12.3	12.6
Violent crime /100,000	135	1,001	315	198
Injury mortality /100,000	64	94	81	77
Physical Environment	29	16		
Avg. daily fine particulate matter in micrograms/cubic meter (PM2.5)	9.2	11.2	10.6	9.2
Health-related drinking water violations (yes/no)	Yes	No		
% Households with severe housing problems	15%	24%	15%	14%
% Workforce driving alone to work	79%	51%	76%	81%
% Commuting 30+ mins to work, driving alone	44%	53%	36%	30%

*Source: America's Health Rankings, 2018 and 2019

Data tables: Demographics, birth outcomes, mortality

Table 1. 2018 U.S. Census Socio-Demographic Indicators: Nazareth Service Area

	Nazareth	SEPA
Total Population N(%)	329,300	4,111,194
Age		
0-17	73,992 (22.5)	897,970 (21.8)
18-34	76,271 (23.2)	968,461 (23.6)
35-64	126,236 (38.3)	1,592,845 (38.7)
65+	52,801 (16.0)	651,918 (15.9)
Gender		
Male	160,698 (48.8)	1,981,595 (48.2)
Female	168,602 (51.2)	2,129,598 (51.8)
Race/Ethnicity*		
White	194,287 (59.0)	2,622,941 (63.8)
Black	61,908 (18.8)	916,796 (22.3)
Asian	36,223 (11.0)	279,561 (6.8)
Other	36,882 (11.2)	287,783 (7.0)
Latino	48,407 (14.7)	374,118 (9.1)

Note: *Race is defined as a person's self identified social group. Ethnicity determines whether a person is of Hispanic or Latino descent.

Source: Claritas 2018 Pop-Facts Data Base. Calculations prepared by PHMC.

Table 2. 2018 U.S. Census Socio-Economic Indicators: Nazareth Service Area

	Nazareth	SEPA
Total Population N(%)	329,300	4,111,194
Income		
Median Household Income	$51,690	$70,807

Source: Claritas 2018 Pop-Facts Data Base. Calculations prepared by PHMC.

Table 2.1 2018 U.S. Census Socio-Economic Indicators: Nazareth Service Area

	Nazareth	SEPA
Total Population 25+ N(%)	329,300	2,824,892
Education		
Less than HS	51,042 (15.5)	302,263 (10.7)
HS Graduate	208,118 (63.2)	1,474,593 (52.2)
College or More	70,141 (21.3)	1,048,034 (37.1)

Note: Educational attainment refers to the highest level of education completed in terms of the highest degree or the highest level of schooling completed, and is asked of all civilians 25 years old and over.
Source: Claritas 2018 Pop-Facts Data Base. Calculations prepared by PHMC.

Table 2.2 2018 U.S. Census Socio-Economic Indicators: Nazareth Service Area

	Nazareth	SEPA
Total Population 16+ N(%)	262,646	3,317,575
Employment		
Employed	239,008 (91.0)	3,062,122 (92.3)
Unemployed	23,638 (9.0)	255,453 (7.7)

Note: Employment is calculated as all civilians 16 years old and over who were either (1) "at work" or (2) "with a job but not at work."

Source: Claritas 2018 Pop-Facts Data Base. Calculations prepared by PHMC.

Table 2.3 2018 U.S. Census Socio-Economic Indicators: Nazareth Service Area

	Nazareth	SEPA
Total Families with children n(%)	37,908	478,192
Poverty Status		
Families living in poverty WITH children	7,544 (19.9)	77,947 (16.3)
	Nazareth	**SEPA**
Total Families without children n(%)	42,218	535,454
Poverty Status		
Families living in poverty WITHOUT children	3,160 (7.5)	26,855 (5.0)

Source: Claritas 2018 Pop-Facts Data Base. Calculations prepared by PHMC.

Table 2.4 2018 U.S. Census Socio-Economic Indicators: Nazareth Service Area

	Nazareth	SEPA
Total Households N(%)	123,562	1,582,081
Housing Unit Type		
Renter-occupied	45,842 (37.1)	537,681 (34.0)
Owner-occupied	77,720 (62.9)	1,044,400 (66.0)

Note: Household Type is calculated from all occupied housing units.
Source: Claritas 2018 Pop-Facts Data Base. Calculations prepared by PHMC.

Table 3. 2018 U.S. Census Language Spoken at Home: Nazareth Service Area

	Nazareth	SEPA
Total Population 5+ N(%)	307,009	3,864,457
Language Spoken at Home		
English	211,529 (68.9)	3,249,121 (84.1)
Spanish	28,859 (9.4)	231,712 (6.0)
Asian Language	22,105 (7.2)	154,549 (4.0)
Indo-European Language	38,069 (12.4)	193,466 (5.0)
Other Language	6,140 (2.0)	35,609 (0.9)

Note: Language spoken at home is calculated for all citizens 5 years and over.

