The Johns Hopkins Hospital & Johns Hopkins Bayview Medical Center

2018 Community Health Needs Assessment

JOHNS HOPKINS MEDICINE
THE JOHNS HOPKINS HOSPITAL

JOHNS HOPKINS MEDICINE
JOHNS HOPKINS BAYVIEW MEDICAL CENTER

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Introduction

With the enactment of the Patient Protection and Affordable Care Act (PPACA) on March 23, 2010, tax-exempt hospitals are required to conduct community health needs assessments (CHNA) and develop implementation strategies, which are approaches and plans to actively improve the health of communities served by health systems. These strategies provide hospitals and health systems with the information they need to deliver community benefits that can be targeted to address the specific needs of their communities. Coordination and management strategies based upon the outcomes of a CHNA, along with implementing strategies, can improve the impact of hospital community benefits.

To adhere to the requirements imposed by the IRS, tax-exempt hospitals and health systems must:

- Conduct a CHNA every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.
- Report how they are addressing the needs identified in the CHNA and provide a description of needs that are not being addressed, with the reasons why.

The Department of the Treasury and the Internal Revenue Service require a CHNA to include:

1. A description of the community served by the hospital facility and how the description was determined.
2. A description of the process and methods used to conduct the assessment.
    - A description of the sources and dates of the data and other information used in the assessment and the analytical methods applied to identify community health needs.
    - A description of information gaps that impact the hospital organization's ability to assess the health needs of the community served by the hospital facility.
    - Identification of organizations that collaborated with the hospital/health system and an explanation of their qualifications.
3. A description of how the hospital organization took into account input from persons who represent the broad interests of the community served by the hospital. In addition, the report must identify any individual providing input who has special knowledge of or expertise in public health. The report must also identify any individual providing input who is a "leader" or "representative" of populations.
4. A prioritized description of all the community health needs identified through the CHNA, as well as a description of the process and criteria used in prioritizing such health needs.
5. A description of the existing health care facilities and other resources within the community available to meet the community health needs identified through the CHNA.

6. A description of the needs identified that the hospital intends to address, the reasons those needs were selected, and the means by which the hospital will undertake to address the selected needs.[1]

The CHNA process for The Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center (JHBMC) included the collection and analysis of primary and secondary data. Both public and private organizations, such as faith-based organizations, government agencies, educational systems, and health and human services entities were engaged to assess the needs of the community. In total, the extensive primary data collection phase resulted in more than 1,460 responses from community stakeholders/leaders and community residents. The 2016 and 2013 CHNAs served as a baseline to provide a deeper understanding of the health as well as the socioeconomic needs of the community and emerging trends.

In order to collaborate with the Baltimore City Health Department and a coalition of Baltimore City hospitals, The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center accelerated their CHNA process and are providing an updated CHNA in 2018, one year ahead of the three-year cycle required by the Internal Revenue Service (IRS). The 2018 CHNA is designed to be an update to the 2016 report by using similar methodology to build upon the previous work and findings while participating collaboratively with the larger coalition of hospitals. The initial goal for the coalition members was to determine and adopt a common priority identified by all Baltimore communities through the CHNA process. That goal was achieved with the determination of mental health as the shared need to be addressed in each hospital's CHNA Implementation Strategy.

Primary data in the form of both online and paper surveys gathered feedback from community residents and health system staff on the previous CHNA and Implementation Strategy. Stakeholder interviews and focus groups were conducted with individuals who represented a) broad interests of the community, b) populations of need, or c) persons with specialized knowledge in public health. Five focus groups with vulnerable populations were conducted by JHH/JHMBC, and another seven focus groups were conducted by other Baltimore City coalition hospitals for a total of 121 participants. A paper survey which gathered a wide range of information was distributed by the coalition hospitals city-wide and resulted in 1,331 responses from residents of the JHH/JHBMC community benefit service area (CBSA).

An interactive resource inventory was created to highlight available programs and services within The Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center's (JHBMC) CBSA[2]. The inventory identifies organizations and agencies in the community that are serving the various target populations within each of the priority needs.

A secondary data profile was compiled with local, state, and federal figures to provide essential information, insight, and knowledge on a broad range of health and social issues. Collecting and examining information about different community aspects and behaviors can help identify and explain factors that influence the community's health.

[1] The outcomes from the CHNA will be addressed through an implementation planning phase.

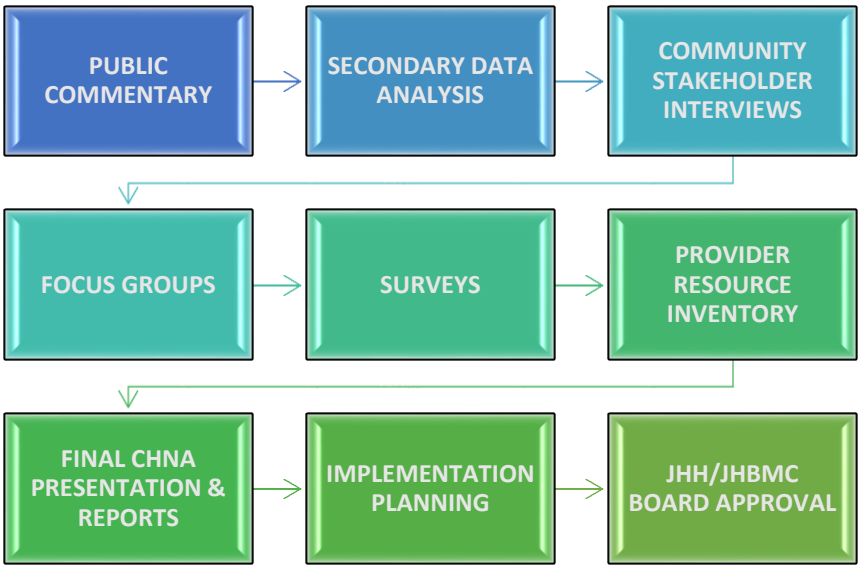
[2] The Community Benefit Service Area (CBSA) or the overall study area referenced in the report refers to the nine ZIP codes that defined the communities for JHH and JHBMC in the CHNA. The ZIP codes included are 21202, 21205, 21206, 21213, 21218, 21219, 21222, 21224 and 21231.

Data collected encompassed socioeconomic information, health statistics, demographics, children's health, mental health issues, etc. This report is a summary of primary and secondary data collected throughout the CHNA.

The development of the CHNA and the Implementation Strategy was led by the Office of Government and Community Affairs (Tom Lewis, Vice President), Dr. Redonda Miller (JHH President), and Dr. Richard Bennett (JHBMC President), and involved the contributions of over 1,460 individuals through direct interviews, surveys, and focus groups. Key stakeholder groups included, but were not limited to, community residents, members of faith-based organizations, neighborhood association leaders, health professionals, Johns Hopkins Medicine leadership, and other experts, both internal and external to Johns Hopkins.

The overall CHNA involved multiple steps that are depicted in the flow chart below. Additional information regarding each component of the project and the results can be found in the Appendices section of this report.

Flow Chart 1: CHNA Process

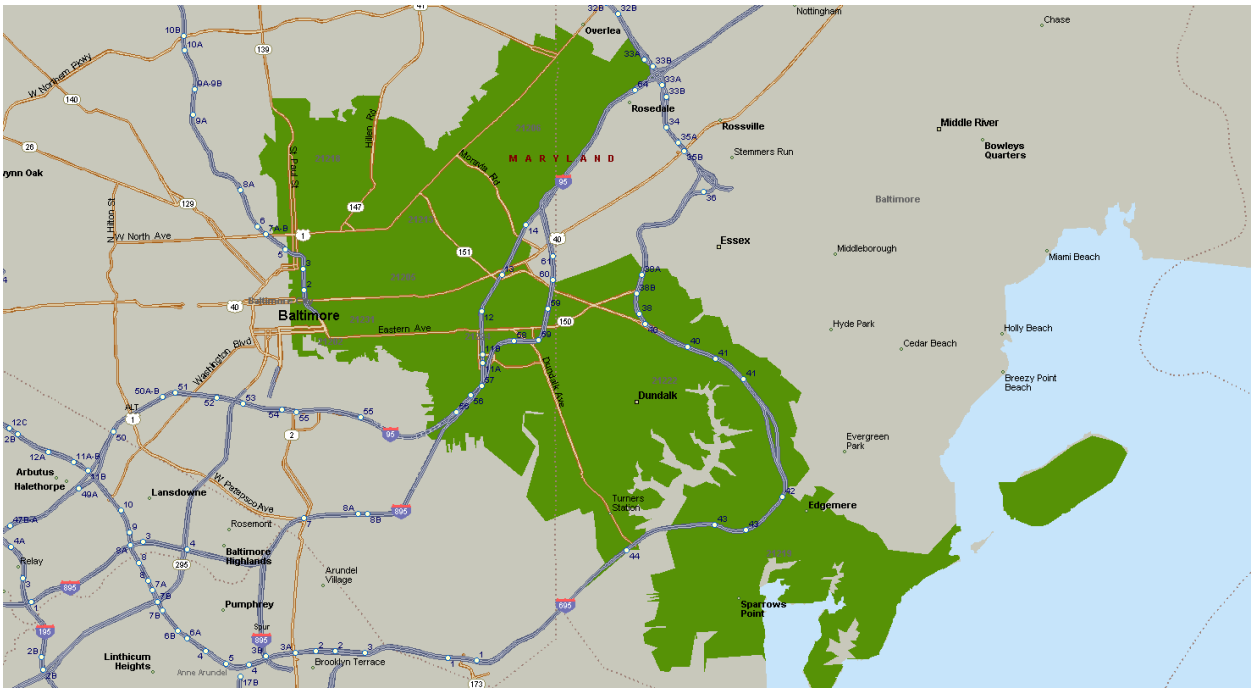


Community Benefit Service Area (CBSA)

In 2017-18, a total of nine ZIP codes were analyzed by the Johns Hopkins Institutions. These ZIP codes represent the community benefit service area (CBSA) for The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center. The Johns Hopkins Institutions provide services to communities throughout Maryland, adjoining states, and internationally. The community health needs assessment focused on nine specific ZIP codes: 21202, 21205, 21206, 21213, 21218, 21219, 21222, 21224, and 21231. This area reflects the population with the largest usage of the emergency departments and the majority of recipients of community benefit contributions and programming. Within the CBSA, JHH and JHBMC have focused on certain target populations such as the elderly, at-risk children and adolescents, uninsured individuals and households, and underinsured and low-income individuals and households.

The following map geographically depicts the community benefit service area by showing the communities that are shaded. (See Map 1).

Map 1: Overall Community Benefit Service Area – 2018 Study Area Map



Source: Truven Health Analytics 2015

The CBSA is expected to have 1.8 percent population growth from 2017 to 2022, which compares to the higher overall national population growth rate of 3.8 percent. The population ages 65 and over is projected to grow from 12.6 percent to 14.6 percent during this same period, while the working population age groups 18-24 and 25-34 residing in the CBSA are expected to decline. With regard to income distribution, the CBSA continues to see the percentage of households earning less than $15,000 to be higher than the national average and the percentage of households earning over $100,000 lower than the national average. In terms of education level, the CBSA has a higher percentage of working age

population with a high school degree, but lower percentages of residents with some college/associates degree and bachelor's degree or greater. (See Table 1).

Table 1: 2017 CBSA Demographic Snapshot

2017 CBSA Demographic
Snapshot

DEMOGRAPHIC CHARACTERISTICS

	Selected Area	USA
2010 Total Population	301,387	308,745,538
2017 Total Population	305,895	325,139,271
2022 Total Population	311,440	337,393,057
% Change 2017 - 2022	1.8%	3.8%
Average Household Income	$64,946	$80,853

	2017	2022	% Change
Total Male Population	149,414	152,627	2.2%
Total Female Population	156,481	158,813	1.5%
Females, Child Bearing Age (15-44)	68,443	67,043	-2.0%

POPULATION DISTRIBUTION

	Age Distribution				
Age Group	2017	% of Total	2022	% of Total	USA 2017 % of Total
0-14	54,752	17.9%	56,493	18.1%	18.8%
15-17	9,871	3.2%	10,637	3.4%	3.9%
18-24	29,376	9.6%	27,169	8.7%	9.8%
25-34	56,782	18.6%	51,565	16.6%	13.4%
35-54	79,172	25.9%	82,521	26.5%	25.7%
55-64	37,518	12.3%	37,442	12.0%	12.9%
65+	38,424	12.6%	45,613	14.6%	15.5%
Total	305,895	100.0%	311,440	100.0%	100.0%

HOUSEHOLD INCOME DISTRIBUTION

	Income Distribution		
2017 Household Income	HH Count	% of Total	USA % of Total
<$15K	20,980	17.5%	11.8%
$15-25K	13,030	10.9%	10.1%
$25-50K	29,026	24.2%	22.9%
$50-75K	20,438	17.0%	17.4%
$75-100K	13,473	11.2%	12.1%
Over $100K	23,023	19.2%	25.7%
Total	119,970	100.0%	100.0%

EDUCATION LEVEL

	Education Level Distribution		
2017 Adult Education Level	Pop Age 25+	% of Total	USA % of Total
Less than High School	12,727	6.0%	5.8%
Some High School	26,337	12.4%	7.7%
High School Degree	73,223	34.6%	27.8%
Some College/Assoc. Degree	48,879	23.1%	29.1%
Bachelor's Degree or Greater	50,730	23.9%	29.6%
Total	211,896	100.0%	100.0%

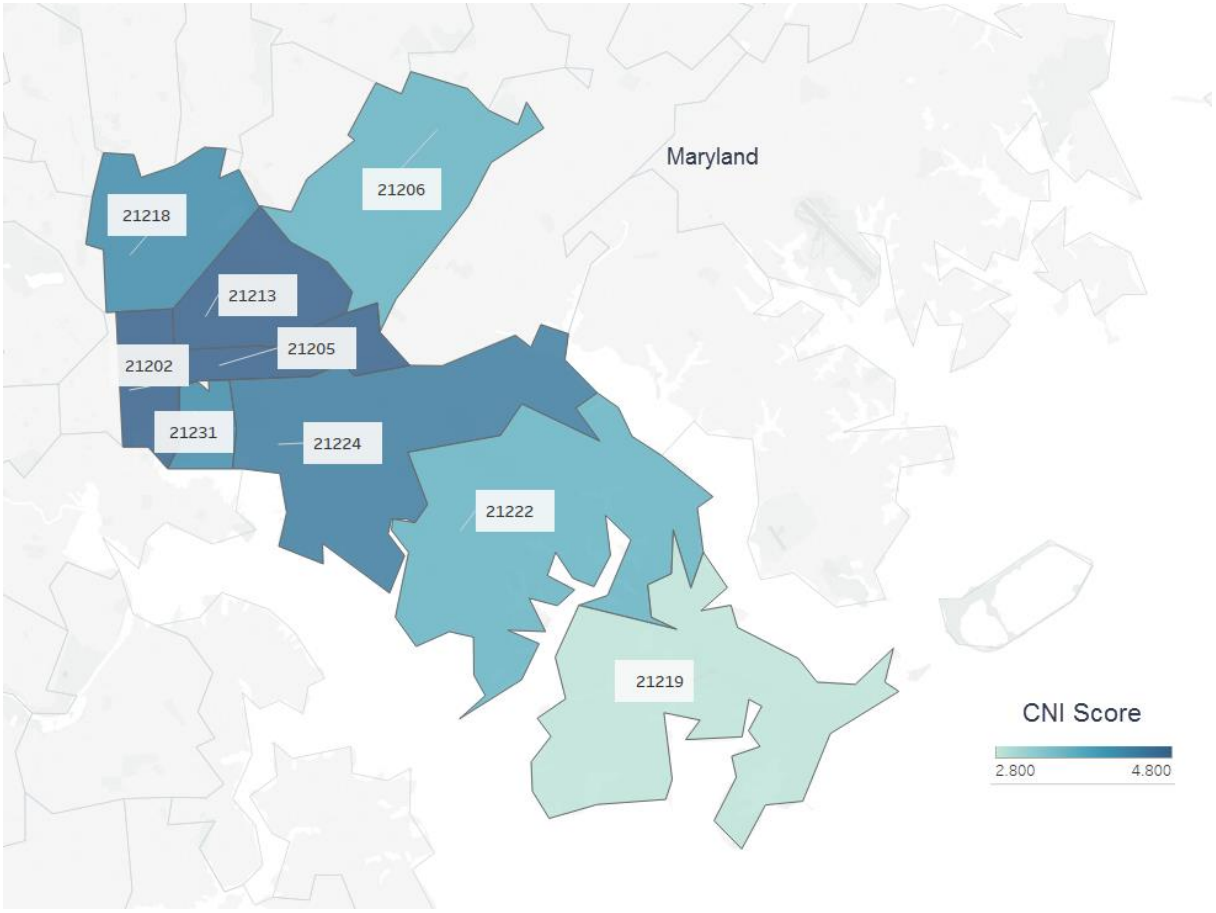
RACE/ETHNICITY

	Race/Ethnicity Distribution		
Race/Ethnicity	2017 Pop	% of Total	USA % of Total
White Non-Hispanic	124,940	40.8%	60.8%
Black Non-Hispanic	139,245	45.5%	12.4%
Hispanic	23,622	7.7%	18.0%
Asian & Pacific Is. Non-Hispanic	9,547	3.1%	5.7%
All Others	8,541	2.8%	3.2%
Total	305,895	100.0%	100.0%

The Truven Health Community Need Index (CNI) considers multiple factors that are known to impact health care access. The tool is useful in identifying and addressing the disproportionate and unmet health-related needs of neighborhoods. The five prominent socioeconomic barriers to community health quantified in the CNI are Income Barriers, Cultural/Language Barriers, Educational Barriers, Insurance Barriers, and Housing Barriers. CNI scores are ranked from 1.0 to 5.0, 1.0 representing the least need and 5.0 representing the highest barriers to accessing care.

In assessing the CNI scores for the overall study area or CBSA, the CNI score in 2017 has shown a small decrease to barriers, improving from a score of 4.3 in 2015 to 4.1 in 2017, also falling below the 2014 score of 4.2. It is important to note that a low score (e.g., 1.0) does not imply that no attention should be given to that neighborhood; rather, hospital leadership should determine specifically what is working well to account for a low neighborhood score. CNI data from 2017 in the map below provides a geographic representation of the CNI scores for the CBSA. ZIP codes that have higher socioeconomic barriers (5.0) are represented in dark blue. As the socioeconomic scores decrease (i.e., improve), the coding color lightens. As can be seen, there are concentrated areas within Baltimore City that clearly signify high socioeconomic barriers to care (See Map 2).

Map 2: CNI Study Area Map



Source: Truven Health Analytics 2017

Key Community Health Needs

The health status of a community depends on many factors, including quality of health care, social and economic determinants, individual behaviors, heredity, education, and the physical environment. Healthy People 2020 creates targets for improving health status, promoting community health, and challenging individuals, communities, and professionals to take specific steps to ensure that good health, as well as long life, are enjoyed by all. Because "health" is more than just the absence of disease, a focus on socioeconomic factors is required.

Socioeconomic status is a reflection of an individual's economic and social position in relation to others based on income, education, and occupation. The environment—in particular, where we work and live—as well as education, income, and age play a significant role in an individual's socioeconomic status. It is well documented that residents who have limited education and limited financial resources often experience challenges such as poor housing, limited opportunities for employment advancement, and a low quality of life. All these challenges ultimately affect their health outcomes.

Children attending schools in poor neighborhoods are likely to lack a rich educational infrastructure. Parents who struggle with employment opportunities are less likely to be able to offer their children educational resources such as computers, tutors, and books—materials typically needed for students to become successful.

Similarly, community residents living in neighborhoods that are underserved may face higher levels of stress if their community is plagued with crime, drugs, and poverty. Furthermore, the social injustices and inequalities in a community can produce high levels of stress and contribute to civil unrest, mental and behavioral health problems, and the potential for increased use and abuse of drugs and alcohol products.

Residents in east Baltimore City and southeast Baltimore County are well aware of the health and social inequalities and disparities that exist. Addressing these disparities and working to reduce the socioeconomic gaps can bridge and provide sustainable support for those who have limited options.

The Johns Hopkins Institutions have significant strategies that are geared toward addressing the health and well-being of the community's marginalized youths and adult residents. As a major economic driver in the region, JHH's and JHBMC's leaders have encouraged the health and well-being of the marginalized populations through their programs, community initiatives, economic development projects, and strategic partnerships.

The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center will continue to address the socioeconomics of their community residents with innovative and effective programs, community outreach efforts, and collaboration and partnerships with nonprofits and local organizations to reach vulnerable residents and those most affected by the health and social disparities across the city.

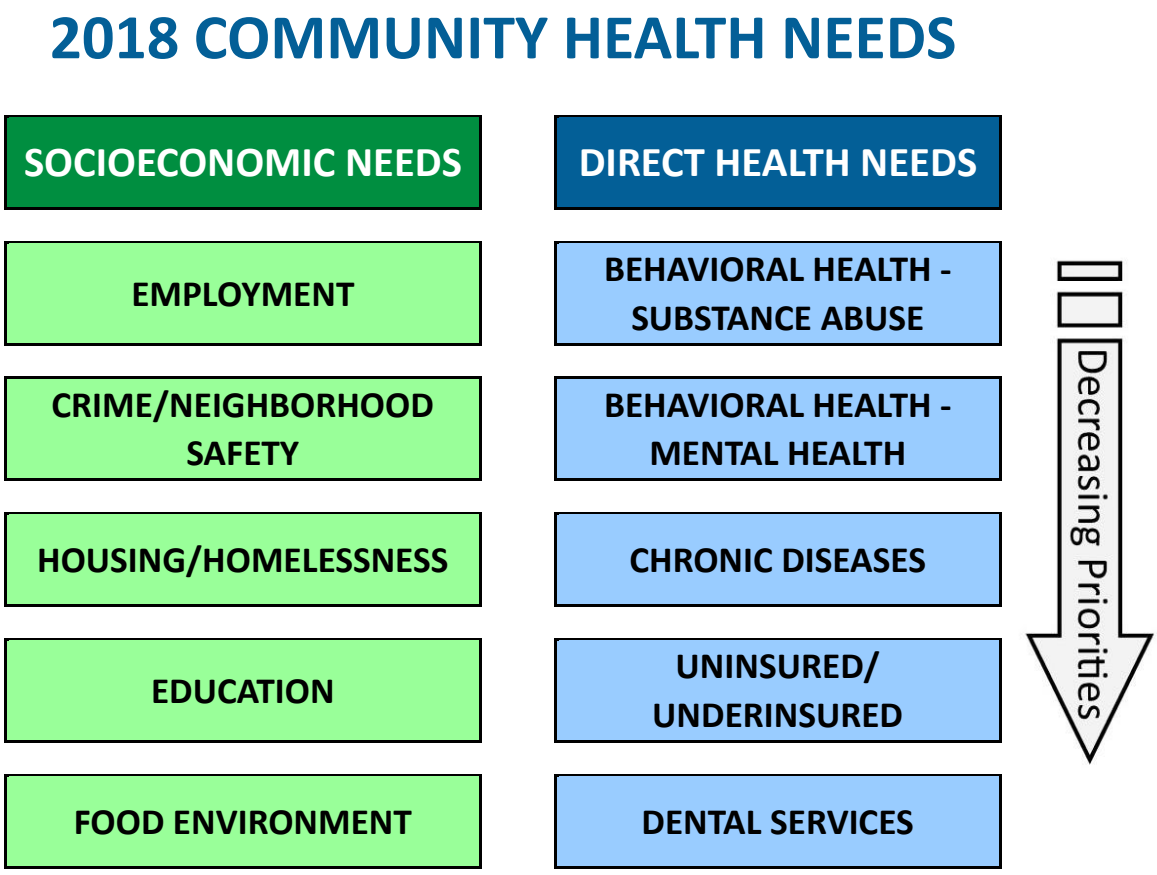
In the fall and winter of 2017/2018, JHH and JHBMC continued their commitment to the community through a comprehensive CHNA process, and engaged a variety of community organizations, community leaders, and agencies in order to identify the needs of their community residents. The CHNA focused on nine ZIP codes within the study area known as the community benefit service area (CBSA). With support from key community representatives, health officials, hospital leadership, and community stakeholders

with in-depth knowledge regarding east Baltimore City and southeast Baltimore County, the CHNA helped identify and prioritize the community's needs.

One of the objectives of the Patient Protection and Affordable Care Act (PPACA) is to identify ways to better coordinate health services to allow greater accessibility, while reducing health care costs for patients and caregivers. As a result, health care organizations are streamlining services and collaborating with community agencies and organizations to capitalize on the ability to share resources. By providing affordable health care insurance, a large portion of the previously uninsured population now has a pathway to affordable and accessible preventive services.

Key need areas were identified during the CHNA process through the gathering of primary and secondary data from local, state, and national resources, community stakeholder interviews, surveys, focus groups with vulnerable populations, and a health provider inventory that highlighted organizations and agencies that serve the community. The identified community needs are depicted in order of priority in the chart below, with health needs in blue and socioeconomic needs in green (See Chart 1).

Chart 1: JHH/JHBMC Prioritized Community Health Needs



Improving Socioeconomic Factors

While biological makeup or genetics determine some health issues an individual will experience, socioeconomic factors, such as income, education, and employment opportunities, can shape how people make decisions related to their health as well as the access they have to health care services. There is a direct and indirect relationship between community residents' overall health and low levels of educational attainment and the inability to secure employment. It is not uncommon for residents living in poverty to face multiple challenges related to high crime rates, poor home conditions, and low educational attainment. Often, individuals in these situations are focused on obtaining basic living needs (e.g., food, utilities, and housing) for themselves and their families. Without access to higher education and associated employment opportunities, community residents will continue to struggle with these challenges.

The table below provides a snapshot from County Health Rankings and Roadmaps of where Baltimore City compares to Baltimore County in years 2012, 2015 and 2017. The ranking scale enables communities, organizations, and agencies to see where their communities lie in comparison to the remaining 23 counties in Maryland. Baltimore City ranks 24 out of 24 on Socioeconomic Factors in all years compared, while Baltimore County ranks 12 in those years (See Table 2).

Variables used to derive the overall socioeconomic rankings are high school graduation, some college, unemployment, children in poverty, income inequality, children in single-parent households, social associations, violent crime, and injury deaths.

Table 2: County Health Rankings and Roadmaps Social and Economic Factors

County Health Rankings and Roadmaps[3]	Social and Economic Factors Rankings
Baltimore City	
2012	24
2015	24
2017	24
Baltimore County	
2012	12
2015	12
2017	12

Source: County Health Rankings & Roadmaps 2017, 2015 and 2012

Another socioeconomic factor, a healthy or livable environment, refers to the surroundings in which one resides, lives, and interacts. A livable environment refers to the availability of safe, affordable, clean

[3] Maryland has 24 counties; the rating scale for Maryland is 1 to 24 (1 being the healthiest county and 24 being the least healthy). Counties are ranked relative to the health of other counties in the same state on specific measures.

housing, a community with healthy food options, and low crime rates. A poor or unlivable environment can lead to poorer health outcomes, a shorter lifespan, and health disparities.

Families are often deterred from engaging in outdoor activities in neighborhoods where high crime rates and safety issues are prevalent. The inability to be outside hinders residents from walking and playing, thus contributing to higher rates of physical inactivity and obesity. This is detrimental, in particular, for community residents whose primary form of exercise is walking.

In the CBSA, safe and affordable housing is a critical environmental need. Outdated and unsafe infrastructures in many Baltimore City homes often present hazardous elements that can trigger and exacerbate chronic conditions. The lack of affordable, clean housing, the inaccessibility of healthy foods, and the area's high crime rates are common issues for families and individuals who struggle to secure employment in order to improve their environmental conditions.

Employment

Adequate employment and income can provide a lifestyle that offers choices and options that influence health status and environmental factors such as housing, food, skill building for better employment opportunities, transportation, health care, and more. Data reveal that there are significant income disparities in the CBSA as compared to the state.

Table 3 provides a detailed breakdown of household income for the CBSA and how the CBSA compares to national statistics. In the CBSA, or the overall study area, although there is a high percentage of households who earned an income in 2017 of $25,000-$50,000 a year (24.2 percent), there are more low-income households (<$15K) compared to national averages.

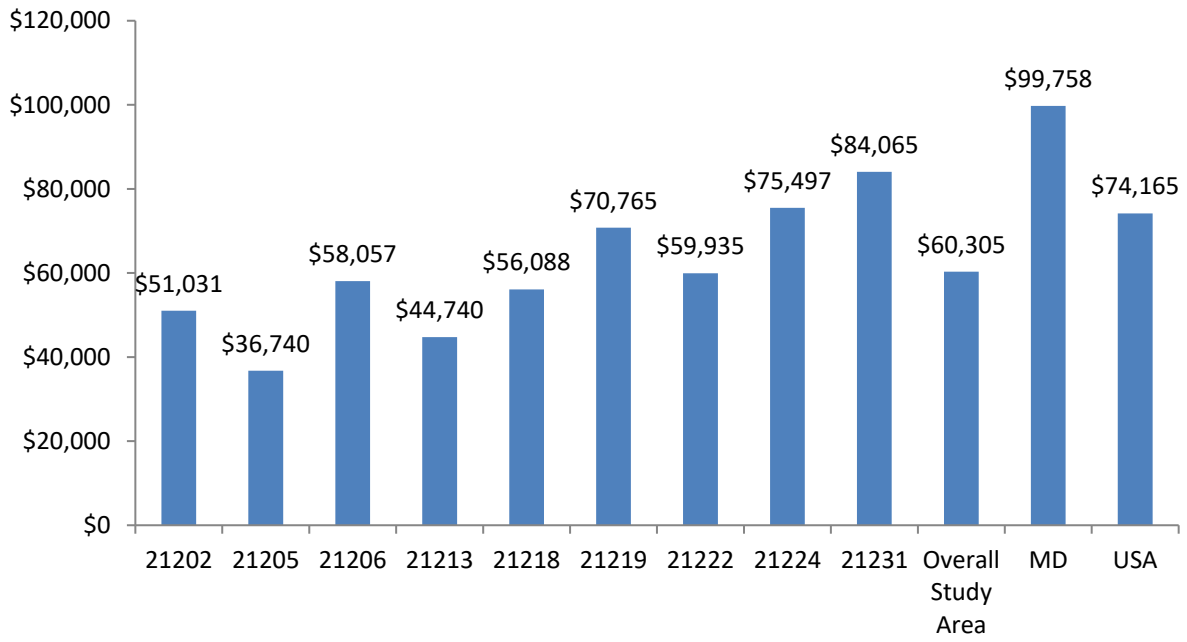
Table 3: Household Income Detail

	Overall Study Area	USA
<$15K	17.5%	11.8%
$15-25K	10.9%	10.1%
$25-50K	24.2%	22.9%
$50-75K	17.0%	17.4%
$75-100K	11.2%	12.1%
Over $100K	19.2%	25.7%

Source: Truven Health Analytics 2017

Providing an average household income snapshot across all ZIP codes, we can note that ZIP codes 21205 ($36,740) and 21213 ($44,740), on average, have the lowest yearly household income compared to their counterparts in the CBSA. Additionally, it is evident that the average household income in the overall study area ($60,305) is significantly lower than the averages for the state ($99,758) and the nation ($74,165) (See Chart 2).

Chart 2: Average Household Income



Source: Truven Health Analytics 2015

Community residents with a low household income can struggle to afford basic necessities such as food, shelter, and clothing. These community residents fare worse than those within a higher income bracket on many levels. Residents who are economically disadvantaged will continue to face significant life challenges affecting the ability to obtain resources and improve their living environment. Without good employment prospects and access to a sustainable living wage, these residents are more likely to engage in unhealthy behaviors, ignore mental health issues, not engage in preventive health practices, and perpetuate the generational cycle of living in poverty.

Reviewing 2016 CHNA discussions, community leaders are aware that employment opportunities for low income residents can improve their quality of life on multiple levels. It is often necessary to provide training, education, workforce development, and resources to those in need.

The lack of employment opportunities for many community residents has not changed over the years, and the employment prospects for those with limited skills and those who have been incarcerated are bleak; thus, re-entry opportunities from businesses continue to provide hope. Community residents in the 2016 focus group cited extreme employment challenges due to multiple factors. Prior criminal history, lack of skills, and not being properly educated are some barriers that prohibit many from securing employment. While obtaining steady employment can be difficult, it is a goal many want to achieve.

From the 2016 CHNA study and continuing to the current study, focus group participants stated that they believed employment training or workforce development programs can assist those struggling to

gain the skills and resources they need. It comes as no surprise that community residents who actively seek employment also cite the lack of transportation options as hindering their job prospects.

Community leaders' concerns about employment opportunities were often communicated in conjunction with residents' expressed need for affordable transportation. Improved transportation can increase employment opportunities for low income residents. It was voiced that strong employment opportunities exist outside of the city; however, many residents struggle to secure reliable transportation due to limited and insufficient bus routes. Light rail trains and buses do not extend far enough to access employment opportunities in outlying areas.

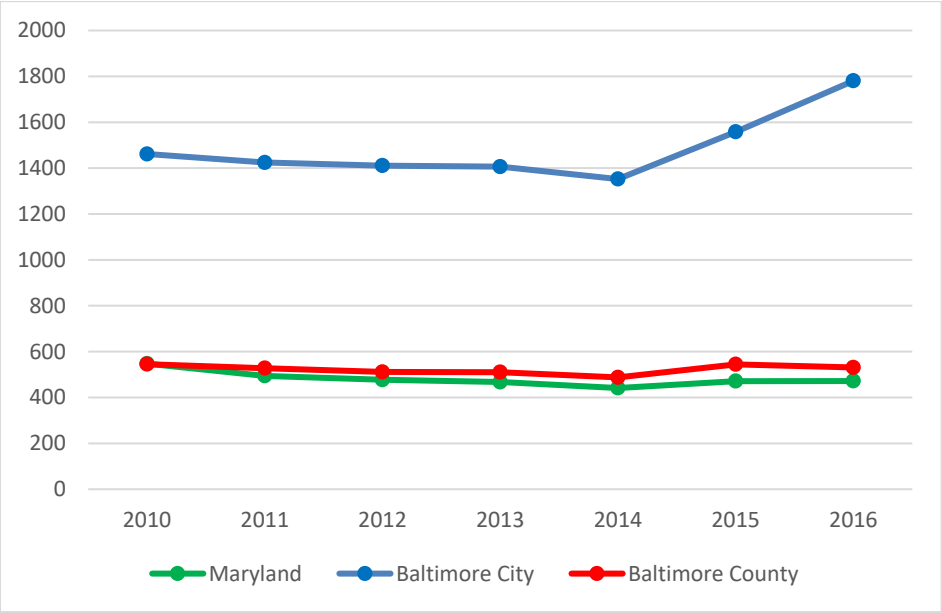
Having a strong, economically healthy community contributes to a healthier environment for residents and for neighborhoods overall. Community organizations and area agencies work diligently trying to connect residents to services and programs. Community leaders and community participants reported that area residents are loyal and faithful. Many have great pride in their neighborhoods, and many hope to obtain the education and employment opportunities in order to be better, more productive citizens.

Crime and Safety

While many families and individuals live in a comfortable and safe environment, there are a large number of Baltimoreans who do not. Crime and safety factors significantly impact the ability of an individual to enjoy a full and productive life. Lack of a livable environment affects the ability of individuals to access adequate preventive health care services, engage in outdoor activities, and obtain other basic needs. Unfortunately, many city residents face the threat of crime each day.

In 2014, the overall rates of crime reached a low point in the state. Since then, following the 2015 Baltimore City unrest, overall crime rates in the city and the state have increased. Particularly problematic, the violent crime rate in Baltimore City has accelerated significantly. Data obtained from the FBI indicate that Baltimore City's violent crime rate of 1780.4 per 100,000 greatly exceeded that of Baltimore County (530.8) and the state (472) in the 2015-2016 period. (See Chart 3).

