The Johns Hopkins Hospital

Community Health Needs Assessment

Fiscal Year 2013

JOHNS HOPKINS

MEDICINE

The Johns Hopkins Hospital

Community Health Needs Assessment

Fiscal Year 2013

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I. Introduction

A. Overview

The Johns Hopkins Hospital (JHH), headquartered in Baltimore, Maryland, is part of Johns Hopkins Medicine, a non-profit, global health enterprise and one of the leading health care systems in the United States.

Since its founding in 1889, JHH has maintained a tradition and mission of striving to lead the world in the diagnosis and treatment of disease and to train tomorrow's great physicians, nurses and scientists. The JHH is globally acclaimed for its exceptional services and programs. As an example of this acclaim, JHH has topped *U.S. News & World Report*'s "Honor Roll" for 21 consecutive years in the magazine's annual ranking of America's Best Hospitals.

The Johns Hopkins Hospital includes:

- 1,051 patient beds,
- 560 private patient rooms (355 adult and 205 pediatric),
- More than 1,710 full-time attending physicians, and,
- 33 new state-of-the-art operating rooms.

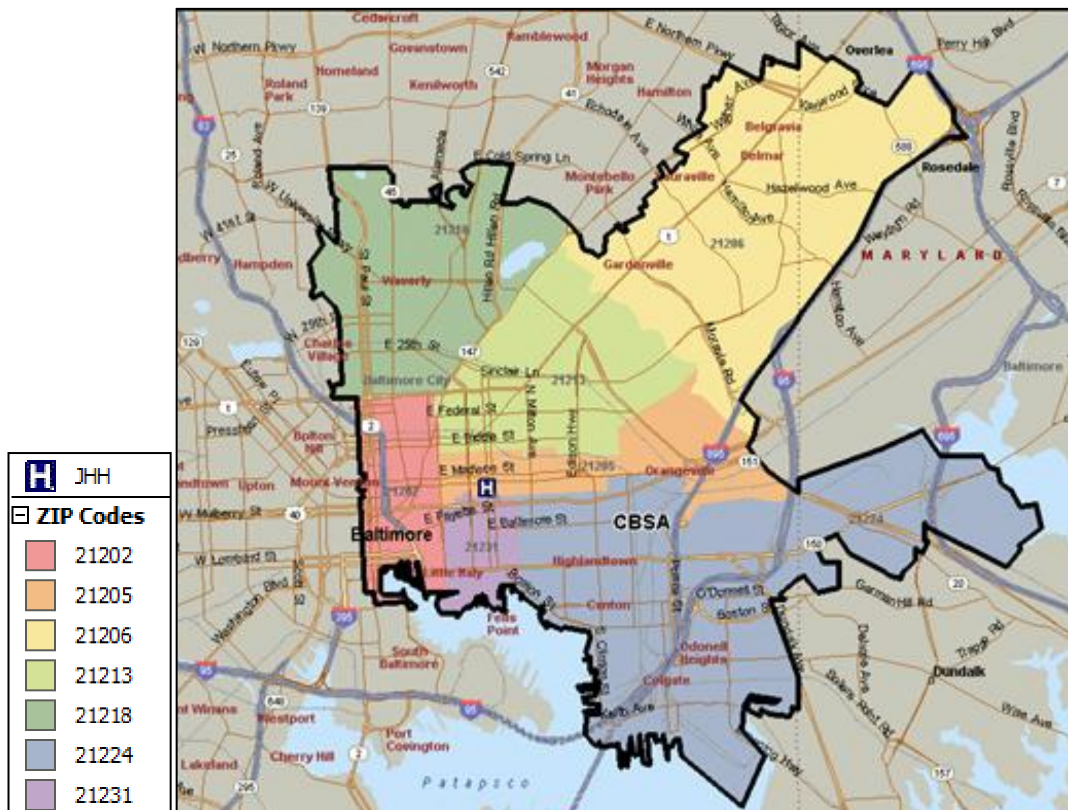
Among JHH's nationally and internationally recognized specialty services are the following:

- Urology *(Brady Urological Institute)*
- Cancer *(Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins)*
- Diabetes and Endocrine Disorders
- Ear, Nose and Throat
- Gynecology
- Heart and Heart Surgery
- Neurology and Neurosurgery
- Orthopedics
- Pediatrics *(Johns Hopkins Children's Center)*
- Psychiatry and Behavioral Sciences
- Rheumatology

- Transplantation *(Johns Hopkins Comprehensive Transplant Center)*
- Eye Institute *(Wilmer Eye Institute)*

B. The Community We Serve

The Johns Hopkins Hospital serves a wide area covering not only all of Maryland but also neighboring states, and patients come from across the United States as well as international locales for treatment at JHH. Because of this, for purposes of defining a Community Benefit Service Area (CBSA), JHH focuses on specific populations or communities of need to which the Hospital has historically allocated resources through its community benefits plan. The hospital uses geographic boundary and target population approaches to define its CBSA. The CBSA is defined by the geographic area contained within the following seven ZIP codes: 21202, 21205, 21206, 21213, 21218, 21224 and 21231. This area accounts for approximately 25% of the inpatient discharge population of the hospital. As JHH is an urban hospital, the community focus has traditionally been on residents of neighborhoods and entities that operate in proximity to the Hospital. The seven ZIP codes included in the JHH CBSA best capture this proximal relationship. Within the CBSA, JHH has 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.



II. Approach and Methodology

A. Community Health Needs Assessment Background

On April 23, 2012, The Johns Hopkins Hospital contracted with Carnahan Group to conduct a Community Health Needs Assessment (CHNA) as required by the Affordable Care Act (ACA).

Purpose

A CHNA is a report based on epidemiological, qualitative and comparative methods that assesses the health issues in a hospital organization's community and that community's access to services related to those issues. The CHNA is available to the public on the JHH website. Based on the findings of the CHNA, an implementation strategy for JHH that addresses the community health needs will be developed and adopted by the end of fiscal year 2013.

The ACA, enacted on March 23, 2010, requires not-for-profit hospital organizations to conduct a CHNA once every three taxable years that meets the requirements the Internal Revenue Code 501(r) set forth by the ACA. The ACA defines a hospital organization as an organization that operates a facility required by a state to be licensed, registered, or similarly recognized as a hospital; or, a hospital organization is any other organization that the Treasury's Office of the Assistant Secretary determines has the provision of hospital care as its principal function or purpose constituting the basis for its exemption under section 501(c)(3).

Requirements

As required by the Treasury Department ("Treasury") and the Internal Revenue Service (IRS), this CHNA includes the following:

- A description of the community served;
- A description of the process and methods used to conduct the CHNA, including:
    - A description of the sources and dates of the data and the other information used in the assessment; and,
    - The analytical methods applied to identify community health needs;
- A description of information gaps that impacted JHH's ability to assess the health needs of the community served;

- The identification of all organizations with which JHH collaborated, if applicable, including their qualifications;
- A description of how JHH took into account input from persons who represented the broad interests of the community served by JHH, including those with special knowledge of or expertise in public health and any individual providing input who was a leader or representative of the community served by JHH;
- A prioritized description of all of the community health needs identified through the CHNA and a description of the process and criteria used in prioritizing those needs; and,
- 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.

Methodology

This CHNA was conducted following the requirements outlined by the Treasury and the IRS, which included obtaining necessary information from the following sources:

- Input from persons who represented the broad interests of the community served by JHH, which included those with special knowledge of or expertise in public health
- Identifying federal, tribal, regional, state or local health or other departments or agencies, with current data or other information relevant to the health needs of the community served by JHH
- Leaders, representatives, or members of medically underserved, low-income and minority populations with chronic disease needs in the community served by JHH
- We also designed our CHNA process to gain insight from the perspective of key community stakeholders from the following constituent groups:
    - Elected officials
    - Internal and external experts
    - Community residents
    - Residents from the Hispanic community in our CBSA (one focus group was held in Spanish with community organization leaders and community residents)
    - Faith-based organizations
    - Neighborhood associations
    - JHH leadership

- Care providers (a focus group with eight adult care physicians was held at East Baltimore Medical Center and another with representatives from Chase Brexton, Baltimore Medical System Inc. and People's Community Health Centers)
- Charitable foundations (Anne E. Casey and Baltimore Community Foundation)
- Nonprofit community resource organizations (Catholic Charities, Healthcare for the Homeless, Helping Up Mission, etc.)

The sources used for the JHH CHNA are provided in *Appendix C: Reference List, Appendix D: Tableau Inpatient Discharges by Demographic Group,* and *Appendix E: Key Informant Interviewees*. Information was gathered by conducting interviews and focus groups that included Baltimore City public health experts, elected officials, community residents, and community-based organization leaders; physician and administration leaders from JHH; and Johns Hopkins University professors in the schools of nursing, public health and medicine. In total, over 300 individuals contributed their assessment of their community for this report.

CHNA Team

JHH created a Community Health Needs Assessment Task Force to ensure that the CHNA was conducted in a way that best identifies health needs in the Community Benefit Service Area and meets the IRS requirements for not-for-profit hospitals. The CHNA Task Force chose to work with Carnahan Group, a strategic health care consulting firm, to complete the CHNA process. See Appendix A for detailed information on the CHNA Task Force and Carnahan Group. JHH provided available sources of secondary data, hospital inpatient and outpatient data, and survey data. JHH also identified hospital and community leaders to interview as well as focus group participants. Carnahan Group conducted the interviews, focus groups and analyzed all primary and secondary sources of data. JHH contracted Centrac DC, LLC, to conduct a phone survey on community health needs. Carnahan Group prepared the written CHNA based on all the available data.

East Baltimore Medical Center Survey

A self-administered survey was offered to all patients who visited the East Baltimore Medical Center (EBMC) adult and pediatric clinics on four days (June 7, 8, 11 and 12) in 2012. Sixty-seven residents of the CBSA completed the survey at EBMC and the analysis was completed using only the responses from

persons who live in the service area. The goal of the survey was to gather information and perceptions on health-related topics affecting the community. Participants were asked to respond to a variety of questions regarding community and individual health status, concerns and issues.

East Baltimore Community Health Telephone Phone Survey

A telephone survey of 150 randomly selected East Baltimore residents was conducted from June 8–12, 2012. The participants represented the seven ZIP Codes which define JHH's CBSA. The objective of the survey included identification and quantification of health needs, desired actions to improve health status, health perceptions, behaviors affecting individual health and issues pertaining to health care access and information.

Interviews

Interviews were conducted in person, when possible, and via phone, when necessary, based on the availability of the interviewee. Forty-eight community leaders, health experts and elected officials participated in this process. The interviewees were selected because they had special knowledge of or expertise in public health and/or represented the broad interests of the community served by JHH, including the interests of medically underserved, low-income and minority populations with chronic disease needs.

Interviews required approximately 30 minutes for completion. Interviewers followed the same process for each interview, which included documenting the interviewee's expertise and experience related to the community and their responses to a list of community-related questions. The following background or questions were used as the basis for discussion in each interview:

- Interviewee's name
- Interviewee's title
- Interviewee's organization
- Overview information about the interviewee's organization
- What are the top three strengths of the community?
- What are the top three health concerns of the community?
- What are the health assets and resources available in the community?

- What are the health assets or resources that the community lacks?
- What assets or resources in the community are not being used to their full capacity?
- What are the barriers to obtaining health services in the community?
- What is the single most important thing that could be done to improve the health in the community?
- What changes or trends in the community do you expect over the next five years?
- What other information can be provided about the community that has not already been discussed?

Focus Groups

Focus groups were conducted to allow participants to provide information about their experiences in the community and ways in which they thought the services and resources provided to the community could be improved. Eight focus groups were held and, in total, forty-two individuals participated as the focus group members. Participants completed a demographic questionnaire and a consent form agreeing to participate in the focus group. The requested information included the following:

- Gender
- Age
- ZIP Code
- Ethnicity
- Race
- Education Level
- Employment Status
- Household Income
- Health Insurance Status

The information provided in the focus group was compiled with other information used to complete the CHNA so that the individuals responsible for providing specific information could not be identified. All participants were encouraged to share their ideas, opinions and experiences, including any positive or negative feedback.

A focus group session required approximately two hours to complete and followed this agenda:

- Session Opening – 15 Minutes
  - Introductions
  - Explanation of the purpose of the focus group
  - Overview of the rules governing the session
  - Definition of the service area
- Questions Concerning the Community – 1.5 hours
  - Four questions were presented:
    - What are the most serious health concerns in the community?
    - What are the barriers to accessing health care in the community?
    - What actions can be taken to improve the health of the people in the service area?
    - How would you prioritize the most important health concerns in the community?
- Session Conclusion – 15 minutes
  - Summary of findings
  - Closing discussion
  - Distribution of incentives for participation

Data Analysis

Carnahan Group used the grounded theory research method to analyze the qualitative data, which means that the theories or conclusions of the research were based upon, or "grounded" in, the data that were gathered and analyzed. The collected data were entered into and analyzed using Dedoose software utilizing a thematic approach. These themes and the resulting analysis, combined with quantitative data, served as the foundation of the Community Health Needs Assessment, including identifying areas where the needs of the community were properly addressed and where service offerings could be improved.

B. Data Assessment

CBSA Health Indicator Estimates Methodology

The Baltimore City 2011 Neighborhood Health Profiles were the main source of demographic and health indicator data. Each neighborhood was defined by the Baltimore City Health Department for its

Neighborhood Health Profiles and contains multiple census tracts. A census tract is a small area that generally has 1,500 to 8,000 residents that is used to collect data for the United States census. Each neighborhood is larger than a census tract and contains 3 to 4 census tracts. Similarly, each ZIP Code is larger than a neighborhood and contains 2 to 5 neighborhoods.

Census tracts and ZIP Codes do not necessarily share the same boundaries and 10 census tracts were partially split between a CBSA ZIP Code and a non-CBSA ZIP Code. For the 10 census tracts that were only partially within a CBSA ZIP Code, the approximate percentage of the census tract located in the CBSA ZIP Code was estimated by cross-referencing the neighborhood and census tract maps.

Two important assumptions were made in order to combine partial census tract data into ZIP Code estimates. First, we assumed that the population is relatively evenly spread throughout a census tract such that the percentage of area within a ZIP Code corresponds to the percentage of population within a ZIP Code. Second, since census tracts represent small populations, we assumed that the health indicators are relatively uniform across individual census tracts.

Population estimates for each ZIP Code were created by combining the census tract populations and partial census tract population estimates. These population estimates were cross-referenced against the known population for each ZIP Code to ensure that they were accurate. For each health indicator, the neighborhood profile health data and neighborhood populations were used to calculate the ZIP Code estimate for each ZIP Code in the CBSA. The ZIP Code estimate was calculated using a weighted average of the health indicators where the weight corresponds to the population. If an indicator was related to a subgroup of the population, for example, children aged 0 to 6, then the subpopulation estimates were used when available. The ZIP Code estimates are displayed in tables in the following sections; the neighborhood level data tables can be found in *Appendix B: Community Health Outcome Data*.

Population in JHH's Service Area

Population Change by ZIP Code

Populations are expected to decline over the next five years for five service area ZIP Codes. By 2016, the total population in the Community Benefit Service Area (CBSA) is expected to decline by 1.2%.

Table 1 – Population Change by ZIP Code, 2011 to 2016

ZIP Code	2011	2016	Percent Change
21202	25,041	25,420	1.5%
21205	18,073	17,632	-2.4%
21206	49,559	48,974	-1.2%
21213	36,949	36,058	-2.4%
21218	53,063	52,124	-1.8%
21224	47,470	46,831	-1.3%
21231	16,093	16,272	1.1%
Total	**246,248**	**243,311**	**-1.2%**

Source: Claritas 2011

Population by Age and Gender

In JHH's CBSA, substantial population growth (≥10%) over the next five years is expected for individuals aged 65 and over. The population of individuals aged 18 to 44 is expected to decline moderately by 2016. A marginal decline is expected for individuals aged 0 to 17. Total percentages of males and females are expected to decline 0.5% and 1.8%, respectively, over the next five years.

Table 2 – Population by Age and Gender, 2011 to 2016

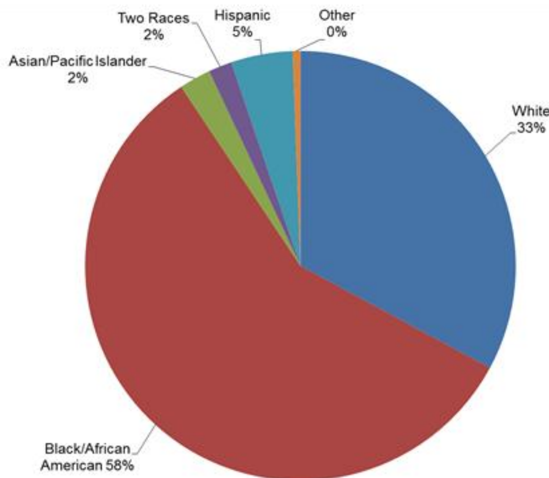
	2011			2016			Percent Change		
Age Group	Male	Female	Total	Male	Female	Total	Male	Female	Total
Age 0 through 17	27,399	26,180	53,579	27,500	25,957	53,457	0.4%	-0.9%	-0.2%
Age 18 through 44	54,417	52,599	107,016	52,542	49,581	102,123	-3.4%	-5.7%	-4.6%
Age 45 through 64	27,268	31,238	58,506	27,019	30,634	57,653	-0.9%	-1.9%	-1.5%
Age 65 and over	10,663	16,484	27,147	12,066	18,012	30,078	13.2%	9.3%	10.8%
Total	**119,747**	**126,501**	**246,248**	**119,127**	**124,184**	**243,311**	**-0.5%**	**-1.8%**	**-1.2%**

Source: Claritas 2011

Population by Race and Ethnicity

The majority of the population in JHH's CBSA is black/African American (58%), white is the next most common race (33%), followed by Hispanic (5%), Asian/Pacific Islander (2%), two races (2%) and other.

Figure 1 – Race Composition, 2011



Population Change by Race and Ethnicity

In JHH's CBSA, substantial growth in the Hispanic population is expected over the next five years. Growth is also expected among Asian/Pacific Islanders and individuals of two races. Population declines are expected among white, black/African American and other races.

Table 3 – Population Change by Race and Ethnicity, 2011 to 2016

Race & Ethnicity	2011	2016	Percent Change
White	80,961	77,816	-3.9%
Black/African American	142,272	139,719	-1.8%
Asian/Pacific Islander	5,866	6,282	7.1%
Two Races	4,313	4,554	5.6%
Hispanic	11,409	13,545	18.7%
Other	1,427	1,395	-2.2%

Source: Claritas 2011

Black/African American Population Change by ZIP Code

Declines in the population of black/African American individuals are expected for all but one CBSA ZIP Code. The overall expected decline is 1.8%.

Table 4 – Black/African American Population Change by ZIP Code, 2011 to 2016

ZIP Code	2011	2016	Percent Change
21202	17,710	17,424	-1.6%
21205	13,716	13,315	-2.9%
21206	28,278	28,697	1.5%
21213	31,800	30,803	-3.1%
21218	34,778	33,667	-3.2%
21224	10,372	10,316	-0.5%
21231	5,618	5,497	-2.2%
Total	**142,272**	**139,719**	**-1.8%**

Source: Claritas 2011

Hispanic Population Change by ZIP Code

Substantial population growth in the Hispanic population is expected for each of the JHH's CBSA ZIP Codes. The total increase in Hispanics for the CBSA is 18.7%.

Table 5 – Hispanic Population Change by ZIP Code, 2011 to 2016

ZIP Code	2011	2016	Percent Change
21202	527	639	21.3%
21205	596	710	19.1%
21206	1,081	1,267	17.2%
21213	498	607	21.9%
21218	1,667	1,976	18.5%
21224	4,210	5,002	18.8%
21231	2,830	3,344	18.2%
Total	**11,409**	**13,545**	**18.7%**

Source: Claritas 2011

Population Change of Women at Child-Bearing Age by ZIP Code

In all JHH's CBSA ZIP Codes, the female population aged 15 to 44 is expected to decline. The total decline expected over the next five years is 5.3%.