Source: Claritas 2018 Pop-Facts Data Base. Calculations prepared by PHMC.

Table 4. 2012-2016 Fertility Rates for Women 15-44 Years by Race and Ethnicity: Nazareth Service Area

	Nazareth	Philadelphia	Montgomery	SEPA
All Women 15-44 N (Rate per 1,000)	4,275 (66.4)	21,985 (63.7)	8,730 (58.0)	47,453 (58.9)
Race/Ethnicity*				
White	1,995 (54.5)	6,303 (42.1)	6,258 (54.4)	24,426 (48.2)
Black	920 (67.2)	9,929 (66.0)	884 (59.8)	13,289 (64.7)
Asian	483 (66.7)	1,538 (50.7)	878 (61.9)	3,526 (55.1)
Other	646 (94.4)	3,126 (18.9)	547 (25.7)	4,582 (19.6)
Latina	815 (77.8)	3,941 (75.9)	699 (82.9)	6,060 (75.9)

Note: The fertility rate is calculated per 1,000 women 15-44 years of age. White, Black, Asian and Other races include Latinas. *Unknown race and ethnicity appear only for the total.

Sources: Pennsylvania Department of Health, Bureau of Health Statistics and Research. Calculations prepared by PHMC.

Table 5. 2012-2016 Fertility Rates for Women 15-19 Years by Race and Ethnicity: Nazareth Service Area

	Nazareth	Philadelphia	Montgomery	SEPA
All Women 15-19 N (Rate per 1,000)	211 (28.0)	1,829 (35.7)	203 (8.0)	2,592 (19.3)
Race/Ethnicity*				
White	75 (17.8)	202 (11.6)	87 (4.5)	541 (6.6)
Black	72 (48.9)	1,095 (46.2)	70 (25.2)	1,377 (40.4)
Asian	7 (8.2)	36 (8.9)	.	43 (5.1)
Other	43 (41.2)	398 (13.4)	33 (7.6)	495 (11.1)
Latina	62 (47.2)	518 (60.4)	49 (35.0)	686 (50.5)

Note : The fertility rate is calculated per 1,000 women 15-19 years of age. White, Black, Asian and Other races include Latinas. . =Not Displayed. Rates are not calculated when there are less than 5 occurrences of the event over the course of 2012-2016. *Unknown race and ethnicity appear only for the total.

Sources: Pennsylvania Department of Health, Bureau of Health Statistics and Research. 2010 U.S. Census. Calculations prepared by PHMC.

Table 6. 2012-2016 Percentage of Women Receiving Late or No Pre-natal Care by Race and Ethnicity: Nazareth Service Area

	Nazareth	Philadelphia	Montgomery	SEPA
All Live Births N (%)	1,600 (40.2)	9,562 (46.9)	2,043 (24.6)	16,946 (37.6)
Race/Ethnicity*				
White	630 (33.3)	2,200 (36.3)	1,162 (19.2)	6,430 (27.0)
Black	395 (47.0)	4,677 (52.2)	340 (42.1)	6,302 (52.0)
Asian	182 (40.7)	662 (45.9)	225 (26.8)	1,244 (36.9)
Other	297 (50.0)	1,503 (51.1)	255 (53.8)	2,213 (51.5)
Latina	353 (46.8)	1,870 (50.4)	305 (49.8)	2,851 (50.0)

Note: White, Black, Asian, and Other races include Latina/os. *Unknown race and ethnicity only appear for the total. The percentage of women receiving late or no pre-natal care is calculated as the percentage of all live births that have birth certificate data on receipt of prenatal care. Late prenatal care is defined as not having a recorded prental care visit in the 1st or 2nd trimesters, or none at all.

Sources: Pennsylvania Department of Health, Bureau of Health Statistics and Research. Calculations prepared by PHMC.

Table 7. 2012-2016 Low Birth Weight Births by Race and Ethnicity: Nazareth Service Area

	Nazareth	Philadelphia	Montgomery	SEPA
All Live Births N (Rate per 1,000)	368 (85.8)	2,347 (106.3)	649 (74.1)	4,329 (90.9)
Race/Ethnicity*				
White	144 (72.1)	458 (72.5)	410 (65.2)	1,686 (68.7)
Black	111 (120.5)	1,353 (135.7)	114 (128.5)	1,779 (133.3)
Asian	36 (75.0)	118 (76.7)	68 (77.4)	282 (79.7)
Other	54 (83.2)	296 (94.5)	41 (75.5)	406 (88.3)
Latino/a	69 (84.6)	373 (94.3)	54 (76.4)	527 (86.7)

Note: White, Black, Asian and Other races include Latino/as. Low birth weight is defined as an infant weighing less than 2500 grams (5.5 lbs.) at birth. The low birth weight rate is calculated per 1,000 live births. *Unknown race and ethnicity appear only for the total.