Chart 3: Violent Crime (per 100,000 Population)



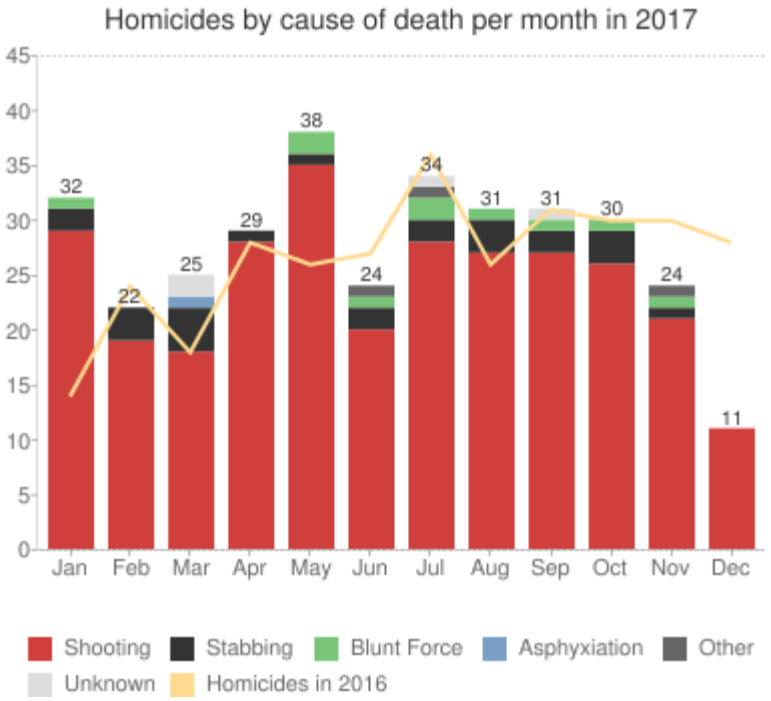
Source: Federal Bureau of Investigation, FBI Uniform Crime Reports 2016

Further evidence that progress made in 2013 and 2014 has been negated over the past three years can be found in the homicide rates. Baltimore reached its highest ever per capita homicide rate in 2017, topping the previous high in 2015. As reported by The Baltimore Sun, Chart 4 shows homicides by month and type of death in 2017 along with a yellow line depicting 2016 homicides. In total, homicides in Baltimore City for the year 2017 increased from 318 to 343, an increase of 7.9% over the previous year.

Data from the 2016 CHNA survey revealed that more than one-half of survey respondents (62 percent) feel 'somewhat safe' from crime in their neighborhood/community, while 11.3 percent do not feel safe at all. Crime, violence, and drugs were the top reasons why respondents do not feel safe in their neighborhood/community. In the current survey, neighborhood safety/violence was listed as the number one social/environmental concern by one-third of all respondents, rising for the first time to the level of lack of employment opportunities as a top community need.

Within the community, many stakeholders reported that serious crime is prevalent in Baltimore City. Trauma experienced at a young age, drug addiction, and incarcerated family members can create an emotional toll. Many families are one-parent households struggling to support and provide a safe and positive environment for their families.

Chart 4: Baltimore Homicides



Source: The Baltimore Sun 2017

Community leaders expressed awareness that safety is a significant concern for many parents, and children are often forced to stay inside as a result of their unsafe environment. Regions within the city are also plagued with urban decay, further creating an atmosphere that can attract unwanted illegal activities. Having an unsafe community creates an environment conducive to drug use and limits the ability to attract employment opportunities to the region.

Focus group participants stated that residents are exposed to drugs, alcohol abuse, and violence in their neighborhoods on a regular basis. Domestic violence and other types of assaults were also mentioned as issues that the community deals with regularly. For residents of Baltimore City, crime is a significant part of their communities.

Reducing the crime rate and providing a safe environment requires participation from all city entities. Some would argue that improvements in law enforcement and more severe consequences could deter offenders, while others point out that this approach could lead to further disintegration of families. However, if the ultimate outcome is to have community residents contribute fruitfully as part of society, income disparities must be addressed. Closing the income gap and providing economic opportunities for residents could prove to be a long-term solution and a pathway to assist those who currently have limited future opportunities.

Housing/Homelessness

Baltimore City, in 2017, ranked 12th out of 24 counties in relationship to physical environment according to County Health Rankings and Roadmaps, improving from a 2012 ranking of 24 and a 2015 ranking of 16. The calculations used to produce the ranking under physical environment include air pollution, drinking water violations, severe housing problems, driving alone to work, and long commutes (drive time). The physical environment in Baltimore County is relatively unchanged, going from a ranking of 22 in 2012 to a ranking of 24 in 2015 and then improving to a ranking of 23. It is important to note that there is a high percentage of commuters in Baltimore County, which could influence the poor ranking score.

Under the physical environment ranking, County Health Rankings and Roadmaps defined severe housing as the percentage of households with at least one out of four housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities. County Health Rankings do not take into consideration lead paint violations, energy cut-off rates, etc. (See Table 4).

Table 4: County Health Rankings & Roadmaps Physical Environment

County Health Rankings and Roadmaps	Physical Environment Ranking
Baltimore City	
2012	24
2015	16
2017	12
Baltimore County	
2012	22
2015	24
2017	23

Source: County Health Rankings and Roadmaps 2017, 2015 and 2012

Children under the age of six are vulnerable to lead poisoning, which affects mental and physical development. Lead poisoning at very high levels can be fatal. Older homes and buildings in the city are common sources of lead poisoning. Other sources include contaminated air, water, and soil. Adults who complete home renovations, who are employed in auto repair shops, and who work with batteries may also be exposed to unhealthy levels of lead.

When examining lead paint violations, the highest number of lead paint violations were found in the neighborhoods of Madison/East End (81.6), Greenmount East (57.2), Clifton-Berea (48.7), Midway-Coldstream (36.1), and Patterson Park North & East (21.7). However, when compared to 2011 lead paint violation rates, all five of these neighborhoods have shown decreases (See Table 5).

Table 5: Lead Paint Violations

	ZIP Code	2011 Average Annual Lead Paint Violations*	2017 Average Annual Lead Paint Violations*
Madison/East End	21205	90.3	81.6
Greenmount East	21202	64.6	57.2
Clifton-Berea	21213	63.6	48.7
Midway-Coldstream	21218	47.1	36.1
Patterson Park North & East	21224	34	21.7
Perkins/Middle East	21205	24.9	n/a
Oldtown/Middle East	21205/21231	n/a	13.5
Greater Govans	21218	12.6	10.1
Baltimore City	N/A	11.8	9.8
Belair Edison	21213	9.3	9.9
Orangeville/East Highlandtown	21224	9.3	11.6
The Waverlies	21218	9.1	6.1
Greater Charles Village/Barclay	21218	7.7	6.3
Lauraville	21206	5.2	3.4
Highlandtown	21224	4.5	4.4
Fells Point	21231	3.3	1.1
Cedonia/Frankford	21206	2.5	2.8
Hamilton	21206	2.2	3.1
Northwood	21218	1.8	1.4
Midtown	21202	1.5	1
Claremont/Armistead	21205	1.3	0.6
Canton	21231	1.3	0.7
Jonestown/Oldtown	21202	1.1	
Oldtown/Middle East	21205/21231		13.5
Downtown/Seton Hill	21202	0.9	0.8
Southeastern	21224	0.5	1.2
Harbor East/Little Italy (now includes Perkins)	21201/21231		2.2

Source: Neighborhood Health Profiles, 2011 and 2017

*Per 10,000 households in each specific neighborhood

Primary data collected from the survey identified affordable housing/homelessness (29.1 percent) as the third leading social/environmental concern among a list of 14 available options. Findings from primary data collected during the CHNA align with secondary data findings regarding housing problems in the City. Overall for the CBSA, the top five social/environmental concerns in the community, according to survey responses, mirrored the concerns of the residents city-wide. These were neighborhood safety/violence, lack of job opportunities, housing/homelessness, availability/access to insurance and poverty.

Affordable, clean, and safe housing was a common theme discussed by community stakeholders. Public housing and rental properties are often in poor condition and can contain harmful elements that lead to respiratory conditions. Landlords often do not maintain their rental properties or adhere to building codes, and families are often unsure where to seek housing assistance. There are limited services and programs for residents who struggle with homelessness.

From the 2016 CHNA, community stakeholders also reported that residents in transitional housing situations are there, in part, due to the lack of affordable homes. Additional factors such as unemployment and lack of education prohibit residents from finding better housing options. Older row homes, common to the Baltimore region, present challenges because many are not conducive to individuals with disabilities and mobility issues, in particular seniors who require the use of assistive mobility devices (e.g., walkers, canes, or wheelchairs).

In both the current and 2016 CHNAs, focus group participants indicated that access to safe, clean, and affordable housing is not easy to obtain and is especially difficult for minorities and those on limited or fixed incomes. Contractors and large construction companies are purchasing and renovating properties, then increasing the rents and mortgages, thus further limiting access to residents who need affordable homes. The lack of affordable housing is leading to homelessness in the community. Group participants agreed that low-cost housing in their communities is in poor condition and that there are limited resources and housing services for people seeking clean and safe housing.

It is important to evaluate and strategize on ways to assist community residents in addressing the growing housing crisis that plagues the region. There are multiple factors that prohibit community residents from affordable, clean, and safe housing, and understanding the societal elements can help resolve some disparities that Baltimore residents face.

Education

An individual's level of education affects their health status, as it can dictate employment opportunities and comprehension capabilities. Educated individuals are more likely to have job security, are often better equipped to access and navigate through the services they need, and can understand the importance of taking preventive health measures and making healthy choices for themselves and their families. Educated residents typically are more aware of their own health status and the health status of their family. Being educated can mitigate some of the environmental factors that negatively affect the health status of disadvantaged populations by providing tools needed to better understand the environment and to take advantage of opportunities for life improvement.

From 2015 to 2017, higher education attainment statistics of the overall study area showed improvement for bachelor's degrees and greater going from 21.6 percent to 23.9 percent. However, this still remains below the national average of 29.6 percent. A larger portion of study area residents have less than a high school diploma, 18.4 percent compared to 13.5 percent nationally (See Table 6).

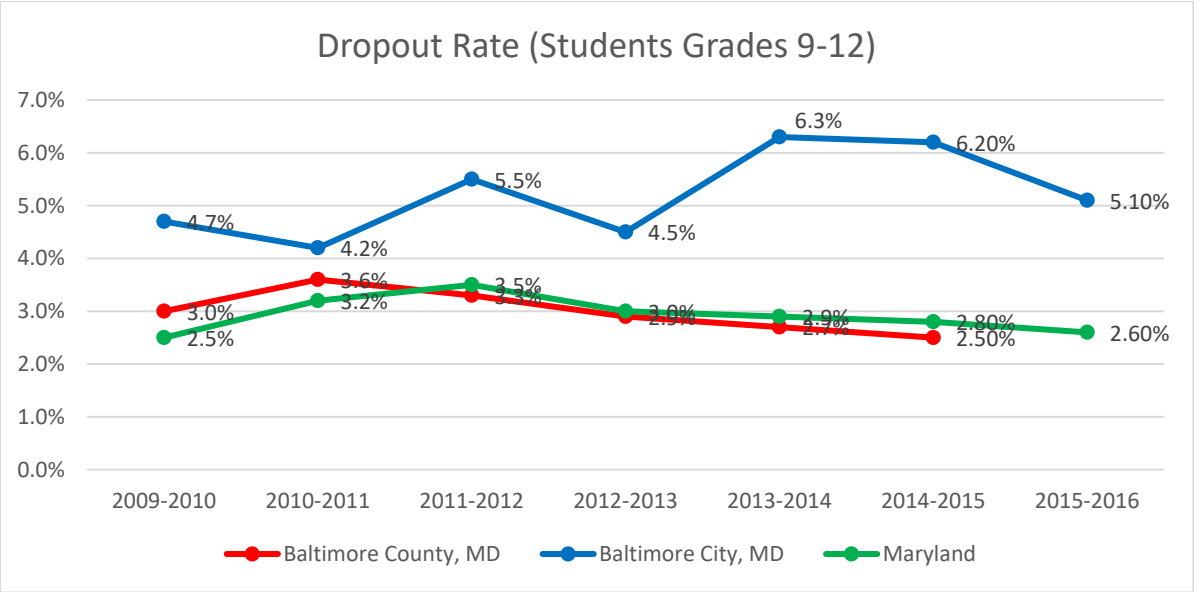
Table 6: Education Level

	Overall Study Area 2015	Overall Study Area 2017	USA
Less than High School	7.2%	6.0%	5.8%
Some High School	13.5%	12.4%	7.7%
High School Diploma	34.0%	34.6%	27.8%
Some College / Assoc. Degree	23.8%	23.1%	29.1%
Bachelor's Degree or Greater	21.6%	23.9%	29.6%

Source: Truven Health Analytics 2015, 2017

Data from The Annie E. Casey Foundation highlight the dropout rate (see Chart 5). Baltimore City had a higher dropout rate (5.1 percent) than that of the county and state for students in grades 9-12 in 2015-2016, but this rate has shown improvement from 2013-2014, decreasing by 1.2 percent, although it is still almost double that of the state (2.6 percent).

Chart 5: Dropout Rate (Students in Grades 9-12)



Source: Kids Count 2017, The Annie E. Casey Foundation
Note: Baltimore County rate not available at the time of the report for 2015-2016

In the 2016 CHNA community stakeholders reported that health education should begin at the elementary stage, addressing and reinforcing information beyond basic subjects (e.g., nutrition, health topics/disease, mental health, etc.). It was cited that most often community residents do not foresee or comprehend how education is linked to a pathway toward a healthier, more productive life.

A greater emphasis needs to be placed on the relationship between education and income, noting there are greater employment opportunities, options, and availability for those who have a higher level of educational attainment. Higher education enables community residents to understand concepts and theories, expanding their overall knowledge base, which in turn leads to residents having a better understanding of their community, environment, and health.

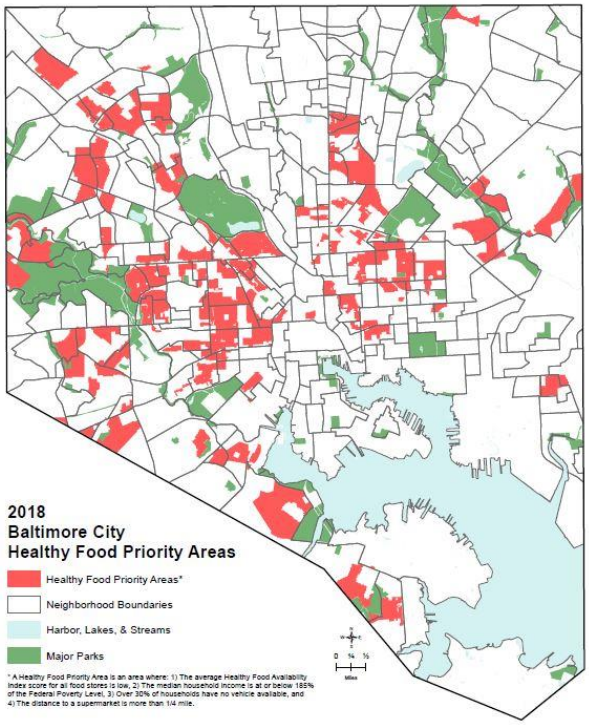
Food Environment

A healthy food environment ensures that residents have the ability to purchase nutritious foods and that those foods are affordable and conveniently located. The term “food desert” or “healthy food priority area” describes geographic regions where affordable, nutritious foods are typically difficult to obtain, especially for residents with limited transportation options. Healthy food choices, such as fresh fruits and vegetables, are often unavailable or too expensive in the small convenience-type stores characteristic of underserved and low-income areas. Food options found in such convenience stores are usually processed and high in calories and unhealthy fats. The unavailability of large grocery stores, supermarkets, and farmers’ markets, along with the convenience of junk foods, has contributed to the obesity epidemic. It is important to address the food environment if we are to reduce health disparities

and improve patient management of chronic disease conditions such as obesity, high blood pressure, cardiovascular disease, and diabetes.

The 2018 edition of Baltimore City's Food Environment Report provides new insights into the issue of healthy food availability. Of a total city population of 621,000, about 146,000 people, or 23.5 percent, live in areas identified as Healthy Food Priority Areas, which qualify as meeting all four factors that are considered: supply of healthy food, household income, vehicle availability, and distance to a supermarket. These Priority Areas are located primarily in neighborhoods that are not close to either supermarkets or public markets and where residents rely primarily on convenience stores or small groceries and corner stores.

Map 3: Map of Healthy Food Priority Areas in Baltimore City

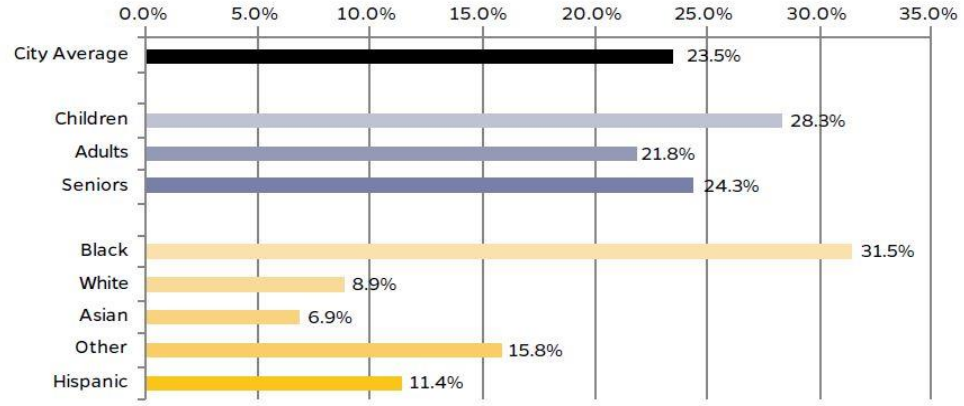


Source: 2018 Baltimore City Food Environment Report

Children are the most likely age group to live in a Priority Area (see Table 7). Black residents of Baltimore are the most likely of any racial/ethnic group to live in a Priority Area -- 31.5 percent in comparison to only 8.9 percent of White residents who live in a Priority Area. Since 2005, about 5,000 fewer residents in the CBSA live in a Healthy Food Priority Area due to the opening of a grocery store in the McElderry Park neighborhood. Also, following publication of the 2018 Food Environment Report,

the Salvation Army opened its first nonprofit grocery store called DMG Foods in the Waverly neighborhood.[4]

Table 7: Percent of Population Groups Living in a Healthy Food Priority Area



Source: 2018 Baltimore City Food Environment Report

It was reported by the U.S. Census Bureau American Community Survey that more than one-third of Baltimore City residents (43.6 percent) live below 200 percent of the Federal Poverty Level (FPL); this is nearly twice the level of the state (22.9 percent) and higher than the U.S. (33.6 percent).[5] The 2018 Annual Guidelines state that a family of four below 200 percent FPL has an average household income below $50,200.

Fortunately, the Supplemental Nutrition Assistance Program (SNAP) offers nutrition assistance to millions of eligible, low-income individuals and families and provides economic benefits to communities. This program is essential to many as it assists community residents with food options that allow them to be healthy and maintain their well-being. The U.S. Census Bureau reported for 2012-2016 that Baltimore City had 25.9 percent of its residents receiving SNAP benefits in the past twelve months. This is higher than Baltimore County (10.3 percent), Maryland (11.1 percent), and the U.S. (13 percent).

Based on discussions from the 2016 CHNA, community leaders are aware, from the residents they serve, that access to fresh, healthy foods is limited. Typically, residents have little access to grocery stores, yet a clear path to fast foods and highly processed meals.

Leaders also cited that the region has a large population of people with diabetes (including a growing number of youth), high blood pressure, and obesity. Community leaders are aware that African Americans are more likely to have diabetes, and state data reinforce that notion. The Maryland Vital Statistics Annual Report (2016) continued to show a disparity in the age-adjusted rate of death for diabetes between Black and White males (40.0 vs 20.3 per 100,000 population) and between Black and

[4] http://www.baltimoresun.com/business/bs-md-ci-salvation-army-grocery-20180228-story.html
[5] U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

White females (25.3 vs 12.1 per 100,000 population). Compared to 2013, both Black and White males showed increases in the death rate for diabetes (Black males 39.3 to 40.0; White males 18.6 to 20.3). However, both Black and White females showed decreases (Black females 27.3 to 25.3; White females 12.8 to 12.1). The age-adjusted rate of death for diabetes for all residents in Maryland increased from 19.0 per 100,000 population in 2013 to 19.6 per 100,000 population in 2016.

The inaccessibility of healthy food options paired with the absence of health education and the inability to participate in outdoor activities or in a structured physical exercise regimen creates an environment that perpetuates chronic health problems. Access to proper nutrition is vital to maintaining good health, according to focus group participants. There is general awareness regarding the connection between nutrition and making healthy food choices and the role both play in overall health.

Focus group participants reported cultural eating habits, the lack of quality grocery stores (living in a food desert), and the unaffordability of healthy foods are underlying factors causing high rates of diabetes, particularly among African Americans. There was a perception that food establishments and restaurants were more inclined to serve unhealthy foods (e.g., fried foods, salty foods, etc.) and limit healthy food options to their customers due to the popularity of fried or salty foods in neighborhoods they serve. Fast food restaurants and convenience stores are widely available in their communities; unfortunately, large, full-scale grocery stores are not readily available.

Another barrier for many low-income residents is education. Community residents may not have the proper health education and understanding of how to prepare a healthy meal. Proper educational information and dietary guidelines can assist those who want to eat healthy meals; however, the availability of healthy food choices must be present.

Fortunately, there are noteworthy initiatives underway in Baltimore City to combat the food environment problem. One initiative from B'more Fresh, Baltimore's Retail Strategy, is to reduce the number of people living in food deserts and to grow the economy using five key approaches: Expand and Retain Supermarkets, Improve Non-Traditional Grocery Retail Options (e.g., small grocery stores, corner stores, pharmacies, and virtual supermarkets), Improve Healthy Food Availability in the Public Market Setting, Expand Homegrown Baltimore to Serve Neighborhoods in Healthy Food Priority Areas, and Address Transportation Gaps that Impact Food Access.

Access to Health Services

Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans. Access to health care services is a recurring problem in the community. As a point of reference, this typically refers to the ability and ease with which people can obtain health care or use health care coverage.

Across the nation and during the CHNA process, access to behavioral health services, which include substance abuse and mental health services, arose as a key priority in the study area. Secondary data, results from the survey, discussions with community leaders, and focus groups with vulnerable populations all highlighted the growing national and local need to increase access to behavioral health

services. Behavioral health concerns, both substance abuse and mental health, were listed by focus group participants and survey respondents as their number one health concern.

The shortage of mental and behavioral health providers is recognized as a serious challenge for those struggling with their mental and behavioral health issues. The loss of independence, the loss of a loved one, and the overall decline of health are also some contributing factors that make mental health a critical concern. Mental health is shaped in part by the socioeconomic factors and physical environment where people live. Primary and secondary data collected from the CHNA reinforced these statements. In the community, health services should be effective and relevant for community residents to be able to obtain them. Health insurance coverage can only go so far for those living in the community. There are a multitude of factors and barriers that prevent residents from obtaining care and services. These include affordability, health literacy, navigation through the health care system, the availability of providers, lack of culturally competent care, transportation, etc.

The CHNA identified specific areas of focus regarding access to health services. They include obtaining behavioral health services, including those for substance abuse and mental health, providing access to the uninsured and underinsured population, and access to services related to chronic diseases and dental care. Addressing the needs of the uninsured/underinsured and creating an accessible pathway can provide community residents with the ability to obtain needed health care services.

Behavioral Health - Substance Abuse

A major growing concern along with mental illnesses is substance abuse, which refers to the abuse of alcohol, the inappropriate use of prescription medicine, and the use of illegal drugs. According to the Substance Abuse and Mental Health Services Administration (SAMHSA) 2016 National Survey of Drug Use and Health, 20.1 million individuals aged 12 years or older had a substance use disorder (SUD) related to their use of alcohol or illicit drugs in the past year. This included 15.1 million people who had an alcohol use disorder and 7.4 million who had an illicit drug use disorder. Among those who had an illicit drug use disorder, the most common disorder was for marijuana (4.0 million people). An estimated 2.1 million people had an opioid use disorder, which includes 1.8 million people with a prescription pain reliever use disorder and 0.6 million people with a heroin use disorder.

In 2016, per SAMHSA, an estimated 21.0 million people aged 12 or older needed substance use treatment (about 1 in 13 people). However, only about 3.8 million people received any substance use treatment, and just 2.2 million received treatment at a specialty facility in the past year.

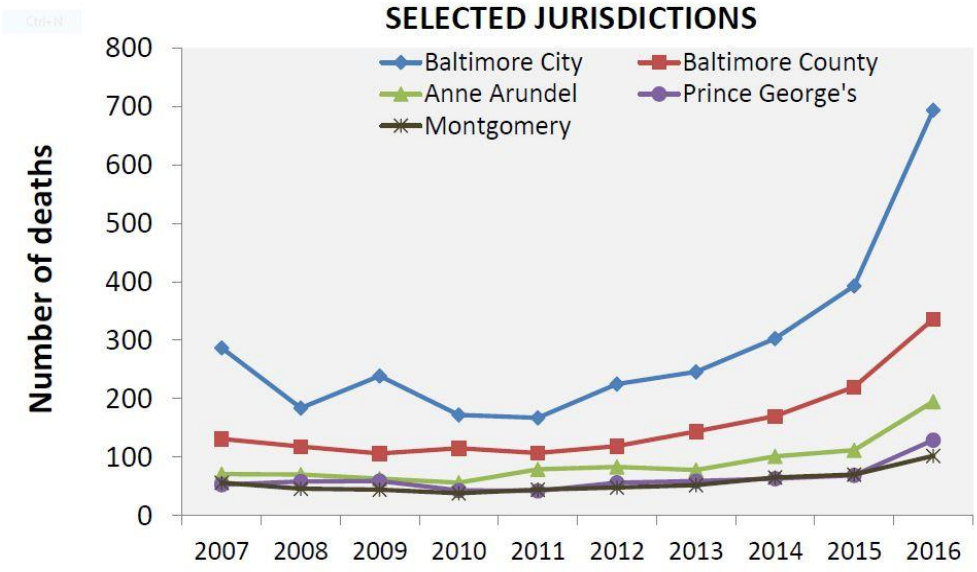
Data at the national level from the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System revealed more Baltimore County residents (56.1 percent) and Marylanders (56.1 percent) aged 12 and older used alcohol in the past month than did Baltimore City (48.9 percent) residents. However, close to one-fourth of Baltimore City residents (24.5 percent) had five or more drinks on the same occasion compared to residents in Baltimore County (21 percent) and the state (21.8 percent). Additionally, SAMHSA reported that the use of illicit drugs among Baltimore City residents (10.5 percent) aged 12 and older was higher compared to residents in Baltimore County (7.5 percent) and the state (7.6 percent).

Maryland Department of Health's 2016 Report on Drug- and Alcohol-related Intoxication Deaths show that, like the nation, Maryland has seen a sharp increase in opioid-related deaths, primarily due to heroin and fentanyl deaths and less as a result of prescription opioids (see Charts 6-9). The number of opioid-related deaths in Maryland increased by 70 percent between 2015 and 2016, and has quadrupled since 2010. (Note: Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths in the report.)

Baltimore City, in particular, has experienced large increases in heroin and fentanyl deaths, followed by Baltimore County, Anne Arundel County, and Prince George's County. The number of heroin-related deaths in Maryland increased five-fold between 2010 and 2016. Heroin deaths have increased among all age groups, Whites and Blacks, men and women, and in all regions of the State.

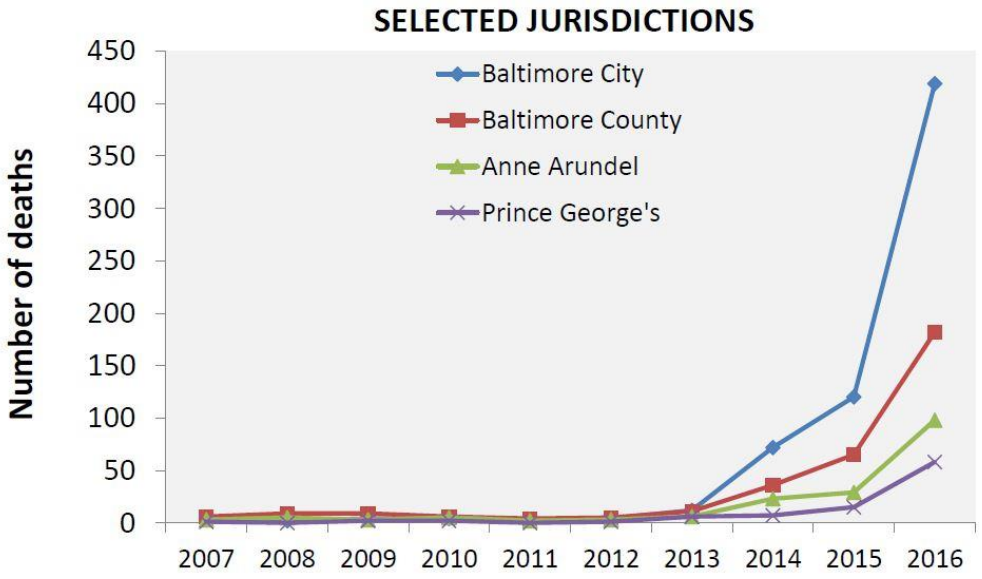
In terms of demographics for drug- and alcohol-related intoxication deaths, although intoxication deaths have been increasing among all age groups, the increase has been greatest among individuals 55 years of age and above. The number of deaths among this age group increased almost five-fold between 2010 and 2016, from 86 to 424. The number of deaths increased by 55 percent among Whites and by 87 percent among African Americans between 2015 and 2016. Although the number of deaths among Hispanics had been at a relatively low level in earlier years, the number of deaths among this group more than doubled between 2015 and 2016, from 21 to 53. Deaths increased by 69 percent among men and by 57 percent among women between 2015 and 2016.

Chart 6. Drug- and alcohol-related intoxication deaths by jurisdiction



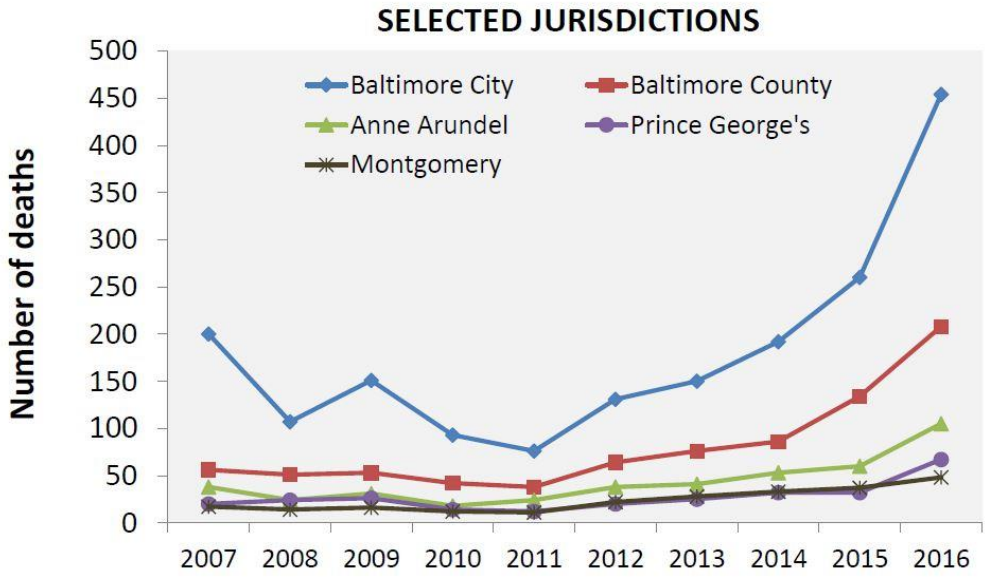
Source: Maryland Department of Health Report on Drug- and Alcohol-related Intoxication Deaths (2016)

Chart 7. Fentanyl deaths by jurisdiction (Note: Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths in the report.)



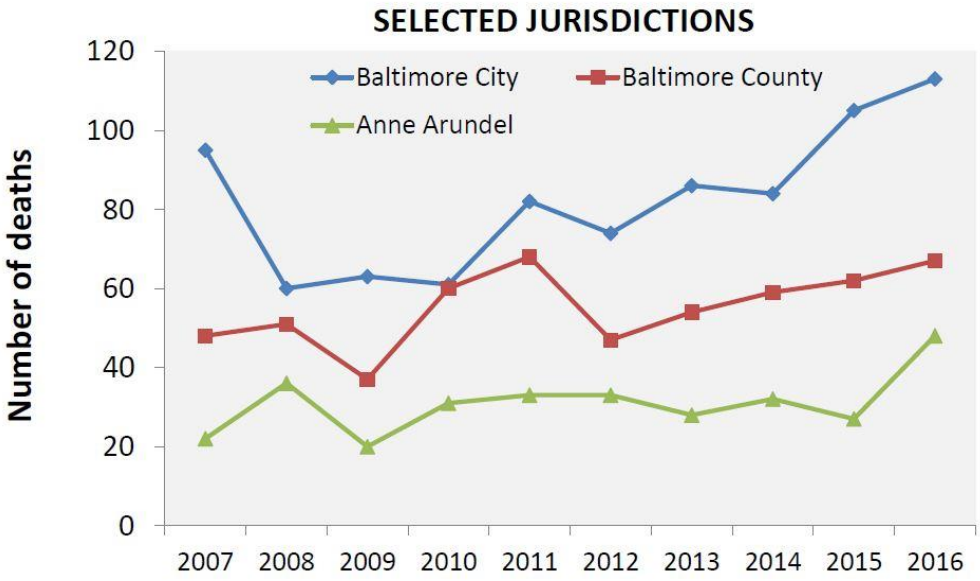
Source: Maryland Department of Health Report on Drug- and Alcohol-related Intoxication Deaths (2016)

Chart 8. Heroin deaths by jurisdiction. (Note: Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths in the report.)



Source: Maryland Department of Health Report on Drug- and Alcohol-related Intoxication Deaths (2016)

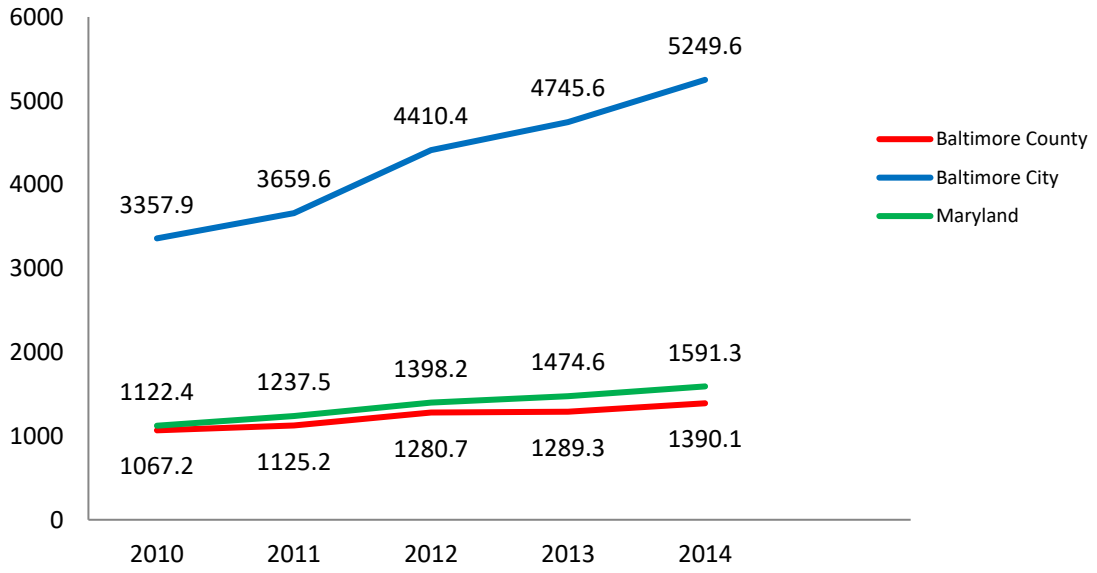
Chart 9. Prescription opioid deaths by jurisdiction. (Note: Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths in the report.)