Table 6 – Population Change of Women at Child-Bearing Age by ZIP Code, 2011 to 2016

ZIP Code	2011	2016	Percent Change
21202	15,847	15,690	-1.0%
21205	7,689	7,344	-4.5%
21206	21,210	19,720	-7.0%
21213	15,600	14,831	-4.9%
21218	27,359	25,789	-5.7%
21224	20,250	18,863	-6.8%
21231	8,037	7,554	-6.0%
Total	**115,992**	**109,791**	**-5.3%**

Source: Claritas 2011

Population Change of Individuals Aged 65 and Older by ZIP Code

Substantial population growth is expected for individuals aged 65 and older in five of the JHH's CBSA ZIP Codes over the next five years. The total population growth estimate is 10.8%.

Table 7 – Population Change of Individuals Aged 65 and Older by ZIP Code, 2011 to 2016

ZIP Code	2011	2016	Percent Change
21202	1,896	2,159	13.9%
21205	1,758	1,934	10.0%
21206	5,433	6,129	12.8%
21213	4,023	4,387	9.0%
21218	5,524	6,299	14.0%
21224	6,944	7,306	5.2%
21231	1,569	1,864	18.8%
Total	**27,147**	**30,078**	**10.8%**

Source: Claritas 2011

Health Outcomes

Life Expectancy and Mortality Statistics by ZIP Code

Life expectancies in the CBSA and in Baltimore City are similar, and both are substantially lower than in Maryland. The neighborhoods in the CBSA with the lowest life expectancies are in Midway-Coldstream (63.7 years), Downtown/Seton Hill (63.9 years) and Madison/East End (64.8 years). Age-adjusted mortality is higher in the CBSA (119.1 per 10,000) than in Baltimore City (110.4 per 10,000), and substantially higher than in Maryland (76.1 per 10,000). The neighborhoods in the CBSA with the highest age-adjusted mortality rates are Downtown/Seton Hill (238.1 per 10,000 residents), Madison/East End (158.1 per 10,000 residents) and Midway-Coldstream (155.0 per 10,000 residents). The complete list of community health outcome data can be found in *Appendix B1*.

Table 8 – Life Expectancy and Age-Adjusted Mortality by ZIP Code, 2005 to 2009

ZIP Code	Life Expectancy at Birth (years)	Age-Adjusted Mortality*
21202 [1]	69.9	125.9
21205 [1]	68.6	135.7
21206 [1]	72.7	113.0
21213 [1]	68.7	126.7
21218 [1]	71.5	113.0
21224 [1]	71.2	124.5
21231 [1]	75.5	99.2
CBSA [1]	71.2	119.1
Baltimore City [1]	71.8	110.4
Maryland	78.6 [2]	76.1 [2]

[1] Source: Baltimore City 2011 Neighborhood Health Profiles

[2] Source: Maryland Vital Statistics Report, 2009

* per 10,000 residents

Years of Potential Life Lost in Baltimore City and Maryland

Years of potential life lost (YPLL) measure the impact of mortality before age 75. Because these deaths occur before the natural time, societal contributions by individuals are lost. Therefore, this statistic is important for understanding the social and economic impacts of various causes of death. It does not, however, address cost, preventability or morbidity of specific causes of death.[1] Due to the higher age-adjusted mortality rate in Baltimore City (110.4 per 10,000) compared to Maryland (76.1 per 10,000), YPLL in Baltimore City (14,441 per 100,000) is substantially higher than in Maryland (7,428 per 100,000).

Table 9– Years of Potential Life Lost in Baltimore City and Maryland, 2006 to 2008

ZIP Code	Years of Potential Life Lost (YPLL)
Baltimore City	14,441
Maryland	7,428

Source: County Health Rankings, 2006–2008
Age-adjusted YPLL rate per 100,000

[1]Gardner, J.W., & Sanborn, J.S. (1990). Years of Potential Life Lost (YPLL) – What Does It Measure? *Journal of Epidemiology, 1*, 322-329.

Top 10 Causes of Death in the CBSA, Baltimore City and Maryland

The three leading causes of death, according to death rate per 10,000, in the CBSA are the same as in Baltimore City. Death rates from heart disease, cancer and stroke are similar in the CBSA and in Baltimore City. The fourth leading cause of death in the CBSA is chronic lower respiratory disease (CLRD), and CLRD is the fifth in Baltimore City. Diabetes is the fifth leading cause of death in the CBSA and it is the seventh in Baltimore City. HIV/AIDS ranks seventh in the CBSA, compared to fourth in Baltimore City. Septicemia, drug-induced deaths and injury are the eighth through tenth causes of death, respectively, in both the CBSA and Baltimore City.

The top three causes of death in Maryland are the same in the CBSA and in Baltimore City, chronic lower respiratory disease is ranked fourth, and accidents, which did not make the top 10 lists for the CBSA or Baltimore City, rank fifth. The sixth through tenth causes of death are diabetes, Alzheimer's disease, influenza and pneumonia, septicemia and kidney disease, respectively.

Table 10 – Top 10 Causes of Death in the CBSA, 2005 to 2009

Cause of Death	Rate (deaths per 10,000)*
1. Heart Disease	30.9
2. Cancer	25.3
3. Stroke	5.5
4. Chronic Lower Respiratory Disease	4.6
5. Diabetes	3.9
6. Homicide	3.8
7. HIV/AIDS	3.6
8. Septicemia	3.2
9. Drug-induced Deaths of Undetermined Manner	3.1
10. Injury	3.0

Source: Baltimore City 2011 Neighborhood Health Profiles

* Rates are age-adjusted

Table 11 – Top 10 Causes of Death in Baltimore City, 2005 to 2009

Cause of Death	Rate (deaths per 10,000)*	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	28.4	25.8%	15.4%
2. Cancer	23.1	20.8%	14.8%
3. Stroke	5.2	4.7%	2.6%
4. HIV/AIDS	3.9	3.5%	7.6%
5. Chronic Lower Respiratory Disease	3.9	3.5%	1.6%
6. Homicide	3.5	3.4%	12.5%
7. Diabetes	3.5	3.2%	2.0%
8. Septicemia	3.5	3.1%	2.1%
9. Drug-induced Deaths of Undetermined Manner	3.2	2.8%	6.9%
10. Injury	2.8	2.5%	4.8%

Source: Baltimore City 2011 Neighborhood Health Profiles

* Rates are age-adjusted

Table 12 – Top 10 Causes of Death in Maryland, 2010

Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths
1. Heart Disease	18.7	24.6%
2. Cancer	17.6	23.2%
3. Stroke	3.9	5.1%
4. Chronic Lower Respiratory Disease	3.5	4.6%
5. Accidents	2.4	3.2%
6. Diabetes	2.0	2.7%
7. Alzheimer's Disease	1.7	2.2%
8. Influenza and Pneumonia	1.6	2.1%
9. Septicemia	1.5	2.0%
10. Kidney Disease	1.4	1.8%

Source: Maryland Vital Statistics 2010 Preliminary Report

Age-Adjusted Death Rates due to Major Cardiovascular Disease by Race, Baltimore City

In Baltimore City, blacks have a higher rate of premature deaths from major cardiovascular diseases (disease-related heart and blood vessels) compared to whites. Among residents aged 25 and older, individuals with a high school degree or less have a substantially higher rate of deaths due to major cardiovascular diseases compared to individuals with some college or more.

Table 13 – Age-Adjusted Death Rates Due to Major Cardiovascular Disease by Race, Baltimore City, 2009

	Premature Deaths < 75 years			All Ages (25 years and up)	
	All	Black	White	High School or Less	Some College or More
Age-Adjusted Rate	165.9	189.6	124.8	651.0	252.7

Source: Healthy Baltimore 2015, Baltimore City Health Department Report, May 2011
Rates are per 100,000 population

Cancer Mortality, Baltimore City and Maryland

Cancer mortality from trachea, bronchus and lung cancers account for the majority of cancer deaths in Baltimore City and in Maryland. Colorectal, breast and pancreatic cancers rank second through fourth in Baltimore City and Maryland. Prostate cancer ranks fifth in Baltimore City and seventh in Maryland. Cancers of the urinary tract are the fifth most common cause of cancer mortality in Maryland. Other common cancers responsible for deaths in Baltimore City and Maryland include cervix uteri, corpus uteri and ovary, leukemia, stomach and Non-Hodgkin's lymphoma.

Table 14 – Cancer Mortality Rates in Baltimore City and Maryland, 2010

Cancer Type	Baltimore City	Maryland
Trachea, Bronchus and Lung	59.4	47.4
Colorectal	21.4	15.8
Breast	19.0	14.8
Pancreatic	16.1	12.4
Prostate	13.0	8.8
Urinary Tract	9.8	9.6
Cervix Uteri, Corpus Uteri and Ovary	9.5	9.2
Leukemia	6.3	6.3
Stomach	5.0	3.5
Non-Hodgkin's Lymphoma	4.7	5.1

Source: Maryland Vital Statistics Report, 2010

Emergency Department Visits, Hospitalizations and Mortality from Asthma, Baltimore City and Maryland

Emergency department visits, hospitalizations and mortality from asthma are all substantially higher in Baltimore City than in Maryland.

Table 15 – Emergency Department Visits, Hospitalization Rates and Mortality Rates from Asthma in Baltimore City and Maryland, 2005 to 2009

	Emergency Department Visits (per 10,000)*	Hospitalization Rates (per 10,000)*	Average Mortality Rate (per 1,000,000)^
Baltimore City	203.3	47.2	26.0
Maryland	72.3	19.8	11.8

Source: Maryland Department of Health and Mental Hygiene, Asthma in Maryland 2011

* 2009 data

^ 2005–2009

Hospitalization Rate for Diabetes Type 1 and 2 and Hypertension by Race, Baltimore City

In Baltimore City, blacks are 1.7 times more likely to be hospitalized for type 1 diabetes, 2.5 times more likely to be hospitalized for type 2 diabetes and 9.1 times more likely to be hospitalized for hypertension compared to whites.

Table 16 – Hospitalization Rate for Diabetes Type 1 and 2 and Hypertension by Race, Baltimore City, 2010

	Type 1 Diabetes	Type 2 Diabetes	Hypertension
Black	103.2	272.6	136.6
White	61.0	108.7	15.0
All	87.1	213.6	95.5

Source: Healthy Baltimore 2015, Baltimore City Health Department Report, May 2011

Rates are per 100,000 population under age 75

Sexually Transmitted Infections, Baltimore City and Maryland

The rate of HIV diagnoses in Baltimore City is nearly three times that in Maryland. In 2009, Baltimore City accounted for approximately half of the primary and secondary syphilis cases in the state of Maryland. Additionally, the primary and secondary syphilis rate in Baltimore City is five times the rate in Maryland. The chlamydia and gonorrhea rates in Baltimore City are three and four times the Maryland rates, respectively.

Table 17 – HIV, Syphilis, Gonorrhea and Chlamydia Cases and Rates in Baltimore City and Maryland, 2009

	Baltimore City	Maryland
HIV Cases	503	1,513
HIV Rate	94.6	32.0
Primary and Secondary Syphilis Cases	162	328
Primary and Secondary Syphilis Rate	26.1	5.7
Gonorrhea Cases	3,165	7,413
Gonorrhea Rate	509.7	128.4
Chlamydia Cases	8,235	26,192
Chlamydia Rate	1,329.1	453.7

Source: MD Department of Health and Mental Hygiene
Rates are per 100,000

In Baltimore City, syphilis rates and HIV diagnoses are substantially higher for males compared to females and higher for blacks compared to whites. Males are 5.6 times more likely to be diagnosed with syphilis compared to women. Blacks are 5.1 times more like to be diagnosed with syphilis compared to whites. HIV diagnoses are nearly nine times greater among blacks than whites. Blacks have substantially higher rates of youth gonorrhea and chlamydia compared to whites.

Table 18 – Sexually Transmitted Infections, Baltimore City, 2008 to 2009

	Male	Female	Black	White	All
Primary and Secondary Syphilis*	39.5	7.0	30.9	6.1	22.3
Reported Cases of HIV Diagnosis**	65.2%	34.8%	87.1%	10.0%	932
Rate of Youth Gonorrhea^	N/A	N/A	1,329.8	141.5	1,234.3
Rate of Youth Chlamydia^	N/A	N/A	5,589.1	449.9	4,778.9

Source: Healthy Baltimore 2015, Baltimore City Health Department Report, May 2011
* Incidence rate per 100,000 population, 2009
** 2008
^ Rate among 10–19 year olds per 100,000 population, 2009

Mortality by Age and ZIP Code

In the CBSA, mortality rates for individuals less than 1 year old and 45 to 64 years old are slightly lower than in Baltimore City. For individuals 1 to 14 years and 85 and older, mortality rates are higher in the CBSA than in Baltimore City. Mortality rates among individuals 15 to 24 years old, 25 to 44 years old and 65 to 84 years old are substantially lower in the CBSA than in Baltimore City. Age group mortality rates by neighborhood can be found in *Appendix B1*.

Table 19 – Mortality by Age and ZIP Code, 2005 to 2009

ZIP Code	<1 year old*	1–14 years old	15–24 years old	25–44 years old	45–64 years old	65–84 years old	85 and up
21202	13.2	2.1	12.7	27.3	115.8	455.9	1,339.2
21205	11.0	3.5	16.0	31.2	99.9	415.3	1,277.7
21206	14.3	2.9	7.5	20.3	108.1	401.3	1,576.6
21213	18.5	2.3	16.1	29.4	100.9	438.4	1,484.6
21218	12.3	1.9	6.1	26.0	111.8	404.2	1,196.0
21224	6.2	3.5	6.5	28.0	110.0	419.5	1,560.5
21231	6.5	5.1	13.0	41.2	142.3	439.1	1,446.2
CBSA	11.6	2.7	10.1	28.6	110.6	421.0	1,418.1
Baltimore City	12.1	1.8	28.9	43.6	115.0	489.9	1,333.3

Source: Baltimore City 2011 Neighborhood Health Profiles
Rates are deaths per 10,000 residents in that age group
* Infant mortality rate (IMR); Infant deaths per 1,000 live births
Rates are annual averages for 2005–2009

Maternal and Child Health

Births and Infant Mortality by ZIP Code

The birth rates are higher in the CBSA (16.5 per 1,000) and in Baltimore City (15.4 per 1,000) compared to Maryland (12.8 per 1,000). The neighborhoods in the CBSA with the highest birth rates are Madison/East End (25.8 per 1,000), Patterson Park North & East (20.7 per 1,000) and Orangeville/East Highlandtown (20.5 per 1,000). In the CBSA and in Baltimore City, teen birth rates are substantially higher, 74.8 per 1,000 and 65.4 per 1,000, respectively, than in Maryland (27.2 per 1,000). Teen birth rates are the highest in residents of the CBSA neighborhoods: Fells Point (133.3 per 1,000), Orangeville/East Highlandtown (131.3 per 1,000) and Madison/East End (121.5 per 1,000). Infant mortality is higher in the CBSA (12.7 per 1,000) and in Baltimore City (12.1 per 1,000) compared to Maryland (7.4 per 1,000). The highest infant mortality rates are in residents of the CBSA neighborhoods: Belair Edison (19.4), Hamilton (18.8) and Lauraville (17.9). The complete list of community data on maternal and child health indicators can be found in *Appendix B2*.

Table 20 – Births and Infant Mortality by ZIP Code, 2005 to 2009

ZIP Code	Birth Rate (live births per 1,000 persons)	Teen Birth Rate (live births per 1,000 persons)*	Infant Mortality Rate (per 1,000 live births)
21202	15.9	84.2	13.2
21205	20.5	93.4	11.0
21206	15.7	61.3	14.3
21213	17.6	79.3	18.5
21218	14.0	54.6	12.3
21224	20.0	93.7	6.2
21231	13.9	112.8	6.5
CBSA	16.5	74.8	12.7
Baltimore City	15.4	65.4	12.1
Maryland	12.8^	27.2**	7.4**

Source: Baltimore City 2011 Neighborhood Health Profiles; 2005–2009 averages

* 15–19 year olds

^ Maryland Vital Statistics 2010 Preliminary Report

** Kids Count Data Center, 2010

Teen Birth Rate and Infant Mortality by Race, Baltimore City

The teen birth rate is substantially higher among blacks (79.3 per 1,000) compared to whites (28.4 per 1,000). Additionally, infant mortality rates are considerably higher among blacks (18.3 per 1,000) than whites (3.9 per 1,000).

Table 21 – Teen Birth Rate and Infant Mortality Rate by Race, Baltimore City, 2009

	Black	White	All
Teen Birth Rate*	79.3	28.4	64.4
Infant Mortality Rate^	18.3	3.9	13.4

Source: Healthy Baltimore 2015, Baltimore City Health Department Report, May 2011

* per 1,000 births to 15–19 year olds

^ per 1,000 live births

Maternal Care by ZIP Code

According to World Health Organization recommendations, an interval of 24 months is recommended to minimize the risk of adverse maternal, perinatal and infant outcomes. In the data on adequate birth spacing in this report, the threshold was placed at 27 months. The percentages of live births with inadequate spacing are similar in the CBSA (14.6%) and in Baltimore City (15.1%). The neighborhoods in the CBSA with the highest percentages of live births with inadequate spacing are Greater Govans (24.3%), Perkins/Middle East (18.6%) and Clifton-Berea (18.2%). Women in Maryland are more likely to receive prenatal care in the first semester (81.8%) compared to the CBSA (77.3%) and Baltimore City (74.9%). In the CBSA, the lowest percentages of women receiving prenatal care in the first trimester reside in Greenmount East (66.5%), the Waverlies (67.9%) and Midway-Coldstream (69.3%). Births to women who reported smoking are higher in the CBSA (9.0%) and in Baltimore City (8.8%) compared to Maryland (6.0%). In the CBSA, the percentages of births to women who reported smoking while pregnant are highest in Southeastern (14.2%), Madison/East End (13.4%) and Claremont/Armistead (13.3%).

Table 22 – Maternal Care by ZIP Code, 2005 to 2009

ZIP Code	Live Births with Inadequate Spacing	Women Receiving Prenatal Care in 1st Trimester	Births to Women Who Reported Smoking While Pregnant
21202	14.0%	74.5%	9.6%
21205	13.0%	72.8%	12.4%
21206	14.4%	78.7%	6.9%
21213	16.2%	73.8%	11.0%
21218	16.7%	73.3%	8.2%
21224	13.6%	74.8%	9.3%
21231	11.3%	87.5%	2.6%
CBSA	14.6%	74.9%	9.0%
Baltimore City	15.1%	77.3%	8.8%
Maryland	N/A	81.8%*	6.0%^

Source: Baltimore City 2011 Neighborhood Health Profiles; 2005–2009 averages
* America's Health Rankings; 2007–2009 average
^ Kids Count Data Center, 2009

Preterm and Low Birthweight Births by ZIP Code

The percentages of live births occurring preterm are similar in the CBSA (14.1%), Baltimore City (13.1%) and Maryland (13.0%). The neighborhoods in the CBSA with the highest percentages of live preterm

births are Hamilton (20.1%), Greater Govans (19.5%) and Greenmount East (17.7%). The percentages of births classified as low birthweight are higher in the CBSA (13.5%) and in Baltimore City (12.8%) compared to Maryland (8.8%). The highest percentages of low birthweight births in the CBSA are in Greater Govans (18.3%), Madison/East End (16.9%) and Hamilton (16.7%).

Table 23 – Preterm and Low Birthweight Births by ZIP Code, 2005 to 2009

ZIP Code	Live Births Occurring Preterm (<37 weeks)	Births Classified as LBW (<5 lbs., 8 oz.)
21202	13.0%	12.8%
21205	14.3%	13.3%
21206	15.6%	15.5%
21213	14.2%	14.8%
21218	15.4%	14.6%
21224	11.5%	9.5%
21231	10.8%	10.5%
CBSA	14.1%	13.5%
Baltimore City	13.1%	12.8%
Maryland*	13.0%	8.8%

Source: Baltimore City 2011 Neighborhood Health Profiles; 2005–2009 averages
* Kids Count Data Center; 2009 data for Preterm Births, 2010 data for LBW

Access to Care

Health Insurance Coverage

Percentages of individuals with health insurance coverage are similar in Baltimore City (85.1%) and in Maryland (88.7%). The percentage of individuals with private health insurance is lower in Baltimore City (56.6%) than in Maryland (75.9%). Baltimore City residents are also more likely to have public health insurance coverage (38.7%) compared to Maryland (24.2%). Residents of Baltimore City are more likely to be uninsured (14.9%) compared to Maryland (11.3%).