Sources: Pennsylvania Department of Health, Bureau of Health Statistics and Research. Calculations prepared by PHMC.

Table 8. 2012-2016 Percentage of Infants Born Prematurely by Race and Ethnicity: Nazareth Service Area

	Nazareth	Philadelphia	Montgomery	SEPA
All Live Births N (%)	405 (9.5)	2,363 (10.7)	6,495 (11.5)	4,622 (9.7)
Race/Ethnicity*				
White	175 (8.9)	525 (8.3)	498 (8.0)	2,041 (8.4)
Black	110 (12.0)	1,292 (13.0)	106 (12.1)	1,703 (12.8)
Asian	35 (7.3)	115 (7.5)	59 (6.7)	256 (7.3)
Other	59 (9.1)	306 (9.8)	50 (542)	434 (9.5)
Latino/a	77 (9.4)	387 (9.8)	64 (9.2)	576 (9.5)

Note: Prematurity is defined as the birth of an infant before 37 weeks gestation. The percentage of infants born prematurely is calculated as a percentage of all live births that have birth certificate data on gestational age. White, Black, Asian and Other races include Latino/as.*Unknown race and ethnicity appear only for the total.

Sources: Pennsylvania Department of Health, Bureau of Health Statistics and Research. Calculations prepared by PHMC.

Table 9. 2012-2016 Infant Mortality Rate by Race and Ethnicity: Nazareth Service Area

	Nazareth	Philadelphia	Montgomery	SEPA
All Live Births N (Rate per 1,000)	25 (5.9)	183 (8.3)	39 (4.4)	315 (6.6)
Race/Ethnicity*				
White	8 (3.9)	23 (3.6)	22 (3.4)	92 (3.8)
Black	9 (10.2)	111 (11.1)	9 (9.9)	148 (11.1)
Asian	2 (3.3)	4 (2.5)	3 (3.0)	11 (3.0)
Other	2 (3.4)	20 (6.3)	3 (5.1)	28 (6.0)
Latino/a	3 (3.4)	23 (5.9)	3 (4.6)	35 (5.7)

Note: Infant mortality is defined as the death of an infant within the first year of birth and is calculated per 1,000 live infant births. White, Black, Asian and Other races include Latino/as. *Unknown race and ethnicity is included only in the total.

Sources: Pennsylvania Department of Health, Bureau of Health Statistics and Research. Calculations prepared by PHMC.

Table 10. 2012-2016 Age-Adjusted Annualized Mortality Rates for Selected Causes of Death: Nazareth Service Area

	H.P. 2020 Goal	Nazareth	Philadelphia	Montgomery	SEPA
All Causes of Death (Rate per 100,000)		782.6	858.0	645.4	732.4
All Cancers	161.4	178.8	195.0	150.7	168.4
Female Breast Cancer	20.7	21.9	25.2	21.2	22.9
Lung Cancer	45.5	46.0	53.0	35.4	43.2
Colorectal Cancer	14.5	16.1	18.0	12.9	15.2
Prostate Cancer	21.8	17.7	29.0	18.0	21.6
Cervical Cancer	2.2	2.7	3.6	1.3	2.2
Heart Disease	.	184.9	206.6	142.5	167.8
Stroke	34.8	36.6	41.5	43.5	39.2
Diabetes	66.6*	19.0	22.8	15.2	17.9
Kidney Disease	.	18.3	20.0	12.9	15.5
Liver Disease	.	7.3	7.6	6.4	7.1
Chronic Lower Respiratory Disease	.	35.6	37.4	30.0	34.1
Influenza and Pneumonia	.	13.1	14.6	13.1	13.7
Septicemia	.	16.8	20.7	11.2	14.3
HIV/AIDS	3.3	2.1	5.6	0.8	2.6
Alzheimer's Disease	.	11.0	11.5	14.7	14.1
Homicide	5.5	7.7	16.7	1.9	8.7
Homicide by firearm	.	6.0	13.7	1.1	7.0
Firearm Deaths	9.3	11.5	17.9	5.8	11.4
Suicide	10.2	12.7	9.6	11.2	10.6
Suicide by Firearm	.	5.2	3.5	4.6	4.0
Fatal Injuries	53.7	81.8	82.1	51.7	65.7
Drug Overdose (all substances)	.	38.0	33.6	19.9	26.0
Drug-Induced Causes	11.3	38.8	34.4	20.4	26.8
All Accidents (Unintentional injuries)	36.4	60.8	55.3	37.9	44.9
Motor Vehicle Accidents	.	8.2	6.2	4.6	5.9

Note: *Diabetes-related mortality data are derived from the multiple-cause-of-death files. Data include all mentions of diabetes on the death certificate, whether as an underlying cause or a multiple cause of death. Diabetes is approximately three times as likely to be listed as multiple cause of death than as underlying cause. Mortality rates are calculated per 100,000 population. Denominators to calculate age-adjusted rates to the Standard 2000 population derive from 2010 Census Zip Code Tabulation Area data broken down into 11 age groups. .=Not displayed.