Source: Maryland Department of Health Report on Drug- and Alcohol-related Intoxication Deaths (2016)

Additional data revealed that Baltimore City residents saw a steady increase in emergency room visits for addiction-related conditions from 2010 to 2014, and throughout this period had significantly higher rates than Baltimore County and the state. In 2014, Baltimore City had 5249.6 (per 100,000 population) emergency room visits for addiction-related conditions compared to 1390.1 in Baltimore County and 1591.3 in the state. (See Chart 10).

Chart 10: ED Visits for Addiction-Related Conditions (Per 100,000 population)



Source: Maryland State Health Improvement Process 2014

Community residents recognize the dangers associated with drug and alcohol abuse. Results from the current survey revealed that 68.4 percent of respondents indicated it was their number one health concern. This is up significantly from the 2016 survey when only 11.5 percent of survey respondents were most concerned about drug and alcohol use/addiction in their community. Discussions with community leaders echoed the concerns of survey respondents. Community leaders understood the severity of substance abuse in the community and the negative impact it has on the community at large.

Community stakeholders reported that substance abuse is widespread in the city. Many community residents, especially young Black males, struggle with the disease, and this contributes to a higher incidence of crime and violence. Without counseling and treatment options, community residents are less likely to obtain employment due to their erratic behavior, typical of individuals with substance abuse issues. Programs and services are lacking in the community and counseling, and treatment options are scarce. Focus group participants expressed a strong need for more community resources and funding to combat the substance abuse problem, as well as a need for more mental and behavioral health programs.

Per the SAMHSA survey, an estimated 8.2 million adults aged 18 and older had co-occurring mental illness and substance use disorders in the past year, about half of which did not receive either mental health care or specialty substance use treatment. Behavioral health disorders, which include mental illness and substance abuse, left undiagnosed and untreated, can lead to physical, emotional, and spiritual issues manifesting into larger health problems. Community residents dealing with behavioral health issues need access to adequate services and resources, as well as the knowledge of where to

obtain care. Communities will suffer and face damaging effects if behavioral services and treatment options are not addressed.

Behavioral Health - Mental Health

There are many factors linked to mental health, including genetics, age, income, education, employment, and environmental conditions. As identified by primary and secondary data, mental health provider shortages, overall access issues, high rates of co-occurring mental disorders, and substance abuse issues all create significant concerns about the state of behavioral health issues and the need to bring additional focus on providing behavioral health services.

Community residents also struggle with environmental stress such as loss of or limited employment opportunities, poor living environments, and an overall sense of hopelessness creating feelings of depression and anxiety, all of which can impact the mental and spiritual well-being of the individual. The use and abuse of drugs and alcohol are attractive avenues for community residents who struggle to face their mental health problems. In many cases, residents who have a mental health issue also are substance abusers.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), behavioral health is essential to overall health, with prevention and effective treatment measures allowing individuals to recover from mental health crises. Direct access to health professionals and health services for behavioral health problems enables community residents to obtain proper care and treatment, leading to healthier lives.

SAMHSA reported, based on the results of their 2016 national survey, that 12.8 percent of adolescents aged 12 to 17 (3.1 million) and 10.9 percent of young adults aged 18 to 25 (3.7 million) had a major depressive episode (MDE) during the past year. Among those adolescents and young adults who had a past year MDE, only 40.9 percent of adolescents and 44.1 percent of young adults received treatment for depression.

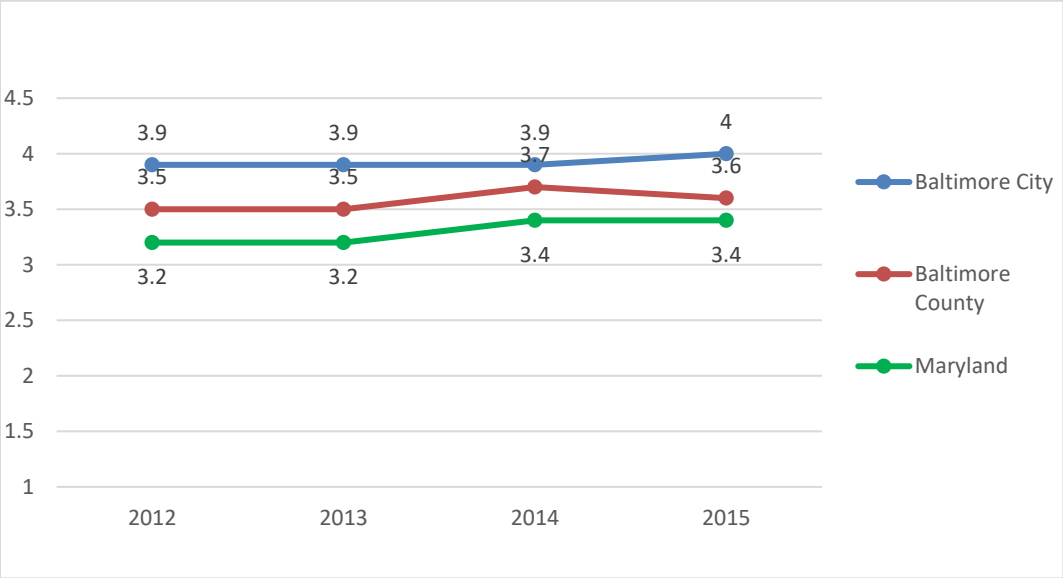
Across the nation, mental illness continues to be a major issue for individuals and families. The Centers for Disease Control and Prevention (CDC) defines mental illness as “collectively all diagnosable mental disorders” or “health conditions that are characterized by alterations in thinking, mood, or behavior associated with distress and/or impaired functioning.” According to the CDC, serious mental illness costs in the United States amount to $193.2 billion in lost earnings per year. Mood disorders, including major depression, dysthymic disorder, and bipolar disorder, are the third most common cause of hospitalization in the United States for both youth and adults aged 18 to 44.

Data show that roughly 60 percent of adults with mental illness received no mental health treatment within the last year, indicating a nationwide issue with individuals being able to receive proper mental health services and treatment. This is due, in part, to the lack of mental health providers across the U.S. According to the U.S. Department of Health and Human Services, almost 91 million adults live in areas where shortages of mental health professionals make obtaining treatment difficult.

From a regional perspective, the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System reported that Baltimore City residents had an average of 4 mentally unhealthy days

in the past 30 days, which was higher than both Baltimore County (3.6) and Maryland (3.4) (See Chart 11).

Chart 11: Average number of mentally unhealthy days reported in past 30 days (age-adjusted)



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System 2015

Information collected from the surveys showed that community residents in the CBSA have an even greater need for mental health services. When asked to indicate if they had poor mental health days in the last month, 30 percent of people indicated they had one or more poor mental health days. The average number of poor mental health days was 10.2 days. A higher percentage of White respondents indicated poor days overall (38 percent) versus Black respondents (28 percent) and those who identified as Hispanic/Latino (24 percent). However, the average number of poor mental health days reported by White respondents was the lowest at 7.6 days versus 11.9 days for Blacks and 12.4 days for Hispanic/Latinos.

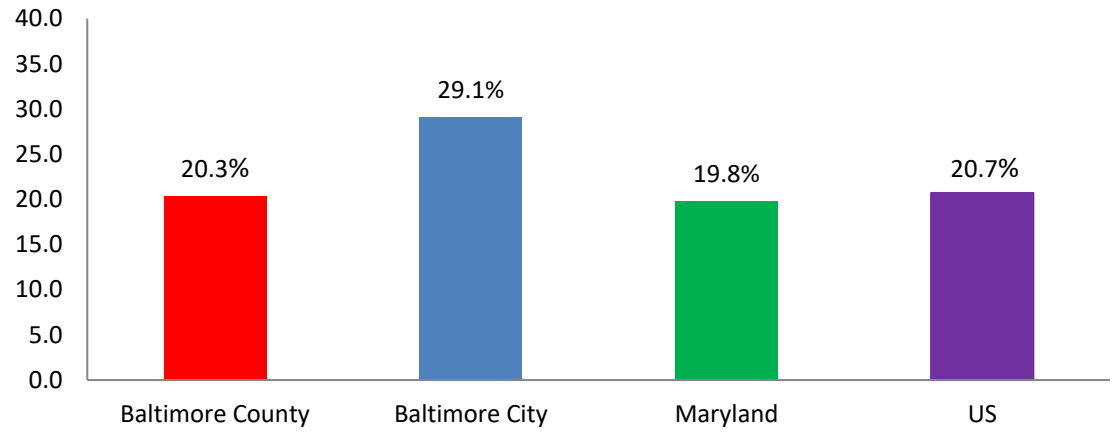
In the previous CHNA in 2016, more specific questions were asked of survey respondents. More than one-fourth of respondents reported having depression (29.7 percent), while 25.1 percent reported having problems remembering things or concentrating, and 23.2 percent reported having anxiety, nervousness, and/or panic attacks. Among survey respondents, more than one-third received mental health services in the past 12 months (36 percent). Of those survey respondents who received mental health services, 41.5 percent obtained services from a mental health counselor or provider while 18.6 percent obtained services from their community or neighborhood organization, 18.6 percent went to the hospital/emergency room, 17.8 percent saw their primary care provider/health clinic, while the remaining 3.4 percent indicated “other”.

Additionally, 16 percent of respondents reported they needed but did not receive mental health services in the past 12 months. Of those survey respondents who needed mental health services but did not

receive care, 18.4 percent reported that their insurance did not cover the care. Other responses to the question included that they did not know where to go (13.2 percent) and/or preferred alternative forms of treatment (13.2 percent). It was reported that 20.3 percent had a mental/emotional problem that affected their daily activities. Information collected from the surveys highlights the growing local problem and the need to increase the availability of mental health providers for this population.

More than one-fourth (29.1 percent) of Baltimore City residents reported they lacked the social or emotional support they needed, compared to 20.3 percent in Baltimore County, 19.8 percent in Maryland, and 20.7 percent in the U.S. (See Chart 12).

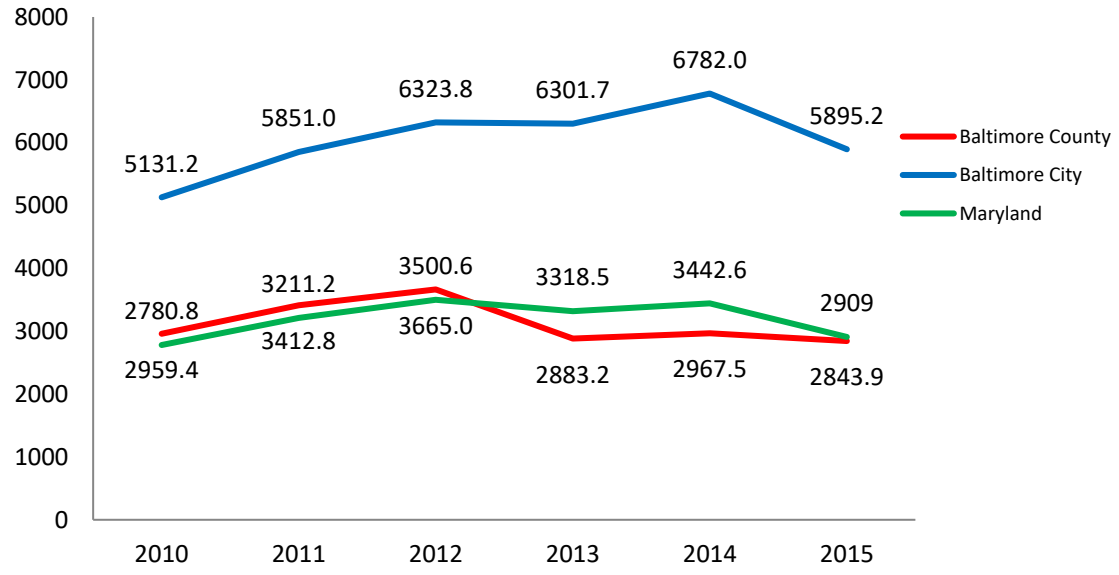
Chart 12: Lack of Social or Emotional Support



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2006-2012

The Maryland State Health Improvement Process data revealed that Baltimore City residents saw a steady increase from 2010 to 2014 in emergency room visits related to mental health conditions (with only a slight decrease between 2012 and 2013). In 2014, there were 6782 per 100,000 population of Baltimore City residents who visited the emergency room related to a mental health condition, compared to 3442.6 in the state and 2967.5 in Baltimore County (See Chart 13). In 2015, Baltimore City did experience a 13 percent decline in ED visits related to mental health conditions, but this was still more than twice the rate seen in the county and state.

Chart 13: Emergency Department Visits Related to Mental Health Conditions (Per 100,000 population)



Source: Maryland State Health Improvement Process 2015

Suicide is a serious public health problem and is a preventable cause of death. Residents who attempt suicide are typically depressed and/or face other significant mental health challenges for which they believe there are limited or no solutions. The Maryland State Health Improvement Partnership from 2011-2013 reported 9 suicides per 100,000 population among Maryland residents, meaning that more than 500 lives are lost each year in the state of Maryland due to suicide.

Community stakeholders reported the need to continue to invest in improving access to health care, especially mental health and addiction recovery services. Shortages of mental health providers and facilities, lack of access, and challenges associated with obtaining employment can interfere with individuals seeking the mental health services they need.

According to community stakeholders, many residents with a mental and or a behavioral health issue also have a substance abuse problem. Poor socioeconomic factors can contribute to the use and the abuse of drugs. Additionally, some underlying chronic diseases such as diabetes, high blood pressure, heart disease, high cholesterol, and asthma often are exacerbated by the inability to control and receive treatment for a mental health issue. Daily trauma (e.g., not having enough food for the family, being homeless, etc.), adapting to new cultural surroundings, and domestic violence are additional perceived concerns that affect whole communities within the region. Community leaders reported that many community residents who have mental health issues also have dual behavioral diagnoses, making access to care and treatment essential.

Additional primary data collected from focus group participants reported mental health is a significant issue that affects all members of the community, regardless of age or race. Barriers such as the lack of insurance coverage, negative social stigma, and lack of health education prevent individuals from seeking needed care. Educating community members on the signs and symptoms of depression and other mental health issues can enable them to be more aware of the disease in order to seek and obtain needed services.

Focus group participants also cited the stress and anxiety many families face because they are unable to meet the basic needs of their children. The prevalence of violence and crime in neighborhoods is a contributing factor to increased mental health issues. Focus group participants reported that youth in middle school are overwhelmed trying to address issues related to violence, peer pressure, depression, abuse, sexually transmitted diseases, and early pregnancy. One solution suggested was that if funding were available, students could take advantage of school-sponsored therapy sessions, providing long-term benefits to those students who struggle with a mental health problem. Overall, both community leaders and focus group participants were aware of their communities' mental health problems, yet access and the availability of treatment options hinder residents from obtaining needed care.

Chronic Diseases

Maryland State Health Improvement Process reported that Marylanders and Baltimore County residents have roughly the same life expectancy (79.6 years and 79.4 years respectively), while Baltimore City residents have a dramatically lower life expectancy of 73.9 years. Heart disease, cancer, diabetes, and stroke, are a few leading causes of death and disability among citizens. These and other chronic diseases are responsible for seven of the top ten causes of death each year, and treating people with chronic diseases accounts for 86 percent of our nation's health care costs according to the CDC. Although common, many of the chronic diseases diagnosed in community members are preventable. Living a healthy lifestyle by incorporating exercise, eating healthy foods, and avoiding tobacco and alcohol can reduce the risk of developing certain diseases.

Obesity, a growing national concern, has affected many communities and neighborhoods and shows no signs of waning. Communities are seeing children as young as two years old diagnosed as being overweight and/or obese. According to The State of Obesity (2017), Maryland has the 26th highest adult obesity rate in the nation. Maryland's adult obesity rate is currently 29.9 percent, up from 19.6 percent in 2000 and 10.8 percent in 1990. Specifically examining the BMI of adults, the CDC reported that there were more Baltimore City (34.1 percent) residents aged 18 and older with a BMI of 30 or greater (which indicates that they are obese) when compared to residents in Baltimore County (27.9 percent) and the state (28 percent) in 2012.

The physical and emotional toll and the overall health care costs associated with chronic diseases are staggering. Costs of heart disease and stroke in 2012-2013 were estimated to be $316.1 billion. Of this amount, $189.7 billion was for direct medical costs, not including costs of nursing home care. Medical costs linked to obesity were estimated to be more than $150 billion annually and billions of dollars more lost in productivity as reported in The State of Obesity (2017).

Data obtained from Maryland Department of Health and Mental Hygiene identify the leading causes of death in Baltimore City and Baltimore County as heart disease, cancer, and stroke. These are also the top three leading causes of death for the state of Maryland (See Tables 8-9, Chart 14).

Table 8: Top 10 Causes of Death in Baltimore City, 2016

	Percent of Total Deaths
1. Heart Disease	23.6
2. Cancer	20.5
3. Stroke	5.2
4. Accidents	4.2
5. Assault/Homicide	3.9
6. Diabetes	3.0
7. Septicemia	2.5
8. Influenza and pneumonia	2.1
9. Nephritis	1.7
10. Alzheimer disease	1.3

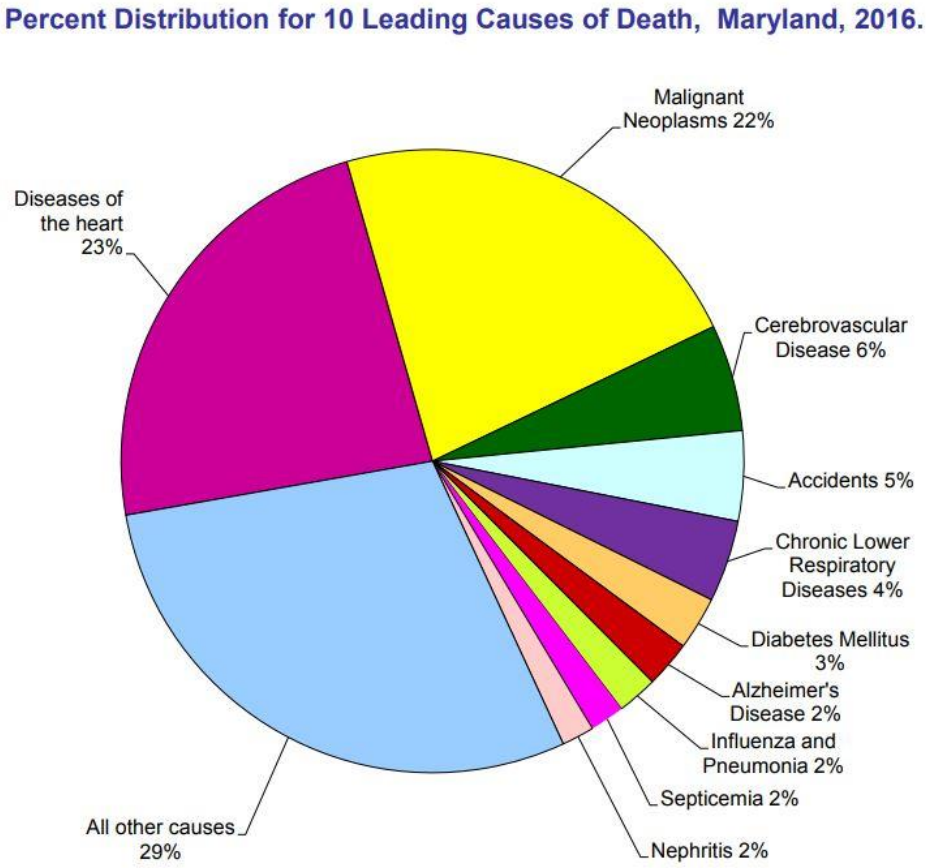
Source: Maryland Vital Statistics 2016 Annual Report

Table 9: Top 10 Causes of Death in Baltimore County, 2016

	Percent of Total Deaths
1. Heart Disease	23.5
2. Cancer	22.7
3. Stroke	5.8
4. Accidents	4.6
5. Chronic lower respiratory diseases	4.1
6. Diabetes Mellitus	2.6
7. Influenza and pneumonia	2.3
8. Septicemia	2.2
9. Alzheimer disease	2.1
10. Nephritis	1.5

Source: Maryland Vital Statistics Annual Report 2016

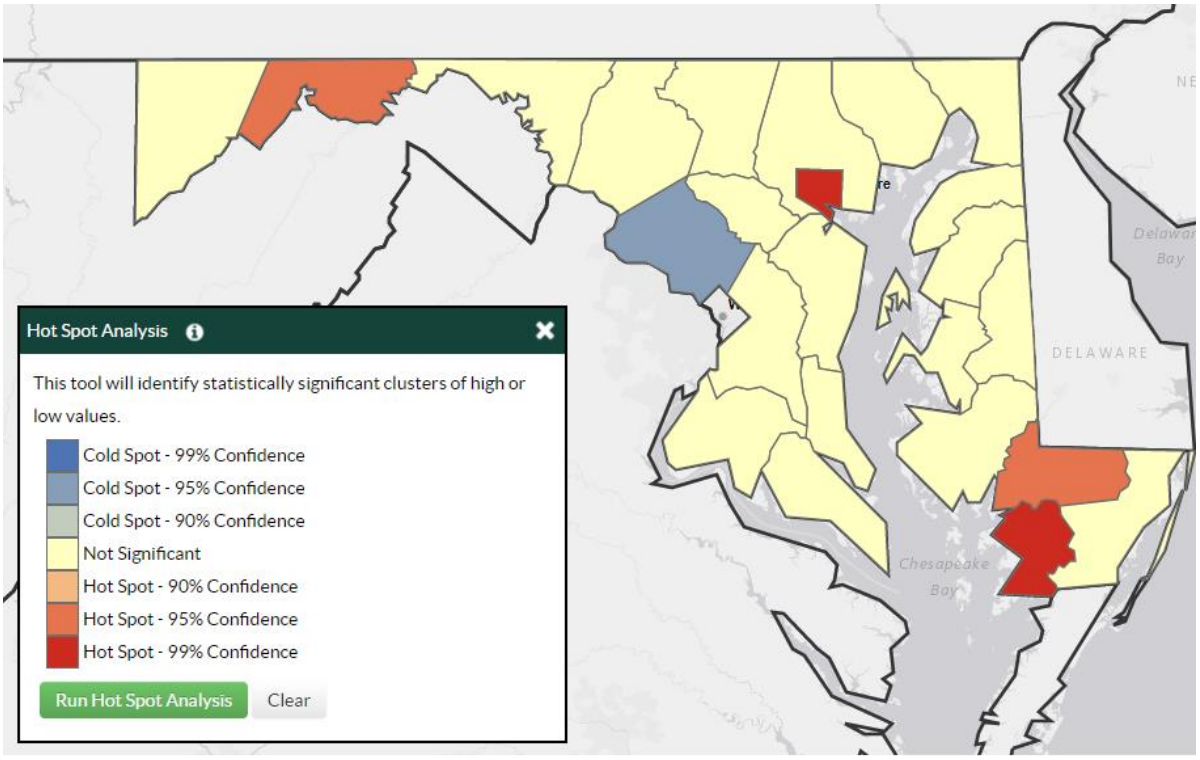
Chart 14: Top 10 Causes of Death in Maryland, 2016



Source: Maryland Vital Statistics Annual Report 2016

According to the Centers for Disease Control and Prevention, Baltimore City is a major hot spot within the State of Maryland for deaths due to cardiovascular disease as shown in Chart 15.

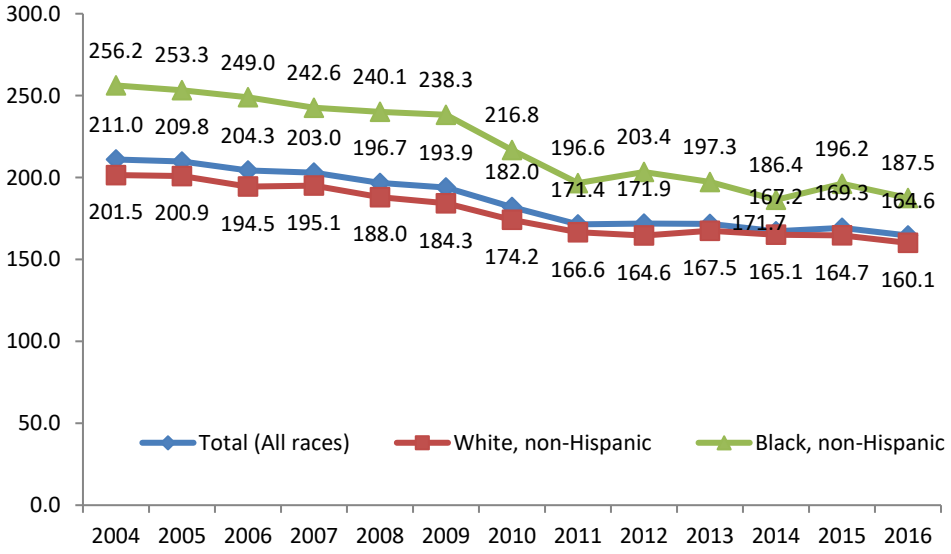
Chart 15: Hot Spot Analysis of Heart Disease Death Rate per 100,000, 35+, in Maryland 2013-2015



Source: National Center for Chronic Disease Prevention and Health Promotion 2017

Hypertension is one of the most common risk factors for diseases of the heart. The presence of hypertension increases the risk of heart disease times two in men and times three in women. It is documented that Blacks have a greater risk than Whites for cardiovascular disease, due in part to more severe high blood pressure problems. Educating the broad community to understand the risks and signs of heart disease and stroke serves as the major impetus in the prevention and treatment of heart disease. As shown in Chart 16, the rate of death due to diseases of the heart have been steadily declining since 2004. Blacks have a significantly higher rate of deaths than Whites in Maryland, but the inequities have declined somewhat from a 27.1 percent higher incidence in 2004 to 17.1 percent higher incidence in 2016.

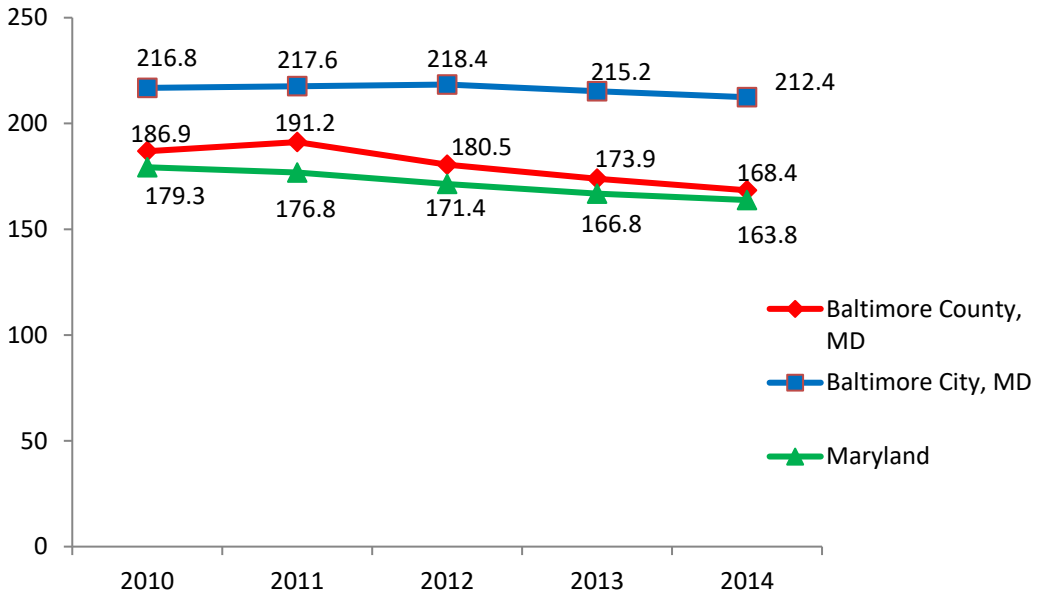
Chart 16: Diseases of the Heart Age-Adjusted Death Rate for Diseases of the Heart by Race. Rate per 100,000 Population



Source: Maryland Department of Health and Mental Hygiene Vital Statistics, 2016

Diabetes is a widespread, chronic disease caused by the inability of the body to produce or properly use insulin. It is characterized by high blood sugar levels. Diabetes predisposes people to costly complications, including heart disease, hypertension and stroke. Diabetes is the leading cause of new cases of blindness, end-stage renal failure, and non-traumatic lower extremity amputation. The rate of residents in Baltimore City from 2010-2014 who visited the emergency room due to their diabetes was much higher than in Baltimore County and the state (See Chart 17).

Chart 17: Emergency Department Visit Rate Due to Diabetes (per 100,000 population)

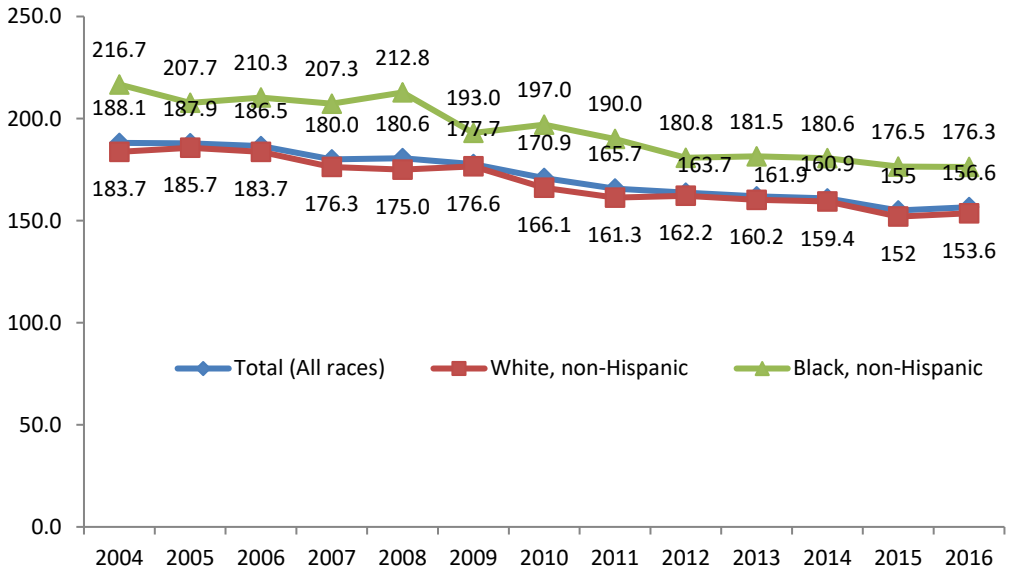


Source: Maryland State Health Improvement Process 2014

Cancer in some form affects more than one million American people annually as reported by the American Cancer Society (ACS). In 2015, the ACS estimated that the 171,000 cancer deaths would be caused by tobacco use alone and that 25.0 percent to 33.0 percent of cancer cases would be attributed to poor nutrition, physical inactivity, overweightness, and obesity. The ACS noted that much of the suffering and death caused by cancer could be prevented by more systematic efforts to reduce underlying causes and to expand the use of established screening tests. Therefore, a greater emphasis must be placed on cancer screenings to provide early detection and public education and awareness to reduce the risk and prevent the various types of cancer.

The CHNA reported malignant neoplasms at 22.0 percent among the leading causes of death in the state of Maryland. The rate of malignant neoplasms was higher among Blacks (176.3 per 100,000) as compared to Whites at (153.6 per 100,000) as shown in Chart 18.