Table 24 – Health Insurance Coverage, Baltimore City, 2008 to 2010

	Baltimore City	Maryland
With Health Insurance Coverage	85.1%	88.7%
With Private Health Insurance	56.6%	75.9%
With Public Coverage	38.7%	24.2%
No Health Insurance Coverage	14.9%	11.3%

Source: American Community Survey, 2008–2010

Unmet Medical Needs

In Baltimore City, blacks are twice as likely to report having unmet medical needs compared to whites. Additionally, unmet medical needs are reported by 26.3% of individuals with an income below $15,000 compared to 1.1% of residents with an income of $75,000 or more.

Table 25 – Residents Who Reported Having Unmet Medical Needs in Past 12 Months, Baltimore City, 2009

All	Black	White	Income <$15,000	Income $75,000+
15.2%	19.8%	8.3%	26.3%	1.1%

Source: Healthy Baltimore 2015, Baltimore City Health Department Report, May 2011

Health Behaviors

Smoking, Obesity, Physical Activity and Alcohol Consumption

In Baltimore City, residents are more likely to report smoking (27%) than Maryland residents (17%). Reporting of no leisure time physical activity is also higher in Baltimore City than in Maryland (31% vs. 24%). The percentages of adults who reported a BMI of 30 or higher and adults who reported binge or heavy drinking are slightly higher in Baltimore City than Maryland.

Table 26 – Smoking, Obesity, Physical Activity and Alcohol Consumption in Baltimore City and Maryland

	Adults who reported smoking ≥ 100 cigarettes and currently smoking [1]	Adults who reported a BMI ≥ 30 [2]	Adults aged 20 and over who reported no leisure time physical activity [2]	Adults who reported binge* or heavy^ drinking [1]
Baltimore City	27%	31%	31%	16%
Maryland	17%	28%	24%	15%

Source: County Health Rankings

* Five for men or four for w omen on a single occasion in the past 30 days

^ More than tw o for men or one for w omen per day on average

[1] 2004–2010

[2] 2009

Alcohol and Drug-Related Hospital and Emergency Department Discharges by Race

In Baltimore City, blacks are more likely than whites to be discharged from the hospital because of disorders involving alcohol and drugs (either separately or together). Blacks also have a higher likelihood of emergency department discharges due to alcohol and drugs (either separately or together) compared to whites in Baltimore City.

Table 27 – Alcohol and Drug-Related Hospital and Emergency Department Discharges by Race in Baltimore City, 2010

	Hospital Discharges For Principal and Secondary Diagnoses of Alcohol and Drug-Related Disorders*			Emergency Department Discharges For Alcohol and Drugs*		
	All	Black	White	All	Black	White
Alcohol and/or Drug-Related	1,141.1	1,233.1	1,014.0	1,928.0	2,001.3	1,759.8
Alcohol-Related (w/o Drug)	497.7	503.1	501.5	1,291.8	1,312.4	1,195.6
Drug-Related (w/o Alcohol)	702.7	795.2	565.0	694.5	754.9	610.1

Source: Healthy Baltimore 2015, Baltimore City Health Department Report, May 2011

* Age-adjusted rate per 100,000 population

Socioeconomic Indicators

Median household incomes (MHI) are substantially lower in the Community Benefit Service Area ($39,062) and in Baltimore City ($37,395) compared to Maryland ($70,017). The neighborhoods in the CBSA with the lowest MHI are Jonestown/Oldtown ($20,515), Greenmount East ($20,708) and Clifton-Berea ($24,696). Unemployment rates are higher in the CBSA (11.8%) and in Baltimore City (11.1%) compared to Maryland (7.0%). Unemployment in the CBSA is highest in Midway-Coldstream (20.9%), Clifton-Berea (20.0%) and Greenmount East (19.7%). The family poverty rates in the CBSA (14.7%) and in Baltimore City (15.2%) are substantially higher than in Maryland (6.1%). In the CBSA, the neighborhoods with the highest family poverty rates are Greenmount East (37.7%), Perkins/Middle East (28.4%) and Madison/East End (27.6%). The complete list of community data on socioeconomic indicators can be found in *Appendix B3*.

Table 28 – Socioeconomic Indicators by ZIP Code, 2005 to 2009

ZIP Code	Median Household Income	Unemployment Rate	Family Poverty Rate
21202	$23,772	14.3%	27.4%
21205	$27,833	12.7%	22.0%
21206	$42,836	10.0%	10.2%
21213	$36,872	16.2%	12.3%
21218	$35,522	12.9%	14.6%
21224	$41,311	10.9%	15.4%
21231	$69,292	3.5%	6.3%
CBSA	$39,062	11.8%	14.7%
Baltimore City	$37,395	11.1%	15.2%
Maryland	$70,017*	7.0%^	6.1%*

Source: Baltimore City 2011 Neighborhood Health Profiles

* American Community Survey, 2008–2010

^ Bureau of Labor Statistics, 2011 annual average

Education

School Readiness and Reading Proficiency by ZIP Code

For school readiness and reading proficiency indicators, the percentages in the CBSA and in Baltimore City are substantially lower than in Maryland. Kindergartners in Johns Hopkins Hospital's CBSAs are less likely to be fully ready to learn (61.9%) compared to Baltimore City (65.0%) and Maryland (81.0%). The neighborhoods in the CBSA with the lowest percentages of school readiness are Southeastern (38.3%), Greenmount East (43.3%) and Perkins/Middle East (44.7%). Third graders in the CBSA (74.4%) and in Baltimore City (77.6%) are less likely to be at a "proficient or advanced" reading level compared to third graders in Maryland (85.1%). In the CBSA, reading proficiency among third graders was lowest in Patterson Park North & East (62.1%), Clifton-Berea (65.0%) and Madison/East End (70.9%). Maryland has the highest likelihood of eighth grade reading proficiency (82.7%) compared to the CBSA (55.8%) and Baltimore City (58.6%). Of the CBSA neighborhoods, the lowest reading proficiency among eighth graders occurred in Madison/East End (41.0%), Clifton-Berea (42.8%) and Patterson Park North & East (43.6%). The complete list of education data by community can be found in *Appendix B4*.

Table 29 – School Readiness and Reading Proficiency by ZIP Code, 2007 to 2009

ZIP Code	Kindergartners "Fully Ready" to Learn	3rd Graders at "Proficient or Advanced" Reading Level	8th Graders at "Proficient or Advanced" Reading Level
21202	53.5%	72.8%	48.5%
21205	60.5%	72.4%	48.9%
21206	66.5%	77.8%	63.9%
21213	60.0%	69.4%	52.3%
21218	68.9%	80.2%	62.0%
21224	57.6%	70.0%	50.8%
21231	68.6%	78.6%	62.5%
CBSA	61.9%	74.4%	55.8%
Baltimore City*	65.0%	77.6%	58.6%
Maryland*	81.0%	85.1%	82.7%

Source: Baltimore City 2011 Neighborhood Health Profiles; School Years 2007–2008 and 2008–2009 for Kindergarten Data, School Year 2008–2009 for 3rd and 8th Grade Data

* Maryland State Department of Education, School Year 2010–2011

Chronic Absenteeism among Elementary, Middle and High School Students by ZIP Code

Students in the CBSA and in Baltimore City are more likely to be chronically absent compared to students in Maryland. Elementary school students in the CBSA and in Baltimore City are more likely to miss 20 or more days (11.2% and 16.3%, respectively) compared to Maryland (6.5%). The neighborhoods in the CBSA with the highest percentages of chronically absent elementary school students are Perkins/Middle East (17.1%), Greenmount East (14.2%) and Madison/East End (14.2%). Chronic absenteeism among middle school students in the CBSA (15.9%) and in Baltimore City (16.4%) is substantially higher than in Maryland (9.5%). In the CBSA, middle school students are most likely to be chronically absent in Perkins/Middle East (27.0%), Madison/East End (26.5%) and Highlandtown (24.1%). High school students are substantially more likely to be chronically absent in the CBSA (40.3%) and in Baltimore City (42.2%) compared to Maryland (18.2%). The neighborhoods in the CBSA with the highest percentages of high school students missing 20 or more days are Madison/East End (52.6%), Highlandtown (51.8%) and Jonestown/Oldtown (50.9%).

Table 30 – Chronic Absenteeism among Elementary, Middle and High School Students by ZIP Code, 2008 to 2009

ZIP Code	Elementary School Students Missing 20+ Days	Middle School Students Missing 20+ Days	High School Students Missing 20+ Days
21202	13.4%	20.9%	47.8%
21205	13.3%	20.6%	44.7%
21206	9.2%	10.0%	30.8%
21213	11.7%	15.2%	43.3%
21218	10.0%	12.7%	39.1%
21224	11.6%	20.9%	42.3%
21231	7.5%	17.6%	32.4%
CBSA	11.2%	15.9%	40.3%
Baltimore City*	16.3%	16.4%	42.2%
Maryland*	6.5%	9.5%	18.2%

Source: Baltimore City 2011 Neighborhood Health Profiles; School Year 2008–2009

* Maryland State Department of Education, School Year 2010–2011

Adult Educational Attainment by ZIP Code

Residents aged 25 and over in the CBSA are more likely to have a high school degree or less (55.8%) compared to residents aged 25 and over in Baltimore City (52.6%) and in Maryland (38.4%). The neighborhoods in the CBSA with the highest percentages of residents with a high school degree or less are Clifton-Berea (78.5%), Greenmount East (76.1%) and Midway-Coldstream (74.3%).

Residents aged 25 and over in Maryland are more likely to have a bachelor's degree or higher (35.6%) compared to the CBSA (23.6%) and Baltimore City (25.0%). In the CBSA, the lowest percentages of residents with a bachelor's degree or more reside in Madison/East End (4.4%), Midway-Coldstream (5.0%) and Southeastern (6.5%).

Table 31 – Adult Educational Attainment by ZIP Code, 2005 to 2009

ZIP Code	Residents 25 years and older with a high school degree or less	Residents 25 years and older with a bachelor's degree or more
21202	59.6%	23.7%
21205	67.4%	8.8%
21206	55.1%	18.6%
21213	68.8%	10.3%
21218	52.2%	27.0%
21224	60.0%	20.7%
21231	27.1%	57.9%
CBSA	55.8%	23.6%
Baltimore City	52.6%	25.0%
Maryland*	38.4%	35.6%

Source: Baltimore City 2011 Neighborhood Health Profiles

* American Community Survey, 2008–2010

Dropout and Graduation Rates

The dropout rate is substantially higher in Baltimore City (17.4%) than in Maryland (11.2%), whereas the graduation rate is substantially lower in Baltimore City (65.8%) compared to Maryland (82.8%).[2]

Table 32 – Dropout and Graduation Rates in Baltimore City and Maryland, 2011

	Dropout Rate: 4-yr Adjusted Cohort	Graduation Rate: 4-yr Adjusted Cohort
Baltimore City	17.4%	65.8%
Maryland	11.2%	82.8%

Source: Maryland State Dept. of Education, 2011 Report Card

[2] The adjusted cohort used as the denominator in this rate calculation began with students who entered ninth grade for the first time. Students who transferred in later during the next three years were added and students who transferred out, emigrated, or died were subtracted. The numerators for the dropout and graduation rates were students who terminated for any reason other than death during the 2009-2010 school year and students who earned a high school diploma during that same year, respectively.

Housing

Housing Ownership and Energy Cutoffs by ZIP Code

There is a higher percentage of housing units owned with a mortgage or loan in Maryland (53.2%) compared to the CBSA (37.3%) and Baltimore City (35.8%). The likelihood of housing units being owned free and clear are lower in the CBSA (12.4%) and in Baltimore City (11.9%) compared to Maryland (14.3%). Maryland has a substantially lower percentage of renter occupied housing units (32.5%) compared to the CBSA (50.3%) and Baltimore City (52.3%). The energy cutoff rates in the CBSA (39.5 per 10,000 households) and in Baltimore City (39.1 per 10,000 households) are similar. In the CBSA, energy cutoff rates are highest in Madison/East End (89.8 per 10,000 households), Midway-Coldstream (70.4 per 10,000 households) and Clifton-Berea (61.2 per 10,000 households). The complete list of community data on housing characteristics can be found in *Appendix B5*.

Table 33 – Housing Ownership and Energy Cutoffs by ZIP Code

ZIP Code	Housing Units Owned with Mortgage or Loan*	Housing Units Owned Free and Clear*	Housing Units Renter Occupied*	Energy Cutoff Rate^
21202	17.9%	5.0%	77.2%	27.6
21205	23.0%	18.0%	59.0%	55.8
21206	49.5%	11.1%	39.4%	46.0
21213	41.8%	14.7%	43.5%	49.5
21218	33.0%	12.8%	54.2%	39.4
21224	42.9%	14.9%	42.2%	37.1
21231	28.0%	7.5%	64.6%	6.4
CBSA	37.3%	12.4%	50.3%	39.5
Baltimore City	35.8%	11.9%	52.3%	39.1
Maryland	53.2%	14.3%	32.5%	N/A

* Source: U.S. Census, 2010

^ Source: Baltimore City 2011 Neighborhood Health Profiles; Rate per 10,000 households each month, 2009–2010

Family Households by ZIP Code

Households in the CBSA and in Baltimore City are less likely to be husband-wife households (34.1% and 35.9%, respectively) compared to Maryland (58.9%).

Conversely, single-parent households are more likely to occur in the CBSA (26.2%) and Baltimore City (26.4%) compared to Maryland (15.4%). The CBSA neighborhoods with the highest percentages of

single-parent households are Jonestown/Oldtown (47.3%), Perkins/Middle East (42.9%) and Madison/East End (39.0%).

Table 34 – Family Households by ZIP Code, 2010

ZIP Code	Husband-Wife Family Households	Single-Parent Households
21202	25.3%	35.3%
21205	28.1%	37.5%
21206	42.7%	26.8%
21213	26.9%	30.5%
21218	34.7%	24.4%
21224	35.4%	22.1%
21231	33.7%	8.6%
CBSA	34.1%	26.2%
Baltimore City	35.9%	26.4%
Maryland	58.9%	15.4%

Sources: U.S. Census, 2010; Baltimore City 2011 Neighborhood Health Profiles

Built Environment

A community's built environment refers to structures influenced and created by humans. This includes infrastructure, buildings, parks, restaurants, grocery stores, recreational facilities and other structures that affect how people interact, and the health status of the community. Business and shopping amenities, such as alcohol and tobacco stores, fast-food restaurant density and supermarket proximity, are factors that contribute to the community's health.

Alcohol and Tobacco Store Density by ZIP Code

The density of alcohol stores in the CBSA (4.9 per 10,000 residents) is similar to Baltimore City (4.6 per 10,000 residents). The CBSA neighborhoods with the highest alcohol store densities are Downtown/Seton Hill (20.2 per 10,000 residents), Greenmount East (9.7 per 10,000 residents) and Midtown (8.3 per 10,000 residents).

Tobacco store density in the CBSA (29.7 per 10,000 residents) is higher than in Baltimore City (21.8 per 10,000 residents). In the CBSA, the highest tobacco store densities are in Downtown/Seton Hill (130.3 per 10,000 residents), Fells Point (50.9 per 10,000 residents), Madison/East End (50.1 per 10,000 residents) and Perkins/Middle East (50.1 per 10,000 residents). The complete list of community data on built environment indicators can be found in *Appendix B6*.

Table 35 – Alcohol and Tobacco Store Density per 10,000 Residents by ZIP Code, 2009

ZIP Code	Alcohol Store Density*	Tobacco Store Density^
21202	8.2	40.0
21205	4.3	35.9
21206	4.0	12.4
21213	6.2	31.9
21218	4.6	28.1
21224	3.5	38.1
21231	5.8	38.0
CBSA	4.9	29.7
Baltimore City	4.6	21.8

Source: Baltimore City 2011 Neighborhood Health Profiles

* Number of Class A alcohol stores per 10,000 residents

^ Number of tobacco stores per 10,000 residents

Food-Store Density by Type by ZIP Code

Fast-food densities are similar in the CBSA (2.7 per 10,000 residents) and in Baltimore City (2.4 per 10,000 residents). In the CBSA, fast-food densities are highest in Downtown/Seton Hill (35.7 per 10,000 residents), Southeastern (11.2 per 10,000 residents) and Perkins/Middle east (10.9 per 10,000 residents). Carryout density in the CBSA (14.3 per 10,000 residents) is slightly higher than in Baltimore City (12.7 per 10,000 residents). The neighborhoods in the CBSA with the highest carryout densities are in Downtown/Seton Hill (96.2 per 10,000 residents), Perkins/Middle East (34.9 per 10,000 residents) and Madison/East End (24.4 per 10,000 residents). Corner-store density is also slightly higher in the CBSA (11.2 per 10,000 residents) than in Baltimore City (9.0 per 10,000 residents). The neighborhoods in the CBSA with the highest corner store densities are Greenmount East (28.1 per 10,000 residents), Madison/East End (25.7 per 10,000 residents) and Downtown/Seton Hill (23.3 per 10,000 residents).

Table 36 – Food-Store Density by Type by ZIP Code, 2009

ZIP Code	Fast-Food Density*	Carryout Density*	Corner-Store Density*
21202	2.9	20.5	15.3
21205	3.9	20.4	13.1
21206	2.1	10.4	4.6
21213	1.1	12.8	12.1
21218	1.9	13.3	10.2
21224	4.9	15.6	16.4
21231	2.9	13.4	9.4
CBSA	2.7	14.3	11.2
Baltimore City	2.4	12.7	9.0

Source: Baltimore City 2011 Neighborhood Health Profiles

*Number of stores per 10,000 residents

Travel Time to Supermarket by Car, Bus and Walking, by ZIP Code

The estimated travel times to the nearest supermarket by car are similar in the CBSA (3.6 minutes) and Baltimore City (3.7 minutes). The neighborhoods in the CBSA with the longest travel times by car are Southeastern (7.0 minutes) and Midway-Coldstream (6.0 minutes). Travel times by bus (9.7 minutes vs. 12.3 minutes) and walking (12.5 minutes vs. 16.6 minutes) are slightly shorter in the CBSA than in Baltimore City. In the CBSA, the longest travel times by bus are in Jonestown/Oldtown (19.0 minutes) and Southeastern (17.0 minutes). The neighborhoods with the longest travel times by walking are Southeastern (21.0 minutes) and Cedonia/Frankford (19.0 minutes).

Table 37 – Travel Time to Supermarket by Car, Bus and Walking, by ZIP Code, 2009

ZIP Code	Est. Travel Time to Nearest Supermarket By Car (min.)	Est. Travel Time to Nearest Supermarket By Bus (min.)	Est. Travel Time to Nearest Supermarket By Walking (min.)
21202	3.5	11.3	10.5
21205	4.0	8.3	14.7
21206	3.3	12.0	16.0
21213	3.0	*	10.5
21218	3.8	11.4	14.6
21224	4.0	7.5	11.3
21231	2.5	2.0	7.0
CBSA	3.6	9.7	12.5
Baltimore City	3.7	12.3	16.6

Source: Baltimore City 2011 Neighborhood Health Profiles

*Data unavailable for 1 of 2 neighborhoods in this ZIP code

Social Environment

Crime Rates by ZIP Code

In the CBSA, rates of juvenile arrests are higher than in Baltimore City. In the CBSA, juvenile arrest rates are highest in Downtown/Seton Hill (906.7 per 1,000), Perkins/Middle East (337.1 per 1,000) and Clifton-Berea (326.5 per 1,000).

Domestic violence rates in the CBSA and in Baltimore City are similar. The neighborhoods in the CBSA with the highest domestic violence rates are Madison/East End (66.2 per 1,000), Perkins/Middle East (59.7 per 1,000) and Clifton-Berea (58.2 per 1,000).

Nonfatal shootings are as likely to occur in the CBSA as in Baltimore City. In the CBSA, nonfatal shooting rates were highest in Madison/East End (169.6 per 10,000), Clifton-Berea (126.6 per 10,000) and Midway-Coldstream (119.8 per 10,000).

Homicide incidence rates in the CBSA and Baltimore City are similar. The CBSA neighborhoods with the highest homicide rates are Clifton-Berea (61.8 per 10,000), Perkins/Middle East (61.0 per 10,000) and Madison/East End (46.3 per 10,000). The complete list of community data on social environment indicators can be found in *Appendix B7*.