Source: Pennsylvania Department of Health, Bureau of Health Statistics and Research. Calculations prepared by PHMC.

Appendix J. Results from internal stakeholder survey

Prior to the Nominal Group Planning session described in Appendix J, Prioritization Workgroup members were invited to rate the identified health needs by scoring on a scale of 5-1 (5 = high; 1=Low) for each of the six Simplex Method criteria. The table below lists the health needs and the mean scores for each criterion.

Total number of complete responses = 9
Total number of partial responses = 3

--CRITERIA--

Identified Need	Population	Severity, Magnitude, Urgency	Feasibility and Effectiveness of Possible Interventions	Potential Impact on Greatest Number of People	Importance of Addressing the Need	Outcomes are Measurable and Achievable in 3 years	Consequences of Inaction
Heart Disease: 1st leading cause of death	All residents	4.0	3.8	3.8	4.1	3.6	4.0
Cancer: 2nd leading cause of death	All residents	3.8	3.9	3.9	3.9	3.8	4.2
Stroke: 3rd leading cause of death	All residents	4.0	4.1	4.0	4.3	3.9	4.0
Hypertension	All residents	3.6	3.6	3.7	3.7	3.5	3.2
Access to health care	Low-income residents Older Adults Homeless	4.0	3.8	3.9	4.5	3.9	4.2
Access to health care for immigrants	Immigrants	3.8	3.5	3.2	4.1	3.5	4.2
Mental health care	All residents	4.5	4.1	4.4	4.5	4.0	4.8
Drug related causes of death	All residents	4.3	4.0	3.5	4.5	3.7	4.3
Access to prenatal care and care for infants	Women (child bearing age) Infants	3.0	3.0	2.7	3.0	2.6	2.6
Overweight and Obesity	All residents	3.8	3.4	3.2	3.3	3.3	2.3
Diabetes	All residents	4.2	4.0	3.9	3.9	3.8	3.7
Smoking Cessation	All residents	3.6	3.8	3.3	3.6	3.7	3.0
Nutrition (healthy foods)	All residents	3.4	3.4	2.5	3.9	3.1	3.3
Health status for the elderly	All residents	4.0	3.4	3.3	4.2	3.7	4.3
Dental care	Adults	3.0	2.4	2.8	2.7	2.6	2.5
Physical activity	Children	3.1	3.1	3.1	3.0	2.8	2.0

Note: The Prioritization Workgroup prioritized the significant health needs identified across all three MHS Hospitals (NH, MPH and MFH) communities.

Appendix K. Community Resource Index

In order to identify any existing community health resources throughout the Nazareth Hospital service area, organizations were identified using 2-1-1 SEPA, an online database of health services and providers. The following is a list of the community health resources with the highest total referrals in their respective zip codes, along with a list of services they offer taken directly from the 2-1-1 SEPA database. This list is not exhaustive, but rather a snapshot of other organizations meeting community needs. A complete listing and further information is available online at http://211sepa.org/

1. **19111 – Whosoever Gospel Mission and Rescue Home Association (20 total referrals)**
   6515 Rising Sun Avenue, Philadelphia
   - Homeless people
   - Thrift shops
2. **19114 – Community Care Center of the Northeast (10 total referrals)**
   2417 Welsh Road, Blue Grass Plaza, Suite 202, Philadelphia
   - Home health aides
   - Common bond caregivers
   - Neighbor link
   - Family respite care
   - Training and education
   - Wheels for independence
3. **19115 – Pennsylvania Department of Human Services (2 total referrals)**
   1926 Grant Avenue, Philadelphia
   - Early learning resource center
4. **19116 – KleinLife (24 total referrals)**
   10100 Jamison Avenue, Philadelphia
   - Children and family life
   - Food pantry
   - Home delivered meals
   - In-home support program
5. **19136 – Catholic Social Services – Southeast Pennsylvania (39 total referrals)**
   7340 Jackson Street, Philadelphia
   - Baby and me
   - Consumer credit counseling services
   - Food cupboard
6. **19149 – Feast of Justice (60 total referrals)**
   3101 Tyson Avenue, Philadelphia
   - Community cupboard
   - Senior boxes
7. **19152 – PATH (People Acting To Help) (6 total referrals)**
   8220 Castor Avenue, Philadelphia
   - Community integrated employment
   - Adult case management program
   - Family-based programs
   - Mental health outpatient program – adult
   - Mental health transitional residence