Chart 18: Malignant Neoplasm Age-Adjusted Death Rate for Malignant Neoplasm by Race. Rate per 100,000 Population

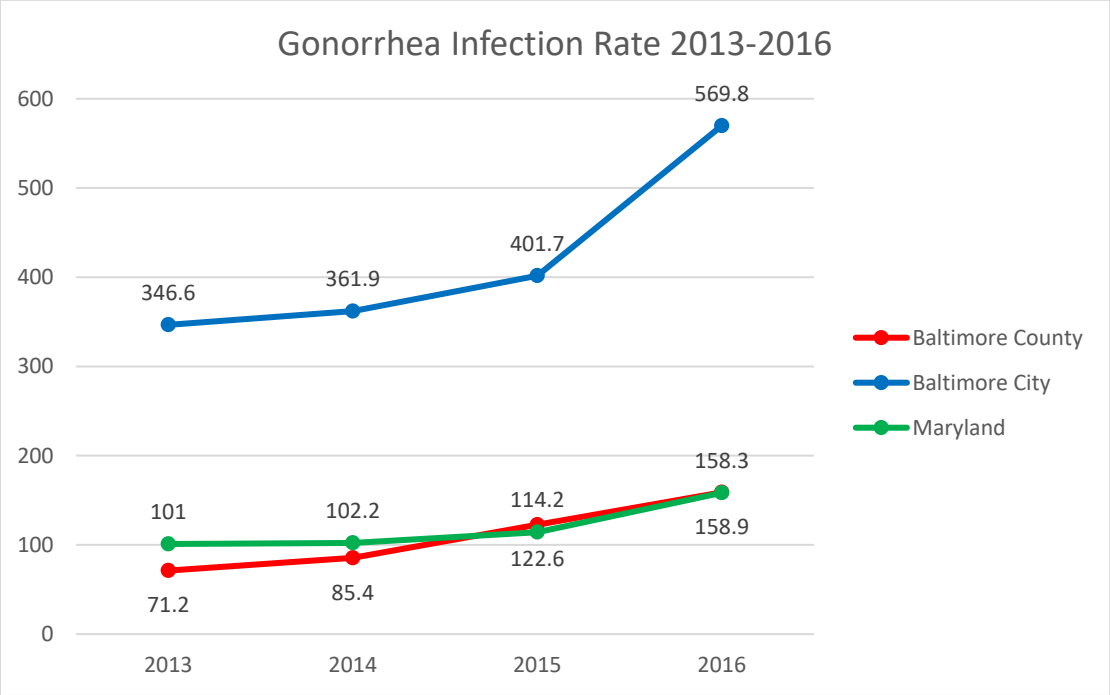


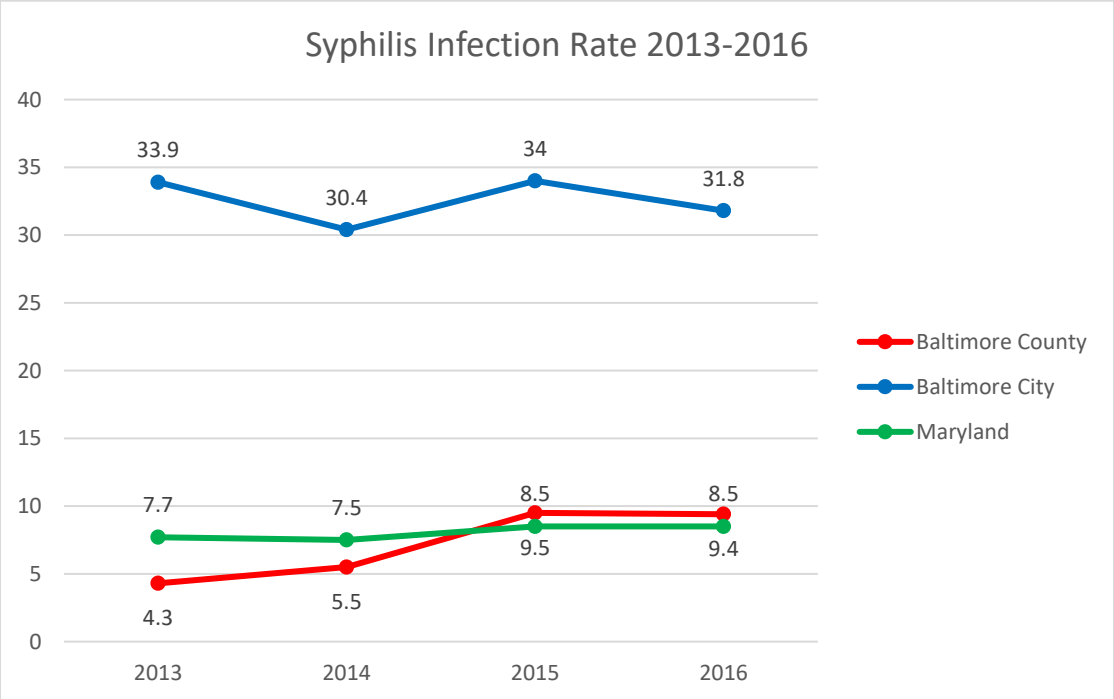
Source: Maryland Department of Health and Mental Hygiene Vital Statistics, 2016

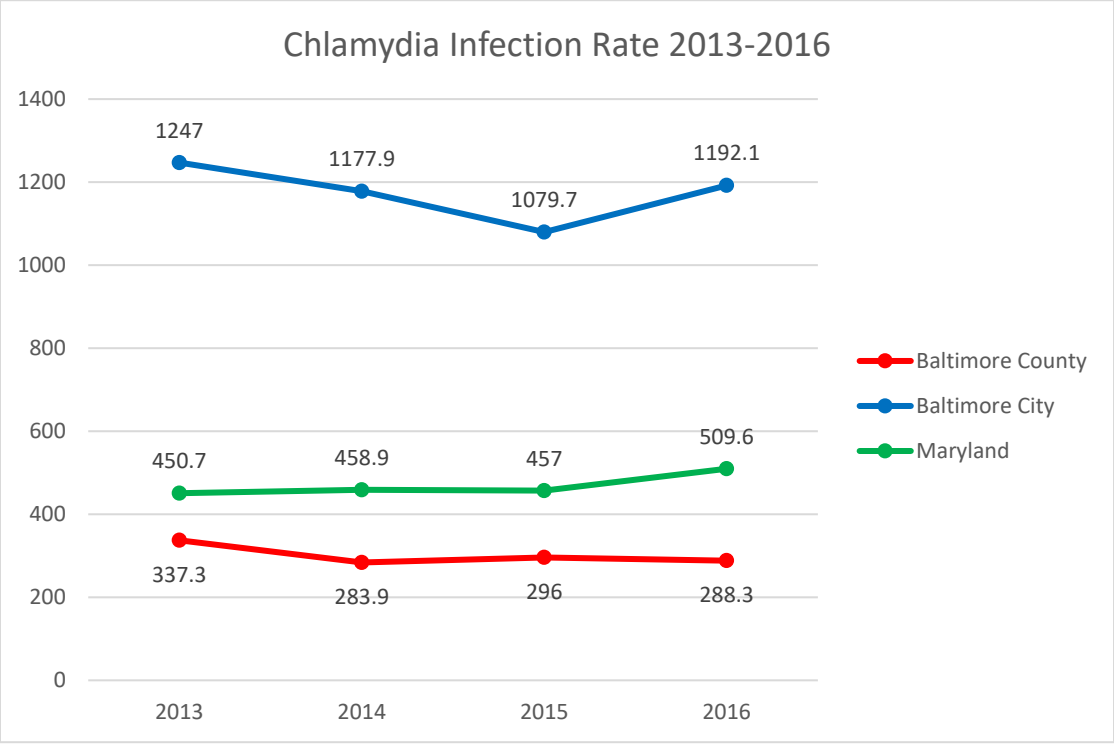
Sexually transmitted diseases (STDs) are significant health issues that are largely preventable. Socioeconomic factors have a strong relationship with how STDs are spread. Racial and ethnic disparities, poverty, drug abuse, and access to care are some factors that contribute to the spread of the disease. The Maryland State Health Improvement Process reported from 2011-2013 a 73.8 HIV incidence rate per 100,000 population among Baltimore City residents. This rate is more than double the rate of Marylanders (28.1) and four times the rate of Baltimore County residents (17.8). Maryland Department of Health and Mental Hygiene Vital Statistics reported in 2013 the HIV death rate per 100,000 in population for Black males (13) was ten times higher when compared to White males (1.3).

Baltimore City residents had higher rates of chlamydia, gonorrhea, and syphilis compared to Baltimore County residents. Baltimore City residents, compared to those in Baltimore County, had more than double the cases of chlamydia, more than three times the gonorrhea cases, and more than six times the syphilis cases. Alarmingly, between 2013 and 2016, Baltimore City saw a marked increase in the rate of gonorrhea cases (See Charts 19-21).

Charts 19-21: Sexually Transmitted Diseases Rates, 2013-2016



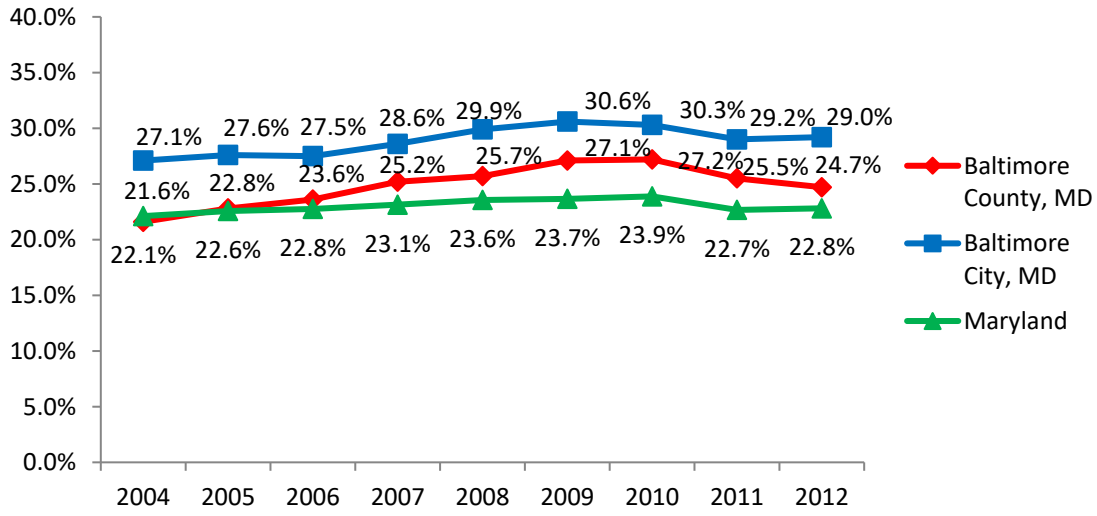




Source: Maryland Dept. of Health and Mental Hygiene; Center for STI Prevention (CSTIP) 2013-2016

The Maryland State Health Improvement Process consistently reported more physically inactive adults aged 20 and older living in Baltimore City when compared to Baltimore County and the state. (See Chart 22).

Chart 22: Physical Inactivity (Percent of Adults Aged 20 and Older Who Are Physically Inactive)



Source: Maryland State Health Improvement Process, 2014

Survey results from 2016 identified more than one-third of respondents (40.2 percent) have been told by a health professional that they are overweight or obese. More than one-half of survey respondents (51.5 percent) reported that they have high blood pressure, 22.5 percent said they have diabetes, and 20.6 percent acknowledged heart problems. Top health concerns reported by current survey respondents include drug and alcohol abuse, mental health problems, diabetes/high blood sugar, smoking/tobacco use, obesity/overweight, heart disease/high blood pressure, and cancer, in that order.

Community stakeholders reported lifestyle choices to be a major factor that contribute to the development of chronic diseases. Many cited smoking, obesity, substance abuse, high blood pressure, and poor food choices to be significant contributing factors for chronic diseases in residents. It was noted that more education and information are needed for community residents and patients who have these conditions in order to reduce complications and improve their overall health. Some stakeholders reported the lack of available community resources to assist diabetic patients in complying with treatment plans (e.g., diet, weight loss, exercise, and medications). Lack of access to affordable healthy food, safe venues for physical exercise, and adequate education and support are major road blocks to many who want to improve their health. Many feel a need for a more concerted effort to make a significant change in the community.

Obesity, according to community stakeholders, has become a community epidemic. While obesity can be considered an intergenerational issue, there are additional contributing factors--for example, the limited availability of fresh, healthy foods in the community. Low-income areas are stricken with poverty, and certain regions in the city only have access to only fast food. It is understood from community stakeholders that accessibility is an issue, and socioeconomic factors play a significant role in the obesity epidemic.

Information cited from focus group participants, especially Hispanic/Latino respondents, also revealed their growing concerns over obesity in the community. The group discussed the role obesity plays in an individual's overall physical health, as well as mental health issues. The lack of accessibility to affordable healthy foods along with limited opportunities for physical fitness contribute to the rise in obesity. The inability to engage in outdoor activities due to factors such as crime and safety pose limited options for residents to engage in exercise. Focus group participants are aware that obesity can lead to diabetes and that exercising and eating healthy can often alter and help manage the condition. However, not having access to primary care services makes chronic diseases difficult to diagnose, treat, and manage.

Focus group attendees are aware of the high rates of African Americans who have diabetes, and many cite cultural eating habits, the lack of quality grocery stores (living in a food desert), and the unaffordability of healthy foods as being underlying factors that contribute to the high rates of diabetes in their community.

Chronic diseases can be managed, and many are preventable; however, generational attitudes along with the ability to obtain necessary health care services need to be addressed in order to allow community residents the opportunity to live a healthier life. Information gathered related to causes of death, high blood pressure, diabetes, etc. all point toward the need for community action. Education, information, and improved access for those in the area can have a significant impact in reducing the chronic conditions of residents.

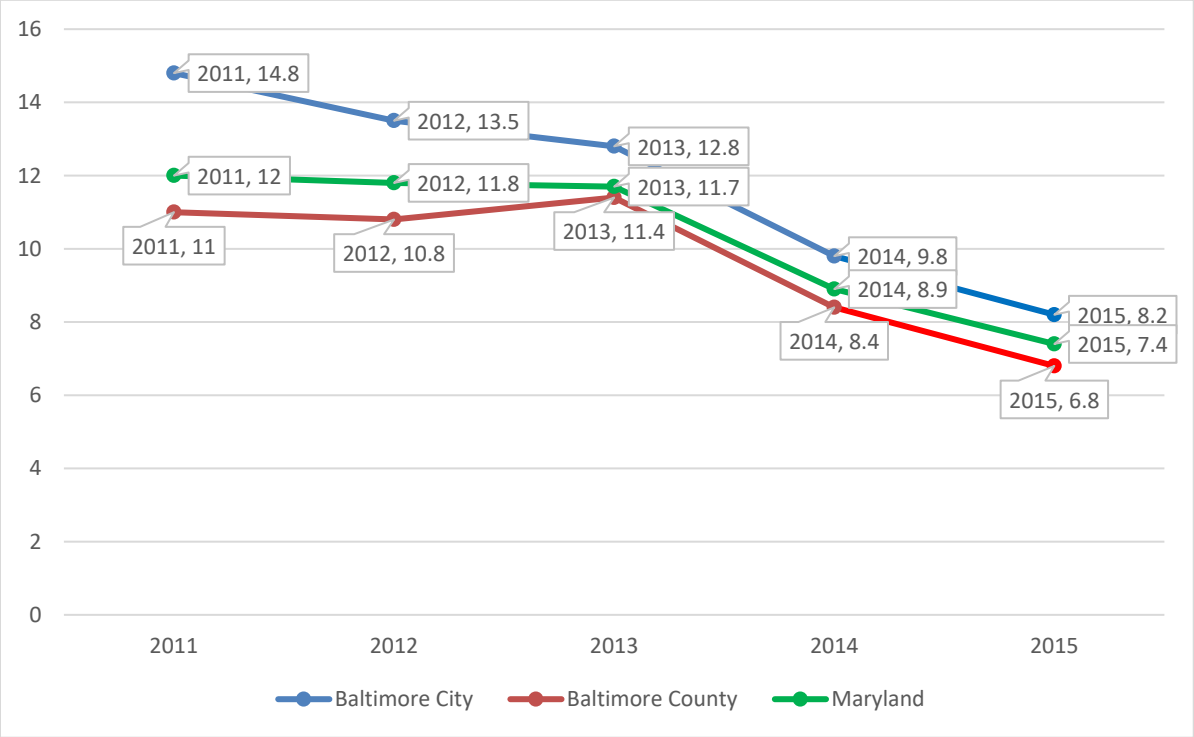
Uninsured/Underinsured

The availability of health care insurance is one of the most important elements in obtaining primary health care access. For many Americans, there remains a need to make it more available. The limitations in health care coverage affect the vulnerable, underserved, and low-income populations. Many factors influence the availability of health insurance, including economic factors, language, knowledge, citizenship, and ease of accessibility.

The Patient Protection and Affordable Care Act (PPACA) provides Americans with better health security by putting in place comprehensive health insurance reforms that expand coverage, hold insurance companies accountable, lower health care costs, guarantee more choice, and enhance the quality of care for all Americans. Although this legislation introduced historic reform, millions of Americans still find themselves unable to afford health insurance. Often forced to choose between meeting basic needs or paying health insurance premiums, too many Americans go without health insurance coverage, increasing the risk of injury and illness.

The availability and ease of use for insurance have increased with the passage of the PPACA. For 2016, the U.S. Census Bureau estimated that 6.1 percent of Marylanders, compared to 8.4 percent of the U.S. population, lives without any type of health care insurance. These numbers are a good indication of progress made, as 2013 levels were significantly higher with 10.2 percent of Marylanders and 14.5 percent of the U.S. population living without insurance coverage. U.S. Census Bureau estimates on the county level from 2011 to 2015 show that Baltimore City and Baltimore County both lowered the percentage of uninsured population age 18 to 64 years to 8.2 percent and 6.8 percent, respectively. (See Chart 23). While the coverage of community residents in Baltimore City is above the national rate, the uninsured population still remains vulnerable to the inability of obtaining health care services. Data also revealed that Hispanic Marylanders (22.4 percent uninsured 18-64 in 2015) had elevated rates of uninsured when compared with White (4.2 percent) or Black (7.5 percent) populations.

Chart 23: Uninsured Population Aged 18-64 years (2011 to 2015)



Source: U.S. Census Bureau, Small Area Health Insurance Estimates 2017

The 2015 CNI insurance rankings[6] for the CBSA showed ZIP codes 21202, 21205, 21213 and 21218 had a score of 5, which indicates that community residents in these specific neighborhoods have additional insurance access issues when compared to the remaining neighborhoods. In reviewing information from Table 10, CNI data (refer to Appendix C for information on how CNI is calculated) revealed neighborhoods 21205 (26.34 percent), 21213 (21.26 percent), 21202 (15.72 percent) and 21218 (14.69 percent) had higher percentages of unemployment when compared to the remaining ZIP codes in the CBSA. CNI calculates the percentage of the unemployed population in the labor force, aged 16 and older, and the percentage of the population without health insurance when calculating the insurance barriers.

[6] 2017 CNI detailed results were not available for this report. Although the overall CNI for the CBSA improved from 4.3 in 2015 to 4.1 in 2017, the factors determining improvement need further review when data is available.

Table 10: CBSA CNI ZIP Codes and Scores: Specific Data and Measures

Zip	2015 Population	Poverty 65+	Poverty Children	Poverty Single w/kids	Limited English	Minority	No H/S Diploma	Unemployed	Uninsured	Rent	House	Income	Culture	Education	Insurance Rank	Housing	2015 CNI Score
21202	23,812	33.00%	47.07%	57.42%	1.13%	70.41%	23.04%	15.72%	18.18%	78.29%	5	5	5	5	5	5	5.0
21205	16,300	30.63%	46.69%	55.48%	3.88%	83.52%	36.55%	26.34%	17.85%	60.52%	5	5	5	5	5	5	5.0
21206	50,347	12.66%	20.19%	28.69%	1.60%	77.37%	15.23%	12.98%	9.26%	39.80%	5	2	5	4	4	5	4.0
21213	32,146	23.72%	30.38%	42.37%	1.08%	93.94%	23.55%	21.26%	14.10%	43.05%	5	4	5	5	5	5	4.8
21218	48,890	22.22%	23.90%	36.41%	0.72%	72.89%	17.43%	14.69%	13.40%	55.22%	5	3	5	4	5	5	4.4
21219	9,743	8.67%	13.01%	24.48%	0.54%	7.64%	17.19%	10.62%	6.46%	18.64%	2	2	2	4	3	2	2.6
21222	56,953	11.38%	20.30%	30.65%	1.69%	23.65%	19.13%	12.99%	6.93%	33.58%	4	2	4	4	3	4	3.4
21224	50,053	13.67%	30.85%	49.26%	9.79%	42.81%	25.12%	10.76%	9.23%	42.36%	5	4	5	5	4	5	4.6
21231	16,032	28.51%	46.54%	69.38%	4.66%	47.11%	16.73%	11.08%	11.73%	63.48%	5	5	5	4	4	5	4.6

Source: Truven Health Analytics 2015

While 2016 CHNA survey results indicated that a majority of respondents had insurance, for the percentage of residents who did not have health insurance, the most common reasons were cost (29.6 percent) and the belief that that they did not qualify (25.4 percent), followed by had insurance but lost it (19.7 percent), have not applied (12.7 percent), do not want (7.0 percent), and do not need (5.6 percent).

Community leaders believe there are a number of factors that affect insurance status within the community. Fear and a lack of trust were two consistent points that surfaced during community leader discussions.

Input from focus group sessions and surveys found that many residents do not have health insurance because they do not know how to obtain it and do not have access to affordable health services. There was the belief that the process is difficult and that 'Obamacare' does not provide adequate, affordable coverage.

Some stated that they avoid seeking health services because they are not eligible, nor can they afford health insurance premiums or the costs associated with uninsured medical care. For many who were aware of health resources, there was a concern about the trustworthiness of information and services provided by these organizations. There is a need for this information to come from trusted community-based organizations and leaders.

Overall, the cost of care, insurance, and lack of community awareness are barriers to receiving health care. Many feel that payment for health care services is expensive, which includes out-of-pocket costs, prescription medications, and high deductibles. Several focus groups indicated that preventive health care services should be free, with fees for preventive services blocking participation for those who cannot afford basic needs.

Language barriers and fear of deportation are the main reasons the Hispanic population does not seek care. Language barriers create problems while scheduling appointments and communicating with providers during visits. While providing information is important, information to community residents must be basic and clearly understandable in order for residents to make appropriate and informed health decisions, even when a foreign language is not an issue.

Many people don't understand how to navigate the insurance system. Assistance programs are complicated and people don't know what is needed to apply. In the case of Hispanic participants, they feel information may not be held in confidence and could be used to deport them. Additionally, many reported they fear assistance programs are going away with the current federal administration.

Other concerns included transportation for groups that are not mobile, such as the disabled and older adults, and getting the prescriptions needed for care after leaving the health care facility. Increasing the number of community health workers was mentioned as a way to get services directly into the community, especially preventive measures and follow-up care.

Dental Care

Dental care is an important part of basic health care; however, for many Americans, there is a need to make it more available. There are many factors that cause access to dental care to be an issue within communities, such as, but not limited to age, cultural and racial background, economics, and access to transportation.

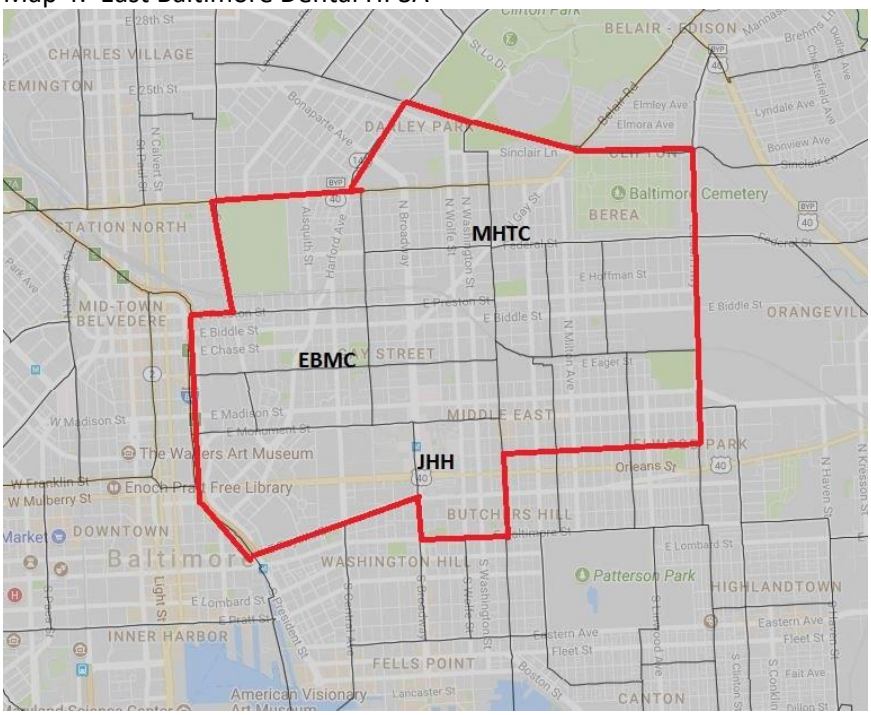
Today, countless individuals must prioritize basic living necessities such as food, housing, and standard health care over other types of care. In most cases, preventive oral health services will take a back seat to other health care needs. The importance of good oral hygiene and its relationship to physical well-being are not commonly understood among a majority of people. Oral hygiene is a must to ensure proper health; otherwise, the risk of severe mouth diseases is present. The American Dental Association (ADA) recommends regular dental visits. However, individuals who are more prone to or are considered high-risk for dental diseases (e.g., smokers, people with diabetes, people with gum disease, etc.) may need more frequent visits to a dental care provider.

Certain diseases such as diabetes and HIV/AIDS can lower the body's resistance to infection, making oral health problems a more serious concern. Oral health might affect, be affected by, or contribute to

various diseases and conditions, such as endocarditis, cardiovascular disease, premature birth, low birth weight, diabetes, HIV/AIDS, osteoporosis, Alzheimer's disease, and other conditions.

The Patient Protection and Affordable Care Act has provided Americans with improved access to dental health care since its inception; however, there are still significant gaps that need to be addressed in Baltimore City and Maryland. While Maryland is home to one dental school, accessibility to providers and care remains a challenge for some communities. The Health Resources and Services Administration reported that Maryland had 49 Dental Health Professional Shortage Areas (HPSA), affecting a population of 920,107 people and requiring 166 dental practitioners to meet the need and remove the designation.[7] One of these Dental HPSAs is in the East Baltimore CBSA and encompasses an area bounded by the Jones Falls Expressway, Orleans Street, Edison Highway, and North Avenue (See Map 4). This area includes the Perkins/Middle East, Madison/East End, Greenmount East, and Clifton-Berea community statistical area designations used by the Baltimore City Health Department's 2017 Neighborhood Health Profiles.

Map 4: East Baltimore Dental HPSA

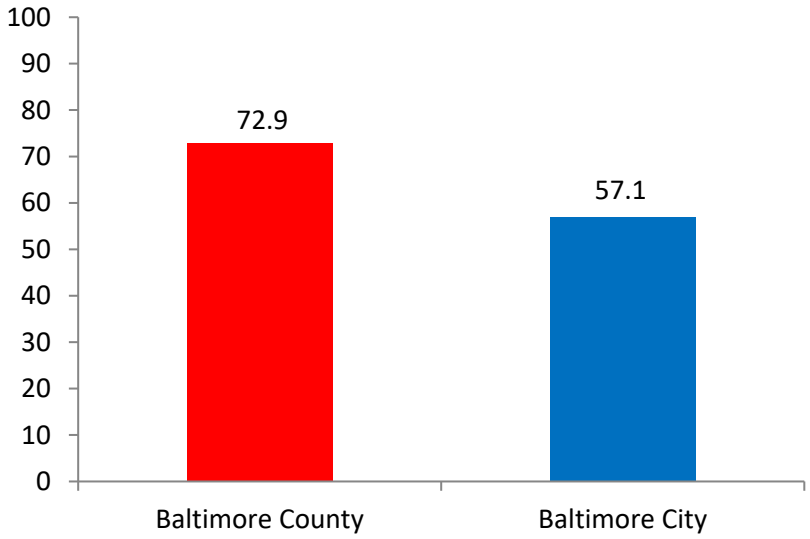


Source: Health Resources and Services Administration, 2017 data

The difficulty Baltimore City residents face with access barriers to dental providers is based, at least in part, on availability. City residents have less access to dental care providers, at 57.1 per 100,000, than residents in Baltimore County (72.9 per 100,000 population) (See Chart 24).

[7] HRSA, Designated Health Professional Shortage Areas Statistics, December 31, 2017 https://ersrs.hrsa.gov/ReportServer?/HGDW_Reports/BCD_HPSA/BCD_HPSA_SCR50_Qtr_Smry_HTML&rc:Toolbar=false

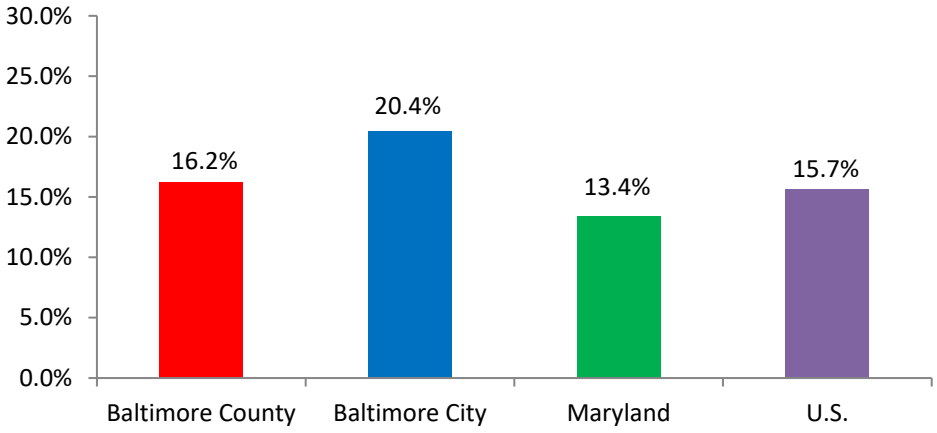
Chart 24: Access to Dental Providers (Per 100,000 Population)



Source: US Department of Health Human Services, Health Resources and Services Administration 2013

The inaccessibility of dentists has taken a significant toll on the oral health of residents. Data from the Centers for Disease Control and Prevention indicated that 20.4 percent of Baltimore City residents aged 18 and older had six or more teeth removed due to poor dental health, compared to 16.2 percent of the residents in Baltimore County, 13.4 percent of Maryland residents, and 15.7 percent nationally. (See Chart 25). Preventive dental measures and good oral practices could decrease the amount of teeth community residents have extracted. Education and the dissemination of information play a vital role for those who are unaware of the relationship between good oral hygiene and preventive actions.

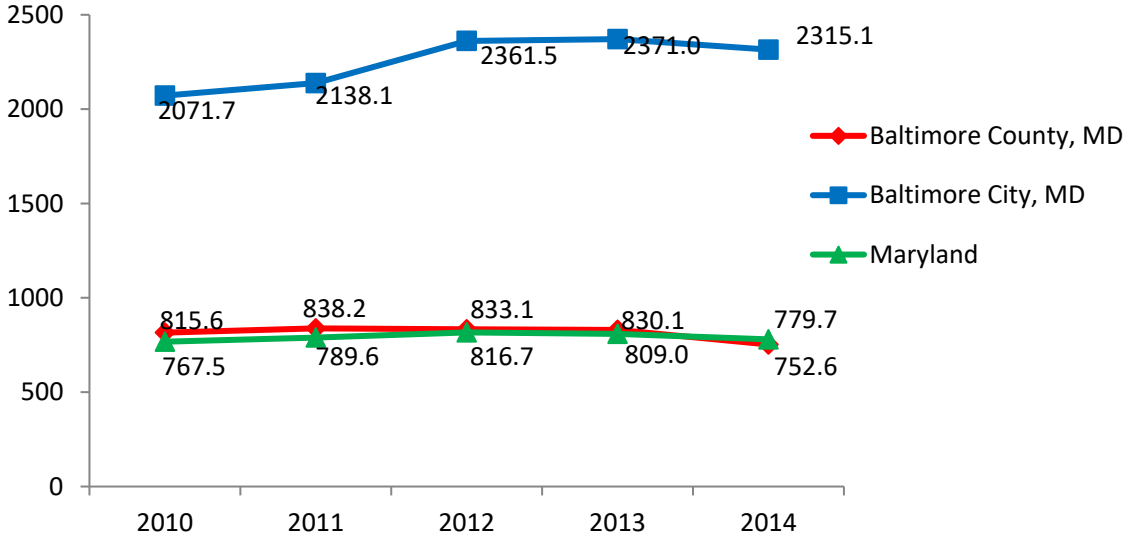
Chart 25: Poor Dental Health; Adults who had six or more teeth removed due to poor dental health



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System 2006-2010

Further evidence of the impact of limited access to dental providers for Baltimore City residents can be seen in the rate of residents who visit the emergency room for dental care (Chart 26), with the Baltimore City rate for 2014 being approximately three time the rates in Baltimore County and the state. It is encouraging that there was a modest decline in these rates in 2014.

Chart 26: Emergency Department Visit Rate for Dental Care (ED rates related to dental problems per 100,000 population)



Source: Maryland State Health Improvement Process 2014

The need for dental care in the U.S. is growing, and the need for dental care in Baltimore City is no exception. Community residents identified oral health care as a top priority and identified lack of dental coverage, access, and out-of-pocket costs as limiting their ability to obtain proper and consistent dental care. Community leaders reported oral health as an area of concern and specified that provider shortages, high costs, and limited preventive information often keep residents from obtaining oral health care.

When examining 2016 CHNA data from surveys, more than one-half of survey respondents (58.2 percent) seek dental care at a dentist's office, 15.5 percent go to a clinic, 4 percent go to the emergency room, and 1.6 percent go to an urgent care location, while 16.1 percent do not go to the dentist. Additionally, fewer than one-half of survey respondents (48.6 percent) had an appointment with a dentist or dental clinic within the past year, and 11.6 percent indicated that they have not seen a dentist in five or more years.

Financial barriers are another issue that decreases the accessibility of oral health care for individuals in the community. In a majority of cases, health insurance often does not cover dental care, causing residents to forgo routine dental maintenance or wait until an emergency occurs. Close to one-quarter of survey respondents (23.1 percent) reported having to pay out-of-pocket costs for their dental services in 2016, while 11.9 percent reported that they did not pay for their dental services.

Closing the gap for residents to obtain needed dental care is essential. Information on the importance of oral health and the adoption of good oral hygiene coupled with effective preventive measures can reduce disparities in accessing dental treatment services.

Conclusions and Recommendations

With the completion of the 2018 CHNA, The Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center (JHBMC) will develop updated goals and strategies for the CHNA implementation phase. In this phase, the health institutions will leverage their strengths, resources, and outreach to help community partners best identify ways to address their communities' health needs, thus improving overall health and addressing the critical health issues and well-being of residents in their communities. The community health needs assessment and implementation planning builds on the previous two CHNA assessment and planning reports (2016 and 2013). The comprehensive CHNA addressed who was involved, what, where, and why, while the implementation planning phase will address how and when JHH and JHBMC will address the identified community health needs.

The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center, partnering with community organizations and regional partners, understand that the CHNA document is not the last step in the assessment phase, but rather the first step in an ongoing evaluation process. Communication and continuous planning efforts are vital throughout the next phase of the CHNA. Information regarding the CHNA findings will be important to residents, community groups, leaders, and other organizations that seek to better understand the health needs of the communities surrounding JHH and JHBMC and how to best serve those needs.

In the assessment process, common themes and issues rose to the top as each project component was completed. The data collected from the overall assessment included feedback and input from community leaders and hard-to-reach, underserved, and vulnerable populations. The information collected provides JHH and JHBMC with a framework to begin identifying, evaluating, and addressing gaps in services and care, which will ultimately alleviate challenges for individuals living in the community.

Solidifying and reinforcing existing relationships and creating new relationships must be paramount in order to address the needs of community residents. Expanding and creating new partnerships with multiple regional entities is vital to developing community-based strategies to tackle the region's key community health needs.

The key community health needs identified by JHH and JHBMC include Improving Socioeconomic Factors (Employment, Crime and Safety, Housing/Homelessness, Education, and Food Environment) and Improving Access to Health Services (Mental Health, Substance Abuse, Chronic Diseases, Uninsured/Underinsured, and Dental Care).

The collection and analysis of primary and secondary data provided the working group with an abundance of information, which enabled the group to identify key health services gaps. Collaborating with local, regional, statewide, and national partners, JHH and JHBMC understand the CHNA is one component of creating strategies to improve the health and well-being of community residents.

Implementation strategies will take into consideration the higher need areas that exist in regions that have greater difficulties obtaining and accessing services.

Action Steps:

- Communicate the results of the CHNA process to staff, providers, leadership, boards, community stakeholders, and the community as a whole.
- Use the inventory of available resources in the community to explore further partnerships and collaborations.
- Implement a comprehensive grassroots community engagement strategy to build upon the resources that already exist in the community, including committed community leaders that have been engaged in the CHNA process.
- Develop working groups to focus on specific strategies to address the top identified needs of the communities the health system serves and develop a comprehensive implementation plan.
- Invite key community stakeholders to participate or be involved with working groups that will strategically address and provide expert knowledge on ways to address key community health needs.

Implementation Strategy Introduction

The CHNA is a report based on epidemiological, qualitative, and comparative methods that assess the health issues in a hospital organization's community and that community's access to services related to those issues. The Implementation Strategy is a list of specific actions and goals that demonstrate how The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center plan to meet the CHNA-identified health needs of the residents in the communities surrounding the hospitals, i.e. the Community Benefit Service Area (CBSA). This Implementation Strategy was approved by the hospitals' Boards of Trustees.

Internal Revenue Service Requirements – Implementation Strategy

The Implementation Strategy that is developed and adopted by each hospital must address each of the needs identified in the CHNA by either describing how the hospital plans to meet the need or identifying it as a need not to be addressed by the hospital and why. Each need addressed must be tailored to that hospital's programs, resources, priorities, plans, and/or collaboration with governmental, non-profit, or other health care organizations. If collaborating with other organizations to develop the implementation strategy, the organizations must be identified. The board of each hospital must approve the Implementation Strategy within the same fiscal year as the completion of the CHNA.

Health Priorities

As noted in the CHNA, ten key need areas were identified through the gathering of primary and secondary data from local, state, and national resources, community stakeholder interviews, surveys, focus groups with vulnerable populations, and a health provider inventory (highlighting organizations and agencies that serve the community). The identified community needs are depicted in order of priority in the graph below, with health needs in blue and socioeconomic needs in green (See Chart 27). The Implementation Strategy items which follow provide action plan strategies that address the identified needs.