Table 38 – Crime Rates by ZIP Code

ZIP Code	Juvenile Arrest Rate (per 1,000)*	Domestic Violence Rate (per 1,000)	Nonfatal Shooting Rate (per 10,000)	Homicide Incidence Rate (per 10,000)^
21202	245.3	43.8	79.8	30.0
21205	203.8	59.3	100.9	36.9
21206	75.8	38.9	27.1	6.8
21213	177.2	51.4	72.9	37.7
21218	170.3	38.3	51.4	23.2
21224	183.2	43.5	33.1	16.4
21231	146.7	20.3	8.2	5.9
CBSA	168.1	42.1	48.6	20.7
Baltimore City	145.1	40.6	46.5	20.9

Source: Baltimore City 2011 Neighborhood Health Profiles; 2005-2009 data

* 10–17 year olds

^ Based on location of incident, not residence of the victim; Rates are five-year homicide totals divided by the average populations during that same time period

Environmental Health

Lead Paint Violations and Children with Lead Poisoning

The lead paint violation rate is substantially higher in the CBSA (16.5 per 10,000 households) than in Baltimore City (11.8 per 10,000 households). The CBSA neighborhoods with the highest lead paint violations are Madison/East End (90.3 per 10,000 households), Greenmount East (64.6 per 10,000 households) and Clifton-Berea (63.6 per 10,000 households). Children in the CBSA (4.1%) and in Baltimore City (3.4%) are more likely to have elevated blood lead levels than children in Maryland (1.2%). In the CBSA, the highest percentages of children with elevated blood lead levels are in Greenmount East (11.5%), Madison/East End (10.7%) and Clifton-Berea (8.2%). The complete list of community data on environmental health indicators can be found in *Appendix B8*.

Table 39 – Lead Paint Violations and Children with Lead Poisoning

ZIP Code	Lead Paint Violation Rate*	Children with Elevated Blood Lead Levels (>10µg/dL)^
21202	23.5	5.7%
21205	40.2	6.2%
21206	2.7	1.6%
21213	28.9	4.8%
21218	15.8	4.5%
21224	16.6	3.3%
21231	2.4	2.1%
CBSA	16.5	4.1%
Baltimore City	11.8	3.4%
Maryland	N/A	1.2%

Sources: Baltimore City 2011 Neighborhood Health Profiles; Maryland Department of the Environment

* Number per year, per 10,000 households

^ Children 0–6 years out of all children tested in 2008; Includes incident and prevalent cases

Baltimore City Health Disparities

Health disparities refer to differences in occurrence and burden of diseases and other adverse health conditions between specific population groups. For example, there may be differences in health measures between males and females, different racial groups, or individuals with differing education or income levels. Health disparities are preventable occurrences that primarily affect socially disadvantaged populations.

Disparity ratios are based on 2008 data. They were obtained by dividing the rate of the comparison group by the reference group rate. For example, to calculate a gender disparity, the female rate (comparison group) is divided by the male rate (reference group). There are data limitations concerning disparities among Latino, Asian, Pacific Islander and Native American/Alaskan Native residents, but this is not indicative of an absence of health disparities among these groups.

Mortality, Illness and Infant Health

There are health differences in mortality by location, gender, race and education level. People with a high school degree or less are 2.65 times more likely to die from all causes than people with a bachelor's degree or more.

Baltimore City residents are 10.48 times more likely to die from HIV compared to Maryland residents. Blacks are 7.70 times more likely to die from HIV than whites. Men are 2.12 times more likely to die from HIV compared to women.

Individuals with a high school degree or less are 11.51 times more likely to die from HIV compared to individuals with a bachelor's degree or more.

Homicide is 5.05 times more likely to occur among Baltimore City residents compared to Maryland residents. Blacks are 5.99 times more likely to be involved in a homicide compared to whites. Homicide also occurs more frequently among men compared to women (disparity ratio = 7.06) and people with a high school degree or less compared to people with a bachelor's degree or more (disparity ratio = 13.60).

Infant mortality is 1.96 times more likely to occur in blacks compared to whites.

Table 40 – Mortality, Illness and Infant Health Disparities, 2008

	City/State		Race		Gender		Education	
	BC	MD (w/o BC)	Black	White	Men	Women	≤ High School	≥ Bachelor's
All-Cause Mortality	1001.1	743.8	1102.4	851	1294.9	783.9	1950.7	735.5
Disparity Ratio	1.35		1.30		1.65		2.65	
Heart Disease	256.3	189.8	272.2	237.5	338.9	196.3	524.3	158.3
Disparity Ratio	1.35		1.15		1.73		1.20	
All Cancer	216.3	176.2	237.1	190.8	283.4	173.9	420.7	187.9
Disparity Ratio	1.23		1.24		1.63		2.24	
Stroke	48.0	39.0	52.2	42.1	53.7	44.5	93.2	54.0
Disparity Ratio	1.23		1.24		1.21		1.73	
Diabetes	29.3	20.8	36.2	19.6	37.4	24.3	59.2	15
Disparity Ratio	1.41		1.85		1.54		3.93	
HIV/AIDS	37.7	3.6	55.8	7.3	52.9	24.9	90.5	7.9
Disparity Ratio	10.48		7.70		2.12		11.51	
Homicide	32.3	6.4	45.7	7.6	58.4	8.3	54.6	4.0
Disparity Ratio	5.05		5.99		7.06		13.60	
Infant Mortality	12.1	8.0	14.3	7.3	N/A	N/A	13.5	8.2
Disparity Ratio	1.51		1.96		N/A		1.65	
Low Birthweight	12.8	9.3	14.9	8.3	N/A	N/A	15.4	8.5
Disparity Ratio	1.38		1.80		N/A		1.80	

Source: 2010 Baltimore City Health Disparities Report Card

Health Status

There are differences in health status by race, gender, education level and household income. In Baltimore City, blacks are twice as likely to be obese compared to whites. People with a high school degree or less are also twice as likely to be obese compared to people with a bachelor's degree or more. Individuals with a household income less than $15,000 are 2.39 times more likely to be obese compared to individuals with a household income of $75,000 or more.

Diabetes occurs more frequently in people with a high school degree or less compared to people with a bachelor's degree or more (disparity ratio = 2.49), and in people with a household income less than $15,000 compared to people with a household income of $75,000 or more (disparity ratio = 3.67).

Child asthma is 5.97 times more likely to occur in blacks compared to whites.

Table 41 – Health Status Disparities, 2008

	Baltimore City	Race		Gender		Education		Household Income	
		Black	White	Men	Women	≤ High School	≥ Bachelor's	<$15,000	$75,000+
Obesity	33.8	42.3	20.8	28.1	39.1	39.5	19.5	39.5	19.5
Disparity Ratio		2.03		1.39		2.03		2.39	
Diabetes	13.6	16.3	8.8	12.9	14.4	16.2	6.5	26.8	7.3
Disparity Ratio		1.85		1.12		2.49		3.67	
High Blood Pressure	36.4	41.3	28.6	33.8	38.6	40.7	25.2	55.4	26.9
Disparity Ratio		1.44		1.14		1.62		2.06	
Household Asthma	28.0	31.4	21.5	24.4	30.7	33.0	16.2	39.3	18.2
Disparity Ratio		1.46		1.26		2.04		2.16	
Child Asthma	399.9	510.6	85.5	496.5	299.4	N/A	N/A	N/A	N/A
Disparity Ratio		5.97		1.66		N/A		N/A	
Smoking	28.0	29.6	26.9	35.1	22.8	33.9	14.8	36	15.1
Disparity Ratio		1.10		1.54		2.29		2.38	

Source: 2010 Baltimore City Health Disparities Report Card

Healthy Homes and Communities

In Baltimore City, there are differences in community safety and food and energy insecurity by race, gender, education level and household income. Men are 2.54 times more likely to be exposed to violence compared to women. People with a high school degree or less are more than three times as likely to be exposed to violence compared to people with a bachelor's degree or more. Blacks are 3.47 times more likely to report living in a dangerous neighborhood compared to whites. People with a high school degree or less are 5.12 times as likely to report living in a dangerous neighborhood compared to people with a bachelor's degree or more. Individuals with an income level below $15,000 are 14.17 times more likely to report living in a dangerous neighborhood than individuals with an income of $75,000 or more.

Food insecurity is 2.84 times higher among people with a high school degree or less compared to people with a bachelor's or more. People with a household income lower than $15,000 are 5.81 times more likely to have food insecurity compared to people with an income of $75,000 or more.

Energy insecurities occur more frequently among individuals with an income below $15,000 compared to individuals with an income of $75,000 or more (disparity ratio = 3.32).

Table 42 – Healthy Homes and Communities Disparities, 2008

	Baltimore City	Race		Gender		Education		Household Income	
		Black	White	Men	Women	≤ High School	≥ Bachelor's	<$15,000	$75,000+
Exposure to Violence	19.1	21.5	14.6	28.4	11.2	23.8	7.8	20.3	11.8
Disparity Ratio		1.47		2.54		3.05		1.72	
Neighborhood is Very Dangerous	9.8	12.5	3.6	13.5	6.3	12.8	2.5	17.0	1.2
Disparity Ratio		3.47		2.14		5.12		14.17	
Food Insecurity	23.3	29.6	12.5	26.7	20.2	28.7	10.1	38.9	6.7
Disparity Ratio		2.37		1.32		2.84		5.81	
Energy Insecurity	33.2	37.2	27.7	30.0	36.1	37.4	22.7	45.8	13.8
Disparity Ratio		1.34		1.20		1.65		3.32	

Source: 2010 Baltimore City Health Disparities Report Card

Health Care

There are differences in health insurance coverage and health care needs by race, gender, education and household income. Blacks are twice as likely to lack health insurance compared to whites. Residents

with a high school degree or less are also twice as likely to lack health insurance compared to residents with a bachelor's degree or more. People with an income less than $15,000 are 3.81 times more likely to lack health insurance compared to people with an income of $75,000 or more.

Individuals with a high school degree or less are 2.22 times more likely to report unmet health care needs compared to individuals with a bachelor's degree or more. Unmet health care needs are 5.23 times more likely to be reported by people with an income below $15,000 compared to people with an income of $75,000 or more. Blacks are 3.68 times more likely to report unmet mental health care needs compared to whites. People with a high school degree or less are 3.67 times more likely to report unmet mental health care needs compared to people with a bachelor's degree or more.

Table 43 – Health Care Disparities, 2008

	Baltimore City	Race		Gender		Education		Household Income	
		Black	White	Men	Women	≤ High School	≥ Bachelor's	<$15,000	$75,000+
No Health Insurance	17.1	20.9	10.1	22.1	12.7	20.1	9.8	20.2	5.3
Disparity Ratio		2.07		1.74		2.05		3.81	
Unmet Health Care Needs	22.8	27.3	15.3	23.1	21.9	27.5	12.4	31.9	6.1
Disparity Ratio		1.78		1.05		2.22		5.23	
Unmet Mental Health Care Needs	23.4	33.5	9.1	32.8	18.5	28.6	7.8	*	*
Disparity Ratio		3.68		1.79		3.67		*	

Source: 2010 Baltimore City Health Disparities Report Card

* Missing Data

JHH CBSA Inpatient Discharges and Outpatient Visits

The most common reason residents in the JHH Community Benefit Service Area are treated as inpatients at JHH is for pulmonary (lung) problems. More specifically, the most common lung illnesses treated in these residents are asthma (241 discharges), chronic obstructive pulmonary disease (219 discharges) and "other pneumonia" (177 discharges).

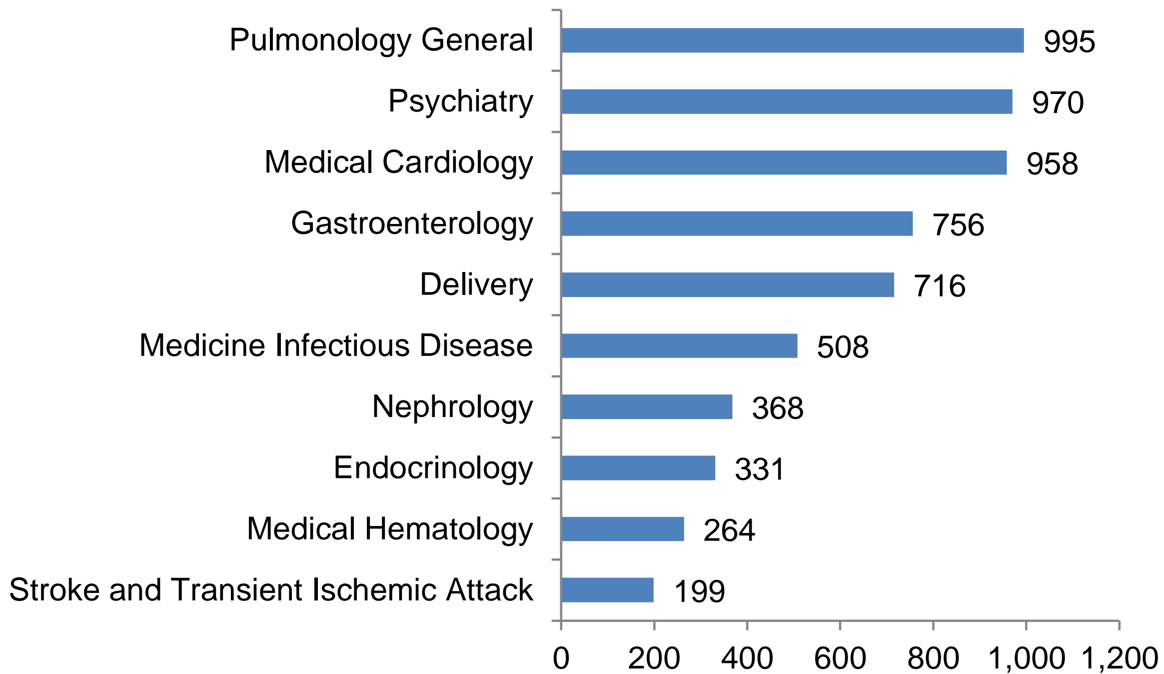
The second most common reason residents in the JHH CBSA are treated as inpatients at JHH is for psychiatric (mental health) diagnoses. Almost half of these patients were treated for major and minor depression (combined for 469 discharges). Other reasons for psychiatric discharges include bipolar disorders (237 discharges) and schizophrenia (133 discharges).

Medical cardiology (heart-related illness) is also a common reason residents in the JHH CBSA are treated as inpatients at JHH. The most common heart-related discharges are for heart failure (372 discharges), chest pain (215 discharges) and angina (115 discharges).

Within medicine infectious disease, the most common reasons residents in the JHH CBSA were treated as inpatients at JHH were for HIV-related conditions (combined for 227 discharges) followed by septicemia and disseminated infections (149 discharges).

For nephrology (kidney-related illness), the most common reasons for inpatient discharges were kidney failure (191 discharges), and kidney/urinary tract infections and symptoms (combined for 162 discharges). For endocrinology (hormone-related illness), the most common inpatient discharges were diabetes (137 discharges) and electrolyte disorders (combined for 122 discharges). In medical hematology (blood-related disorders), the majority of inpatient discharges were for sickle-cell anemia crisis (183 discharges).

Figure 2 – Top 10 Inpatient Discharges in JHH CBSA, FY 2011



Analyzing the inpatient discharges by age group reveals differences in why residents are seen across their life span. Children aged 0 to 18 were seen most often for pulmonary (322 discharges), psychiatry (193 discharges) and neonate with major problems (130 discharges). Adults aged 19 to 39 were seen most often for delivery (608 discharges), psychiatry (277 discharges) and gastroenterology (133 discharges). Adults aged 40 to 55 were seen most often for psychiatry (373 discharges), cardiology (326 discharges) and gastroenterology (254 discharges). Adults aged 56 and older were seen most often for cardiology (564 visits), pulmonary (366 discharges) and gastroenterology (279 discharges). Psychiatry was one of the top three reasons for inpatient discharges in all age groups, except the oldest population, while gastroenterology was one of the top three reasons in all age groups, except the youngest population. See *Appendix D* for more information.

The inpatient discharges were also reviewed by gender, race and ethnicity. In general, there were few major differences in why residents were discharges by these groups. The only notable exception is that when men are excluded, delivery is the number one reason that women are seen as inpatients in the CBSA. See *Appendix D* for more information.

Cancer screenings and treatment are the most common reasons residents in the CBSA are seen in the outpatient clinic. Special screenings for malignant neoplasms accounted for 1,556 outpatient discharges. There were 3,344 outpatient visits attributed to neoplasms of the female breast, trachea/bronchus/lung or prostate. The remaining 2,001 outpatient discharges were attributed to the following conditions: other malignant neoplasm or lymphoid and histiocytic tissue, myeloid leukemia, neoplasm of uncertain behavior or other and unspecified sites, multiple myeloma and immunoproliferative neoplasms, and malignant neoplasm of the colon.

The second most common reason residents in the CBSA are seen in the outpatient clinic is for affective psychoses (6,355 visits). Affective psychoses refer to major depression and bipolar disorders. Schizophrenic psychoses account for another 3,519 visits.

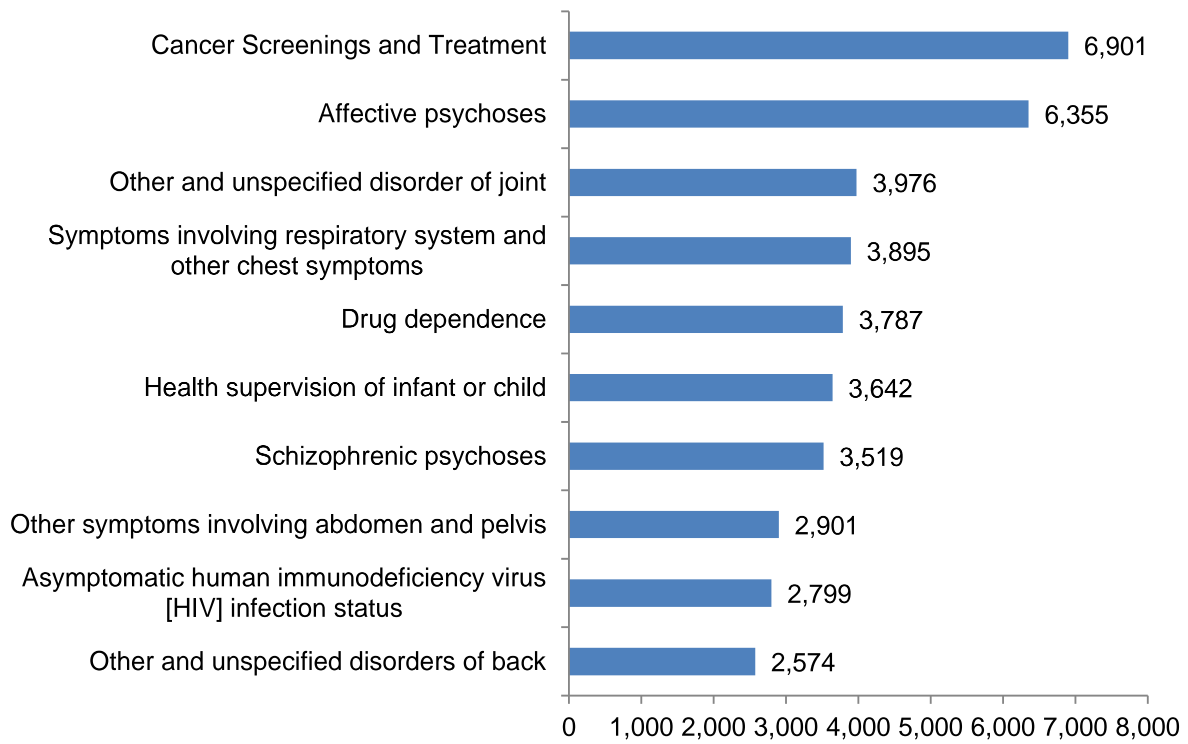
Another common reason residents in the CBSA are seen in the outpatient clinic is for joint disorders (3,976 visits). Of the joint disorders, lower leg joint pain is most common (1,300 visits), followed by shoulder joint pain (780 visits), ankle and foot joint pain (461 visits), and pelvic and thigh joint pain (435 visits).

Respiratory and chest symptoms account for 3,985 visits by residents in the CBSA go to the outpatient clinic. Chest pain is the most common chest symptom (1,920 visits), followed by cough (588 visits).

There are 3,787 outpatient visits by residents of the CBSA for drug dependence, with the majority (2,484 visits) of these visits being for opioid (narcotic) drug dependence.