Chart 27: JHH/JHBMC Key Community Health Needs

IMPROVING SOCIOECONOMIC FACTORS

SOCIOECONOMIC NEED 1: EMPLOYMENT			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
GOAL: Increase employment opportunities to local and minority communities	**Strategy 1**: Improve career development among youth	• Number of youth participating in career development programs and/or number of programs available	• CBSA schools • Historic East Baltimore Community Action Coalition (HEBCAC) • Civic Works • P-TECH Partners (JH, Kaiser Permanente, UMB, Dunbar HS, BCCC)
	Strategy 2: Create new employment opportunities for local communities and minorities; increase youth and adult workforce training programs	• Number of new employees hired living within CBSA • Job opportunities for residents in the CBSA • Number of participants in workforce coaching and training programs	• East Baltimore Jobs HUB • Historic East Baltimore Community Action Coalition (HEBCAC) • Baltimore Population Health Workforce Collaborative • Turnaround Tuesdays/BUILD (Baltimoreans United in Leadership Development) • Center for Urban Families • Men & Families Center • Biotechnical Institute - Lab Associates Program
	Strategy 3: Support/Contract with local and minority vendors to improve the local economy	• Number of contracts with local vendors • Amount spent with local and minority contractors	• Minority Contractors Associations • East Baltimore Jobs Hub • BLocal companies/BUILD college

NOTES ON A FEW EMPLOYMENT INITIATIVE EXAMPLES:

Baltimore Population Health Workforce Collaborative (formerly Hospital Employment Program) – Maryland hospitals are creating new jobs for residents of communities with high rates of poverty and unemployment. These community-based jobs are focused on overall population health and include community health workers, peer recovery specialists, peer outreach specialists, and CNAs/GNAs (certified and geriatric nursing assistants).

HopkinsLocal – Johns Hopkins is leveraging its economic power to expand participation of local and minority-owned businesses in construction opportunities; increase our hiring of city residents, with a focus on neighborhoods in need of job opportunities; and enhance economic growth, employment, and investment in Baltimore through our purchasing activities.

BLocal BUILD College – BLocal partner companies have developed a program that provides training for small, local, minority-owned, women-owned, and/or disadvantaged businesses in design and

construction industries. Training sessions focus on design, construction, and business related topics to build key competencies and relationships for grown.

TurnAround Tuesdays – A program offered through a partnership with BUILD to provide job training to returning citizens to increase basic job skills and qualifications for employment.

Summer Jobs Program – In conjunction with the Baltimore City Government and the State of Maryland, Johns Hopkins employs over 300 Baltimore City School students each summer offering workforce education sessions, in addition to paid internships.

P-TECH (Pathways in Technology Early College High Schools) – The P-TECH program is a partnership between the state of Maryland, Johns Hopkins University and Health System, Dunbar High School, the Baltimore City Community College (BCCC), University of Maryland (UMB) at Baltimore, and Kaiser Permanente. P-TECH is creating a school-to-industry pipeline for Baltimore students interested in the healthcare industry.

General Services Healthcare Internship Program – In partnership with Baltimore City Department of Social Services, a 20 week internship is offered to residents on public assistance. Hands-on and curriculum based training is conducted at JHH, rotating through various departments. As of the Oct 2017 cohort, 234 residents have enrolled, 147 completed the program with 131 placed in permanent positions at Hopkins.

SOCIOECONOMIC NEED 2: CRIME AND NEIGHBORHOOD SAFETY			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
GOAL: Enhance neighbor-hood safety	**Strategy 1**: Establish safe haven facilities for after school programs, summer camps and neighborhood youth recreation programs	• Number of programs/ participants involved • Number of community organizations involved	• Henderson-Hopkins School • Baltimore City Dept. of Recreation & Parks • Baltimore City/County Public Schools • Youth organizations and churches • Mary Harvin Transformation Center • Living Classrooms • Port Street Center • Rales Health Center at KIPP schools
	Strategy 2: Establish safety education sessions and intervention programs	• Number of people counseled	• Baltimore City and County Police Departments • Operation P.U.L.S.E. (People United to Live in a Safe Environment) • CURE (Clergy United for Renewal in East Baltimore) • Men and Families Center • Baltimore City and County Fire Departments • Safety Center in Harriet Lane Clinic and the JH Children's Center • Strategies for Youth/Juvenile Justice Jeopardy

NOTES ON A FEW CRIME AND NEIGHBORHOOD SAFETY INITIATIVE EXAMPLES:

Mary Harvin Transformation Center – Johns Hopkins partnered with Donte Hickman and the Southern Baptist Church to provide a safe haven, community services, and access to resources and programs for a wide constituency, including after school programs.
Burn Prevention Program – This intervention program, based at the JHBMC Burn Center, educates participants referred by the justice system on the severe consequences that could occur without proper fire prevention behavior. Additional sessions are conducted in local schools where students are taught emergency actions in case of fire.
Recreation facilities and programs – Johns Hopkins partners with the Department of Recreation and Parks as well as many community organizations to improve recreation facilities and opportunities in the CBSA. Some examples are 29th Street Recreation Center, the Craig Cromwell summer basketball league, and a new community basketball court in McElderry Park.
Operation P.U.L.S.E. (People United to Live in a Safe Environment) – Operation P.U.L.S.E. is a partnership between Johns Hopkins Medicine and CURE (Clergy United for Renewal in East Baltimore) that was established in 1992. This crime prevention ministry has trained over one thousand volunteers to conduct area security patrols and crime prevention programs for churches, senior groups, schools, outdoor community displays, and businesses.
Rites of Passage Program at the Men's Center - facilitates community-conscious programs in East Baltimore to support the development of males. Focus areas include crime intervention through a "Clean Record" program and drug abuse prevention.
Juvenile Justice Jeopardy – De-escalation workshop to improve relations between Baltimore police and the city's youth through a unique game play strategy in partnership with the JHU Black Faculty and Staff Association and Strategies for Youth.
Safe Streets Baltimore – The program is overseen by the BCHD and implemented by CBOs; currently being implemented in McElderry Park, Cherry Hill, Sandtown-Winchester, and Park Heights. Outreach professionals deescalate and mediate disputes that might otherwise result in serious violence. Staff serve as positive role models and direct youth to services and opportunities to live non-violent, productive lives.
Office of Juvenile Justice Delinquency Prevention Safe and Thriving Communities Grant – $500K awarded to BCHD with The Johns Hopkins Hospital Emergency Department as subcontractor for implementation of the program to include hiring and training of staff, which will include a Program Manager, Case Manager, and two Hospital Responders.

SOCIOECONOMIC NEED 3: HOUSING			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
GOAL: Increase access to housing and healthy	**Strategy 1:** Expand capacity to identify housing issues among low-income, uninsured, and homeless residents including challenges related to asthma triggers and lead among children	• Number of Neighborhood Navigator encounters addressing housing issues • Number of Health Leads connections to housing resources • Increase screening rates for lead poisoning	• Health Leads • Green & Healthy Homes Initiative • Helping Up Mission • BCHD Asthma Program

homes in the CBSA			
	Strategy 2: Provide social support services to low-income, uninsured and homeless residents including improving homelessness initiatives	• Number of low- income, underinsured, and homeless screened for social determinants and connected to services • Number of transition housing slots	• Men & Families Center • Helping Up Mission • Center for Urban Families • Southeast Community Development Corp (SECDC) • United Way 211 • Health Leads • Healthcare for the Homeless • Homeless Connect

NOTES ON A FEW HOUSING INITIATIVE EXAMPLES:

Helping Up Mission – Johns Hopkins is committing support to the Helping Up Mission to fund transitional housing space for homeless discharged patients in need of continuing care.
Health Leads – JHH/JHBMC supports three on-site Health Leads desks for social services support (including housing).
Transition Guides and Neighborhood Navigators screen for social determinants needs and connect to resources, including housing support.
Habitat for Humanity – Johns Hopkins partners with Habitat for Humanity through financial contributions and direct employee volunteer efforts in our community.
Wilson House – The Wilson House is a certified halfway house for female patients in recovery who are attending the Broadway Center. It provides supportive housing, counseling (at Broadway Center) and leisure activities.

SOCIOECONOMIC NEED 4: EDUCATION			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
GOAL: Improve the health and well-being of our youth	**Strategy 1**: Support youth mentoring	• Number of participants enrolled in mentoring programs • Evaluation of program success and participant satisfaction via survey methodology	• Baltimore City Community College (BCCC) • State of MD • Dunbar HS / Baltimore City Public Schools (BCPS) • Project REACH • Institute of Notre Dame (JH Sponsored internships) • Henderson-Hopkins School • Other Mentoring program partnerships: ➢ Creative Alliance ➢ MERIT (SOM) ➢ THREAD
	Strategy 2: Increase child participation in Early Childhood Education and integrate health services into schools	• Number of children enrolled in early childhood programs	• Weinberg Early Childhood Center • Rales Health Center at the KIPP School with comprehensive school health

			• Southeast Community Development Corp (SECDC) – Community School Coordinator Program • Head Start • Vision to Learn – Wilmer Eye Institute, BCHD, & BCPS

NOTES ON A FEW EDUCATION INITIATIVE EXAMPLES:

P-TECH (Pathways in Technology Early College High Schools) – Creating a school-to-industry pipeline for Baltimore students, the P-TECH program provides training from high school through community college to link Baltimore students to positions and mentors in the healthcare industry. The program is now working with its second cohort of students and mentors.

Rales Health Center - The Ruth and Norman Rales Center for the Integration of Health and Education is redesigning school-based health programs to improve the health and thus the academic achievements and lifelong prospects for youth from low-income communities. Established in 2014 as a program of the Johns Hopkins Children's Center, the Rales Center is a fully integrated school-based health model at the KIPP Charter School in Baltimore City serving over 1500 students. Weaving comprehensive health services and wellness programming into the school environment, the program breaks down silos between educational and health-related activities helping children thrive and achieve academic success.

Medical Education Resources Initiative for Teens (MERIT) – Students from low-income communities receive mentoring by undergraduate and medical students, paid summer internships focused on clinical and research experiences, and college admissions guidance to help them pursue careers in medicine.

Vision to Learn – The Wilmer Eye Institute, in partnership with the Baltimore City Health Department and with a grant from the JHU Urban Health Institute, aims to help kids see well enough to learn by providing free eye glasses to students in need in Baltimore City. As of January 2018, over 28,000 vision screenings have been performed at 81 schools, providing over 3,100 school kids with free glasses.

Dunbar-Hopkins Health Partnership Coordinator – Coordinator paid for by JH to support science and allied health curriculum at Dunbar HS.

SOCIOECONOMIC NEED 5: FOOD ENVIRONMENT ACCESS/NUTRITION/PHYSICAL ACTIVITY			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
GOAL: Improve access to healthy food and healthy behaviors among youth and adults	**Strategy 1**: Expand program education on healthy eating and health practices	• Number of participants in workshops on healthy meal planning and preparation • Aggregate improvement in knowledge via pre and post assessments and teacher evaluations	• American Heart Assoc./ Community Kitchen • American Diabetes Association • East Baltimore Health Fairs • MD Food Bank Culinary Kitchen • Amazing Grace Lutheran Church – Center for Grace-Full Living • Taste Wise Kids (Days of Taste) • Rales Health Center at KIPP school

	Strategy 2: Support programs that improve access to healthy foods for low income families	• Number of participating food pantries in churches and community organizations • Number of healthy food and nutrition programs/ participants	• MD Food Bank • Meals on Wheels • Community food pantries • JHM Community Farmers' Market • Faith communities • Amazing Grace Lutheran Church - Center for Grace-Full Living
	Strategy 3: Increase physical activity among adults and youth	• Number of youth and adults who are physically active • Number of community and school-based partners	• Youth organizations, schools, and churches • Playworks (Baltimore City Youth Program) • Rales Health Center at KIPP school

NOTES ON A FEW FOOD ENVIRONMENT EXAMPLES:

FRESH – The FRESH (Food Re-education for Elementary School Health) program offers 3rd and 4th grade students a nutrition and exercise program aimed at encouraging healthy behaviors. Lessons include healthy weight guidelines, meal planning, healthy snacks, exercise, and reading food labels.
Active Lifestyle Outreach programs – Johns Hopkins Hospital and Bayview Medical Center support many programs to help residents maintain a healthy lifestyle. Among those are the "Stepping Out for Health" program, a network of walking programs with over 100 participants throughout the year.
JHBMC Food Pantry provides emergency food supply to 60+ families per month.
Days of Taste – A program connecting local chefs with 4th grade public school students for a series of sessions, including visiting a farm, sampling diverse foods, and culminating with the preparation of their own farm fresh salad with take home salad kits to share with their families. Program support was expanded recently to include an additional school annually.
Johns Hopkins International – As part of Johns Hopkins International's commitment to Community Engagement, they manage a food pantry supply program and staff a soup kitchen in East Baltimore. This initiative is included in the JHM Strategic Plan for high visibility and emphasis on community commitment by all entities within the Johns Hopkins Enterprise.
KaBOOM! – Johns Hopkins partnered with KaBOOM! on two playground builds within the East Baltimore footprint; one has been completed at Eager Park and the second build is scheduled for Barclay Elementary.
JHH Farmers Market – JHH Sponsors a community farmers market with supported SNAP-EBT program benefits to encourage fresh food purchase for neighbors and staff.
Food and Faith – Lessons on nutrition and health are combined with a biblical mandate to change to healthy cooking and eating habits using African heritage diet.

ACCESS TO HEALTH SERVICES

HEALTH NEED 1: BEHAVIORAL HEALTH/ SUBSTANCE ABUSE (SA)			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
Goal: Improve access to available substance abuse (SA) services	**Strategy 1:** Expand outpatient treatment for homeless men needing SA services	• Number of outpatient treatment slots	• Helping Up Mission
	Strategy 2: Provide substance abuse and mental health services to pregnant women with active substance use disorders	• Number of pregnant women served for substance abuse and or mental health services • Number of pregnant ED patients connected to substance abuse services	
	Strategy 3: Provide addiction treatment services to address opioid addiction in local community	• Number of patient visits per year	• East Baltimore Medical Center • Broadway Center for Addictions

NOTES ON A FEW SUBSTANCE ABUSE INITIATIVE EXAMPLES:

Rapid Response Team for Psychiatry/Substance Use – Expanded consultative services for Psychiatry and substance abuse to enable timely consultations (inpatient and ED) for patients requiring assessment and complex care planning. Research indicates that better integration of behavioral health care into the broader health continuum can have a positive impact on quality and outcomes.
Broadway "911" Center for Substance Abuse – Seen as a model for care across the country, the Broadway Center offers a full complement of addiction counseling and group classes, as well as medications to address opioid addiction (methadone, buprenorphine, and naltrexone).
Buprenorphine Treatment Services - Currently treating over 450 individuals with opiate use disorder using buprenorphine, plans are underway to expand services.
Wilson House – The Wilson House is a certified halfway house for female patients in recovery who are attending the Broadway Center. It provides supportive housing, counseling (at Broadway Center), and leisure activities.
Supportive Housing for Male Substance Abuse Patients – JHH has partnered with Helping Up Mission to provide free housing, meals, and transportation to/from SA treatment at Broadway Center.

HEALTH NEED 2: BEHAVIORAL HEALTH/MENTAL HEALTH			
Goal	Strategies	Metrics/What we are measuring	**Potential Partnering/ External Organizations**
Goal: Improve access and coordination to mental health and behavioral health services	**Strategy 1**: Provide individual, group, family therapy, medication treatment, and other mental health services, as well as prevention interventions	• Number of schools participating in program • Number of children who receive services • Number of adults who receive services	• Baltimore City and County School Districts • Head Start Programs • Judy Center at Commodore John Rogers school • Stulman Foundation/Baltimore Community Foundation • After Care Clinic • Mary Harvin Transformation Center • Rales Health Center at KIPP school • Helping Up Mission • Office of Behavioral Health Integration (OBHI)
	Strategy 2: Develop program(s) to support ED patients waiting for outpatient mental health and/or substance use disorder treatment	• Number of patients served by the Bridge Program • Number of patients serviced by ED-based Community Health Workers	• HSCRC Regional Partnership

NOTES ON A FEW MENTAL HEALTH INITIATIVE EXAMPLES:

ED-based Community Health Workers (CHW) - This new service supports patients who could benefit from additional social work assistance after they leave the hospital or ED. The CHWs can help with housing, transportation, food, identification of multi-lingual providers, and other issues (including mental health services) potentially affecting a patient's ability to successfully manage on his/her own.
Bridge to Home - The Bridge to Home program is designed to help patients achieve a safe transition from hospital to home. Focused upon the critical aspects of self-care management, Bridge to Home offers education about the "four pillars" of care transition, with a special emphasis upon understanding what to do, what to watch for (i.e., "red flags"), who to call, and who to see.
Behavioral Health Intervention Team - The Behavioral Health Consultation Team provides early identification and treatment for patients with behavioral health issues who have been admitted to non-psychiatry floors. The team reviews each day's admissions and determines whether patients may benefit from some type of intervention, and then makes recommendations for comprehensive treatment plans with post-discharge follow-up and connecting with appropriate community resources.
After Care Clinic – Offers bridging care to patients (including behavioral health patients) returning to the community. Staff from Social Work, Case Management, Pharmacy, and Home Care screen patients for social determinants and link to services, in addition to providing care.
Mary Harvin Transformation Center – Johns Hopkins entered into a partnership with the Southern Baptist Church to provide an on-site community chaplain at the new Mary Harvin Transformation Center in East Baltimore and dedicated space for outreach initiatives, including mental health counseling.
Caring for the City – New in 2017, the JHH/JHBMC Department of Spiritual Care and Chaplaincy implemented a new social support network program for faith leaders in East Baltimore. Cohorts are limited to 20 participants for the six week program. As of April 2018, 3 cohorts have been completed.

Assertive Community Treatment (ACT) – Provides outpatient services to individuals with major mental illness who have repeatedly been hospitalized due to an inability to engage in out-patient care due to the severity of their mental illness.
Hispanic Clinic – At JHH services are provided for a range of mental health problems among adults of Hispanic origin. A bilingual therapist and several psychiatrists offer individual, couples, group and family psychotherapy as well as medication management.
Office of Behavioral Health Integration (OBHI) - Coordination with the OBHI to improve access to mental health services is currently underway.

HEALTH NEED 3: CHRONIC DISEASE			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
Goal: Share clinical expertise with community organizations to prevent, detect, and manage chronic diseases	**Strategy 1:** Work with community organizations, congregational health networks and individuals to improve care, awareness, management and promote prevention of chronic diseases	• Number of health education/ outreach encounters provided to community- based organizations and churches • Number of participants in health events and number of screenings performed • Number of vision screenings- (retinopathy, glaucoma, vision testing in schools etc.) • Number of outreach programs at the JHOC Diabetes Center	• Area schools • Faith based organizations • Community meetings • BCHD • Comiendo Juntos • Isaiah Wellness Center • Mary Harvin Transformation Center • Centro SOL • After Care Clinic • Rales Health Center at KIPP school
	Strategy 2: Support patients with chronic conditions during transitions and in accessing resources to reduce barriers to patient engagement (i.e. social determinants)	• Number of patients seen in the After Care Clinic at JHH • Number of patients connected to services addressing social determinants • Increased transition support home care services available to patients with chronic conditions	• Health Leads • Men and Families Center • Sisters Together And Reaching • Visiting Nurses • After Care Clinic

NOTES ON A FEW CHRONIC DISEASE INITIATIVE EXAMPLES:

After Care Clinic – This pilot program offers bridging care to patients returning to the community. Staff from Social Work, Case Management, Pharmacy, and Home Care screen patients for social determinants and link to services in addition to providing care.
Patient Access Line (PAL) - The Patient Access Line (PAL) is a post-discharge call service designed to help manage the critical transition from hospital to home. The team of experienced Hopkins nurses from a broad range of specialties call patients after they have gone home to review how they are doing and ensure they maintain follow-up appointments. The nurses also assess patients' ability to manage their own care and, where appropriate, engage additional support.

Transition Guides - The Transition Guide (TG) program is designed to support patients returning to the community who may not need or qualify for skilled home care, but who could benefit from additional teaching and assistance after they leave the hospital. Experienced home health nurses serve as coaches to help patients understand the discharge plan, set goals, and identify behaviors to prevent avoidable ED visits and readmissions. Home visits are highly encouraged, but TGs will also follow patients by phone if visits are refused. TGs are currently embedded in all adult medical/surgical units (non-ICU) and the ED. Plans are underway to expand to Oncology and Psychiatry. This program is free of charge to patients (costs are borne by the Hospital), and no insurance is involved.

Mary Harvin Transformation Center – Johns Hopkins partnered with Donte Hickman and the Southern Baptist Church to create an East Baltimore Hub for Community Engagement. This initiative is led by Johns Hopkins' Spiritual Care and Chaplaincy, the Healthy Community Partnership, and Medicine for the Greater Good programs to provide health education sessions (including chronic disease management and health screenings), intervention counseling, and connection to social determinant services. To date, over 2,500 residents have participated in programs during FY17. Programs included diabetic retinopathy vision testing, hearing tests, foot care, cardiovascular disease, healthy diet, access to healthy foods, flu shots, medication management, depression/mental health, exercise, yoga, workforce development and recruiting, and spiritual health.

Remote Patient Monitoring – Technology able to transmit clinical data such as weight, BP, blood glucose, incentive spirometry via a wireless network to home care nurses to enable monitoring of patients in their homes.

Diabetic Retinopathy Screening – Wilmer Institute performs free screenings in attempt to prevent blindness in diabetic patients.

Scales/Refrigerator Magnets – Scales are provided to high-risk heart failure patients for monitoring daily weights; magnets serve as a visual queue to reinforce self-management strategies.

Moore Clinic for HIV Care – Outpatient services provided in neurology, psychiatry, gynecology, obstetrics, substance use, nutrition, viral hepatitis, pharmacy and adherence. The clinic sees approx. 20,000 patients per year.

HEALTH NEED 4: UNINSURED/UNDERINSURED CARE			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
Goal: Improve access to healthcare services for uninsured and underinsured residents across JHH/ JHBMC CBSA	**Strategy 1:** Connect uninsured residents into private insurance, Medicaid, or other available coverage	• Number of residents enrolled • Number of resources available to assist with identifying coverage and enrollment	• Esperanza Center • HealthCare for the Homeless • Centro SOL • Charm City Clinic • Care-A-Van
	Strategy 2: Reduce transportation barriers and enhance awareness of available services	• Number of transportation vouchers • Resource information distribution	• Baltimore Transit Service • Esperanza Center • Elder Plus • Care-A-Van

	Strategy 3: Provide annual training for all JHH/JHBMC medical staff on accessing and utilizing interpretive services	• Number of medical staff completing interpretive service training • Number of house staff participating in interpreter testing	

NOTES ON A FEW UNINSURED CARE INITIATIVE EXAMPLES:

Financial Assistance Plan (FAP) – Eligibility program for financial assistance at or below 200% of FPL.
Medical Assistance Extenders – Extenders work with community residents to see if the qualify for medical assistance, e.g., Medicaid, SNAP, WIC, etc., and assist them in signing up for benefits.
The Access Partnership (TAP) – TAP provides coverage for care to eligible uninsured residents. In addition, TAP ensures that all patients eligible for insurance coverage access that coverage, and for enrolled patients includes limited navigation and support.
Transportation – Community Health Workers and Transition Guides work to mitigate this barrier by arranging transportation for patients to appointments and, when necessary, accompanying them.
Esperanza Center – JHH/JHBMC provide funding for the Medical Director at the Center which is staffed by volunteers. The Center provides free medical and dental services to uninsured immigrants in the metro Baltimore area.
Care-A-Van – JHBMC operates a fully equipped mobile medical unit, staffed by health care professionals, and including a bilingual English/Spanish speaking representative. Services are free and include primary medical care, immunizations, acute care, testing for syphilis and HIV, physicals and education on various health-related topics. Pregnancy testing and referrals for prenatal care are also available.

HEALTH NEED 5: DENTAL SERVICES			
Goal	**Strategies**	**Metrics/What we are measuring**	**Potential Partnering/External Organizations**
Goal: Increase access to dental care services for uninsured patients	**Strategy 1:** Increase network of dental providers serving uninsured/underinsured patients accepting referrals from JH facilities	• Number of dentists/ providers involved • Increased referrals for dental health screenings and preventive maintenance	• Baltimore Medical System - BMSI • Chase Brexton • Univ. of MD dental school • BCCC dental hygiene program • United Way 211 • Esperanza Center • Healthcare for the Homeless • Baltimore City Health Dept (BCHD) • Baltimore VA Medical Center • Rales Center at KIPP School
	Strategy 2: Provide dental health education outreach	• Increased availability and distribution of dental care education materials	• Community organizations • Center for Urban Environmental Health • UMD dental school

NOTES ON A FEW DENTAL HEALTH INITIATIVE EXAMPLES:

The Access Partnership (TAP) – TAP will expand their scope of work to include exploring new resources to provide dental care to CBSA residents without coverage. This will include identifying area providers who will provide dental care at no cost.
Dental Health Education Outreach – Education and reference materials for dental health will be produced and added to other health information distributed to the community.
Rales Health Center - The Ruth and Norman Rales Center for the Integration of Health and Education is a fully integrated school-based health model at the KIPP Charter School in Baltimore City serving over 1500 students. It provides continuity of care; embeds health awareness within children's lives, families and communities; individualizes services to address each child's unique health needs; and makes each child's good health – including mental and dental health – a school priority.

Note: For more information on community benefit programs and support please see the annual Community Benefit Report for each hospital available at http://web.jhu.edu/administration/gca/CHNA

Appendix A: Primary Data

Primary Data

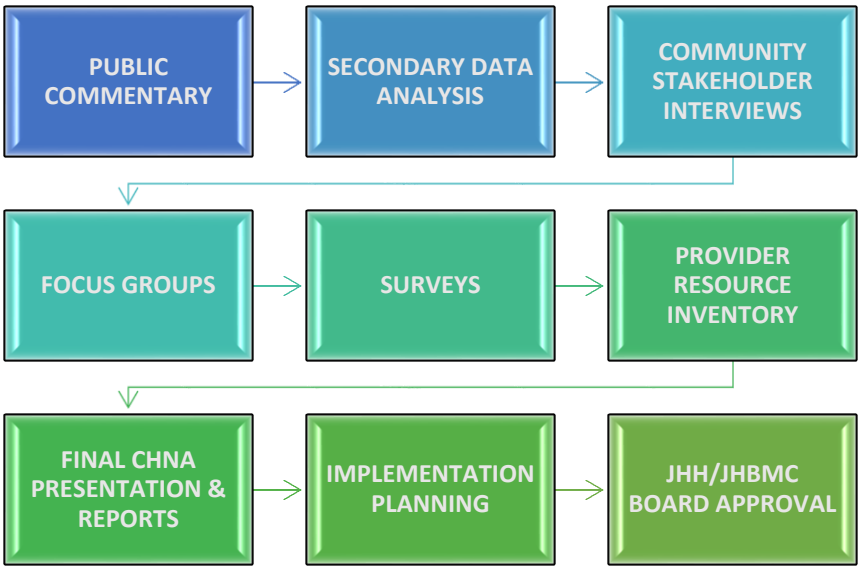
Process Overview

A comprehensive community-wide CHNA process was completed for The Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center (JHBMC), connecting public and private organizations, such as health and human services entities, government officials, faith-based organizations, and educational institutions to evaluate the needs of the community. The 2018 assessment included primary and secondary data collection that incorporated public commentary, community stakeholder interviews, a resident survey, and focus groups.

Collected primary and secondary data led to the identification of key community health needs in the region. The Johns Hopkins leadership will develop an Implementation Strategy that will highlight, discuss and identify ways the health system will meet the needs of the communities they serve.

The flow chart below outlines the process of each project component in the CHNA (See Flow Chart 2).

Flow Chart 2: CHNA Process



PUBLIC COMMENTARY

As part of the CHNA, public comments related to the 2016 CHNA and Implementation Plan completed on behalf of the Johns Hopkins Institutions were solicited. Requests for public comments offered community residents, hospital personnel, and members of community-based organizations the opportunity to react to the methods, findings, and subsequent actions taken as a result of the previous CHNA and planning process.

Respondents were asked to review and comment on, via a survey, the 2016 CHNA report and Implementation Plan adopted by the Johns Hopkins Institutions. The survey was strategically placed at JHH's patient information desk at the Wolfe Street entrance (e.g., Main Hospital Lobby) and at the patient information desk at the Zayed Tower second floor lobby. At JHBMC, surveys were placed at the main hospital lobby and in the community relations office. The survey questionnaire was also offered electronically and emailed to several community leaders for review and comment collection.

There were no restrictions or qualifications required of public commenters. The collection period for the public comments began October 13, 2017 and continued through mid-November 2017. In total, nine surveys were collected and analyzed.

Public Comments:

- When asked if the assessment "included input from community members or organizations," seven people reported that it did. The remaining two people reported that they did not know.
- More than half of survey respondents reported that the assessment that was reviewed did not exclude any community members or organizations that should have been involved in the assessment, while two people did not know and two people reported that a community member/organization was excluded. Of the two people responding that someone was excluded, one mentioned Dr. Bodnar at Healthcare for the Homeless and the other indicated persons with physical handicaps were not involved in the previous study.
- In response to the question "Are there needs in the community related to health (e.g., physical health, mental health, medical services, dental services, etc.) that were not represented in the CHNA", three commenters indicated community needs related to health were represented and four people did not know. One person reported that people with physical handicaps were not covered in the previous CHNA, and one person indicated dental services.
- Five survey respondents indicated that the Implementation Plan was directly related to the needs identified in the CHNA, three people indicated it did not, one person did not know, and one did not answer the question.

According to respondents, the CHNA and the Implementation Plan benefited them and their community in the following manner (in no specific order):

- Will benefit Baltimore and extended community by providing services that address public health and safety.

- The CHNA/IS was helpful in keeping us up to date in the needs of the community as well as ways JH seeks to address it.
- It is helpful to know the resources JH provides to address these needs as they fit with our clients/community.
- They were up front with me.

Additional feedback on the CHNA/Implementation Plan:

- It is great to see a focus/goal for education for youth, but it would also be helpful to think about education as a health need for adults and the importance of addressing it as it will ultimately aid in the increase of employment opportunities.

COMMUNITY STAKEHOLDER INTERVIEWS

As part of the CHNA, telephone interviews were completed with community stakeholders in the community benefit service area to better understand the changing health environment. Community stakeholder interviews were conducted during October and November 2017. In addition, two key stakeholder focus group sessions were held by the hospital coalition on behalf of all hospitals.

Community stakeholders targeted for interviews encompassed a wide variety of professional backgrounds including: 1) public health expertise; 2) professionals with access to community health-related data; and 3) representatives of underserved populations. The ten stakeholders interviewed represented a diverse group of community-based organizations and agencies. The interviews offered community stakeholders an opportunity to provide feedback on the needs of the community, secondary data resources, and other information relevant to the study.

Each interview was conducted by a Johns Hopkins manager and was approximately 30 to 60 minutes in duration. The interviews provided a platform for stakeholders to identify health issues and concerns affecting residents in their service area, as well as ways to address those concerns.

The qualitative data collected from community stakeholders are the opinions, perceptions, and insights of those who were interviewed as part of the CHNA process.

The common themes from the stakeholder interviews were (in no particular order):

1) Environment (crime/safety issues, the economy, housing, education and job training, employment availability, and parks/recreation)
2) Health Services (access)
3) Health Issues (mental health, substance abuse, trauma, chronic diseases, dental health)
4) Barriers to Health (employment, environment, transportation, language, physical inactivity, and lack of grocery stores)
5) Populations/Residents (children, seniors, Blacks, Latinos/Hispanics)

Key suggestions (in no particular order):

- Neighborhood Navigators and Community Health Workers (community based)
- School-based services (health clinics, social workers, mental health, full time nurse practitioners)
- Case management needed for substance abuse population
- Jobs with good pay/living wages
- Affordable, safe quality housing (free of lead paint, rodents, pests)
- Transportation services and lower co-pays to assist with access issues
- Deal with the crime, violence, and drug epidemic

FOCUS GROUPS

Between the months of November and December 2017, Johns Hopkins facilitated five focus groups within the study area with at-risk populations. Targeted underserved focus group audiences were identified and selected with direction from hospital leadership based on their knowledge of their Community Benefit Service Area (CBSA). Johns Hopkins worked closely with community-based organizations and their representatives to schedule, recruit, and facilitate focus groups within each of the at-risk communities. Participants were provided with a cash incentive, along with food and refreshments for their participation.

Additionally, the Baltimore City coalition of hospitals conducted seven other city-wide focus groups with other at-risk populations during the months of October and November 2017. The input from all focus groups was shared amongst the coalition hospitals for consideration in their individual CHNAs. The number of focus group participants ranged from five to 20 attendees, with each focus group lasting roughly 1.5 hours. The total number of participants for all 12 focus groups was 121. Demographic information on focus group attendees is available in the Focus Group Report.

The common themes from the focus group audiences were (in alphabetical order):

1) Access to care
2) Children's health
3) Chronic diseases
4) Crime and safety
5) Dental health
6) Education/schools
7) Employment
8) Food environment
9) Housing
10) Mental health
11) Physical inactivity/obesity
12) Poverty
13) Substance abuse
14) Transportation

The table below lists the focus group audiences and the locations where each group was conducted (See Table 11).

Table 11: Focus Group Audiences

FOCUS GROUP AUDIENCE:	LOCATION OF THE EVENT:
Seniors in East Baltimore City Number of Attendees: 12	Mary Harvin Senior Center
Latinos/Spanish-Speaking Number of Attendees: 7	East Baltimore Medical Center
Homeless Adults Number of Attendees: 5	Banner Neighborhoods Community Center
Homeless Men in Temporary Housing Number of Attendees: 12	Helping Up Mission
Homeless Men in Overnight Shelters Number of Attendees: 12	Helping Up Mission
Transition-age Youth [8] Number of Attendees: 20	Youth Opportunities (YO!) Baltimore
Single Parents Number of Attendees: 8	Center for Urban Families
Older Adults Number of Attendees: 12	Langston Hughes Community Resource Center
LGBTQ Number of Attendees: 5	Chase Brexton Health Care
People with Disabilities Number of Attendees: 5	League for People with Disabilities
Key Stakeholders Number of Attendees: 16	Mercy Medical Center
Key Stakeholders Number of Attendees: 7	Forest Park Senior Center

SURVEYS

As part of a city-wide effort, Baltimore City hospitals collectively developed a short 10 question survey in order to identify health risk factors and health needs in the community. A hand-distribution survey methodology was utilized to disseminate surveys through community-based organizations, community associations, faith-based organizations, FQHCs/clinics, and at events, e.g. blood drives, employment fairs, street fairs, etc. within the city of Baltimore.

The survey was available in both English and Spanish. The survey collection process began in early September and continued through late November 2017. Johns Hopkins worked with community-based

[8] Starting with the Transition-age Youth Focus Group, the focus groups that follow were conducted by one or more of the coalition of Baltimore City Hospitals and results were shared with the other hospitals for inclusion as appropriate in their individual CHNAs.

organizations to collect and distribute the surveys to end-users in the underserved populations. The engagement of local community-based organizations was vital to the survey distribution and collection process.

Hard copies of surveys were collected by the coalition hospitals and entered into an online survey tool. The link for the online survey was also circulated via a community newsletter to encourage direct response to the survey.

In total, over 4,700 surveys were collected. There were 1,331 surveys representing residents in the JHH/JHBMC CBSA that were used for analysis. 1,176 surveys were collected in English and 155 surveys were collected in Spanish. Sixty-eight percent of survey respondents were female; 26 percent were between the ages of 50 and 64; and 53 percent identified as Black/African American.

The information below represents key findings collected from the survey. Respondents were able to select more than one response for some questions. They were also told to skip any question they did not want to answer. The percentages referenced below are based on the total number of respondents.