Other common reasons residents in the CBSA are seen at the JHH outpatient clinic are for infant and child checkups (3,642 visits), abdominal pain and symptoms (2,901 visits), asymptomatic HIV infection (2,799 visits), back pain and symptoms (2,574 visits), and prenatal care for normal pregnancies (2,375).

Figure 3 – Top 10 Outpatient Visits for JHH CBSA, FY 2011



C. Community Input

East Baltimore Medical Center Community Health Survey

Methodology

This self-administered survey was offered to all patients who visited the East Baltimore Medical Center adult and pediatric clinics on four days (June 7, 8, 11 and 12) in 2012. Sixty-seven residents of the Community Benefit Service Area completed the survey at the East Baltimore Medical Center, and this analysis was completed using only the responses from persons who live in the service area. The goal of the survey was to gather information and perceptions on health-related topics affecting the community. Participants were asked to respond to a variety of questions regarding community and individual health status, concerns and issues.

Survey Demographics

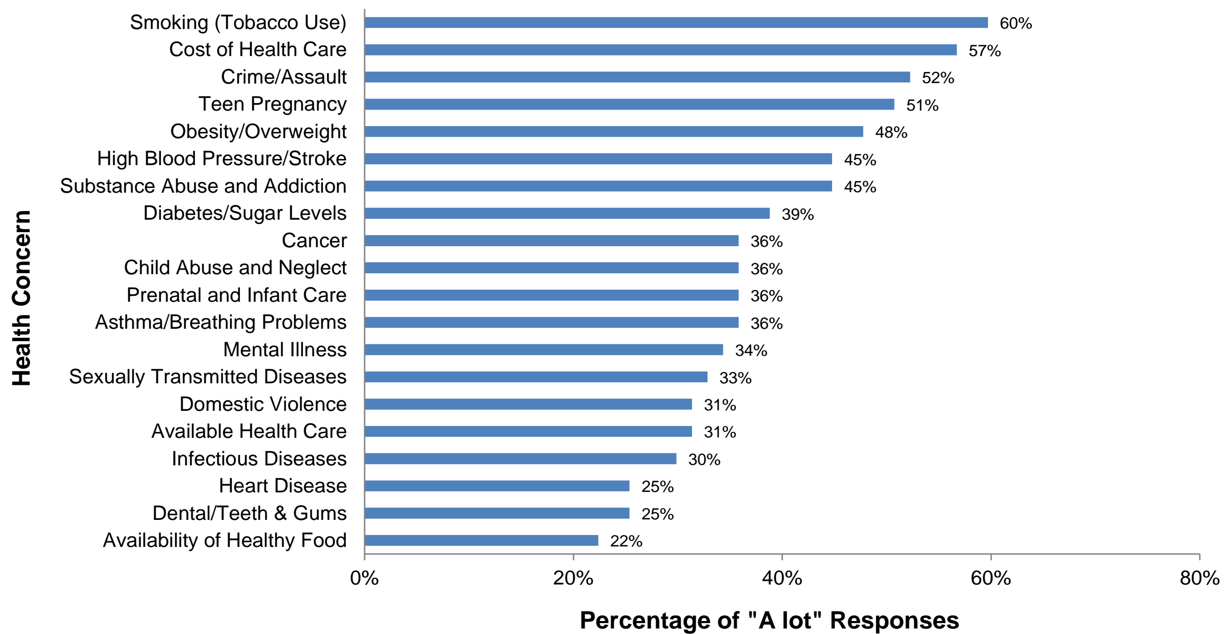
- Gender composition:
    - 28% male
    - 70% female
    - 2% unknown
- Race/Ethnicity distribution:
    - 90% black or African American
    - 6% Hispanic
    - 3% white
    - 1% unknown
- Age group composition:
    - 18–44: 70%
    - 45–64: 21%
    - 65 and older: 4%
    - Unknown: 5%

Results

Question: How much do these health issues affect your community? "Not much," "Average" or "A lot."

Response: More than 40% of respondents consider issues related to smoking (60%), cost of health care (57%), crime/assault (52%), teen pregnancy (51%), obesity/overweight (48%), high blood pressure (45%) and substance abuse (45%) to be important health concerns in the community. The chart below reflects percentages of respondents who answered "A lot" in relation to the corresponding health issue. Worth noting is the fact that health care access was only a concern for 31% of respondents, which is likely related to the fact that persons taking the survey at East Baltimore Medical Center are already accessing health care.

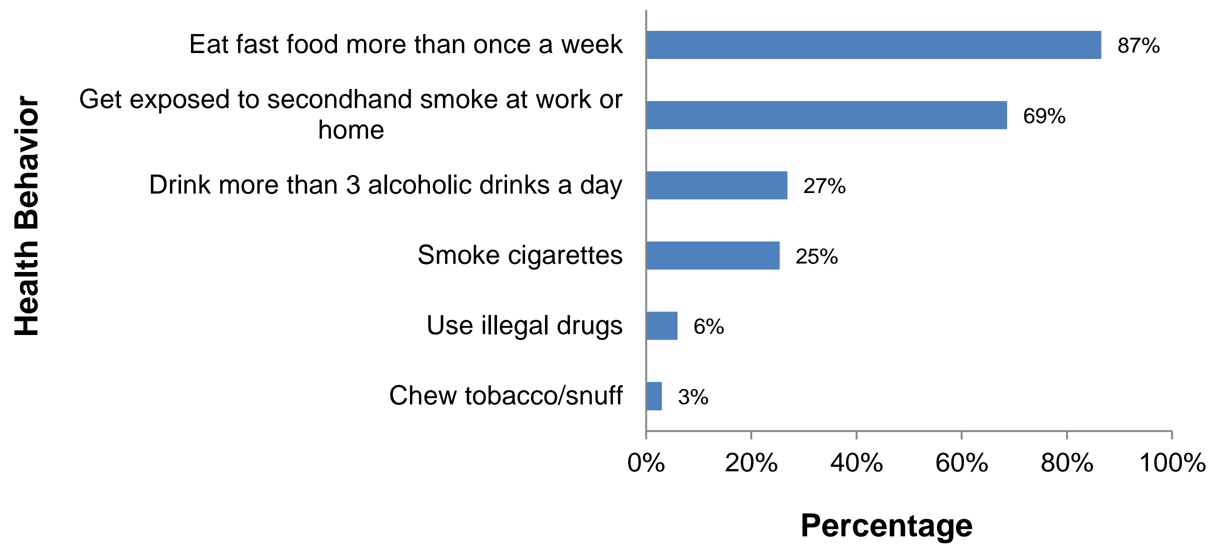
Figure 4 – Serious Health Concerns in the Community



Question: How often do you do the following? "Always," "Sometimes" or "Never."

Response: More than half of respondents answered "Sometimes" or "Always" to eating fast food more than once a week and to secondhand smoke exposure. Approximately one-quarter of participants "Sometimes" or "Always" drink three or more alcoholic drinks a day or smoke cigarettes.

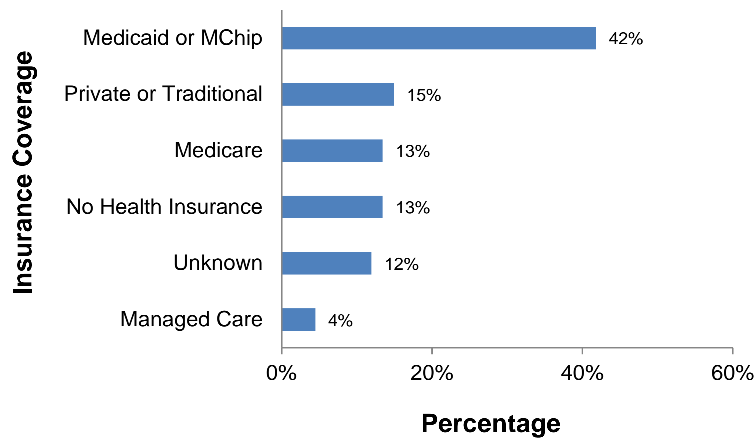
Figure 5 – Health Behaviors



Question: Which type of health insurance do you currently have?

Response: Forty-two percent of respondents reported having Medicaid or MChip as their health insurance coverage. Private or traditional was selected by 15% of participants, 13% were uninsured, 13% have Medicare, 12% were unknown and 4% are on a managed care plan.

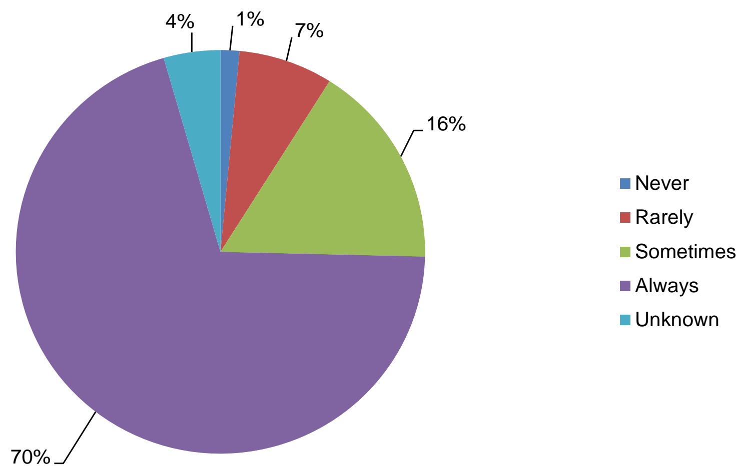
Figure 6 – Type of Insurance Coverage



Question: Are you able to visit a doctor when needed?

Response: Most respondents (70%) indicated they were "Always" able to see a doctor when needed. Sixteen percent of survey participants reported being able to see the doctor "Sometimes," 7% reported "Rarely" seeing a doctor, 4% did not give a clear answer and 1% reported "Never" being able to see a doctor when needed.

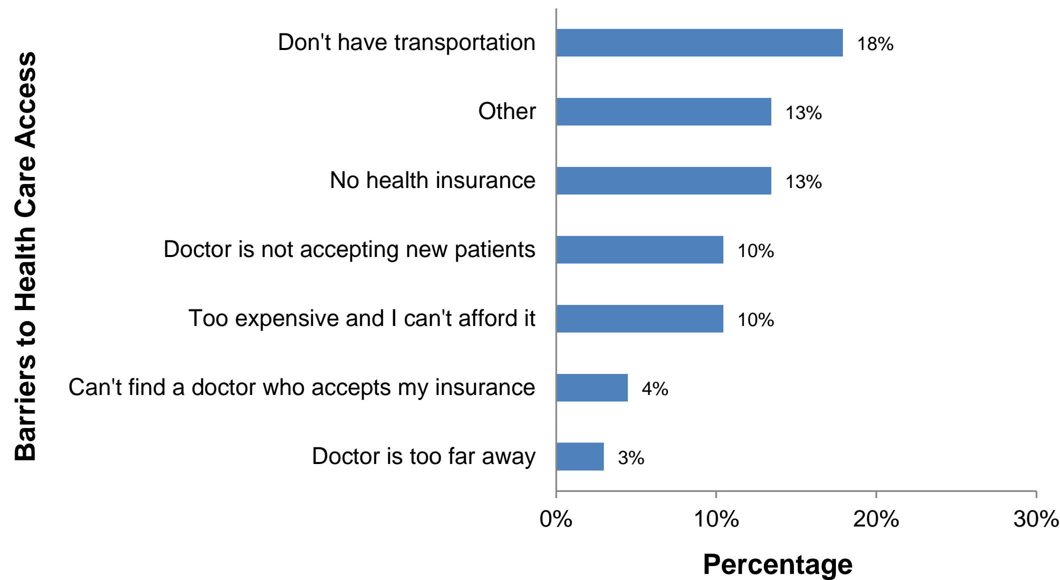
Figure 7 – Ability to See Doctor When Needed



Question: If you are not able to see the doctor when needed, what is the reason (circle ALL that apply)?

Response: Not all participants reported reasons for not being able to see a doctor when needed. For survey respondents who indicated a reason, 18% did not have transportation, 13% lacked health insurance, 13% gave other reasons, 10% reported the doctor was not accepting new patients, 10% indicated it was too expensive, 4% could not find a doctor who accepted their insurance and 3% indicated the doctor was too far away.

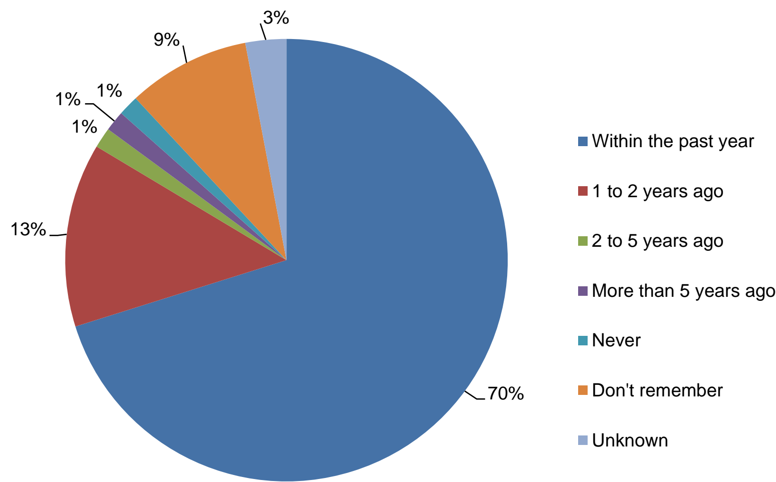
Figure 8 – Barriers to Health Care Access



Question: When was your last checkup (routine physical)?

Response: When asked about their most recent physical, 70% of respondents indicated it was within the past year. Thirteen percent of respondents had a checkup one to two years ago, 1% had one two to five years ago and 1% had a checkup more than five years ago.

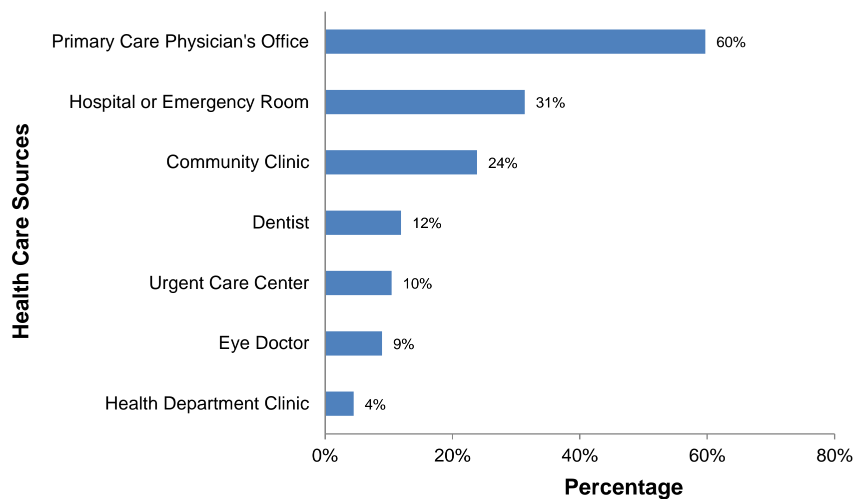
Figure 9 –Time Since Last Physical



Question: Where do you go for health care (circle ALL that apply)?

Response: Most of the participants (60%) indicated that they use a primary care physician for health care. Hospital/emergency room services were utilized by 31% of respondents and community clinics by 24% of respondents. Respondents used dentists (12%), urgent care centers (10%), eye doctors (9%) and health departments (4%) less frequently.

Figure 10 – Health Care Source Utilization



East Baltimore Community Health Telephone Survey

Methodology

A telephone survey of 150 randomly selected East Baltimore residents was conducted from June 8–12, 2012. The participants represented the seven ZIP Codes that define JHH's Community Benefit Service Area. At the midpoint of the survey, in order to compensate for the older/female skew of telephone sampling, younger males were sought out, followed by any male. The objective of the survey included identification and quantification of health needs, desired actions to improve health status, health perceptions, behaviors affecting individual health and issues pertaining to health care access and information.

Survey Demographics

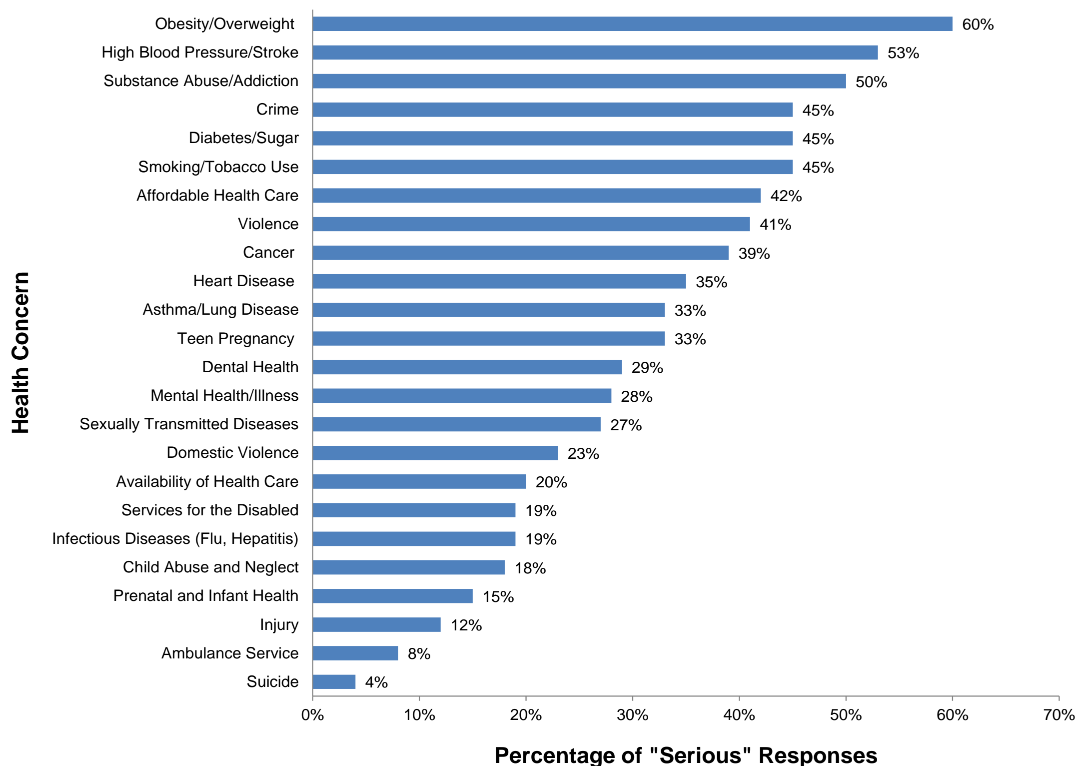
- Gender composition:
  - 33% male
  - 67% female
- Race distribution:
  - 49% white
  - 43% black or African American
  - 3% Spanish, Latino or Mexican origin
  - <1% Asian
  - <1% American Indian or Alaska Native and 5% other/refused
- Age group composition:
  - 18–44:16 %
  - 45–64: 37%
  - 65 and over: 44%
  - Refused: 3%
- Household income:
  - Less than $25,000: 29%
  - $25,000–$49,999: 26%
  - $50,000–$74,999: 13%
  - $75,000–$99,999: 12%
  - $100,000–$149,999: 3%
  - $150,000 and over: 7%
  - Refused: 10%

Results

Question: Thinking about your community, how much of a problem, if at all, are each of the following health concerns? Please respond with "Not at all a problem," "Moderate problem" or "Serious problem."

Response: More than 40% of respondents consider issues related to obesity/overweight (60%), high blood pressure/stroke (53%), substance abuse/addiction (50%), crime (45%), diabetes/sugar (45%) and smoking/tobacco use (45%) to be "Serious" problems in the community.
Less than one in three respondents rated dental health (29%), mental health/illness (28%), sexually transmitted diseases (27%), domestic violence (23%) and availability of health care (20%) as "Serious" problems.