Key Findings:

- Drug and alcohol addiction (68 percent), mental health/depression/anxiety (39 percent), diabetes/high blood sugar (35 percent), smoking/tobacco use (33 percent), and overweight/obesity (32 percent) were the top health concerns reported by survey respondents.
- The top social concerns were neighborhood safety/violence (34 percent), lack of job opportunities (33 percent), housing/homelessness (29 percent), availability/access to insurance (23 percent), poverty (20 percent), and school dropout/poor schools (20 percent).
- Thirty percent of survey respondents indicated that within the past 30 days, they had a number of days when their mental health was not good. The average number of poor mental health days was 10.2, or one-third of the past 30 days.
- Although a lower percentage of Hispanic respondents indicated they had bad mental health days (24 vs. 30 percent for the total population), the number of days indicated was higher on average (12.5 days vs. an average of 10.2 days for all respondents).
- More White respondents answered that they had bad mental health days (38 percent) but for a shorter period of time at 7.6 days.
- Twenty-four percent of Black/African American respondents indicated mental health days that were not good, with an average of 11.9 days reported.
- The main reasons people in the community do not get health care are that it's too expensive (71 percent), no insurance (62 percent), lack of transportation (27 percent), and insurance not accepted (27 percent).
- Forty-five percent of Hispanic respondents reported that discrimination (race/ethnicity) is the top social/environmental concern. Sixty-two percent indicated that not having health insurance is the number one reason for not getting health care. More than half (58 percent) indicated the language barrier as a reason.

PROVIDER RESOURCE INVENTORY

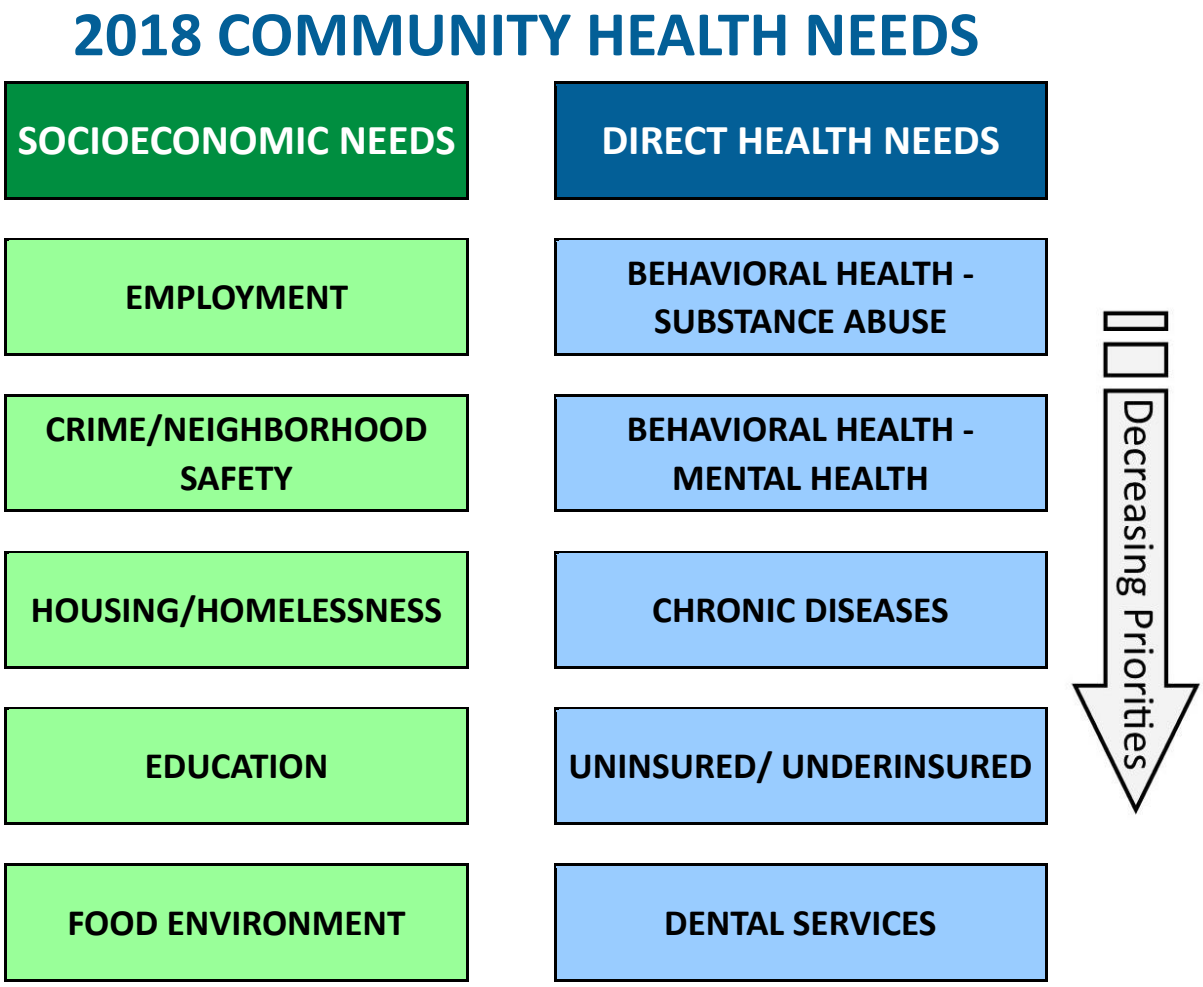
An inventory of programs and services available in the region was developed in 2016 and is updated regularly as appropriate. The provider inventory highlights available programs and services within the JHH/JHBMC CBSA. The inventory identifies the range of organizations and agencies in the community that are serving the various target populations within each of the priority needs. The inventory provides program descriptions and collects information about the potential for coordinating community activities and creating linkages among agencies.

An interactive link of the provider resource inventory is available on JHH's and JHBMC's website.

PRIORITIZATIONS OF NEEDS

Based upon feedback and input from hospital leadership, community stakeholders, community residents, project leadership, and extensive primary and secondary data research, ten CBSA priorities were identified. The key community needs were grouped into broader areas (i.e., socioeconomic needs and health needs) while taking into account the previous CHNA results of the Johns Hopkins Institutions (e.g., chronic diseases, substance abuse/addiction, obesity, access to care and mental health). The key need areas from the 2018 CHNA are aligned and merged with the previous CHNA needs and are depicted in the chart below (See Chart 28). All identified key community needs were addressed either directly through designation as a prioritized key community need or incorporated as a component of a prioritized key community need.

Chart 28: JHH/JHBMC Prioritized Key Community Health Needs



IMPLEMENTATION PLANNING

Based on the primary and secondary data collected and analyzed during the CHNA process, JHH and JHBMC's Implementation Strategy remains committed to the goals and strategies identified in the 2016 CHNA work sessions. Although some of the focus areas have changed in their order of priority per community feedback, the overall needs remain the same as reported in the 2016 CHNA. For the first time, neighborhood safety has escalated to the level of employment among socioeconomic needs. Behavioral health/substance abuse is the top direct health need reflecting the ongoing opioid crisis.

Johns Hopkins is engaged in hundreds of programs addressing the identified needs in their surrounding communities. The hospitals work to strategically allocate scarce resources to best serve the

communities, increase trust and build stronger community partnerships. The implementation strategy is the action plan component of the CHNA that guides strategic planning on community engagement.

BOARD OF TRUSTEE APPROVALS

The CHNA and Implementation Strategy were presented to and approved by the Board of Trustees of The Johns Hopkins Hospital on June 15, 2018 and the Board of Trustees of Johns Hopkins Bayview Medical Center on May 21, 2018.

Appendix B: Baltimore City Health Department Quantitative Profile Summary

BALTIMORE CITY HEALTH DEPARTMENT

The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center Community Health Needs Assessment (CHNA)

December 12, 2017

Calculations completed by the BCHD Office of Epidemiology Services (contact: Darcy Phelan-Emrick, DrPH, MHS, Chief Epidemiologist, 410-361-9580, darcy.phelan-emrick@baltimorecity.gov)

CHNA Metric Estimates for Baltimore City and Catchment Area			
Metric [1]	***Year(s)***	***Baltimore City***	***Catchment Area****
Demographics and social determinants of health			
Total population	2011-2015	622,454	220,111
Total population (projected) [2]	2040	693,029	238,733
Percent change in population [2]	2040 vs. 2010	11.3%	12.9%
Percentage under 18 years	2011-2015	21.2%	19.3%
Percentage 18 to 24 years	2011-2015	11.3%	12.9%
Percentage 25 to 44 years	2011-2015	30.1%	33.2%
Percentage 45 to 64 years	2011-2015	25.3%	24.1%
Percentage 65 years and older	2011-2015	12.1%	10.6%
Percentage male	2011-2015	47.1%	47.4%
Percentage female	2011-2015	52.9%	52.6%
Percentage black/African-American	2011-2015	62.8%	57.9%
Percentage white	2011-2015	30.3%	33.4%

Percentage Asian	2011-2015	2.6%	3.4%
Percentage some other race	2011-2015	2.0%	3.1%
Percentage two or more races	2011-2015	2.3%	2.3%
Percentage Hispanic/Latino of any race	2011-2015	4.6%	7.2%
Percentage of adults 18 years and older without health insurance	2011-2015	11.7%	12.4%
Percentage of children under 18 years without health insurance	2011-2015	4.4%	6.0%
Unemployment rate	2011-2015	13.1%	12.3%
Family poverty rate	2011-2015	28.8%	28.6%
Percentage of kindergardeners ready to learn [3]	2012-2013	77.6%	40-96% (range)
Percentage of 3rd graders meeting or exceeding at reading [3]	2013-2014	55.6%	35-83% (range)
Percentage of 8th graders meeting or exceeding at reading [3]	2013-2014	54.9%	42-83% (range)
Vacant building density per 10,000 housing units	2016	562.4	512.7
Percentage of land area covered by food desert	2015	12.5%	11.2%
Liquor store density per 10,000 residents	2015	3.8	4.1
Homicide rate per 10,000 residents (based on location of event)	2011-2015	3.9	3.8
Health outcomes			
Life expectancy at birth, in years	2011-2015	73.6	73.1
Age-adjusted mortality rate per 10,000 - All causes of death	2011-2015	99.5	104.5
Age-adjusted mortality rate per 10,000 - Cardiovascular disease	2011-2015	24.4	25.8
Age-adjusted mortality rate per 10,000 - Cancer, all forms	2011-2015	21.2	23.2
Age-adjusted mortality rate per 10,000 - Lung cancer	2011-2015	5.9	6.2

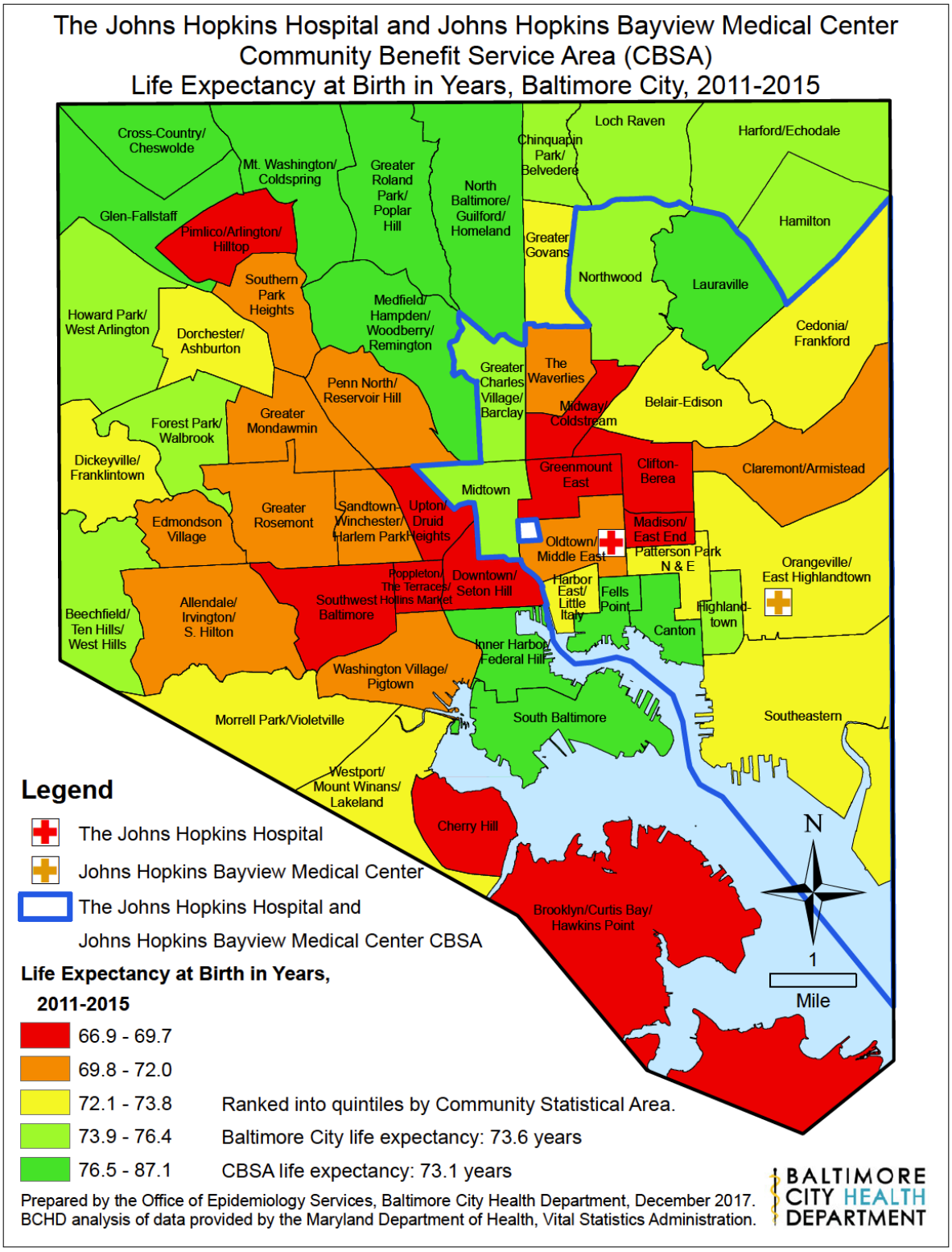
Age-adjusted mortality rate per 10,000 - Colorectal cancer	2011-2015	2.0	2.3
Age-adjusted mortality rate per 10,000 - Breast cancer, females only	2011-2015	2.6	2.8
Age-adjusted mortality rate per 10,000 - Prostate cancer, males only	2011-2015	3.0	2.9
Age-adjusted mortality rate per 10,000 - Stroke	2011-2015	5.0	5.1
Age-adjusted mortality rate per 10,000 - Drug- and/or alcohol-induced	2011-2015	4.4	4.3
Age-adjusted mortality rate per 10,000 - Chronic lower respiratory disease	2011-2015	3.6	3.6
Age-adjusted mortality rate per 10,000 - Accident/injury	2011-2015	3.5	3.4
Age-adjusted mortality rate per 10,000 - Homicide (based on victim's residence)	2011-2015	3.3	3.0
Age-adjusted mortality rate per 10,000 - Diabetes	2011-2015	3.0	3.0
Age-adjusted mortality rate per 10,000 - Septicemia	2011-2015	2.7	3.1
Age-adjusted mortality rate per 10,000 - HIV/AIDS	2011-2015	1.8	1.4
Age-adjusted mortality rate per 10,000 - Falls-related	2011-2015	1.0	1.0
Gonorrhea incidence rate per 10,000 residents [4]	2016	56.3	56.1
Teen birth rate per 1,000 females 15 to 19 years	2010-2014	42.3	40.9
Infant mortality rate per 1,000 live births (IMR)	2011-2015	10.4	10.9
Percentage of children with elevated blood lead levels out of those tested	2011-2015	1.2%	1.2%
Additional metrics			
Percentage of children living in single-parent households	2011-2015	64.8%	66.1%
Percentage of individuals 5 years and older with limited English speaking proficiency	2011-2015	3.4%	5.3%
Hardship Index [5]	2011-2015	51	11-90 (range)

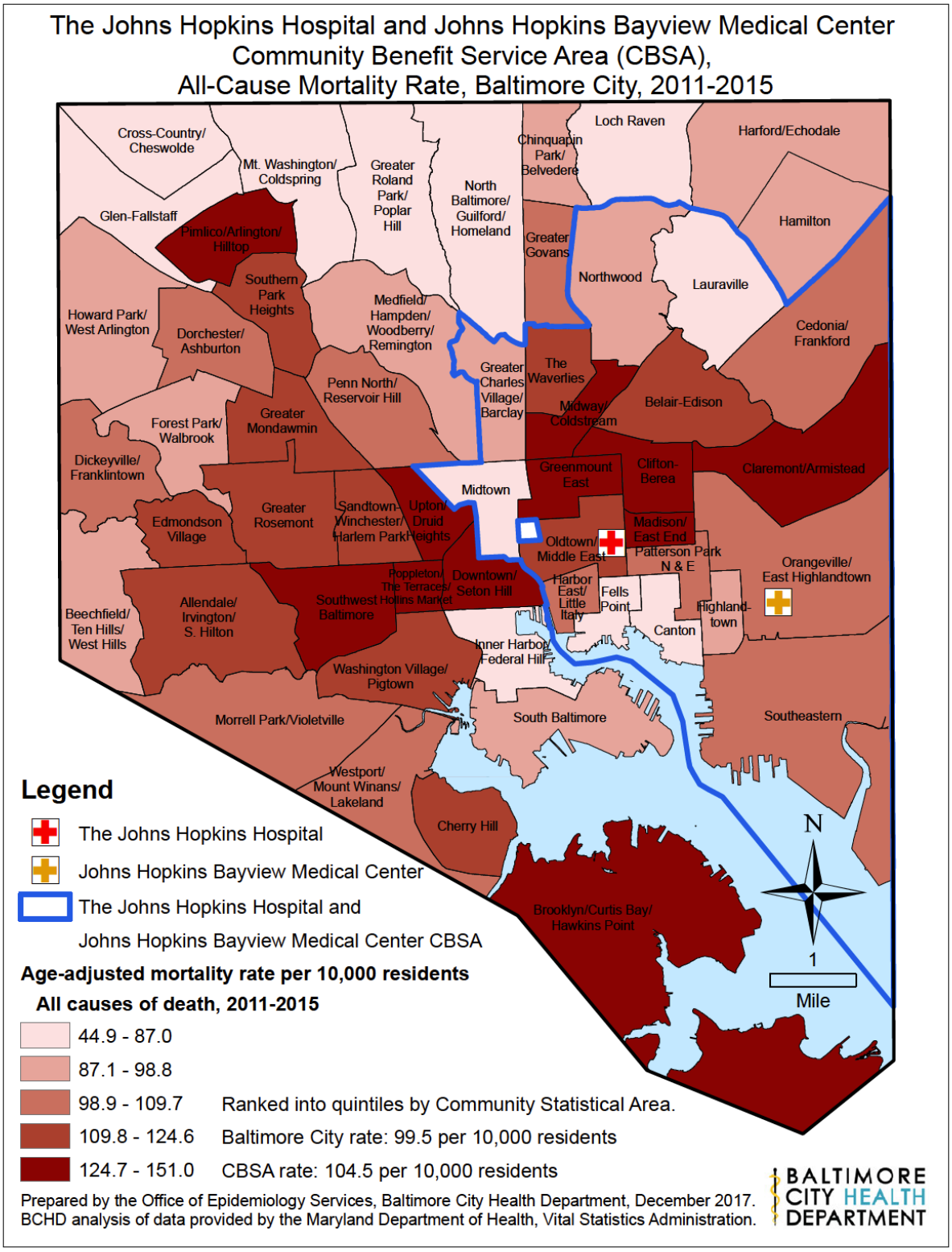
Percent of land covered by green space	2007, 2008, 2011	33.1%	22.3%
Percentage of land zoned for industrial use	2008	23.4%	27.4%
Rate of rat service requests to 311 per 10,000 households	2016	408.8	465.93
Lead violation rate per year per 10,000 households	2006-2015	9.8	11.9
Percentage of elementary school students absent 20 days or more in the past school year [3]	2013-2014	15.0%	5-19% (range)
Percentage of middle school students absent 20 days or more in the past school year [3]	2013-2014	15.2%	8-23% (range)
Percentage of high school students absent 20 days or more in the past school year [3]	2013-2014	38.7%	25-53% (range)
Percentage of adults 25 years and older with a high school diploma/equivalent or less	2011-2015	47.2%	46.5%
Percentage of adults 25 years and older with a college degree	2011-2015	28.7%	30.9%
Vacant lot density per 10,000 housing units	2016	677.3	645.0
Tobacco store density per 10,000 residents	2016	20.9	24.4
Carryout restaurant density per 10,000 residents	2016	11.4	13.3
Corner store density per 10,000 residents	2016	14.1	15.2
Fast food restaurant density per 10,000 residents	2016	2.5	2.8
Non-fatal shooting rate per year per 10,000 residents (based on location of event)	2011-2015	6.9	6.7
Youth homicide rate per year per 100,000 youth under 25 years (based on residence of victim)	2010-2014	31.3	30.1
Rate of foodborne illness per 10,000 residents	2011-2015	4.7	5.1

Rate of Hepatitis C per 10,000 residents per year	2011-2015	35.0	38.4
Age-adjusted mortality rate per 10,000 - Falls-related	2011-2015	1.0	1.0
Crude mortality rate - less than 1 year (Infant mortality rate per 1,000 live births)	2011-2015	10.4	10.9
Crude mortality rate per 10,000 - 1 to 14 years	2011-2015	2.2	2.5
Crude mortality rate per 10,000 - 15 to 24 years	2011-2015	10.8	9.1
Crude mortality rate per 10,000 - 25 to 44 years	2011-2015	24.1	21.4
Crude mortality rate per 10,000 - 45 to 64 years	2011-2015	119.2	124.0
Crude mortality rate per 10,000 - 65 to 84 years	2011-2015	379.8	396.5
Crude mortality rate per 10,000 - 85 years and older	2011-2015	1315.6	1415.1
Birth rate per 1,000 residents	2011-2015	14.3	14.5
Percentage of women receiving prenatal care in the first trimester	2010-2014	54.7%	55.7%
Percentage of women who reported smoking while pregnant	2010-2014	10.7%	9.9%
Percentage of live births occurring preterm	2010-2014	12.4%	12.6%
Percentage of births classified as low birth weight	2010-2014	11.5%	11.8%
Percentage of births to mothers with a BMI ≥ 30.0	2010-2014	11.5%	30.7%

[1] All data are calculated from the Baltimore City Health Department's (BCHD's) 2017 Neighborhood Health Profiles (NHPs) unless otherwise noted. Please see the 2017 NHPs for a list of data sources, including year(s), and methodology. https://goo.gl/GCEYKF
[2] BCHD analysis of data provided by the Baltimore City Department of Planning.
[3] Due to its agreement with the Baltimore City Public Schools, the Baltimore Neighborhood Indicators Alliance was unable to calculate education metrics for CHNA areas. BCHD does not have access to these education data.
[4] BCHD analysis of 2016 gonorrhea cases reported to BCHD.
[5] The Hardship Index is a measure of comparison, weighing relative hardship of one CSA against another or against the City as a whole. The calculation methodology reflects this relativity by standardizing six socioeconomic components of Baltimore's 55 CSAs to a scale of 1 to 100, then averaging the component scores to provide a final index score. Aggregating CSAs into a single CHNA area and calculating a score using that discrete area can impact the scores of the remaining individual CSAs, thus changing the apparent relative hardship of the CHNA area. Therefore, a range of scores within a CHNA area is provided. In this way, we hope to show the range of socioeconomic conditions within the CHNA area.

*CSAs included in catchment area: Belair-Edison, Canton, Cedonia/Frankford, Claremont/Armistead, Clifton-Berea, Fells Point, Greater Charles Village/Barclay, Greenmount East, Harbor East/Little Italy, Highlandtown, Lauraville, Madison/East End, Midtown, Midway/Coldstream, Northwood, Oldtown/Middle East, Orangeville/East Higlandtown, Patterson Park North & East, Southeastern The Waverlies.


The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center
Community Benefit Service Area (CBSA)
Life Expectancy at Birth in Years, Baltimore City, 2011-2015
Cross-Country/ Cheswolde
Mt. Washington/ Coldspring
Greater Roland Park/ Poplar Hill
North Baltimore/ Guilford/ Homeland
Chinquapin Park/ Belvedere
Loch Raven
Harford/Echodale
Glen-Fallstaff
Pimlico/Arlington/ Hilltop
Greater Govans
Hamilton
Northwood
Lauraville
Southern Park Heights
Howard Park/ West Arlington
Dorchester/ Ashburton
Medfield/ Hampden/ Woodberry/ Remington
Cedonia/ Frankford
Greater Charles Village/ Barclay
The Waverlies
Penn North/ Reservoir Hill
Midway/ Coldstream
Belair-Edison
Forest Park/ Walbrook
Greater Mondawmin
Dickeyville/ Franklintown
Greenmount East
Clifton-Berea
Claremont/Armistead
Midtown
Edmondson Village
Greater Rosemont
Sandtown-Winchester/ Harlem Park
Upton/ Druid Heights
Madison/ East End
Oldtown/ Middle East
Patterson Park N & E
Orangeville/ East Highlandtown
Roppleton/ The Terraces/ Hollins Market
Downtown/ Seton Hill
Harbor East/ Little Italy
Fells Point
Highland-town
Allendale/ Irvington/ S. Hilton
Southwest Baltimore
Canton
Beechfield/ Ten Hills/ West Hills
Inner Harbor/ Federal Hill
Washington Village/ Pigtown
South Baltimore
Southeastern
Morrell Park/Violetville
Westport/ Mount Winans/ Lakeland
Cherry Hill
Brooklyn/Curtis Bay/ Hawkins Point
N
1
Mile
Legend
The Johns Hopkins Hospital
Johns Hopkins Bayview Medical Center
The Johns Hopkins Hospital and
Johns Hopkins Bayview Medical Center CBSA
Life Expectancy at Birth in Years,
2011-2015
66.9 - 69.7
69.8 - 72.0
72.1 - 73.8
73.9 - 76.4
76.5 - 87.1
Ranked into quintiles by Community Statistical Area.
Baltimore City life expectancy: 73.6 years
CBSA life expectancy: 73.1 years
Prepared by the Office of Epidemiology Services, Baltimore City Health Department, December 2017.
BCHD analysis of data provided by the Maryland Department of Health, Vital Statistics Administration.
BALTIMORE CITY HEALTH DEPARTMENT


The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center
Community Benefit Service Area (CBSA),
All-Cause Mortality Rate, Baltimore City, 2011-2015
Cross-Country/ Cheswolde
Mt. Washington/ Coldspring
Greater Roland Park/ Poplar Hill
North Baltimore/ Guilford/ Homeland
Chinquapin Park/ Belvedere
Loch Raven
Harford/Echodale
Glen-Fallstaff
Pimlico/Arlington/ Hilltop
Greater Govans
Hamilton
Northwood
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Dorchester/ Ashburton
Medfield/ Hampden/ Woodberry/ Remington
Cedonia/ Frankford
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Patterson Park N & E
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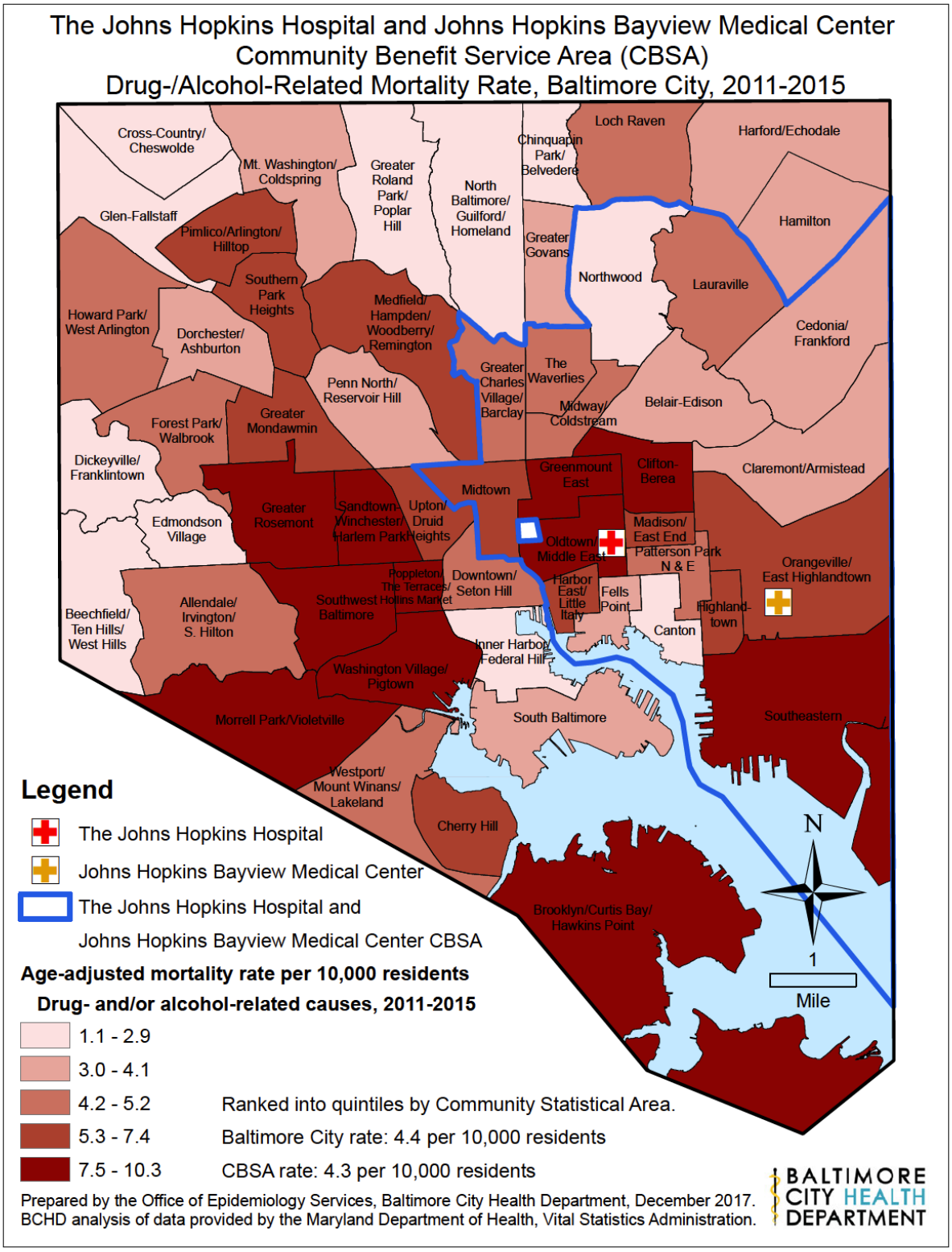
Fells Point
Allendale/ Irvington/ S. Hilton
Southwest Baltimore
Highland-town
Beechfield/ Ten Hills/ West Hills
Canton
Inner Harbor/ Federal Hill
Washington Village/ Pigtown
Morrell Park/Violetville
South Baltimore
Southeastern
Westport/ Mount Winans/ Lakeland
Cherry Hill
Brooklyn/Curtis Bay/ Hawkins Point
N
1
Mile
Legend
The Johns Hopkins Hospital
Johns Hopkins Bayview Medical Center
The Johns Hopkins Hospital and
Johns Hopkins Bayview Medical Center CBSA
Age-adjusted mortality rate per 10,000 residents
All causes of death, 2011-2015
44.9 - 87.0
87.1 - 98.8
98.9 - 109.7
109.8 - 124.6
124.7 - 151.0
Ranked into quintiles by Community Statistical Area.
Baltimore City rate: 99.5 per 10,000 residents
CBSA rate: 104.5 per 10,000 residents
Prepared by the Office of Epidemiology Services, Baltimore City Health Department, December 2017.
BCHD analysis of data provided by the Maryland Department of Health, Vital Statistics Administration.
BALTIMORE CITY HEALTH DEPARTMENT


The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center
Community Benefit Service Area (CBSA)
Drug-/Alcohol-Related Mortality Rate, Baltimore City, 2011-2015
Cross-Country/ Cheswolde
Mt. Washington/ Coldspring
Greater Roland Park/ Poplar Hill
North Baltimore/ Guilford/ Homeland
Chinquapin Park/ Belvedere
Loch Raven
Harford/Echodale
Glen-Fallstaff
Pimlico/Arlington/ Hilltop
Greater Govans
Hamilton
Northwood
Lauraville
Southern Park Heights
Howard Park/ West Arlington
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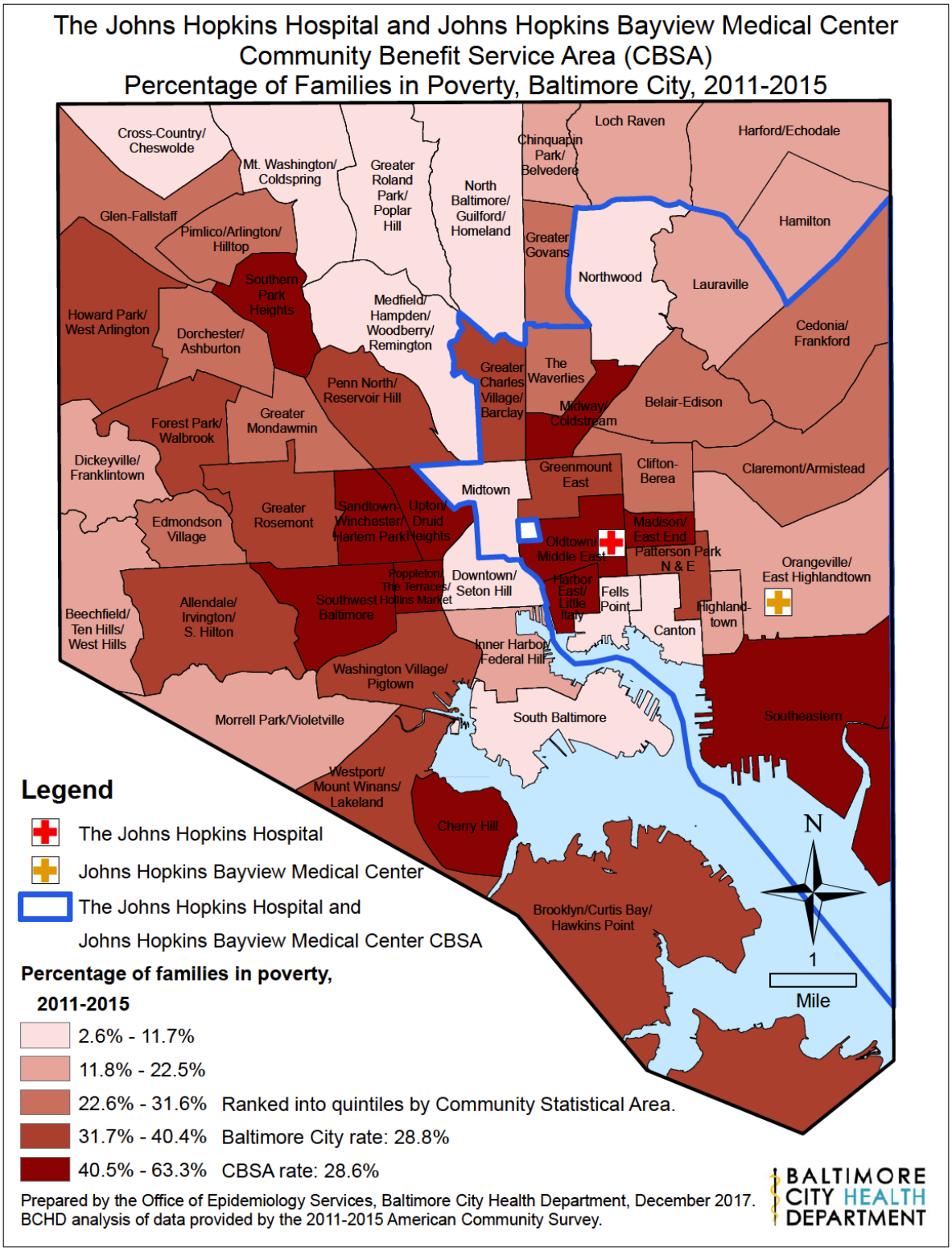
Harbor East/ Little Italy
Fells Point
Highland-town
Allendale/ Irvington/ S. Hilton
Southwest Baltimore
Beechfield/ Ten Hills/ West Hills
Canton
Inner Harbor/ Federal Hill
Washington Village/ Pigtown
Morrell Park/Violetville
South Baltimore
Southeastern
Westport/ Mount Winans/ Lakeland
Cherry Hill
Brooklyn/Curtis Bay/ Hawkins Point
N
1
Mile
Legend
The Johns Hopkins Hospital
Johns Hopkins Bayview Medical Center
The Johns Hopkins Hospital and
Johns Hopkins Bayview Medical Center CBSA
Age-adjusted mortality rate per 10,000 residents
Drug- and/or alcohol-related causes, 2011-2015
1.1 - 2.9
3.0 - 4.1
4.2 - 5.2
5.3 - 7.4
7.5 - 10.3
Ranked into quintiles by Community Statistical Area.
Baltimore City rate: 4.4 per 10,000 residents
CBSA rate: 4.3 per 10,000 residents
Prepared by the Office of Epidemiology Services, Baltimore City Health Department, December 2017.
BCHD analysis of data provided by the Maryland Department of Health, Vital Statistics Administration.
BALTIMORE CITY HEALTH DEPARTMENT


The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center
Community Benefit Service Area (CBSA)
Percentage of Families in Poverty, Baltimore City, 2011-2015
Cross-Country/ Cheswolde
Mt. Washington/ Coldspring
Greater Roland Park/ Poplar Hill
North Baltimore/ Guilford/ Homeland
Chinquapin Park/ Belvedere
Loch Raven
Harford/Echodale
Hamilton
Glen-Fallstaff
Pimlico/Arlington/ Hilltop
Greater Govans
Northwood
Lauraville
Southern Park Heights
Howard Park/ West Arlington
Dorchester/ Ashburton
Medfield/ Hampden/ Woodberry/ Remington
Cedonia/ Frankford
Greater Charles Village/ Barclay
The Waverlies
Penn North/ Reservoir Hill
Midway/ Coldstream
Belair-Edison
Forest Park/ Walbrook
Greater Mondawmin
Dickeyville/ Franklintown
Greenmount East
Clifton-Berea
Claremont/Armistead
Midtown
Edmondson Village
Greater Rosemont
Sandtown-Winchester/ Harlem Park
Upton/ Druid Heights
Madison/ East End
Oldtown/ Middle East
Patterson Park N & E
Orangeville/ East Highlandtown
Roppleton/ The Terraces/ Hollins Market
Downtown/ Seton Hill
Harbor East/ Little Italy
Fells Point
Highland-town
Allendale/ Irvington/ S. Hilton
Southwest Baltimore
Beechfield/ Ten Hills/ West Hills
Canton
Inner Harbor/ Federal Hill
Washington Village/ Pigtown
Morrell Park/Violetville
South Baltimore
Southeastern
Westport/ Mount Winans/ Lakeland
Cherry Hill
Brooklyn/Curtis Bay/ Hawkins Point
N
1
Mile
Legend
The Johns Hopkins Hospital
Johns Hopkins Bayview Medical Center
The Johns Hopkins Hospital and
Johns Hopkins Bayview Medical Center CBSA
Percentage of families in poverty,
2011-2015
2.6% - 11.7%
11.8% - 22.5%
22.6% - 31.6%
31.7% - 40.4%
40.5% - 63.3%
Ranked into quintiles by Community Statistical Area.
Baltimore City rate: 28.8%
CBSA rate: 28.6%
Prepared by the Office of Epidemiology Services, Baltimore City Health Department, December 2017.
BCHD analysis of data provided by the 2011-2015 American Community Survey.
BALTIMORE CITY HEALTH DEPARTMENT

Appendix C: Secondary Data Profile

Secondary Data Profile

Johns Hopkins collected and analyzed secondary data from multiple sources, including Community Commons, County Health Rankings, Maryland Department of Health and Mental Hygiene Vital Statistics, Maryland Health Services Cost Review Commission (HSCRC), Neighborhood Health Profiles, Substance Abuse and Mental Health Services Administration, The Annie E. Casey Foundation, The Centers for Disease Control and Prevention (CDC), and Truven Health Analytics.