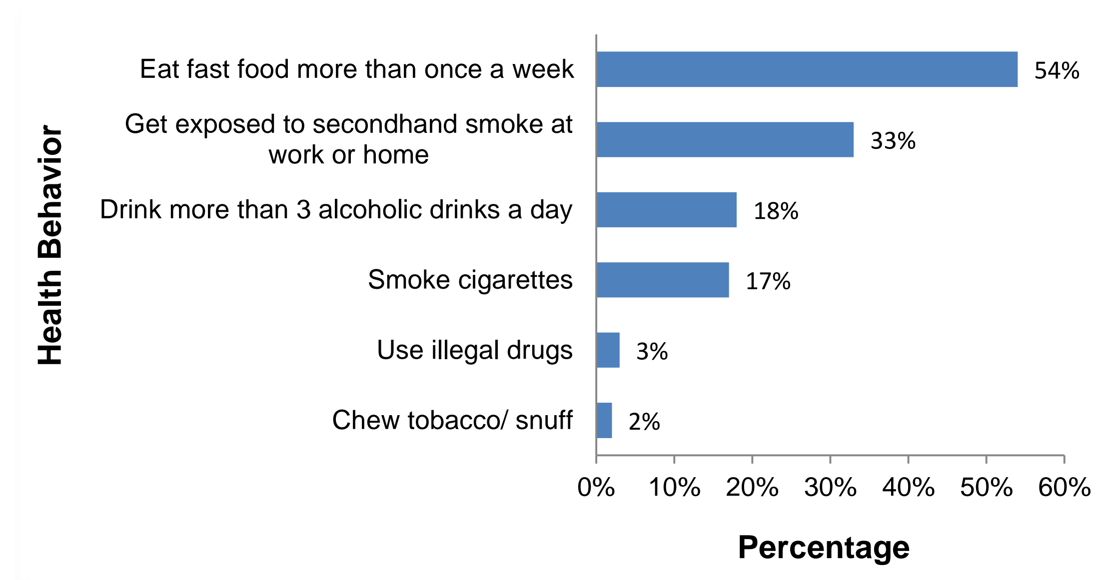
Figure 11 – Serious Health Concerns in the Community



Question: Would you say you "Never," "Sometimes" or "Always": eat fast food more than once a week, smoke cigarettes, are exposed to secondhand smoke at work or home, chew tobacco/snuff, drink more than three alcoholic beverages a day, use illegal drugs?

Response: More than half of respondents answered "Sometimes" or "Always" when asked if they eat fast food more than once per week. One in three participants reported being exposed to secondhand smoke at work or home.

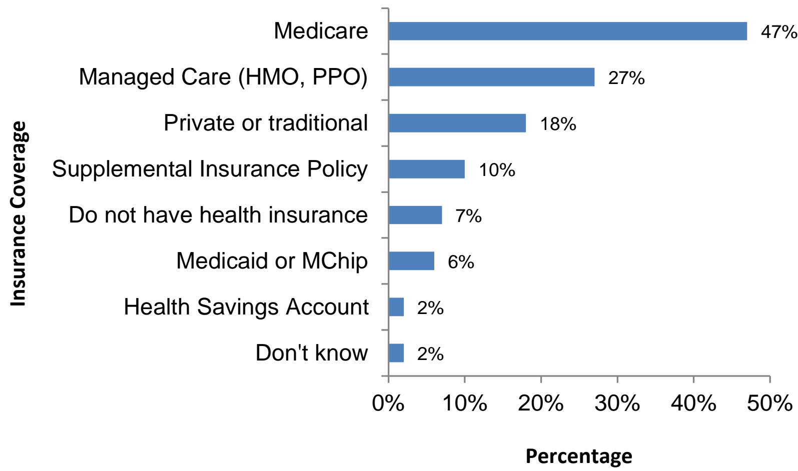
Figure 12 – Health Behaviors



Question: Which, if any, of the following types of insurance do you currently have?

Response: The most common form of health insurance among survey participants is Medicare (47%). Managed care was reported as the primary source of health insurance for 27% of respondents, followed by private or traditional (18%), supplemental insurance policy (10%), Medicaid or MChip (6%) and health savings account (2%).

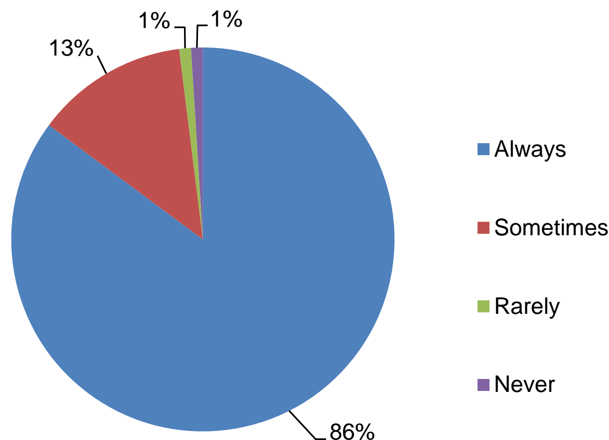
Figure 13 – Type of Insurance Coverage



Question: Do you, yourself, feel that you are able to visit a doctor when needed? Would you say you: always can visit a doctor when needed, sometimes can visit a doctor when needed, rarely can visit a doctor when needed, never can visit a doctor when needed?

Response: "Always" being able to see a doctor when needed was reported by 86% of participants, followed by 13% who reported "Sometimes" and 1% who reported "Rarely" or "Never" being able to see a doctor when needed.

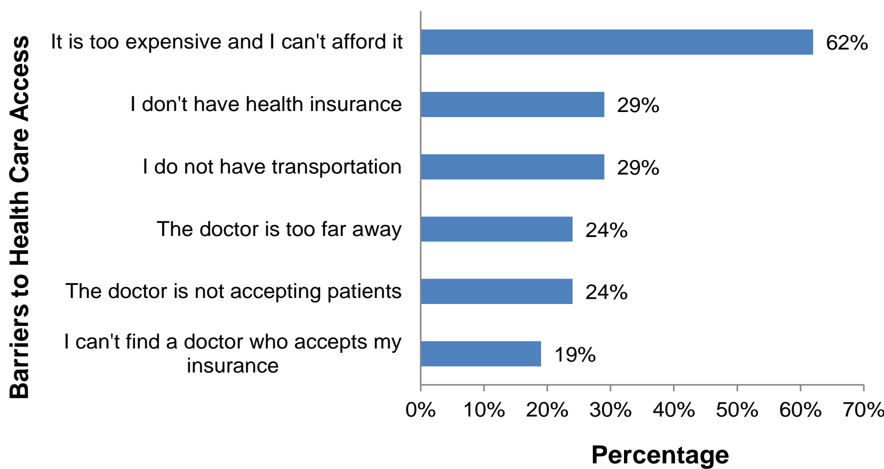
Figure 14 – Ability to Visit Doctor When Needed



Question: You just indicated that you are Never/Rarely/Sometimes able to see a doctor when needed. Which, if any, of the following reasons are why?

Response: Among the 21 participants not "Always" able to see a doctor when needed, 62% said expense was the reason, followed by no health insurance (29%), no transportation (29%), the doctor is too far away (24%), the doctor isn't accepting new patients (24%) and inability to find a doctor who accepts their insurance (19%).

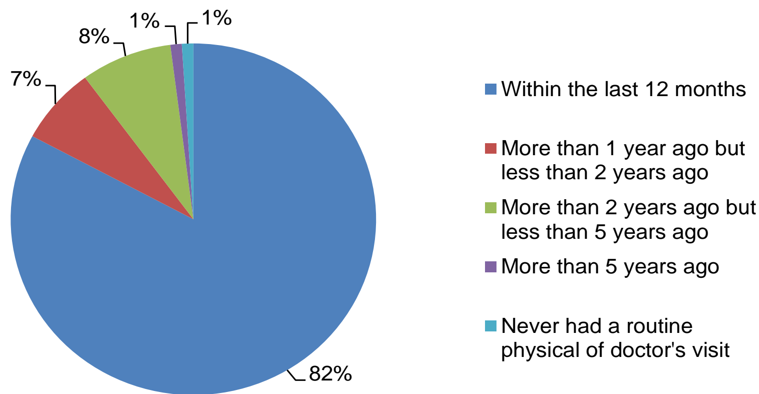
Figure 15 – Barriers to Health Care Access



Question: Which of the following best describes when you had your last physical or routine doctor's visit?: within the last 12 months; more than one year ago, but less than two years ago; more than two years ago, but less than five years ago; more than five years ago; never had a routine physical or doctor's visit.

Response: Most residents (82%) reported having a routine physical within the last 12 months, while 8% reported it was two to five years ago and 7% said one to two years ago. Only 1% reported their last routine physical as more than five years ago and 1% never had a physical.

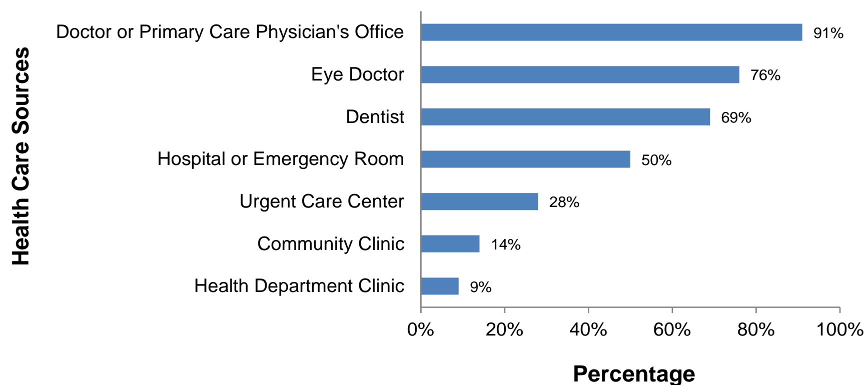
Figure 16 – Time Since Last Routine Physical



Question: I am now going to read a list of places you might go for medical care. For each, please tell me whether or not you receive care from this type of location on a regular basis: Doctor or Primary Care Physician's Office, Eye Doctor, Dentist, Hospital or Emergency Room, Urgent Care Center, Community Clinic, Health Department Clinic

Response: When given a list of common health care sources, 91% of respondents reported utilizing a primary care physician, 76% see an eye doctor, 69% visit a dentist, 50% utilize the hospital or emergency room, 28% visit an urgent care center, 14% visit the community clinic and 9% visit the health department.

Figure 17 – Health Care Source Utilization



Community Leader Interviews

The majority of interviews were conducted in Baltimore from May 21–June 14, 2012, though some interviews were conducted until July 26, 2012 to accommodate scheduling. Interviews lasted on average 30 minutes and were designed to identify health priorities and strategies to address health needs in the CBSA. Interviews were conducted with Johns Hopkins (JH) hospital and university experts, public health experts, elected officials and community organization representatives. Interviewees were selected to gain input on a wide range of health issues, including mental health, substance abuse, HIV/AIDS, pediatrics and urban health. Additionally, care was taken to ensure input of experts familiar with issues affecting African Americans, Latinos, Native Americans and children. A total of 48 key community stakeholders and experts were interviewed for this report. The complete list of persons interviewed is in *Appendix E: Key Informant Interviewees*.

The results of these interviews have been analyzed by theme and reported collectively. The data is qualitative in nature and should be interpreted as reflecting the values and perceptions of those interviewed. This portion of the Community Health Needs Assessment process was meant to gather input both from persons representing the broad interest of the community serviced by the hospital facility as well as from individuals who have special knowledge or expertise in public health. This section is meant to provide depth and richness to the quantitative data collected.

Health Issues

The most commonly discussed health issues identified by Johns Hopkins (JH) staff members, public health experts, elected officials and community organization representatives are presented in this section. The health issues are presented in alphabetical order for organizational purposes only and do not reflect a ranked priority.

- **Cardiovascular Disease**

  Cardiovascular disease was mentioned as a health concern for the Community Benefit Service Area by 14 interviewees including: JH staff, public health experts and elected officials. Cardiovascular disease is a broad health term that applies to heart and blood vessel disease. The components of heart disease mentioned by key community leaders included heart disease, high blood pressure, congestive heart failure and coronary artery disease. Early onset of cardiovascular diseases in children was mentioned specifically as a relatively new health concern

in the community needing to be addressed. Uncontrolled high blood pressure in older adults was another specific concern. The connection between diabetes and increased risk of heart disease was also noted.

Community leaders would like to see improving cardiovascular health and health outcomes as a priority in the community. One health expert recommended taking programs that are already in place, such as blood pressure screenings, and add a second step of referring people to primary care providers to increase the number of people who have a medical care home.

- **Cancer**
  Cancer was mentioned as a top health concern in the CBSA by three interviewees, including JH staff and an elected official. Cancer was mentioned as one of several health conditions that occur at a high rate in the community.

- **Diabetes**
  Diabetes was discussed as a health concern in the CBSA by nine interviewees, including JH staff, public health experts and elected officials. Diabetes was mentioned as an important concern in the Native American and Latino populations. The link between poverty and increased incidence of diabetes was also discussed by multiple interviewees. The disabilities that result from diabetes, such as amputation, were also a concern.

  Issues that affect people's risk of developing diabetes (and other illnesses) were also discussed by community leaders. Concerns about access to healthy food and food desserts as well as the higher cost of buying fresh foods when available were discussed. The leadership of The Johns Hopkins Hospital felt strongly that addressing healthy food access was a significant part of improving health in the CBSA.

- **Health Care (Access and Affordability)**
  The theme of health care access and affordability was the most discussed health need by interviewees. This issue was discussed by 32 interviewees, including JH staff, public health experts, elected officials and community organization representatives. A common theme was

that, despite a wealth of world-class health services in the CBSA, for many people there are significant challenges to accessing the services. The different aspects of access and affordability that were mentioned in the interviews were insurance, location and hours of clinics, insufficient numbers of primary care providers, and medication cost and availability.

There was concern that persons without insurance are unable to access the medical care that they need. One specific developing concern is that as more people have insurance as a result of the Affordable Care Act, there will be less safety net services in place that undocumented persons can access.

One big picture solution to increase the number of persons with insurance is to increase jobs and job placement in the community. Cost was discussed as a barrier to people accessing medical services. Additionally, the high rates of poverty create choices between health care and more basic human needs, such as food and shelter.

Multiple interviewees mentioned that there are not enough primary care providers in the CBSA. The perception is that even when a person has health insurance they may have challenges finding a primary care provider who is accepting new patients. The lack of primary care providers is considered to be a complicated issue that involves both the provider and payer sides of the health system. Also, the shortage of primary care providers is not unique to the CBSA as it reflects a national trend. Ensuring that residents have a medical care home was considered a top priority by one health expert. Interviewees suggested opening more primary care clinics to address the shortage of primary care providers. One interviewee also would like to see more urgent care clinics as well.

Historically, persons without health insurance have had difficulty accessing specialty care services in the CBSA. The Access Partnership (TAP) is a program at JHH that provides universal specialty care access to qualifying individuals with documented need for care. Currently this program is available to residents in five of the CBSA ZIP Codes (21202, 21205, 21213, 21224 and 21231). The model for TAP is to intervene earlier in the disease process and thereby reduce reliance on the Emergency Department (ED) for emergencies that are preventable. This program

was mentioned as a successful existing program that increases access to specialty care services in the CBSA. Many of the persons interviewed would like to see this program expanded to meet the needs of more residents and in more ZIP Codes. Hospital leadership does expect some future expansion of the program to address unmet needs; however, the expansion will be limited.

Limited access to medication was also discussed by interviewees. There are areas within the CBSA where there are no pharmacies with $4 medication lists nearby. There is a need for inexpensive prescription access throughout the CBSA.

Another strategy to address health care access that was discussed by several interviewees was to integrate health services into the public school system. The Elev8 program is currently in four schools and provides health and mental health services.

- **Infectious Disease**

  Infectious disease, including HIV/AIDS, was discussed by 14 interviewees that included JH staff, public health experts and elected officials. The majority of these interviewees discussed HIV/AIDS; however, sexually transmitted infections (STIs) in general were mentioned as well. A common theme about HIV/AIDS was the significant health disparities associated with the rates of infection. Concerns about STIs were mentioned with respect to youth in general and Native American youth. One suggestion for addressing HIV/AIDS in the community was to increase access to HIV testing in primary care settings.

- **Maternal Child Health**

  Maternal child health concerns were a less frequently mentioned health concern in the community leader interviews. The specific aspects of maternal child health that were discussed were low birthweight, appropriate prenatal care, teen pregnancy and high infant mortality rates. No specific strategies to address these concerns were offered in the interviews.

- **Mental Health**

  Mental health was discussed by 19 of the interviewees, including JH staff, public health experts, elected officials and community organization representatives. JHH has a strong community psychiatry program that uses physicians, nurses, therapists and case managers. This program provides treatment for patients in community settings when traditional outpatient treatment is inadequate. However, there is such high demand for mental health services that there are unmet mental health needs and a perception that more mental health services are required. Ability to access mental health services relies on the providers' ability to accept new patients. Additionally, if more residents acquire health insurance, which is expected due to the Affordable Care Act, there will likely be even higher demand for mental health services. Post-traumatic stress disorder (PTSD) and anxiety are specific manifestations of mental health concerns treated in persons with HIV/AIDS due to the stress and stigma of living with the illness. The close connection between mental health disorders and substance abuse was also discussed by many of the interviewees.

  Suggestions for addressing mental health services included increasing capacity of JHH psychiatry programs and expanding integrated mental health services in the community in venues such as schools, churches and community-based organizations. Currently there are mental health services in schools through the Elev8 program, in churches through professional counseling ministries and for homeless men at Helping Up Mission. In addition, several interviewees discussed the high level of trauma in the community and recommended utilizing trauma informed care models. One interviewee also recommended the use of population-wide mental health prevention services.

- **Overweight/Obesity**

  Obesity was discussed as a health concern by 14 interviewees that included JH staff, elected officials and community organization representatives. Generally, obesity was discussed as one of several health issues by the interviewees, but not elaborated on. Other factors that affect a person's risk of being overweight or obese, such as diet and exercise, were also discussed in the interviews.

- Exercise

  The theme of exercise and physical activity was raised by eight interviewees. The interviewees briefly discussed lack of physical activity in residents and the lack of access to safe places to exercise.

- Nutrition

  Concerns about food availability and nutrition were raised by 16 interviewees. Lack of access to grocery stores and lack of healthy food options at fast-food and corner stores in Baltimore City were the main themes of discussion about nutrition. Interviewees discussed the extent of food deserts, which are "area(s) where the distance to a supermarket is more than ¼ mile, the median household income is at or below 185% of the Federal Poverty Level, over 40% of households have no vehicle available, and the average Healthy Food Availability Index score for supermarkets, convenience and corner stores is low (measured using the Nutrition Environment Measurement Survey)[3]."

- **Substance Abuse and Addiction**

  Substance abuse and addiction were discussed by 30 interviewees, which makes it the second most commonly discussed health concern in the interviews. Substance abuse was discussed by 32 interviewees, including JH staff, public health experts, elected officials and community organization representatives. Concern over the high use of narcotics and intravenous (IV) drugs was the most common, followed by concerns about alcohol abuse. The relationship between IV drug use and Hepatitis C was also a concern.

  Opiate substance abuse has been one of the four targeted clinical programs in East Baltimore and there has been a substantial decrease in patients admitted to JHH for substance abuse diagnoses (excluding alcohol abuse) from 2005 to 2011. Analysis of the effectiveness of this program is in progress.

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[3] http://www.baltimorecity.gov/Government/AgenciesDepartments/Planning/BaltimoreFoodPolicyInitiative/FoodDeserts.aspx

In addition to the programs targeting substance abuse in East Baltimore, there are several changes in the community that may affect drug abuse. In 2006, buprenorphine (a medical treatment for opiate drug addiction) was approved for use in primary care settings. In 2010, Medicaid added outpatient drug treatment as a covered benefit, which increased the resources available to treat drug addiction. Also, changes in the community have shifted people to areas away from JHH, and it is unknown how this affects the rate of drug abuse in the hospital's immediate area.

Despite the progress that has been made in substance abuse treatment, substance abuse is still considered a substantial concern in the CBSA. One suggestion for addressing this issue is ensuring that chronic pain treatment is addressed in medical school because pain is one of the top reasons people go to the doctor. When pain is not treated appropriately, it may contribute to drug abuse.

Another suggestion was to ensure substance abuse treatment on demand, which means that when a person presents to the medical system ready to accept help to stop using substances, they are able to get into treatment within 24 to 48 hours. Although there is a system in place to refer residents to drug treatment on demand, the perception exists that this does not always happen consistently. In addition, the closing of several community-based treatment programs was mentioned by a couple of interviewees as a concern with regard to people's ability to access treatment.

Alcohol abuse is another type of substance abuse that was also mentioned in the interviews. One concern discussed by some community leaders was the high density of liquor stores in the community. Alcohol abuse was brought up as a specific concern for Latinos and Native American community members. Similarly, relapse of substance abuse problems in the aging population was mentioned in an interview.

Social Determinants

In addition to discussing health concerns in the interviews, interviewees typically discussed one or more social determinants of health that affect the health of community residents. A social determinant is defined by the Centers for Disease Control and Prevention (CDC) as “factors that contribute to a person's current state of health.” These factors may be biological, socioeconomic, psychosocial, behavioral or social in nature.

- **Education**

  Education was discussed as an important factor that affects health by 10 interviewees, including JH staff, public health experts and elected officials, and is seen as a precursor to obtaining employment. However, the perception is that the schools do not currently prepare students to gain meaningful employment. In addition, keeping children in school is viewed as important in reducing drug abuse in youth.

  One suggestion for a way that Johns Hopkins can be involved in promoting education is by using staff and students to do in-school programs that make health and science careers interesting. An example is having the “spit doctor” create a CSI-style lab program that involves oral hygiene messages. Increasing education was considered an important part of a life course and long-term strategy to improve health outcomes.

- **Employment**

  The importance of employment and meaningful job opportunities were discussed by 14 interviewees, including members of JH staff, public health experts, elected officials and community organization representatives. A concern raised about the high level of unemployment in the community was that children in the community lack role models because the adults in their lives do not have jobs. Another reason employment is perceived to be important to improving the health of residents in the community is that people are unable to prioritize their health until they are stable financially. Additionally, insurance is often a benefit of employment; therefore, higher employment rates more likely lead to fewer people without insurance coverage.

Suggestions about increasing employment rates in the CBSA included focusing on workforce development, especially in youth. One interviewee would like to see career counseling linked to actual jobs at Johns Hopkins. Another suggestion mentioned by several interviewees was to create career ladders of opportunity for people in the community. The concept of living wage jobs was also discussed as important to improving health. A specific employment concern in the CBSA was addressing employment opportunities for formerly incarcerated persons. Also, economic redevelopment in the community is considered important to creating opportunities for employment. However, economic development should be done in a way that minimizes displacement of residents and includes housing for low-income individuals.

Baltimore Recovery Corps was given as an example of a successful program of intensive training for persons with at least two years of recovery from substance abuse that teaches life skills and provides community health worker jobs.

- **Housing**

  Ten interviewees, including JH staff, public health experts and elected officials, discussed housing as a community need. Concerns consisted of the cost of housing as well as the availability and quality of housing in the CBSA. One concern is that housing has been eliminated but has not yet been replaced with low-income housing options. Another related concern is the long waiting lists for subsidized housing. Gentrification was also mentioned as a trend in the CBSA that pushes vulnerable populations out of the area. Housing was considered a significant concern for persons with mental health conditions.

- **Poverty**

  Poverty was discussed as a very important factor that affects health in the CBSA. It was discussed by 11 interviewees, including JH staff, public health experts, elected officials and community organization representatives. Poverty is known to significantly increase individuals' risk for many health conditions and is, therefore, important to consider with relation to addressing health needs. Poverty makes it difficult to make health a priority and also prevents people from being able to afford health care services.

Focus Groups

Eight focus groups were held over a 10-day period from June 5 to 15, 2012. Seven of the groups were facilitated in English by a consultant from Carnahan Group, and one focus group was facilitated in Spanish by a Johns Hopkins graduate student contracted by Carnahan Group. There were 42 participants in the eight focus groups. Focus groups were designed to bring together multiple persons with common traits to discuss health issues and solutions. In order to gather insight from multiple perspectives in the community, focus groups were conducted with the following groupings: residents representing Spanish-speaking Latinos, Hispanic providers, faith-based organizations, neighborhood associations, nonprofit organization members and physicians that serve residents in the CBSA. Participants included health care providers, community-based organization members, clergy and other community members.

Demographic Data of Focus Group

Almost half (19) of the focus group members live in the CBSA, while the remaining 23 focus group members worked in or around the CBSA. There were slightly more female (62%) focus group participants than male focus group participants (38%). The most common race for focus group attendees was black (38%), followed by white (31%), unknown (17%), other (9%) and Asian (5%). The most common ethnicity of group attendees was non-Hispanic (64%) followed by Hispanic (29%) and unknown (7%).

Figure 18 – Sex Distribution of Focus Group Members

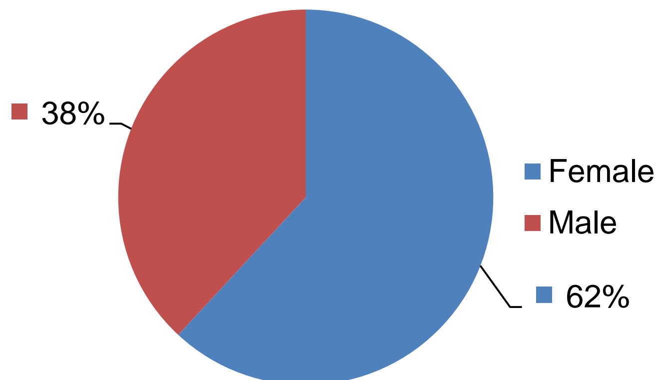


Figure 19 – Race of Focus Group Members

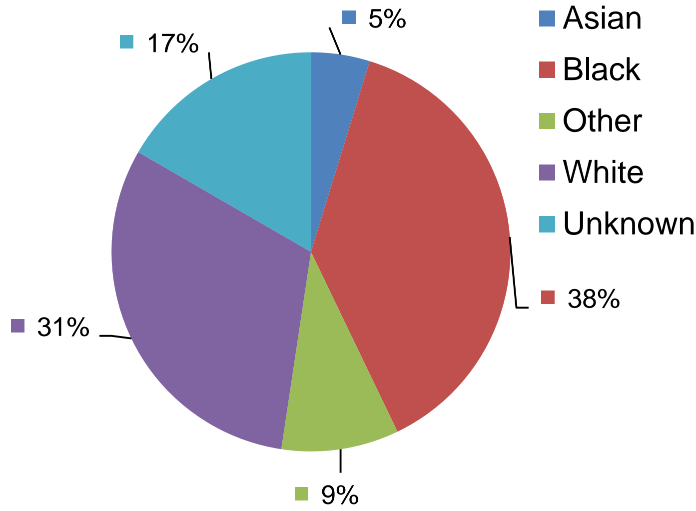
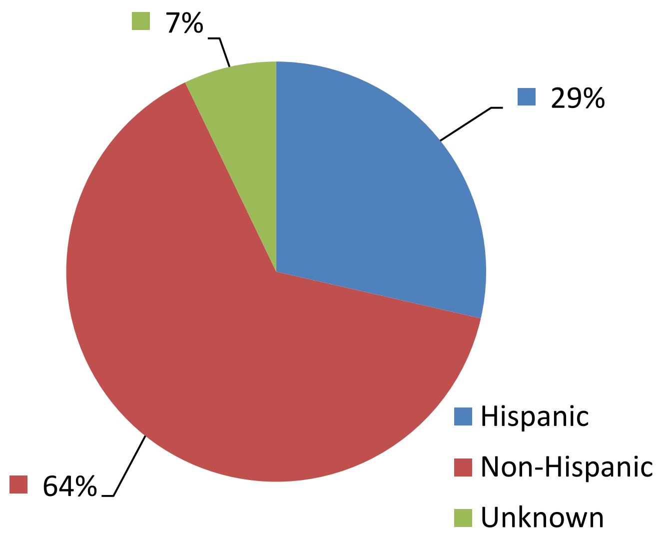


Figure 20 – Ethnicity of Focus Group Members



Focus group members represented persons of all ages. The youngest member was 19 and the oldest was 67. See the table below for a summary of the ages of participants.

Table 44 – Age of Focus Group Participants

Age Group	Focus Group Members
18–44	16
45–64	20
65 and over	3
Unknown	3
Total	**42**

The income of focus group attendees is higher than the income of persons in the CBSA (see Table 28 for CBSA income distribution). The majority of focus group attendees make $50,000 or more a year. This difference is most likely explained by the inclusion of physicians and other health care and community leaders.

Table 45 – Income of Focus Group Participants

Income	Focus Group Members
Less than $25,000	6
$25,000–$49,999	3
$50,000–$74,999	8
$75,000–$99,999	7
$100,000–$149,999	5
More than $150,000	8
Unknown	5
Total	**42**

Thirty-three of the 42 focus group attendees had a college degree or higher. Again this reflects the inclusion of physicians, health care professionals and other leaders in the community.

Table 46 – Education of Focus Group Participants

Education Level	Focus Group Members
Less than High	1
High School	2
Some College	5
College Grad	10
Grad School	23
Unknown	1
Total	**42**

The results of the focus groups have been analyzed by theme and reported in aggregate. The data is qualitative in nature and should be interpreted as reflecting the values and perceptions of the attendees. This portion of the CHNA process was designed to gather input from persons who represent the broad interest of the community serviced by the hospital facility.

Health Issues Identified by Focus Group

The most commonly discussed health issues identified by focus group members are presented in this section. The health issues are presented in alphabetical order for organizational purposes only and do not reflect a ranked priority.

- **Asthma**

  Asthma was a commonly mentioned health concern in the focus groups; however, this issue was not generally discussed in depth. Factors that concerned focus group members that contribute to asthma were the quality of housing, especially the presence of pests, such as roaches and mice, and environmental air quality, specifically the fumes from buses at bus depots that are located within communities.

- **Cancer**

  Cancer was a health concern discussed in three of the focus groups, but was not discussed by any participant in depth. The only specific types of cancers mentioned were prostate and colon cancer. Concerns around cancer included exposure to contaminants related to the industrial history of some neighborhoods and exposure to fumes around bus depots.

- **Cardiovascular Disease**

  Cardiovascular disease was one of the most frequently discussed health issues in the focus groups and was discussed in all eight focus groups. The specific aspects of cardiovascular disease discussed by the participants were high blood pressure, high cholesterol, heart problems and stroke. Some community members perceive that blood pressure screenings are important for the community because these events have been well attended and identified residents that did not know they had high blood pressure and were at risk for heart disease. In addition, a professional that does blood pressure screenings in the community reported that community members have thanked her and let her know that they started seeing a physician based on the results of the screening. There is also concern that there is premature death (deaths that can be prevented) from heart disease in the CBSA.

  Two major approaches to reducing the amount of cardiovascular disease in the community were suggested by community members. First, participants believe that more education about high blood pressure, cholesterol and heart disease risk factors is needed in the community. The important elements of education discussed were diet, exercise, stress reduction, risk factors and disease management. A specific concern was that community members may not be aware of the risk of heart disease in children and teens. The second approach to reducing cardiovascular disease discussed by focus group participants was to focus on prevention designed to promote a healthy weight for residents in the community. There was extensive discussion of addressing lifestyle factors, including increasing exercise and healthy diets. Addressing exercise and diet involves many complex factors, including accessibility, affordability and personal safety. (See Obesity section below for more information on diet and exercise.)

- **Diabetes**

  Diabetes was another common health concern mentioned in all eight focus groups. Focus group members expressed that it is a high priority to address diabetes in youth and in the African American community. Long-term disabilities that result from diabetes including vision loss and amputations were discussed. To address diabetes in the community, participants suggested screenings, health education and lifestyle changes. Similar to cardiovascular disease, diabetes was considered to be a potential consequence of being overweight or obese and strategies that

focus on diet and exercise were suggested to lower the risk of diabetes in the community. (See Obesity section below for more information on diet and exercise.)

- **Health Care (Access and Affordability)**

  Access and affordability of health care were common themes in the discussions of addressing health in the CBSA. The affordability of health care was a top priority for focus group participants. For persons without insurance, the cost of medical services and medications can deter people from seeking care. Another perception was that persons without health insurance are more likely to wait until they have a serious problem at which point they go to the Emergency Department (ED) for care. This concerned the focus group members because it means that people are not addressing preventable problems and potentially have worse outcomes. There is also concern that the EDs are not able to provide the highest quality of care because of long wait times and their use as primary care.

  For persons with health insurance, focus group members gave general and personal examples of the expenses involved with multiple copays for prescriptions and to see specialty care doctors. For the working poor and persons on fixed incomes, even small copays for medications can prevent people from filling their prescriptions.

  There were also substantial concerns about access separate from cost. The perception is that there is a primary care provider shortage in the CBSA. The issue of a primary care shortage is believed to reflect the national trend of too few primary care providers. Various ideas were discussed to help address the lack of primary care providers. First, clinics should start using more physician assistants and nurse practitioners. Second, participants would like to see more recognition and professional respect for primary care doctors, so that more physicians will choose to practice primary care. Also, some focus group members would like to see strategic placement of primary care providers in the community.

  Access to specialty care was also discussed by focus group members in most of the focus groups. The Access Partnership (TAP) was mentioned frequently as a positive and successful program that addresses the need for persons without insurance to access specialty care.

Focus group members discussed several barriers that prevent residents in the CBSA from accessing health care services.

- **Clinic Appointments**

  Difficulties for residents in making and keeping appointments were expressed in the focus groups. There are systemic issues where referrals do not get routed properly and patients have a hard time making appointments for themselves when this happens.

  Once an appointment is made, different specialty clinics have unique cancellation policies and it is not necessarily always communicated to the patient. Even if the cancellation policy is explained to residents in the CBSA, the rigidness of these policies, such as a two strikes policy after which patients can no longer access a clinic, is difficult for residents to abide by based on social and economic factors. Consequently, physicians run out of specialists to send a patient to, because the specialists will not see patients that have violated their cancellation policy.

  In addition, the hours when clinics are open are generally during the times that most people are at work. For working individuals, an inability to leave work to see a health care provider was listed as a barrier.

  Solutions to the issues with scheduling appointments included creating health navigators to assist patients in making and keeping appointments as well as extending clinic hours.

- **Qualifying for Programs**

  The ability for persons to successfully qualify for assistance programs was a commonly discussed barrier to accessing health. The criteria to qualify for assistance are difficult for people to navigate. Some people who qualify may not be able to produce enough documentation, while others may be just outside of the income or geographic guidelines to obtain services. The perception is that many people in the role of qualifying persons

for benefits are adversarial rather than acting as advocates. Reapplication for benefits is considered to represent the same difficulties that initial application does.

Focus group members had many ideas to make it easier for persons to get the assistance for which they qualify. Support personnel, such as social workers or community health workers, are seen as crucial to signing people up for services. Adding personnel who can help people qualify for services in the waiting room was an idea to increase people's access to programs. This is even more important for vulnerable populations, including seniors and persons who do not speak English. Training for persons who determine eligibility to ensure that they are culturally competent and proficient in customer service skills was also recommended.

- **Health Literacy and Education**

  Health literacy and education was one of the most commonly discussed issues that affects health care in the CBSA and was discussed in all eight focus groups. The perception among focus group members is that many people in the community would benefit from education about health concerns, including eating properly when one has been diagnosed with high blood pressure or diabetes, as well as general health education about the body.

  Focus group members had many ideas about how to deliver health messages. They identified the need to repeat health messages multiple times. Websites, brochures and flyers were considered insufficient to provide meaningful education. One idea that is currently being used and could be expanded is the use of nursing, medical and public health students to provide health education to low-literacy patients in clinical settings. Additionally, university students are involved in peer health education programs in community area schools. Several focus group members stressed the importance of one-on-one education and suggested door-to-door grassroots style education, direct physician patient education and use of community health workers who can "translate health into people's home environment." Another idea was to increase education in

waiting rooms of clinics either through use of educational television programs or by having community health workers providing education in the waiting rooms.

- **Health Insurance**

  Lack of health insurance is one of the main barriers to access and was discussed in all eight focus groups. When persons do not have health insurance, health care is often too expensive for them to access and simply the fear of the expense of health care may prevent people from getting the services they need. Improving access to jobs is considered one way to increase the number of people with insurance. Providing assistance to persons applying for health insurance so that people who qualify receive the services was another idea for improving access to insurance and, therefore, health care.

  The Access Partnership (TAP) was seen as very beneficial to residents who qualify to ensure that they are able to receive specialty care.

- **Transportation**

  Transportation was discussed as a barrier to accessing health care, buying groceries and the ability to exercise. Transportation for persons in poverty is expensive in terms of both money and also the additional time it takes to get to appointments. Focus group members suggested transportation assistance to help address this barrier.

- **HIV/AIDS**

  HIV/AIDS was a high priority for some focus group members, but was only mentioned in four of the eight focus group sessions. The loss associated with HIV/AIDS was mentioned as a contributing factor to the grief and trauma experienced by members of the community. HIV/AIDS was listed as a very high priority for African American members of the community and a high priority for the Latino community. HIV/AIDS was also discussed in relationship to substance abuse where HIV is often a consequence, and substance abuse can reduce HIV medication adherence.

- **Maternal Child Health**

  Focus group participants discussed prenatal care and pregnancy as a health concern in the community; however, it was not mentioned as often as other health concerns and rarely listed as a top health priority. Maternal child health themes were present in five of the focus groups. Teen pregnancy was considered to be a health concern by several participants. Healthy Start was discussed as an excellent program that addresses maternal child health concerns by focusing on risk reduction in pregnant women by improving women's health between pregnancies.

- **Mental Health**

  Mental health was one of the most commonly discussed health concerns in the focus groups and was often mentioned as a top health priority for the community. The trauma, violence and grief experienced by community members was considered to be an important part of understanding the mental health needs of CBSA residents. Both lay and medical focus group members pointed to a need for improving coping skills among community members to address mental health concerns. For this reason, social workers were discussed as an important piece of addressing mental health in the community by serving as a bridge to get community members into mental health services.

  Several subpopulations of the community were mentioned as having specific mental health needs. The Latino focus group members would like to see mental health services designed for Latinos. Similarly, African American focus group members discussed that mental health programs are not culturally sensitive to racial and cultural differences and rely on a Eurocentric model. Mental health services designed to meet the needs of seniors were also a concern of focus group members.

- **Obesity**

  Obesity, including childhood obesity, was commonly mentioned as a priority health concern in the focus groups. Obesity was often discussed with regard to its relationship to food choices and lack of physical activity, which will each be described in greater detail below.

Health education is one way focus group members would like to see obesity addressed. One insight some focus group members had was that one-on-one education for weight loss is important to ensure that individuals understand that a message applies to them.

Poverty was also seen as a contributing factor to obesity because it is hard for people to prioritize healthy weight management or weight loss when they have basic needs that are not being met.

- **Exercise**

  Focus group members felt that exercise was an important factor in improving the health of residents in the community, and they discussed several reasons that residents might not exercise. The most common factor affecting people's ability to exercise was safety. Safety is a concern for many people because they do not feel safe walking in their neighborhood. One suggestion to encourage people to walk and help them feel safer doing so is to organize neighborhood walking groups.

  Safe exercise options for older residents were a specific concern raised by one focus group member. Residents on low fixed incomes generally do not have enough money to pay for a gym membership. One solution mentioned was to add safety equipment to community pools, for example in Patterson Park, and designate a certain time of day for older residents and persons with disabilities.

  Focus group members were also interested in promoting exercise in children. One focus group member was impressed by the gym area for children at the new JHH Zayed-Bloomberg towers because it encourages exercise. Concern was raised by one focus group member that children play in the streets because there is a lack of safe green spaces in the community. One recommendation to increase physical activity in children is to make sure that there is physical education in the school.

- **Nutrition**

Healthy diets and access to affordable fresh produce was a common theme in the focus groups and was discussed repeatedly. For some focus group members it was the most important health need in the community.

Focus group members felt that it was less expensive to eat unhealthy foods than healthy foods, and that the poverty in the community is related to poor eating habits. The perception is that many people in the community regularly eat a lot of fried foods, specifically chicken boxes and often pair that with “half and half” – half iced tea, half lemonade. Focus group members stressed that there are not many choices for fresh food in the Community Benefit Service Area; often they have to leave the area in which they live or work in order to obtain healthy food. However, for persons with limited transportation or resources, they may not have the ability to leave the area for better food choices. Another participant explained that even when there is fresh produce at a corner market, the quality is often so poor people are not likely to buy it.

Focus group members were concerned that people do not know how to choose healthy foods or how to prepare fresh vegetables. One focus group participant explained that it can be confusing to know how to choose healthy foods because the recommendations for specific foods, such as eggs, have changed over time. Another concern in relation to high blood pressure was that people are not aware of how much sodium is in processed food.