The secondary data profile includes information from multiple health, social, and demographics sources which was utilized during the 2016 CHNA and updated with current data from sources as available. The secondary data sources were used to compile information related to disease prevalence, socioeconomic factors, and behavioral habits. Where applicable, data were benchmarked against state and national trends. ZIP code analysis was also completed to illustrate community health needs at the local level.

A robust secondary data report was compiled for JHH and JHBMC; select information collected from the report has been presented throughout the CHNA. Data specifically related to the identified needs were used to support the key health needs.

Data were obtained for the 2016 CHNA through Truven Health Analytics (formerly known as Thomson Reuters) to quantify the severity of health disparities for ZIP codes in The Johns Hopkins Hospital's and Johns Hopkins Bayview Medical Center's community benefit service area. Truven Health Analytics provides data and analytics to hospitals, health systems, and health-supported agencies.

The Community Need Index (CNI) data source was also used in the health assessment. CNI considers multiple factors that are known to limit health care access. The tool is useful in identifying and addressing the disproportionate and unmet health-related needs of neighborhoods. The five prominent socioeconomic barriers to community health quantified in the CNI are Income Barriers, Cultural/Language Barriers, Educational Barriers, Insurance Barriers, and Housing Barriers.

Truven Health Analytics: Community Needs Index (CNI) Overview

Not-for-profit and community-based health systems have long considered a community's needs to be a core component of their mission of service to local communities. While specific initiatives designed to address health disparities vary across local communities (e.g., outreach to migrant farm workers, asthma programs for inner city children, etc.), the need to prioritize and effectively distribute hospital resources is a common thread among all providers.

Given the increased transparency of hospital operations (quality report cards, financial disclosures, etc.), community benefit efforts need to become increasingly strategic and targeted in order to illustrate to a variety of audiences how specific programs have been designed and developed. While local community needs assessments will always play a central role in this process, they are often voluminous, difficult to communicate, and may lack necessary qualitative and statistical justification for choosing specific communities as having the "greatest need."

Because of such challenges, Dignity Health and Truven Health jointly developed a Community Need Index (CNI) in 2004 to assist in the process of gathering vital socioeconomic factors in the community.

The CNI is strongly linked to variations in community health care needs and is a strong indicator of a community's demand for various health care services.

Based on a wide array of demographic and economic statistics, the CNI provides a score for every populated ZIP code in the United States on a scale of 1.0 to 5.0. The CNI should be shared with community partners and used to justify grants or resource allocations for community initiatives.

Methodology

The CNI score is an average of five different barrier scores that measure various socioeconomic indicators of each community using the source data. The five barriers are listed below, along with the individual statistics that are analyzed for each barrier. The following barriers, and the statistics that comprise them, were carefully chosen and tested individually by both Dignity Health and Truven Health:

1. Income Barrier
    - Percentage of households below poverty line, with head of household aged 65 or older
    - Percentage of families, with children under age 18, below poverty line
    - Percentage of single female-headed families, with children under age 18, below poverty line
2. Cultural Barrier
    - Percentage of population that is a minority (including Hispanic ethnicity)
    - Percentage of population, over age 5, that speaks English poorly or not at all
3. Education Barrier
    - Percentage of population, over age 25, without a high school diploma
4. Insurance Barrier
    - Percentage of population in the labor force, age 16 or older, without employment
    - Percentage of population without health insurance
5. Housing Barrier
    - Percentage of households renting their home

Every populated ZIP code in the United States is assigned a barrier score of 1,2,3,4, or 5, depending upon the ZIP national rank (quintile). A score of 1 represents the lowest (i.e., best) rank nationally for the statistics listed, while a score of 5 indicates the highest rank nationally. For example, ZIP codes that score a 1 for the Education Barrier contain highly educated populations; ZIP codes with a score of 5 have a very small percentage of high school graduates.

For the two barriers with only one statistic each (education and housing), Truven Health used only the single statistic listed to calculate the barrier score. For the three barriers with more than one component statistic (income, cultural, and insurance), Truven Health analyzed the variation and

contribution of each statistic for its barrier; Truven Health then weighted each component statistic appropriately when calculating the barrier score.

Once each ZIP code is assigned its barrier scores from 1 to 5, all five barrier scores for each ZIP code are averaged together to yield the CNI score. Each of the five barrier scores receives equal weight (20 percent each) in the CNI score. An overall score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need.

2015 Data Sources

- 2014 Demographic Data, The Nielsen Company
- 2014 Poverty Data, The Nielsen Company
- 2014 Insurance Coverage Estimates, Truven Health Analytics

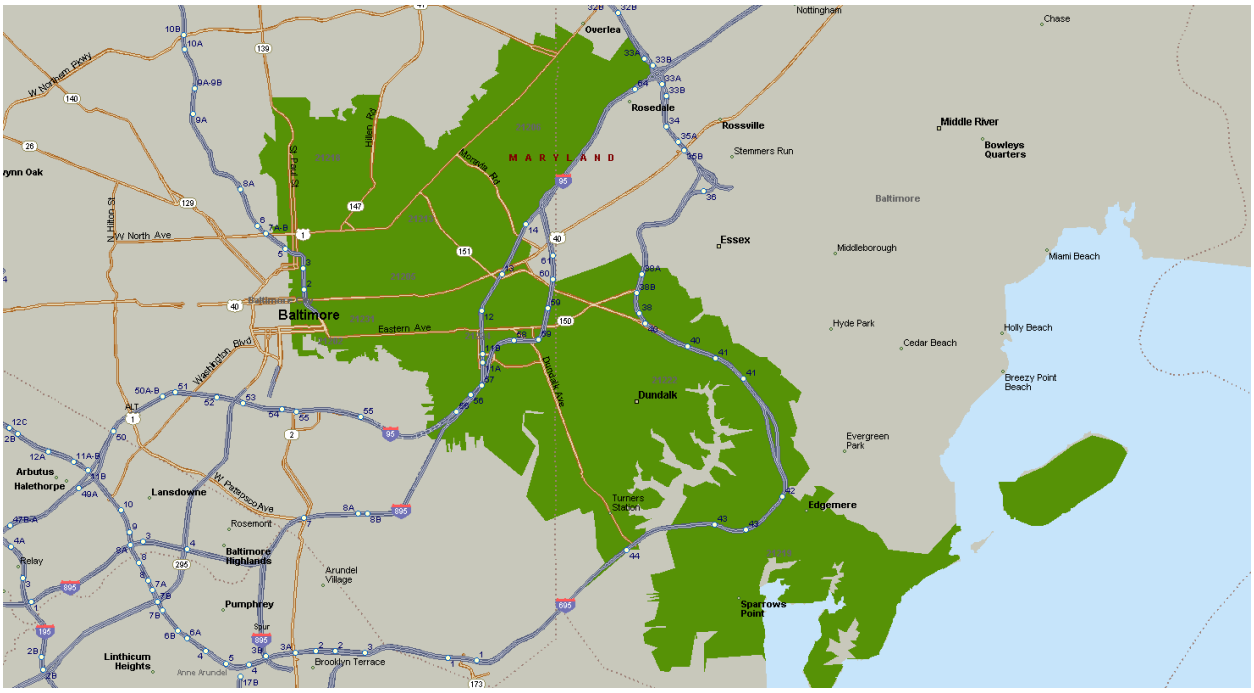
Applications and Caveats

- CNI scores are not calculated for non-populated ZIP codes. These include such areas as national parks, public spaces, post office boxes, and large unoccupied buildings.
- CNI scores for ZIP codes with small populations (especially less than 100 people) may be less accurate. This is due to the fact that the sample of respondents to the 2010 census is too small to provide accurate statistics for such ZIP codes.

A total of nine ZIP codes were analyzed for the Johns Hopkins Institutions. These ZIP codes represent the community served by The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center as portions of the health institutions' community benefit service areas. The community health assessment focused on these nine specific ZIP codes which fell into Baltimore City and parts of Baltimore County. They included 21202, 21205, 21206, 21213, 21218, 21219, 21222, 21224 and 21231.

The following map geographically depicts the community benefits service area by showing the communities that are shaded. As can be seen, the CBSA encompasses nine ZIP codes across east and southeast Baltimore City and county (See Map 5).

Map 5: Overall Community Benefits Service Area – 2017 Study Area Map



Source: Truven Health Analytics 2015

Table 12: Community Needs Index Overall Study Area Summary

	2015 Population	Poverty 65 years +	Poverty Child	Single w/ Children Poverty	Limited English	Minority	No High School Diploma	Unemployment	Uninsured	Rent	Income Rank	Cultural Rank	Education Rank	Insurance Rank	House Rank	2014 CNI Score*	2015 CNI Score *	CNI Score Change
Overall Study Area	304,276	18.55%	28.32%	40.82%	2.98%	58.62%	20.72%	14.52%	11.19%	46.57%	3	5	4	4	5	4.2	4.3	+0.1

Source: Truven Health Analytics 2015 **Weighted average of total market*

Community Needs Index Overall Study Area Summary (See Table 12)

- CNI analysis for the CBSA encompassed nine ZIP codes in the 2015 CHNA study. They include 21202, 21205, 21206, 21213, 21218, 21219, 21222, 21224 and 21231.
- The CNI score for the CBSA in 2014 was 4.2.*

- The CNI score for the CBSA in 2015 was 4.3.*
    - This is an increase of +0.1 from 2014 to 2015, indicating that the overall CBSA faces increased barriers to accessing care.

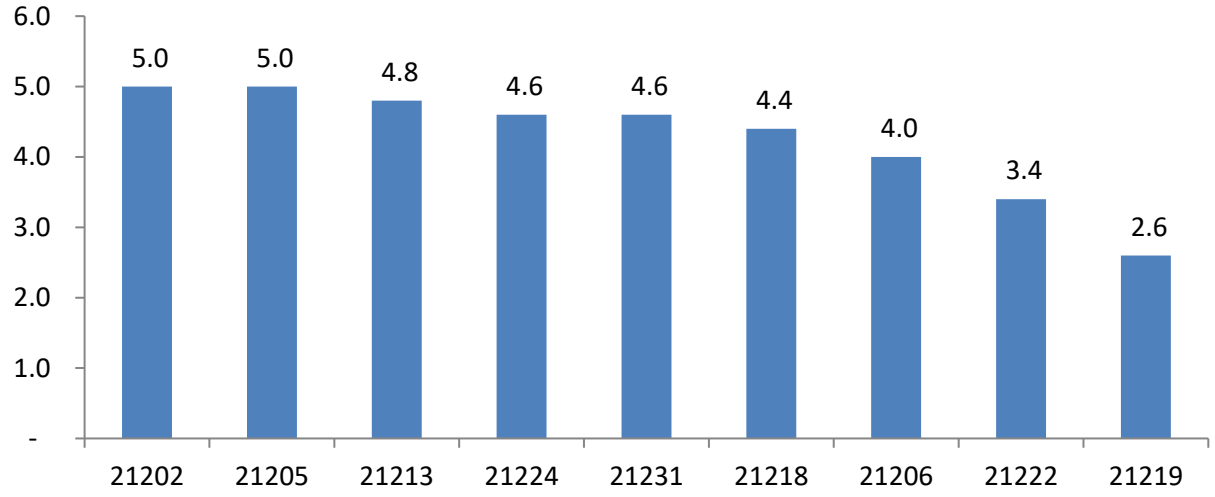
Table 13: CBSA Community Needs Index ZIP Codes and Scores: Specific Data and Measures

Zip	2015 Population	Poverty 65+	Poverty Children	Poverty Single w/kids	Limited English	Minority	No H/S Diploma	Unemployed	Uninsured	Rent	House	Income	Culture	Education	Insurance Rank	Housing	2015 CNI Score
21202	23,812	33.00%	47.07%	57.42%	1.13%	70.41%	23.04%	15.72%	18.18%	78.29%	5	5	5	5	5	5	5.0
21205	16,300	30.63%	46.69%	55.48%	3.88%	83.52%	36.55%	26.34%	17.85%	60.52%	5	5	5	5	5	5	5.0
21206	50,347	12.66%	20.19%	28.69%	1.60%	77.37%	15.23%	12.98%	9.26%	39.80%	5	2	5	4	4	5	4.0
21213	32,146	23.72%	30.38%	42.37%	1.08%	93.94%	23.55%	21.26%	14.10%	43.05%	5	4	5	5	5	5	4.8
21218	48,890	22.22%	23.90%	36.41%	0.72%	72.89%	17.43%	14.69%	13.40%	55.22%	5	3	5	4	5	5	4.4
21219	9,743	8.67%	13.01%	24.48%	0.54%	7.64%	17.19%	10.62%	6.46%	18.64%	2	2	2	4	3	2	2.6
21222	56,953	11.38%	20.30%	30.65%	1.69%	23.65%	19.13%	12.99%	6.93%	33.58%	4	2	4	4	3	4	3.4
21224	50,053	13.67%	30.85%	49.26%	9.79%	42.81%	25.12%	10.76%	9.23%	42.36%	5	4	5	5	4	5	4.6
21231	16,032	28.51%	46.54%	69.38%	4.66%	47.11%	16.73%	11.08%	11.73%	63.48%	5	5	5	4	4	5	4.6

Source: Truven Health Analytics 2015

- ZIP codes 21202 and 21205 had a 2015 CNI score of 5.0, which indicates individuals in these ZIP codes have greater barriers to accessing health care.
- ZIP code 21219 had a 2015 CNI score of 2.6, which indicates that residents in this ZIP code have fewer barriers to accessing care. This ZIP code is located in Baltimore County.

Chart 29: Community Needs Index Overall Study Area Summary



Source: Truven Health Analytics 2015

- Only ZIP codes 21219, 21222 and 21206 fall below the average score of 4.3 for the CBSA or overall study area. All other ZIP codes for the study area are above the average, indicating significant barriers to health care.

Table 14: Community Needs Index Results (Top 5 Highest CNI Scores)

ZIP Codes	City	Income Rank	Culture Rank	Education Rank	Insurance Rank	Housing Rank	2015 CNI Score
21202	Baltimore	5	5	5	5	5	5.0
21205	Baltimore	5	5	5	5	5	5.0
21213	Baltimore	4	5	5	5	5	4.8
21224	Baltimore	4	5	5	4	5	4.6
21231	Baltimore	5	5	4	4	5	4.6
21218	Baltimore	3	5	4	5	5	4.4
21206	Baltimore	2	5	4	4	5	4.0
21222	Dundalk	2	4	4	3	4	3.4
21219	Sparrows Point	2	2	4	3	2	2.6
Overall Study Area		**3**	**5**	**4**	**4**	**5**	**4.3***

Source: Truven Health Analytics 2015 **Weighted average of total market*

CBSA Community Needs Index Results (See Table 14)

The 2015 CNI score for the service area is 4.3. This score is well above the national CNI median score of 3.0.

At the ZIP code level, the highest CNI score in the study area is 5.0 for the ZIP codes of 21202 and 21205. This indicates that these ZIP codes have the most barriers to accessing health care when compared to other ZIP codes in the study area.

The lowest CNI score in the study area was 2.6 in ZIP code 21219 (Sparrows Point). This ZIP code has the least barriers to health care access in the study area, but this does not imply that this area requires no attention.

Even though zip code 21231 had the highest average income within the CBSA (as shown previously in Chart 2), the calculated CNI income score of 4.6 indicates significant barriers to health care. This is due to the high percentages of seniors in poverty at 29 percent, children in poverty at 47 percent, and single households who have children in poverty at 69 percent (as shown previously in Table 10.)

As part of the 2018 CHNA, updated CNI scores were obtained from Truven Health for the year 2017. Improvements in the overall scores for the CBSA were seen as the mean score went from 4.3 in 2015 to 4.1 in 2017. See Table 15 for an analysis by zip code within the CBSA. The individual factors that determine each of the scores, shown in Tables 13 and 14, were not available at the time this report was prepared.

Table 15: Community Needs Index Yearly Comparison Scores 2014-2017

ZIP	County	City	2017 Population	% Population Increase/ (Decrease)	2014 CNI Score	2015 CNI Score	2017 CNI Score	Increase/ (Decrease) 2015 to 2017
21202	Baltimore City	Baltimore	24,584	3.2%	5.0	5.0	**4.8**	**-0.2**
21205	Baltimore City	Baltimore	15,973	-2.0%	5.0	5.0	**4.8**	**-0.2**
21206	Baltimore City / County	Baltimore	50,322	0.0%	3.8	4.0	**3.6**	**-0.4**
21213	Baltimore City	Baltimore	31,818	-1.0%	4.6	4.8	4.8	0.0
21218	Baltimore City	Baltimore	48,976	0.2%	4.4	4.4	**4.2**	**-0.2**
21219	Baltimore County	Sparrows Point	9,730	-0.1%	2.6	2.6	**2.8**	**0.2**
21222	Baltimore City / County	Dundalk	57,113	0.3%	3.6	3.4	**3.6**	**0.2**
21224	Baltimore City / County	Baltimore	50,945	1.8%	4.6	4.6	**4.4**	**-0.2**
21231	Baltimore City	Baltimore	16,434	2.5%	4.8	4.6	**4.2**	**-0.4**
Overall Study Area			305,895	0.5%	**4.2**	**4.3**	**4.1**	**-0.2**
Baltimore City							**4.1**	
Baltimore County							**2.3**	

Source: Truven Health Analytics 2015, 2017

<u>CBSA Community Needs Index Yearly Comparison Scores (See Table 15)</u>

- Of the nine ZIP codes in The JHH and JHBMC study area:
  - Six saw declines in CNI scores (reduced barriers to health care) in 2017 from the last report in 2015
  - One ZIP code remained the same
  - Two experienced rises in CNI scores (increased barriers to health care)

- CNI scores in green indicate a positive change in scores, showing a decrease in score from 2015 to 2017.
- CNI scores in red indicate a negative change in scores, showing an increase in score from 2015 to 2017.
- For the CBSA overall, there was a small decrease in barriers from 4.3 in 2015 to 4.1 in 2017, which was also lower than the score in 2014 of 4.2.
- The CNI scores for the CBSA as a whole are similar to that of the city over all at 4.1. However, Baltimore County CNI scores are significantly lower at 2.3.

Appendix D: General Description of Johns Hopkins Medicine, The Johns Hopkins Hospital, and Johns Hopkins Bayview Medical Center

Johns Hopkins Medicine (JHM), headquartered in Baltimore, Maryland is an integrated global health enterprise and one of the leading health care systems in the United States. JHM operates three academic and three community hospitals, four suburban health care and surgery centers, and more than 39 primary and specialty care outpatient sites.

JHM's vision, "Together, we will deliver the promise of medicine," is supported by its mission to improve the health of the community and the world by setting the standard of excellence in medical education, research, and clinical care. Diverse and inclusive, JHM educates medical students, scientists, health care professionals and the public; conducts biomedical research, and provides patient-centered medicine to prevent, diagnose, and treat human illness.

Opened in 1889, The Johns Hopkins Hospital (JHH) has been ranked number one by U.S. News & World Report for 22 years, most recently in 2013. JHH is a premier medical facility serving the health care needs of those in Maryland, nationally, and internationally. Training and educating researchers, scientists, health care professionals, and students are part of JHH's mission and tradition. The advancement of medicine, detection and treatment of diseases sets the standard in medical education and research. JHH has 1,154 licensed beds and over 2,100 full-time attending physicians. JHH is home to the Johns Hopkins Children's Center and the Johns Hopkins Kimmel Cancer Center, both of which are consistently ranked among the top in the nation by U.S. News & World Report.

Johns Hopkins Bayview Medical Center (JHBMC), committed to superior and innovative health care, education, and research, traces its history back to 1773. Since Johns Hopkins acquired Baltimore City Hospitals in 1984, more than $600 million has been invested to transform and modernize the campus. Uniting with The Johns Hopkins Hospital, the medical campus of JHBMC has been transformed to connect clinical care and medical education focusing on distinctive models of care in Johns Hopkins Centers of Excellence, including the Burn Center, Women's Center for Pelvic Health, Asthma & Allergy Center, and Memory and Alzheimer's Treatment Center. JHBMC's Geriatric Medicine and Rheumatology programs are consistently ranked highly by U.S. News & World Report. JHBMC has 455 licensed beds and over 680 attending physicians.

Appendix E: Communities Served by JHH and JHBMC

Community Benefit Service Area of JHH and JHBMC[9]

In 2015, The Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center (JHBMC) merged their respective Community Benefit Service Areas (CBSA) in order to better integrate community health and community outreach across the east and southeast Baltimore City and County region. The CBSA geographic area is comprised of nine ZIP codes: 21202, 21205, 21206, 21213, 21218, 21219, 21222, 21224, and 21231. This area reflects the population with the largest usage of the emergency departments and the majority of recipients of community contributions and programming. Within the CBSA, JHH and JHBMC have focused on certain target populations such as the elderly, at-risk children and adolescents, uninsured individuals and households, and underinsured and low-income individuals and households.

The CBSA covers approximately 27.9 square miles within the City of Baltimore, or approximately 34 percent of the total 80.94 square miles of land area for the city, and 25.6 square miles in Baltimore County. In terms of population, an estimated 304,276 people live within the CBSA, of which the population in City ZIP codes accounts for 38 percent of the City's population and the population in the County ZIP codes accounts for 8 percent of the County's population (2014 Census estimate of Baltimore City population, 622,793, and Baltimore County population, 826,925).

Within the CBSA, there are three Baltimore County neighborhoods - Dundalk, Sparrows Point, and Edgemere. The Baltimore City Department of Health has subdivided the city area into 23 neighborhoods or neighborhood groupings that are completely or partially included within the CBSA. These neighborhoods are Belair-Edison, Canton, Cedonia/Frankford, Claremont/Armistead, Clifton-Berea, Downtown/Seton Hill, Fells Point, Greater Charles Village/Barclay, Greater Govans, Greenmount East, Hamilton, Highlandtown, Jonestown/Oldtown, Lauraville, Madison/East End, Midtown, Midway-Coldstream, Northwood, Orangeville/East Highlandtown, Patterson Park North & East, Perkins/Middle East, Southeastern, and the Waverlies.

The Johns Hopkins Hospital is in the neighborhood known as Perkins/Middle East, and the neighborhoods that are adjacent to the campus include Greenmount East, Clifton-Berea, Madison/East End, Patterson Park North & East, Fells Point, and Jonestown/Oldtown. Residents of most of these neighborhoods are primarily African American, with the exceptions of Fells Point, which is primarily White, and Patterson Park North & East, which represents a diversity of resident ethnicities. With the exceptions of Fells Point and Patterson Park N&E, the median household income of most of these neighborhoods is significantly lower than the Baltimore City median household income. Median income in Fells Point and Patterson Park N&E skews higher, and there are higher percentages of White households having higher median incomes residing in these neighborhoods.

Johns Hopkins Bayview Medical Center is located in east Baltimore City and southeast Baltimore County where the CBSA population demographics have historically trended as White middle-income, working-class communities; however, in the past few decades, southeast Baltimore has become much more diverse with a growing Latino population clustered around Patterson Park and Highlandtown. In Baltimore County, Dundalk, Sparrows Point, and Edgemere have been predominantly White with

[9] Information in this section (Communities Served by JHH and JHBMC) was obtained from the Johns Hopkins Health System Community Benefits Report.

increasing populations of Hispanic and African American residents. Many of these new residents come to JHBMC for their health care needs. Challenges for Hispanic families include poor access to primary care, need for prenatal care for women, unintentional injury-related deaths, and high rates of alcohol use among Latino men. To address these disparities, Johns Hopkins Bayview has increased clinical services and developed new initiatives including more language interpretation for patient services, the Care-a-Van mobile health unit, the Children's Medical Practice, and Centro SOL, which provides outreach, education, mental health support, and improved access to services.

Neighborhoods farther north of The Johns Hopkins Hospital include Belair-Edison, Cedonia/Frankford, Claremont/Armistead, Clifton-Berea, Greater Charles Village/Barclay, Greater Govans, Hamilton, Lauraville, Midtown, Midway-Coldstream, Northwood and The Waverlies. These neighborhoods are racially more diverse than the neighborhoods closest to JHH, and median household incomes range from significantly above the median to close to the median household income for Baltimore City.

Since the end of the Second World War, much of the population of Baltimore City has been leaving the city and moving to the surrounding suburban counties. This demographic trend accelerated in the 1960s and 1970s, greatly affecting the neighborhoods around JHH and JHBMC. As the population of Baltimore City dropped, there has been a considerable disinvestment in housing stock in these neighborhoods. Economic conditions that resulted in the closing or relocation of manufacturing and industrial jobs in Baltimore City and Baltimore County led to higher unemployment in the neighborhoods around The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center, and social trends during the 1970s and 1980s led to increases in substance abuse and violent crime as well.

Greater health disparities are found in these neighborhoods closest to the hospitals compared to Maryland state averages and surrounding county averages. The June 2012 Charts of Selected Black vs. White Chronic Disease SHIP Metrics for Baltimore City prepared by the Maryland Office of Minority Health and Health Disparities highlights some of these health disparities, including higher emergency department visit rates for asthma, diabetes, and hypertension in Blacks compared to Whites, higher heart disease and cancer mortality in Blacks than Whites, higher rates of adult smoking and lower percentages of adults at a healthy weight.

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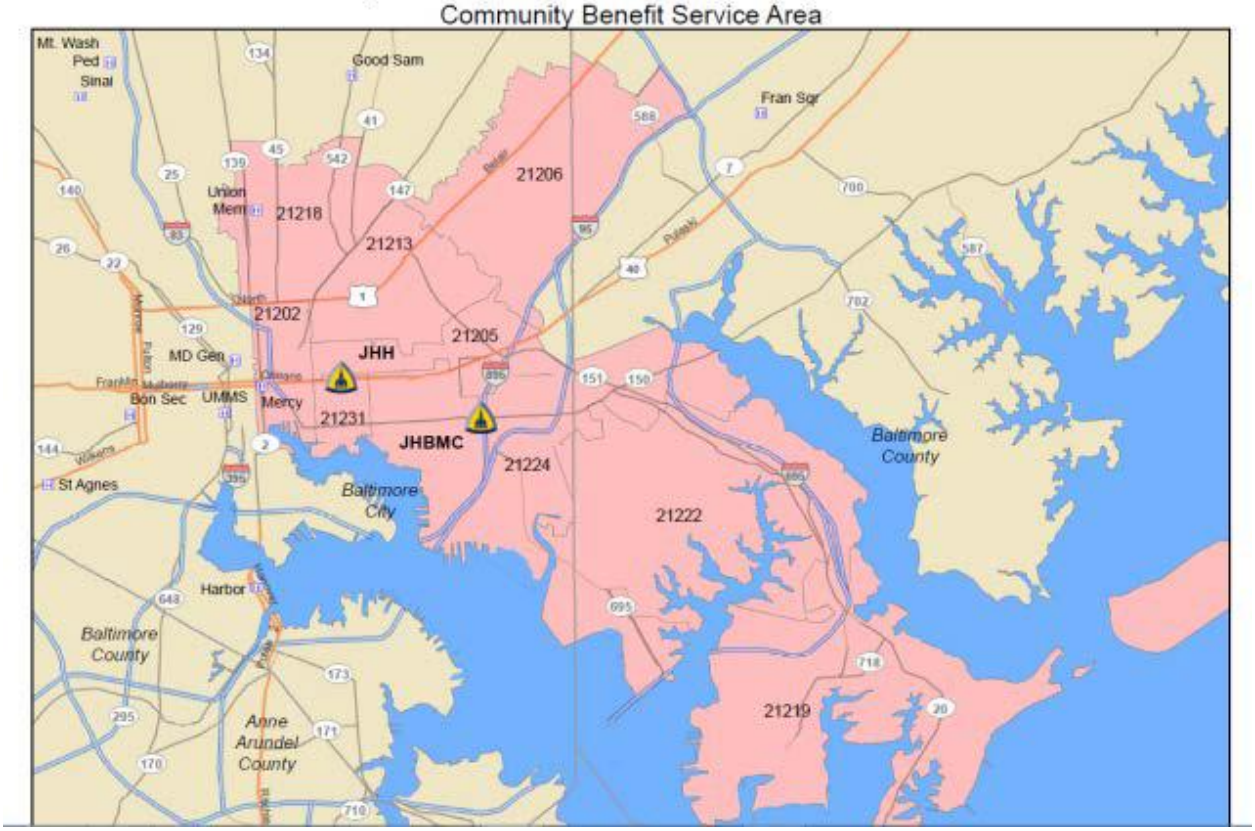
The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center
Community Benefit Service Area



Appendix F: JHH and JHBMC CBSA Demographic Snapshot

Table 16: JHH and JHBMC CBSA Demographic Snapshot

		Data Source
Community Benefits Service Area (CBSA)	21202, 21205, 21206, 21213, 21218, 21219, 21222, 21224, 21231	JHM Market Analysis & Business Planning
CBSA demographics, by sex, race, ethnicity and average age	Total population: 305,895 Sex Male: 149,414/48.8% Female: 156,487/51.2% Race White non-Hispanic: 124,940/40.8% Black non-Hispanic: 139,245/45.5% Hispanic: 23,622/7.7% Asian and Pacific Islander non-Hispanic: 9,547/3.1% All others: 8,541/2.8% Age 0-14: 54,752/17.9% 15-17: 9,871/3.2% 18-24: 29,376/9.6% 25-34: 56,782/18.6% 35-54: 79,172/25.9% 55-64: 37,518/12.3% 65+: 38,424/12.6% Household Income <$15K: 20,980/17.5% $15-25K: 13,030/10.9% $25-50K: 29,026/24.2% $50-75K: 20,438/17.0% $75-100K: 13,473/11.2% >$100K: 23,023/19.2%	2017 Truven
Median household income within CBSA	CBSA average household income: $64,946 Median household income: $42,241 (Baltimore City) Median household income: $67,095 (Baltimore County)	2017 Truven
Percentage of households (families and	Baltimore City – 2015 All families: 19.0%	U.S. Census Bureau, 2015 American

people) with incomes below the federal poverty guidelines within CBSA (past 12 months)	Married couple family: 6.6% Female householder, no husband present, family: 32.1% Female householder with related children under 5 years only: 37.2% All people: 23.7% Under 18 years: 34.2% Related Children under 5 years: 34.3% Baltimore County – 2015 All families: 6.3% Married couple family: 3.1% Female householder, no husband present, family: 16.0% Female householder with related children under 5 years only: 24.5% All people: 9.4% Under 18 years: 12.1% Related Children under 5 years: 13.0%	Community Survey http://factfinder2.census.gov
Please estimate the percentage of uninsured people within CBSA counties	10.3% Baltimore City 8.1% Baltimore County	2015 American Community Survey
Percentage of Medicaid recipients within CBSA counties	43.9% Baltimore City 29.7% Baltimore County	2015 American Community Survey
Life expectancy by County within CBSA	73.9 years at birth (Baltimore City, 2013-2015) 79.1 years at birth (Baltimore County, 2013-2015) 79.7 years at birth (Maryland, 2013-2015) Baltimore City by Race White: 76.9 years at birth Black: 72.0 years at birth Baltimore County by Race White: 79.1 years at birth Black: 78.0 years at birth	Maryland Vital Statistics Annual Report 2015 http://dhmh.maryland.gov/vsa
Infant mortality rates within CBSA	Baltimore City - 2015 All: 8.4 per 1,000 live births White: 4.4 per 1,000 live births Black: 9.7 per 1,000 live births	Maryland Vital Statistics Infant Mortality in Maryland, 2015

	Baltimore County - 2015 All: 6.1 per 1,000 live births White: 4.1 per 1,000 live births Black: 9.9 per 1,000 live births Maryland - 2015 All: 6.7 per 1,000 live births	http://dhmh.maryland.gov/vsa
Education Level/Language other than English spoken at home	CBSA Education Level (Pop. Age 25+) Less than H.S.: 12,727/6.0% Some H.S.: 26,337/12.4% H.S. Degree: 73,223/34.6% Some College: 48,879/ 23.1% Bachelor's Degree or Greater: 50,730/23.9% Language other than English spoken: 8.9% (Baltimore City, 2015) Language other than English spoken: 13.6% (Baltimore County, 2015)	U.S. Census Bureau, Quickfacts, 2016
Access to healthy food	25% of Baltimore City residents live in a food deserts (approximately 155,311 people) 30% of all school age children in Baltimore City live in a food desert Percentages of Baltimore City population living in food deserts by race/ethnicity: 34% African Americans 11-18% Hispanic/AAPI/other 8% White ZIP codes 21202, 21205, 21213, and parts of 21231 are most affected by the food deserts in Baltimore City Maryland Food insecurity: 13% Limited access to healthy foods: 3% Baltimore City Food insecurity: 24% Limited access to healthy foods: 1% Baltimore County Food insecurity: 13%	http://mdfoodsystemmap.org/2015-baltimore-city-food-access-map/ 2017 County Health Rankings

	Limited access to healthy foods: 3%	
Access to transportation	Percentage of households with No Vehicle Available 30.3% Baltimore City 8.1% Baltimore County Elderly Population (65+) Percentage by County 12% Baltimore City 16% Baltimore County Disabled Population Potentially Requiring Transportation Assistance Percentage by County 12% Baltimore City 10% Baltimore County	The Transit Question: Baltimore Regional Transit Needs Assessment Baltimore Metropolitan Council, 2015
Healthy Behaviors	Maryland Adult smoking: 15% Adult obesity: 29% Physical inactivity: 22% Excessive drinking: 16% Baltimore City Adult smoking: 24% Adult obesity: 34% Physical inactivity: 27% Excessive drinking: 17% Baltimore County Adult smoking: 13% Adult obesity: 29% Physical inactivity: 23% Excessive drinking: 15%	2017 County Health Rankings

Table 17: Primary Service Areas for JHH and JHBMC

		Data Source
Bed Designation	1,571 (JHH 1,131 and JHBMC 440)	MHCC, 2017
Inpatient Admissions FY 2017	66,854 (JHH 47,403; JHBMC 19,451)	JHM Market Analysis and Business Planning

JHH/JHBMC Primary Service Area ZIP codes	21213, 21224, 21218, 21205, 21206, 21231, 21202, 21215, 21222, 21217, 21216, 21212, 21234, 21117, 21207, 21229, 21239, 21221, 21223, 21044, 21208, 21220, 21228, 21043, 21230, 21225, 21042, 21122, 21201, 21214, 21045, 21236, 21093, 21061, 21237, 21244, 21209, 21211, 21136, 21287, 21133, 21075, 21227, 21740, 21144, 20723, 21784, 21157, 21113, 21030, 21009, 21060, 21015, 21014, 21702, 21040, 21204, 20707, 21210, 21401, 21804, 21146, 21286, 20904, 21771, 21701, 21801, 21403	HSCRC
All other Maryland hospitals sharing JHH/JHBMC primary service area	Laurel Regional Hospital, Upper Chesapeake Medical Center, Howard County General Hospital, Baltimore Washington Medical Center, Northwest Hospital Center, Carroll Hospital Center, University of Maryland Medical Center Midtown, University of Maryland Medical Center, Mercy Medical Center, Greater Baltimore Medical Center, UM Saint Joseph Medical Center, James Lawrence Kernan Hospital, Mount Washington Pediatric Hospital, Sinai Hospital, Medstar Union Memorial Hospital, Bon Secours Hospital, , Medstar Harbor Hospital, Saint Agnes Hospital, Franklin Square Hospital Center, Medstar Good Samaritan Hospital, Anne Arundel Medical Center, Western Maryland Regional Medical Center, Frederick Memorial Hospital, Meritus Medical Center, Peninsula Regional Medical Center, Chesapeake Rehabilitation Hospital	JHM Market Analysis and Business Planning

Percentage of uninsured patients by hospital	JHH Uninsured: 0.6% Medicaid: 29.9% Medicare: 28.8% JHBMC Uninsured: 2.1% Medicaid: 34.0% Medicare: 39.8%	JHM Market Analysis and Business Planning, 2017

Appendix G: Community Stakeholder Interviewees

Johns Hopkins completed interviews with community stakeholders throughout the region to gain a better understanding of community health needs from the perspective of organizations, agencies, and government officials that have a deep understanding from their day-to-day interactions with populations in greatest needs.

Additionally, the coalition of Baltimore City hospitals conducted two community stakeholder focus groups on behalf of the coalition. Key discussion information was shared with all coalition hospitals for use in their individual CHNAs.

Interviews and focus groups provided information about the community's health status, risk factors, service utilizations, and community resource needs, as well as gaps and service suggestions.

Listed below in alphabetic order by last name are the community stakeholders that participated in this CHNA.

Name	Organization
Maxwell J. Alukwu	Patterson High School
Mira Appleby	Sinai Hospital
Rhonda Chatmon	American Heart Association
Reba Cornman	University of Maryland
Amanda Davani	American Heart Association
James Davenport	The Door Inc./Baltimore Urban Leadership Foundation
Mary Donnelly	John Ruhrah Elementary School
Kerri Johnston	American Heart Association
Liz Kaylor	Baltimore Medical System, Inc.
Adrienne Kilby	MedStar Center for Successful Aging
Wendy Lane	University of Maryland
Margi Lenz	MedStar Center for Successful Aging
Leslie Margolis	Disability Rights Maryland
Bronwyn Mayden	Promise Heights, University of Maryland School of Social Work
Antoinette Maynard-Carter	Johns Hopkins Broadway Center for Addictions
Kimberly Mays	American Heart Association
Senator Nathanial McFadden	Maryland State Senator, District 45
Michael McKnight	Green and Healthy Homes Initiative
Kathryn Lothschuetz Montgomery	University of Maryland
Marina Nellius	MedStar Total Elder Care
Karen Nettler	Jewish Community Services
Tracy Newsome	American Diabetes Association
Mitchell Posner	Comprehensive Housing Assistance, Inc.
Leon Purnell	Men and Families Center

Name	Organization
Sam Redd	Operation Pulse
D. Christopher Ryer	South East Community Development Corporation
Edward C. Sabatino, Jr.	Historic East Baltimore Community Action Coalition, Inc.
Jacke Schroeder	CHANA/SAFE: Stop Abuse of Elders
Shirley Sutton	Baltimore Medical System, Inc.
Nate Sweeney	Chase Brexton Health Care
Heang Tan	Baltimore City Health Department
Elizabeth Tanner	Johns Hopkins University School of Nursing

Appendix H: Community Organizations and Partners

The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center came together to conduct a community health needs assessment (CHNA). As leading health care providers, JHH and JHBMC are dedicated to understanding community needs and offering and enhancing quality programs to address those needs and promote population wellness.

The primary data collected in the CHNA provided invaluable input and represents ongoing dedication to assisting JHH and JHBMC in identifying community health needs priorities and building a foundation upon which to develop strategies that will address the needs of residents in east Baltimore City and southeast Baltimore County.

Listed below are the community organizations that assisted JHH and JHBMC with the primary collection for the 2018 CHNA.

	Community Organizations and Partners
1.	Amazing Grace Lutheran Church
2.	American Diabetes Association
3.	American Heart Association
4.	Baltimore City Council
5.	Baltimore City Health Department
6.	Baltimore City School District
7.	Baltimore CONNECT
8.	Baltimore County Department of Health
9.	Baltimore Medical System, Inc.
10.	Banner Neighborhoods Community Corporation
11.	Bayview Community Association
12.	Berea East Side Community Association
13.	Called to Care at Bayview Medical Center
14.	Center for Urban Families
15.	Central Baltimore Partnership
16.	CHANA Baltimore
17.	Chase Brexton Health Care
18.	Children's Medical Practice at Bayview Medical Center
19.	Civic Works
20.	Colgate Community Association
21.	Comprehensive Housing Assistance, Inc.
22.	Dee's Place
23.	Disability Rights Maryland
24.	East Baltimore Medical Center
25.	Eastfield Stanbrook Civic Association
26.	Esperanza Center

	Community Organizations and Partners (Cont.)
27.	Essex Middle River Civic Council
28.	Everall Gardens Senior Apartments
29.	First Apostolic Church
30.	Fleming Senior Center
31.	Franciscan Center
32.	Green & Healthy Homes Initiative
33.	Greens at Logan Fields Senior Apartments
34.	Harbor View Civic Association
35.	Hatton Senior Center
36.	Health Leads
37.	Helping Up Mission
38.	Highlandtown Community Association
39.	Highlandtown Elementary Middle School
40.	Historic East Baltimore Community Action Coalition, Inc.
41.	Jewish Community Services
42.	John Ruhrah Elementary School/The Judy Center
43.	Johns Hopkins Community Health Partnership (J-CHIP)
44.	Johns Hopkins Health System
45.	Johns Hopkins HealthCare
46.	Johns Hopkins Hospital Broadway Center for Addictions
47.	Johns Hopkins University Bloomberg School of Public Health
48.	Johns Hopkins University School of Medicine
49.	Johns Hopkins University School of Nursing
50.	Langston Hughes Community Resource Center
51.	League for People with Disabilities
52.	Manna Bible Baptist Church
53.	Marian House
54.	Mary Harvin Senior Center
55.	Maryland New Directions
56.	Maryland State Senator, District 45
57.	MedStar Total Elder Care
58.	Men & Families Center
59.	Mercy Hospital
60.	Millers Island Edgemere Business Association (MIEBA)
61.	Moravia Park Drive Apartments
62.	North Point Village Civic Association
63.	Operation Pulse

	Community Organizations and Partners (Cont.)
64.	Our Daily Bread
65.	Our Lady of Fatima Senior Center
66.	Patterson High School
67.	Portside Apartments
68.	SAFE: Stop Abuse of Elders
69.	Sinai Hospital
70.	South East Community Development Corporation
71.	Southern Baptist Church
72.	St. Agnes Hospital
73.	St. Vincent de Paul Church
74.	The Door Inc. (Baltimore Urban Leadership Foundation)
75.	University of Maryland Medical System
76.	Waxter Center
77.	Youth Opportunities (YO!) Baltimore
78.	Zeta Healthy Aging Partnership
79.	Zion Baptist Church

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Appendix J: Task Force/Working Group Members

Members of the task force/working group were charged with the project components of the CHNA, report preparation, and implementation planning. Members of the task force/working group are listed below.

Task Force/Working Group Members:

1. Dr. Redonda Miller, President, The Johns Hopkins Hospital
2. Dr. Richard Bennett, President, Johns Hopkins Bayview Medical Center
3. Tom Lewis, Vice President, Government & Community Affairs, Johns Hopkins Institutions
4. Sharon Tiebert-Maddox, Director, Strategic Initiatives and Community Health Improvement, Government and Community Affairs, Johns Hopkins Institutions
5. Dr. Dan Hale, Special Advisor, Office of the President, Johns Hopkins Bayview Medical Center
6. Selwyn Ray, Director, Community Relations, Health and Wellness, Johns Hopkins Bayview Medical Center
7. Sherry Fluke, Financial/Project Manager, Government & Community Affairs, Johns Hopkins Institutions
8. William Wang, Policy Analyst, Government & Community Affairs, Johns Hopkins Institutions

Appendix K: 2018 Survey (English and Spanish Version)

2017 Baltimore Health Needs Survey

Your responses to this optional survey are anonymous and will inform how hospitals and agencies work to improve health in Baltimore City. Thank you!

Instructions: You must be 18 years or older to complete this survey. Please answer all questions and return the survey as indicated. For questions about this survey, contact 667-234-2102 or 1-800-492-5538.

1. What is your ZIP code? *Please write 5-digit ZIP code.* _____

2. What is your sex? *Please check one.*

☐ Male ☐ Female ☐ Transgender
☐ Other *specify*_____ ☐ Don't know ☐ Prefer not to answer

3. What is your age group (years)? *Please check one.*

☐ 18-29 ☐ 40-49 ☐ 65-74 ☐ 75+
☐ 30-39 ☐ 50-64 ☐ Don't know ☐ Prefer not to answer

4. Which one of the following is your race? *Please check all that apply.*

☐ Black or African American ☐ White ☐ Asian
☐ Native Hawaiian or Other Pacific Islander
☐ American Indian or Alaska Native
☐ Other/more than one race *specify*_____
☐ Don't know ☐ Prefer not to answer

5. Are you Hispanic or Latino/a? *Please check one.*

☐ Yes ☐ No ☐ Don't know ☐ Prefer not to answer

6. On how many days during the past 30 days was your mental health not good? Mental health includes stress, depression, and problems with emotions. *Please write number of days.*

_____ **days** ☐ Zero days ☐ Don't know ☐ Prefer not to answer

PLEASE TURN OVER FOR NEXT PAGE

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7. What are the <u>three</u> most important health problems that affect the health of your community? *Please check only three.*

☐ Alcohol/drug addiction
☐ Mental health (depression, anxiety)
☐ Diabetes/high blood sugar
☐ HIV/AIDS
☐ Lung disease/asthma/COPD
☐ Smoking/tobacco use
☐ Don't know
☐ Alzheimer's/dementia
☐ Cancer
☐ Heart disease/blood pressure
☐ Infant death
☐ Stroke
☐ Overweight/obesity
☐ Prefer not to answer

8. What are the <u>three</u> most important social/environmental problems that affect the health of your community? *Please check only three.*

☐ Availability/access to doctor's office
☐ Availability/access to insurance
☐ Domestic violence
☐ Limited access to healthy foods
☐ School dropout/poor schools
☐ Lack of job opportunities
☐ Race/ethnicity discrimination
☐ Don't know
☐ Child abuse/neglect
☐ Lack of affordable child care
☐ Housing/homelessness
☐ Neighborhood safety/violence
☐ Poverty
☐ Limited places to exercise
☐ Transportation problems
☐ Prefer not to answer

9. What are the <u>three</u> most important reasons people in your community do not get health care? *Please check only three.*

☐ Cost – too expensive/can't pay
☐ No insurance
☐ Lack of transportation
☐ Language barrier
☐ Don't know
☐ Wait is too long
☐ No doctor nearby
☐ Insurance not accepted
☐ Cultural/religious beliefs
☐ Prefer not to answer

10. What ideas or suggestions do you have to improve health in your community? _____

_____

_____

_____ ☐ Don't know ☐ Prefer not to answer

Thank you for completing the survey!

Encuesta de Necesidades de Salud de Baltimore de 2017

Sus respuestas a esta encuesta opcional son anónimas e informarán sobre la labor que realizan los hospitales y las agencias para mejorar la salud en la ciudad de Baltimore. ¡Muchas Gracias!

Instrucciones: Solo participantes mayores de 18 años pueden completar esta encuesta. Por favor conteste todas las preguntas y devuelva la encuesta como se indica. Si tiene alguna pregunta acerca de esta encuesta, llame al 667-234-2102 o al 1-800-492-5538.

1. ¿Cuál es su código postal? *Por favor escriba el código postal de 5 dígitos.* _____

2. ¿Cuál es su sexo? *Por favor marque uno.*

❑ Hombre ❑ Mujer ❑ Transgénero
❑ Otros *especifique* _____ ❑ No sé ❑ Prefiero no contestar

3. Elija la respuesta que corresponde a su edad *Por favor marque uno.*

❑ 18-29 ❑ 40-49 ❑ 65-74 ❑ 75+
❑ 30-39 ❑ 50-64 ❑ No sé ❑ Prefiero no responder

4. ¿Cuál de las siguientes es su raza? *Marque todas las que apliquen.*

❑ Negro o Afroamericano ❑ Blanco ❑ Asiático
❑ Nativo de Hawái o de otras islas del Pacífico
❑ Indio Americano o Nativo de Alaska
❑ Otra/más de una raza *especifique* _____
❑ No sé ❑ Prefiero no contestar

5. ¿Es usted hispano o latino? *Por favor marque uno.*

❑ Sí ❑ No ❑ No sé ❑ Prefiero no contestar

6. ¿Cuántos días durante los últimos 30 días tuvo problemas de salud mental? La salud mental incluye estrés, depresión, y problemas emocionales. *Por favor escriba el número de días.*

_____**días** ❑ Cero días ❑ No sé ❑ Prefiero no contestar

POR FAVOR PASE A LA SIGUIENTE PÁGINA

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7. ¿Cuáles son los <u>tres</u> problemas de salud más importantes que afectan la salud de su comunidad? *Por favor marque solo tres.*

- ❑ Alcohol/drogadicción
- ❑ Salud mental (depresión, ansiedad)
- ❑ Diabetes/altos niveles de azúcar en la sangre
- ❑ VIH/SIDA
- ❑ Enfermedad pulmonar/Asma/EPOC
- ❑ Fumar/tabaquismo
- ❑ No sé
- ❑ Alzheimer/demencia
- ❑ Cáncer
- ❑ Enfermedad cardíaca/hipertensión
- ❑ Mortalidad infantil
- ❑ Embolia
- ❑ Sobrepeso/obesidad
- ❑ Prefiero no contestar

8. ¿Cuáles son los <u>tres</u> problemas sociales/ambientales más importantes que afectan la salud de su comunidad? *Por favor marque solo tres.*

- ❑ Disponibilidad/acceso a un consultorio médico
- ❑ Disponibilidad/acceso a seguro de salud
- ❑ Violencia doméstica
- ❑ Acceso limitado a alimentos saludables
- ❑ Deserción escolar/escuelas deficientes
- ❑ Falta de oportunidades laborales
- ❑ Discriminación racial/étnica
- ❑ No sé
- ❑ Abuso/negligencia infantil
- ❑ No contar con servicios de guardería accesibles
- ❑ Vivienda/desamparo
- ❑ Seguridad/violencia vecindaria
- ❑ Pobreza
- ❑ Escasez de lugares para hacer ejercicio
- ❑ Problemas de transporte
- ❑ Prefiero no contestar

9. ¿Cuáles son las <u>tres</u> razones más importantes que impiden que la gente de su comunidad reciba atención médica? *Por favor marque solo tres.*

- ❑ Costo – muy caro/no puede pagar
- ❑ Falta de cobertura médica
- ❑ Falta de transporte
- ❑ No dominar el inglés
- ❑ No sé
- ❑ La espera es muy larga
- ❑ Falta de consultorios médicos cercanos
- ❑ No se acepta cobertura
- ❑ Creencias culturales/religiosas
- ❑ Prefiero no contestar

10. ¿Tiene alguna idea o sugerencia para mejorar la salud en su comunidad?

_____

_____

_____

_____ ❑No sé ❑ Prefiero no contestar

¡Gracias por completar esta encuesta!

Appendix L: 2016 Survey (English and Spanish Version)

The Johns Hopkins Institutions

Please answer all of the questions to the best of your ability. Circle responses to the questions where it applies.

1. You are: ① female ② male

2. You are: ___ ___ ___ years old

3. Your zip code is: ___ ___ ___ ___ ___

4. What area do you live in?
   ① Baltimore City
   ② Baltimore County
   ③ Other

5. Would you say your health is: (circle one):
   ① Excellent ② Good ③ Fair ④ Poor

6. Do you have a doctor/primary care provider?
   ① Yes ② No

   6a. If **NO**, why? (circle all that apply)
   ① Can't afford one ④ Don't need one
   ② Can't find one ⑤ Doesn't accept my
   ③ No Transportation insurance

7. What is the primary place that you seek medical care?
   ① Clinic ④ Doctor's office
   ② Urgent Care ⑤ Pharmacy
   ③ Emergency room ⑥ Other

8. When was the last time you had an appointment with a doctor/ primary care provider or medical clinic for any reason?
   ① Within the past year ④ 5 or more years ago
   ② Within the past 2 years ⑤ Don't know/Not sure
   ③ Within the past 5 years

9. Do you have health insurance?
   ① Yes ② No

   9a. If **NO**, Why don't you have health insurance? (circle all that apply)
   ① I don't qualify ④ I do not want it
   ② I can't afford it ⑤ I have not applied
   ③ I do not need it ⑥ I had insurance but lost it

   9b. If **NO**, Does not having health insurance affect your ability to get services?
   ① Yes ② No

   9c. If **NO**, Do you not seek care because of lack of insurance?
   ① Yes ② No

10. What is the primary place you seek dental care?
    ① Clinic ④ Dentist's office
    ② Urgent Care ⑤ I don't go to dentist
    ③ Emergency room ⑥ Other

11. When was the last time you had an appointment with a dentist or a dental clinic for any reason?
    ① Within the past year
    ② Within the past 2 years
    ③ Within the past 5 years
    ④ 5 or more years ago
    ⑤ Don't know / Not sure

12. How did you pay for dental services?
    ① Dental insurance coverage ③ Out-of-pocket
    ② Did not pay for services ④ Other

13. Have you ever been told by a health professional that you are overweight or obese?
    ① Yes ② No

14. Have you ever been told you have high blood pressure?
    ① Yes ② No

15. Have you ever been told you have diabetes?
    ① Yes ② No

16. Have you ever been told that you may have heart problems?
    ① Yes ② No

17. Do you have any difficulties that affect your daily activities? (circle all that apply)
    ① Physical ③Social
    ② Mental/Emotional ④ I have none

18. If you have children or grandchildren do you experience any difficulty keeping their immunizations (shots) up to date?
    ① Yes ③ Don't know
    ② No ④ Doesn't apply to me

19. How often do you do the following? Please **circle** your answer

Chew tobacco/snuff	Always	Sometimes	Never
Smoke cigarettes	Always	Sometimes	Never
Use illegal drugs	Always	Sometimes	Never
Drink more than 3 alcoholic drinks a day	Always	Sometimes	Never
Get exposed to people smoking at your work or home	Always	Sometimes	Never
Eat fast food more than one time a week	Always	Sometimes	Never
Use a seat belt	Always	Sometimes	Never
Use a car seat If you travel with children (If you do not have children skip question)	Always	Sometimes	Never
Wear sunscreen	Always	Sometimes	Never
Get a flu shot (once a year)	Always	Sometimes	Never
Drive the speed limit if you drive (If you do not drive skip question)	Always	Sometimes	Never
Wash your hands before making food	Always	Sometimes	Never
Eat at least 2 servings of vegetables a day	Always	Sometimes	Never
Eat at least 2 servings of fruit a day	Always	Sometimes	Never
Get at least 6-8 hours of sleep every night	Always	Sometimes	Never
Wash your hands after using the bathroom	Always	Sometimes	Never
Feel satisfied with your life	Always	Sometimes	Never
Practice safe sex	Always	Sometimes	Never
Participate in 30 minutes of physical activity or exercise daily	Always	Sometimes	Never
Do self-exams for breast cancer or cancer of the testicles, monthly	Always	Sometimes	Never

20. How do you find out about information in your community? (circle all that apply)
    - ① Newspaper
    - ② TV
    - ③ Internet
    - ④ Word of mouth
    - ⑤ Faith/religious organization
    - ⑥ Radio
    - ⑦ Clinics
    - ⑧ Library
    - ⑨ Other _____

21. What is your main form of transportation?
    - ① Public Transportation
    - ② My car
    - ③ Family/Friend's car
    - ④ Taxi/Cab
    - ⑤ Walk
    - ⑥ Bicycle
    - ⑦ Other

22. Do you feel safe in your neighborhood/ community in the day or night?
① Extremely safe ③ Not at all safe
② Somewhat safe ④ Don't know

23. If you don't feel safe, why don't you feel safe? (circle all that apply)
① Abandoned buildings ⑤ Lack of resources
② Violence ⑥ Crime
③ Fires ⑦ Drugs
④ Lack of police response ⑧ Other _____

24. Do you have any of the following?
① Problems remembering things or concentrating
② Uncontrollable eating binges
③ Eating too little / difficulty eating enough
④ Depression
⑤ Anxiety, Nervousness, Panic Attacks
⑥ Other _____

25. In the past 12 months, did you get services or treatment for a mental health issue?
① Yes ② No

25a. If **YES**, where did you get services?
① Community or neighborhood organization
② Hospital/Emergency Room
③ Mental health counselor or provider
④ Primary care doctor or health clinic
⑤ Other _____

26. In the past 12 months, have you needed but didn't get services or treatment for mental health?
① Yes ② No

26a. If **YES**, why didn't you get services / treatment you needed? (circle all that apply)
① My insurance does not cover mental health
② I didn't know where to go for services
③I preferred alternative forms of treatment
④I wanted to make it on my own without treatment
⑤I was afraid to seek the services
⑥I became overwhelmed or confused by the system
⑦It took too long to get an appointment
⑧The counseling/medication is too expensive
⑨Treatment options against my culture/religion
⑩ Other _____

27. What do you think are the biggest health concerns in your community? (Circle **no more** than 5 choices)

☐ Access to Affordable Healthy Food	☐ Diabetes/Sugar Levels	☐ Mental Health/Illness
☐ Adolescent Health	☐ Domestic (Family) Violence	☐ Obesity/Overweight
☐ Affordable Housing/Homelessness	☐ Drug & Alcohol Use/Addiction	☐ Prenatal/Infant Care
☐ Asthma/Breathing Problems	☐ Family Planning/Birth Control	☐ Sexually Transmitted Diseases
☐ Cancer	☐ Heart Disease	☐ Stroke
☐ Child Abuse/Neglect	☐ High Blood Pressure	☐ Teen Pregnancy
☐ Crime/Assault	☐ Hepatitis	☐ Tobacco Use
☐ Dental Health	☐ HIV/AIDS	☐ Other _____

28. What is your race or ethnicity? (circle all that apply)
① American Indian or Alaska Native
② Asian
③ Black or African American
④ Hispanic, Latino
⑤ Native Hawaiian or other Pacific Islander
⑥ White or Caucasian
⑦ Other _____
⑧ Prefer not to answer

29. Highest grade or degree completed: _____

30. Number of years of education completed:
_____

31. What is your yearly household income?
① Less than $5,000
② $5,000 to $24,999
③ $25,000 to $49,999
④ $50,000 to $99,999
⑤ More than $100,000
⑥ Don't know/Prefer not to answer

32. Do you have any other comments? (Use the reverse side of this page if you need more space

_____

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Responda a todas las preguntas lo mejor posible. Encierre en un círculo las respuestas a las preguntas donde corresponda.

1. Usted es: ① mujer ② hombre

2. Usted tiene: ___ ___ ___ años

3. Su código postal es: ___ ___ ___ ___ ___

4. ¿En qué área vive?
   ① Baltimore City
   ② Baltimore County
   ③ Otro

5. Diría que su salud es: (encierre una opción en un círculo):
   ① Excelente ② Buena ③ Aceptable ④ Mala

6. ¿Tiene un médico/proveedor de atención primaria?
   ① Sí ② No

   6a. Si **NO** tiene, ¿por qué? (encierre en un círculo todas las que correspondan)
   ① No tengo dinero para pagarlo
   ② No puedo encontrar uno
   ③ No tengo transporte
   ④ No lo necesito
   ⑤ No lo acepta mi seguro

7. ¿Cuál es el lugar principal donde acude para recibir atención médica?
   ① Clínica ④ Consultorio médico
   ② Atención urgente ⑤ Farmacia
   ③ Sala de emergencias ⑥ Otro

8. ¿Cuándo fue la última vez que tuvo una cita con un médico/proveedor de atención primaria o acudió a una clínica médica por cualquier razón?
   ① Dentro del último año
   ② Dentro de los últimos 2 años
   ③ Dentro de los últimos 5 años
   ④ Hace 5 o más años
   ⑤ No sabe/No está seguro

9. ¿Tiene seguro de salud?
   ① Sí ② No

   9a. Si la respuesta es **NO**, ¿por qué no tiene seguro de salud? (encierre en un círculo todas las que correspondan)
   ① No reúno los requisitos
   ② No tengo dinero suficiente para pagarlo
   ③ No lo necesito
   ④ No lo quiero
   ⑤ No lo he solicitado
   ⑥ Tenía seguro pero lo perdí

   9b. Si la respuesta es **NO**, ¿no tener seguro de salud afecta su posibilidad de recibir servicios?
   ① Sí ② No

   9c. Si la respuesta es **NO**, ¿usted no acude para solicitar atención debido a que no tiene seguro?
   ① Sí ② No

10. ¿Cuál es el lugar principal donde acude para recibir atención odontológica?
    ① Clínica ④ Consultorio de un dentista
    ② Atención urgente ⑤ No voy al dentista
    ③ Sala de emergencias ⑥ Otro

11. ¿Cuándo fue la última vez que tuvo una cita con un dentista/en una clínica dental por cualquier razón?
    ① Dentro del año pasado
    ② Dentro de los últimos 2 años
    ③ Dentro de los últimos 5 años
    ④ Hace 5 o más años
    ⑤ No sé / No estoy seguro

12. ¿Cómo pagó los servicios odontológicos?
    ① Cobertura de seguro odontológico
    ② No pagué por los servicios
    ③ Del bolsillo propio
    ④ Otro

13. ¿Alguna vez un profesional de la salud le dijo que tiene sobrepeso u obesidad?
    ① Sí ② No

14. ¿Alguna vez le dijeron que tiene presión arterial alta?
    ① Sí ② No

15. ¿Alguna vez le dijeron que tiene diabetes?
    ① Sí ② No

16. ¿Alguna vez le dijeron que tiene problemas cardíacos?
    ① Sí ② No

17. ¿Tiene alguna dificultad que afecta sus actividades diarias? (encierre en un círculo todas las que correspondan)
    ① Física ③Social
    ② Mental/Emocional ④ No tengo ninguna

18. Si tiene hijos o nietos, ¿tiene problemas para mantener sus vacunas al día?
    ① Sí ③ No sé
    ② No ④ No corresponde a mi caso

19. ¿Con qué frecuencia hace lo siguiente? **Encierre en un círculo** su respuesta

Masticar/inhalar tabaco	Siempre	Algunas veces	Nunca
Fumar cigarrillos	Siempre	Algunas veces	Nunca
Usar drogas ilegales	Siempre	Algunas veces	Nunca
Beber más de tres bebidas alcohólicas por día	Siempre	Algunas veces	Nunca
Exponerse a gente que fuma en su trabajo o en su casa	Siempre	Algunas veces	Nunca
Comer comida rápida más de una vez por semana	Siempre	Algunas veces	Nunca
Usar el cinturón de seguridad	Siempre	Algunas veces	Nunca
Usar un asiento infantil si viaja con niños (Si no tiene hijos omita esta pregunta)	Siempre	Algunas veces	Nunca
Usar protector solar	Siempre	Algunas veces	Nunca
Vacunarse contra la gripe (una vez por año)	Siempre	Algunas veces	Nunca
Conducir dentro del límite de velocidad si conduce (Si no conduce omita esta pregunta)	Siempre	Algunas veces	Nunca
Lavarse las manos antes de preparar la comida	Siempre	Algunas veces	Nunca
Comer al menos dos porciones de vegetales por día	Siempre	Algunas veces	Nunca
Comer al menos dos porciones de frutas por día	Siempre	Algunas veces	Nunca
Dormir durante al menos 6-8 horas todas las noches	Siempre	Algunas veces	Nunca
Lavarse las manos después de usar el baño	Siempre	Algunas veces	Nunca
Sentir satisfacción con su vida	Siempre	Algunas veces	Nunca
Tener relaciones sexuales seguras	Siempre	Algunas veces	Nunca
Participar en 30 minutos de actividad física o ejercicio todos los días	Siempre	Algunas veces	Nunca
Hacerse un autoexamen de cáncer de mama o de testículos mensualmente	Siempre	Algunas veces	Nunca

20. ¿Cómo averigua la información en su comunidad?
(encierre en un círculo todas las que correspondan)

① Periódico
② Televisión
③ Internet
④ Verbalmente
⑤ Fe/organización religiosa
⑥ Radio
⑦ Clínicas
⑧ Biblioteca
⑨ Otro_____

21. ¿Cuál es su principal forma de transporte?

① Transporte público
② Mi automóvil
③ Automóvil de su familia/amigo
④ Taxi
⑤ Caminar
⑥ Bicicleta
⑦ Otro

22. ¿Se siente seguro en su vecindario/comunidad durante el día o la noche?
① Extremadamente seguro ③ Para nada seguro
② No muy seguro ④ No sé

23. Si no se siente seguro, ¿por qué no se siente seguro? (encierre en un círculo todas las que correspondan)
① Edificios abandonados ⑤ Falta de recursos
② Violencia ⑥ Delitos
③ Incendios ⑦ Drogas
④ Falta de respuesta policial ⑧ Otro motivo_____

24. ¿Tiene alguno de los siguientes?
① Problemas para recordar cosas o concentrarse
② Deseos incontrolables de comer
③ Come muy poco / tiene dificultad para comer suficiente
④ Depresión
⑤ Ansiedad, nerviosismo, ataques de pánico
⑥ Otro _____

25. En los últimos 12 meses, ¿ha recibido servicios o tratamiento para un problema de salud mental?
① Sí ② No

25a. Si la respuesta es **SÍ**, ¿dónde obtuvo esos servicios?
① Comunidad u organización del vecindario
② Hospital/Sala de emergencias
③ Asesor o proveedor de salud mental
④ Médico de atención primaria o clínica de salud
⑤ Otro _____

26. En los últimos 12 meses, ¿ha necesitado pero no ha recibido servicios o tratamiento para un problema de salud mental?
① Sí ② No

26a. Si la respuesta es **SÍ**, ¿por qué no recibió los servicios/tratamientos que necesitaba? (encierre en un círculo todas las que correspondan)
① Mi seguro no cubre la atención de la salud mental
② No sabía a dónde acudir para recibir los servicios
③ Prefería formas alternativas de tratamiento
④ Quería arreglármelas por mí mismo sin tratamiento
⑤ Tenía miedo de solicitar los servicios
⑥ Me sentía abrumado o confundido por el sistema
⑦ Tomaba mucho tiempo obtener una cita
⑧ El asesoramiento o la medicación son muy costosos
⑨ Las opciones de tratamiento están en contra de mi cultura o religión
⑩ Otro _____

27. ¿Cuál cree que son las principales preocupaciones de salud de su comunidad? (Encierre en un círculo un **máximo** de 5 opciones)

☐ Acceso a comida saludable a un precio económico	☐ Diabetes/niveles de azúcar	☐ Enfermedad/Salud mental
☐ Salud de los adolescentes	☐ Violencia doméstica (familiar)	☐ Obesidad/sobrepeso
☐ Casas a un precio accesible/personas sin hogar	☐ Consumo/adicción a drogas y alcohol	☐ Atención prenatal/infantil
☐ Asma/problemas para respirar	☐ Planificación familiar o control de natalidad	☐ Enfermedades de transmisión sexual
☐ Cáncer	☐ Enfermedades cardíacas	☐ Accidente cerebrovascular
☐ Abuso infantil/Abandono infantil	☐ Presión arterial alta	☐ Embarazo adolescente
☐ Delitos/agresiones	☐ Hepatitis	☐ Uso de tabaco
☐ Salud odontológica	☐ VIH/sida	☐ Otro _____

28. ¿Cuál es su raza u origen? (encierre en un círculo todas las que correspondan)
① Indígena americano o nativo de Alaska
② Asiático
③ Negro o afroamericano
④ Hispano, latino
⑤ Nativo de Hawái o de otra de las islas del Pacífico
⑥ Blanco o caucásico
⑦ Otro _____
⑧ Prefiero no responder

29. Nivel educativo o título más alto que completó:
_____

30. Número de años de educación que completó:
_____

31. ¿Cuál es su ingreso familiar anual?
① Menos de $5,000
② $5,000 a $24,999
③ $25,000 a $49,999
④ $50,000 a $99,999
⑤ Más de $100,000
⑥ No sé/Prefiero no responder

32. ¿Tiene algún otro comentario? (Use el reverso de esta página si necesita más espacio)