Focus group members that work with older residents explained that due to fixed incomes, some older residents do not have enough money for things such as rent, medical expenses and food, which leads to them not eat regularly at the end of the month. Another problem for seniors is that if they do not have transportation they rely on neighbors to bring them food, and the neighbors may only bring unhealthy options. A suggestion to help with this concern was to incorporate communal meals into subsidized housing. Additionally, having people together for a meal was considered a venue to deliver health education and messages, which could include cooking demonstrations. Another suggestion was to build on intergenerational cooking

programs that bring together middle school students and seniors, and allow seniors to pass on their knowledge to the youth in the community. A related suggestion was to create community kitchens, possibly associated with recreation centers, for cooking education and programs.

Several focus group members felt it was important that children learn to make healthy food choices, and they thought that schools should be involved. Home economics classes that teach youth how to cook were discussed as a step to ensuring teens know how to prepare food.

Community health workers were mentioned as having an important role in educating the community about healthy foods. The community health workers could teach people to make healthier choices at stores or markets where produce is available. They could also help educate people about healthy food preparation in the context of their home environment.

- **Substance Abuse and Addiction**
  Substance abuse, including alcohol, narcotics and other drugs, was considered to be a high priority concern in the community and mentioned in all eight focus groups. One focus group member discussed the perception that criminals are drawn to where there are drug treatment programs because they take advantage of persons in recovery. However, drug treatment programs were still considered to be very important in addressing substance abuse. Prostitution was discussed as a consequence of substance abuse that can also lead to increased STIs. Substance abuse was also mentioned as a contributing factor to HIV/AIDS infections because people share needles in “shooting galleries.” In general, the Latino focus group discussion of substance abuse focused on alcohol use.

  Note: There was no discussion of the model of buprenorphine drug treatment in primary care settings (see page 72 for information) in any of the focus groups, which may reflect that the community is not aware of this drug treatment model.

Social Determinants of Health Identified by Focus Group

Focus group members identified several social determinants that affect the health of the community.

- **Employment**

  Lack of employment opportunities was identified as a factor that influences community residents' health and was discussed in seven of the eight focus groups. Unemployed persons often do not have access to, or cannot afford, health insurance, which is seen as a substantial barrier to using health services. In addition, unemployment was considered to contribute to stress, which affects both physical and mental wellness. Lack of employment opportunities was also mentioned by community members as a contributor to the high levels of violence in the community.

  Johns Hopkins is viewed as an organization that employs a substantial percentage of people in Baltimore City and is also noted for employing previously incarcerated individuals; however, focus group members feel that Johns Hopkins can do more to employ people from the area it serves. Focus group members would like to see more opportunities for community health workers and certified nurse assistants as a first step in creating a job ladder for people in the community.

- **Legal Status**

  In the Latino focus groups, legal status was considered a barrier to receiving health care or prescriptions. Latinos discussed providing documentation in order to access health care benefits as a barrier to receiving health care, even in instances where the individual is a U.S. citizen. One focus group member discussed personal difficulties in obtaining insurance or prescription assistance for her child because of this, even though the child was born in the United States. When a CBSA resident is an undocumented person, receiving services is challenging because legal documentation is necessary to qualify for some health and prescription medication services.

- **Race**

  Race was considered to be an important factor that influences health for residents of the CBSA. The perception is that race influences major decisions in the city as to where businesses locate,

where transportation is available and the presence of police. Concerns were raised that the leadership of institutions in East Baltimore does not represent the community (i.e., there is not enough African American leadership).The importance of identifying white allies in positions of power was also discussed. Race was also considered a barrier to health care due to discrimination of providers on one side and the historical distrust by African Americans of medical institutions, in general, and Johns Hopkins, specifically, on the other. Latinos also discussed themes of discrimination in accessing health care.

- **Poverty**

  Poverty was one of the most commonly discussed themes in the focus groups and was seen to affect health concerns in numerous ways. The high cost of health care, medications and insurance coupled with a lack of resources is a substantial barrier to persons accessing health care. Even for persons with health insurance, the copays for services, specialists and medications can prevent people from accessing health care services. Simply the fear of expensive health care and the debt that would result may deter persons from accessing health services.

  In addition to having a direct impact on the direct use of health services, poverty was discussed extensively in relationship to people's ability to eat healthy foods. Persons on fixed incomes or without jobs are likely to buy the least expensive foods, which also tend to be the least healthy. The perception is that many people eat fried chicken because it is the food that is least expensive and most available, and those persons who eat fried chicken regularly are likely to experience health problems from poor diet.

  There was specific concern for seniors on fixed incomes who have to choose between paying for housing, food and health care. There were multiple examples given that seniors in poverty are not eating regularly at the end of the month when their food and money run out.

III. Selecting Priorities

A. Community Health Priorities

The overarching goal in conducting this Community Health Needs Assessment is to identify health needs perceived by the community as important and, consequently, to assess the comprehensiveness of JHH's strategies in addressing these needs. Although community health needs assessments can point out underlying causes of good or poor health status, health providers and health related organizations—primary users of information found in CHNAs—are not usually in a position to affect all of the changes required to address a health issue. For example, the ability to reduce poverty, improve educational attainment or affect employment cannot be achieved by a health system alone.

For the purpose of identifying health needs for JHH, a health priority is defined as a medical condition or factor that is central to the state of health of the residents in the CBSA. With this in mind, a modified matrix based on Fowler and Dannenberg's Revised Decision Matrix was developed to glean priorities from the primary and secondary data collected. This matrix is a tool used in health program planning intervention strategies, and uses a ranking system of "high," "medium" and "low" to distinguish the strongest options based on effectiveness, efficiency and sustainability, among others. As some of these categories did not directly apply to this portion of the CHNA, we tailored the matrix to serve our needs, listing health priorities and ranking them within the context of data collected.

An exhaustive list of health concerns was compiled based on the health profile, surveys, interviews, focus groups and discharge data; other sources were taken into account when applicable, for example, the Maryland State Health Improvement Process (SHIP) measures, Baltimore City's Healthy Baltimore 2015, and a PowerPoint presentation given by the chair of the Department of Medicine, Dr. Myron Weisfeldt. In total more than 300 individuals were consulted through interviews, focus groups and surveys. From the extensive list of health concerns mentioned across the multiple data sources, larger categories of health concerns were created. For example, high blood pressure and cholesterol, as well as other health issues related to the cardiovascular system, were collapsed into "cardiovascular disease." Additionally, those concerns that did not fall within the identified definition of a health priority, social determinants of health for example, were put aside to be discussed in conjunction with the health priorities that they aligned with.

For each data source, every health concern was assigned a rank of "high," "medium" or "low" taking into consideration the frequency of mention, perceived importance within the community and substantial differences in secondary data between the CBSA, Baltimore City and Maryland. Once the ranks were assigned in each data source category, a composite rank was selected taking into account all source ranks. Some health concerns had conflicting ranks across the multiple sources. The merits of the available data sources and the perceived importance of the health concern in the qualitative data were discussed by the Carnahan Group, Inc. team in order to develop a composite rank.

At this point, health needs falling in the "high" or "medium" rank were listed as health priorities, and health concerns falling within the "low" category were eliminated due to lack of substantive supporting evidence.

The 10 health priorities on this list include asthma, cancer, cardiovascular disease, diabetes, health care, maternal child health, mental health, obesity, infectious disease and substance abuse and addiction. For the sake of continuity with the previous sections of the CHNA, these needs are ordered alphabetically. A description of community resources which address the identified health priorities can be found in Appendix F: Community Health Care Resources.

- **Asthma**

  Asthma rates are substantially higher in Baltimore City than in Maryland.

  In Baltimore City, black or African American children are nearly six times as likely to develop asthma compared to white children.

  Focus group members discussed asthma as a health concern, particularly the quality of housing, referencing pests such as roaches as common triggers of asthma symptoms.
  JHH discharge data for the CBSA from the 2011 Fiscal Year report that treatment for pulmonary problems was the most common reason for hospitalizations. Asthma accounted for 241 discharges.

  Two interviewees brought up asthma as an important health concern.

- **Cancer**

  Cancer is the second leading cause of death in CBSA as well as in Baltimore City and Maryland.

  There were 6,901 JHH outpatient discharges attributed to cancer screenings or treatment, making cancer the top reason for patient visits in the 2011 Fiscal Year.

  More than one-third of participants in the East Baltimore Medical Center Community Health and East Baltimore Community Health Telephone Surveys reported cancer as a serious health concern in the community.

  Cancer was discussed by three interviewees and in three focus groups as an important health concern.

- **Cardiovascular Disease**

  Included in the cardiovascular disease (CVD) category are hypertension, stroke, heart disease, congestive heart failure and smoking, as this behavior contributes to an increase in cardiovascular disease.

  Heart disease is the leading cause of death in Maryland, Baltimore City and each of the CBSA ZIP Codes.

  In Baltimore City, black or African American residents are more likely to die from cardiovascular disease compared to white residents.

  The percentage of adults who reported smoking was 10% greater in Baltimore City than in Maryland.

  The density of stores that sell tobacco products is slightly higher in the CBSA than in Baltimore City.

The third most common type of discharge for CBSA residents in the 2011 Fiscal Year at JHH is "Medical Cardiology," which refers to various heart-related illnesses.

Sixty percent of East Baltimore Medical Center Community Health Survey participants reported smoking, a risk factor for CVD, as a serious health concern. High blood pressure/stroke was mentioned as a serious problem in the community by 45% of participants.

In the East Baltimore Community Health Telephone Survey, high blood pressure/stroke and smoking were reported as serious concerns in the community by 53% and 45% of respondents, respectively.

Cardiovascular disease was a common theme in all eight focus groups, and was mentioned by various community leaders in the key informant interviews who felt that improving cardiovascular rates should be a priority within the community.

- **Diabetes**

  Diabetes is the fifth leading cause of death in the CBSA, which has a higher death rate (3.9 per 100,000) than Baltimore City (3.5 per 100,000) and Maryland (2.0 per 100,000).

  Hospitalization rates for black residents are substantially higher than white residents for both Type 1 and Type 2 diabetes.

  Forty-five percent of East Baltimore Community Health Telephone Survey respondents consider diabetes/sugar levels a serious problem in the community.

  Focus group members felt a focus on reducing diabetes prevalence in youth and the African American community was important. Among commonly voiced concerns were complications resulting from poorly regulated diabetes, specifically vision loss and limb amputation.

Key informants, including public health experts, hospital leaders and politicians, discussed diabetes as a priority issue in the community, particularly in minority populations, including Native Americans and Latinos.

- **Health Care (Access and Availability)**
  Lack of primary, preventive, and specialty care services, medication cost and access to medication, and high cost of health care are included in the health care access category.

  Disparity data indicate that race, education level and socioeconomic status are contributing factors to unmet health needs due to a lack of access or availability in Baltimore City. Also, residents in the CBSA are more likely to have a high school degree or less compared to residents in Maryland. Median household income is substantially lower, while unemployment and poverty rates are substantially higher in the CBSA than in Maryland.

  Among East Baltimore Medical Center Community Health Survey participants, 57% reported that the cost of health care is a serious health concern.

  Forty-two percent of East Baltimore Community Health Telephone Survey respondents feel that affordable health care is a serious problem in the community.

  Focus group participants discussed health care access as a priority issue. They voiced concerns about the cost of services and medications, office hours and habits of those without insurance who are often deterred from seeking services until their condition becomes serious because of cost.

  Lack of health care access contributes to more serious health issues in the community, many of which could be prevented.

  Emergency Department services are used by many uninsured individuals and, due to the high volume of patients seeking primary care leading to long wait times, focus group members perceive quality of care in emergency departments as lower than physician offices.

Specific service shortages were mentioned in both focus groups and key informant interviews, including specialty care, primary care (due to lack of specialized physicians), inexpensive medication pharmacy locations and options for undocumented populations.

- **Infectious Diseases**

  Included in the infectious disease category are HIV/AIDS, chlamydia, gonorrhea and syphilis.

  Baltimore City accounts for approximately half of the primary and secondary syphilis cases reported in the state of Maryland, and the rate of this infection is five times the Maryland rate.

  The rate of gonorrhea in Baltimore City is three times the Maryland rate, and the chlamydia rate is four times the Maryland rate.

  Substantial infectious disease rate disparities were found in males compared to females and blacks compared to whites. Youth gonorrhea and chlamydia rates in Baltimore City are also substantially higher among black residents compared to white residents.

  Asymptomatic HIV infection is the eighth most common reason residents in the CBSA visit the JHH outpatient clinic.

  The prevalence of HIV in Baltimore City is roughly three times the rate in Maryland.

  HIV/AIDS was mentioned in four focus groups, and those who discussed it felt it was a high priority, particularly for black and Latino community members.

  A strong relationship between substance abuse and HIV/AIDS incidence, as well as medication noncompliance, was perceived by community members.

  Various health professionals and hospital and community leaders discussed infectious diseases, placing an emphasis on HIV/AIDS and the health disparities associated with infectious disease rates.

- **Maternal and Child Health**

  Included in the maternal and child health category are low birthweight, infant mortality, teen pregnancy rates and prenatal care.

  The birth rates and teen birth rates in the CBSA are higher than in Baltimore City and in Maryland. Teen birth rates in Baltimore City are substantially higher among black or African American residents compared to white residents.

  Low birthweight in the CBSA (13.5%) and in Baltimore City (12.8%) are substantially higher than in Maryland (8.8%).

  Teen pregnancy was mentioned as a serious health concern by 51% of East Baltimore Medical Center Community Health Survey participants.

  Several focus group members mentioned teen pregnancy as a health concern in the community.

  Prenatal care, low birthweight, teen pregnancy and infant mortality rates were discussed by interviewees.

- **Mental Health**

  Mental health issues within this category include adult mental health, availability of culturally sensitive treatment, depression and emotional trauma.

  Mental health care needs are more likely to be unmet in Baltimore City among black or African American residents compared to white residents. People with a high school education or less are more likely to have unmet mental health needs compared to people with a bachelor's degree or higher.

  Affective psychoses (major depression and bipolar disorders) are the most common reason residents in the CBSA visit the JHH outpatient clinic.

Development of coping skills to deal with trauma and grief resulting from violent crimes and other occurrences that affect the mental health status of community members was a component of discussions within focus groups.

A lack of mental health services designed to meet the cultural differences within the Latino and African American populations was perceived as a barrier.

Nineteen public health experts, hospital leaders, politicians and community organization members discussed mental health as a priority in the CBSA. While JHH has a community psychiatry program, many individuals perceive a need for additional services due to high demand.

A strong relationship between substance abuse and mental illness in the community was discussed by interviewees.

- **Obesity/Overweight**

  According to the World Health Organization, obesity (BMI≥30) and overweight (BMI=25-29.9) refer to abnormal or excessive fat accumulation.

  In Baltimore City, 31% of adults reported a BMI greater than or equal to 30, compared to 28% in Maryland.

  Obesity/overweight is a health condition contributing to the development of cardiovascular disease and diabetes. In The Johns Hopkins Hospital's CBSA, Baltimore City and Maryland cardiovascular disease is the leading cause of death. Diabetes ranks in the top seven in the CBSA, Baltimore City and Maryland.

  Baltimore City adults were more likely to report no leisure time physical activity (31%) compared to Maryland adults (24%).

In the East Baltimore Medical Center Community Health Survey, 48% of respondents listed obesity/overweight as a serious health concern in the community. When asked whether they eat fast food more than once a week, 87% of respondents answered “sometimes” or “always.”

Sixty percent of East Baltimore Community Health Telephone Survey participants said that obesity/overweight was a serious problem in the community. Additionally, 54% said “sometimes” or “always” when asked if they eat fast food more than once per week.

Obesity was discussed by the interviewees in the context of exercise and nutrition. The discussions centered on the lack of safe places to exercise, lack of grocery stores with healthy food and food deserts.

Focus group members expressed adult and childhood obesity as health concerns in the community. Poverty was mentioned as a contributing factor while health education was suggested as a solution. Access to safe places to exercise and healthy food were also mentioned as concerns in the community.

- **Substance Abuse and Addictive Behaviors**

  Access to substance abuse services, illicit drug abuse, alcohol abuse and high rates of substance abuse in the CBSA are included in this category.

  Drug-induced deaths of undetermined manner are the ninth leading cause of death in the CBSA and rank as high as fifth in one CBSA ZIP Code (21224).

  The fourth most common reason CBSA residents visit the JHH outpatient clinic is drug dependence.

  Substance abuse and addiction were mentioned as a serious health concern by 45% of East Baltimore Medical Center Community Health Survey participants.

Fifty percent of East Baltimore Community Health Telephone Survey respondents reported substance abuse and addiction as a serious problem in the community.

Substance abuse in correlation with other health concerns, such as HIV/AIDS (particularly in the IV drug user population), STIs and medication noncompliance, were mentioned in all eight focus groups.

Thirty-two of the interviewees discussed substance abuse, with an emphasis on the use of narcotics and IV drug use.

The lack of access to on-demand substance abuse treatment in the community, or services available within 24 to 48 hours of expressed need, was also discussed.

Adults in Baltimore City were more likely to report binge or heavy drinking compared to adults in Maryland.

Disparities in alcohol and drug-related Emergency Department discharges exist among black residents compared to white residents in Baltimore City.

B. Conclusion

The Johns Hopkins Hospital, since its opening in 1889, has been integrally connected to the health and well-being of the surrounding community. Over the past few decades, health care has changed, and the passage of the Affordable Care Act has created new challenges and opportunities for affecting health in the community. The approach taken by the Hospital has been to think of the CHNA as not an exercise in compliance but an opportunity to achieve measurable health improvements in our community.

The Community Health Needs Assessment (CHNA) marks a significant opportunity for the hospital to have a more coordinated approach to community health in Baltimore city. Upon approval by the Johns Hopkins Hospital's Board of Trustees, the JHH Implementation Strategy will help to guide the Hospital when considering processes and actions that can be taken to improve community health. Improving community health and reducing health disparities are important elements in the Hospital's mission to

"improve the health of our community and the world by setting the standard of excellence in patient care."

The ten health priorities that were identified through the CHNA are difficult and multifaceted health issues. There cannot be an expectation that any hospital can solve them alone but the efforts of the Johns Hopkins Hospital will have a significant impact. Progress in achieving improvements in the ten health priorities will be measured annually over the next three years, and the CHNA will be conducted again in three years, which will afford the Hospital an opportunity to reprioritize and reevaluate.

The Community Health Needs Assessment was completed in approximately eleven months with the help and cooperation of many people: community stakeholders, civic and government leaders, the state and city public health agencies, the faculty of the Johns Hopkins University, staff and leadership of the Hospital and Health System, and the staff of the Johns Hopkins Office of Government and Community Affairs.

IV. Appendices

Appendix A: JHH CHNA/IS Task Force

The Hospital's CHNA/IS Taskforce comprises senior leadership and staff from the Office of Government and Community Affairs and senior leadership from the Office of Medical Affairs, in collaboration with strategic health care consultants from the Carnahan Group. The task force is charged with completing a community health needs assessment and implementation strategy. The overall purpose of the assessment is to allow Johns Hopkins to clarify the health needs and determine the priorities of the community that it serves. The Community Health Needs Assessment is completed every three years for regulatory compliance and for our planning purposes.

Team Members for JHH CHNA/IS Task Force include the following:

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Appendix B: Community Health Outcome Data

Appendix B1: Age Group Mortality Rates by Neighborhood

Life Expectancy and Mortality Statistics by Neighborhood, 2005 to 2009

Neighborhood	ZIP Code	Life Expectancy at Birth (years)	Age-Adjusted Mortality*	Total Annual Years of Potential Life Lost (YPLL)*
Downtown/Seton Hill	21202	63.9	238.1	1511.1
Greenmount East	21202	65.9	144.2	2230.8
Jonestown/Oldtown	21202	71.4	112.7	1425.5
Midtown	21202	75.5	90.2	869.9
Claremont/Armistead	21205	72.3	118.1	1112.8
Madison/East End	21205	64.8	158.1	2266.5
Perkins/Middle East	21205	68.2	129.3	1860.0
Cedonia/Frankford	21206	71.9	119.0	1242.8
Hamilton	21206	74.3	99.8	968.9
Lauraville	21206	74.3	102.1	1043.0
Belair Edison	21213	70.9	118.1	1481.1
Clifton-Berea	21213	64.9	141.9	2422.8
Greater Charles Village/Barclay	21218	72.7	113.4	862.0
Greater Govans	21218	73.9	95.8	1322.3
Midway-Coldstream	21218	63.7	155.0	2497.6
Northwood	21218	75.4	87.9	987.4
The Waverlies	21218	72.1	103.1	1421.0
Highlandtown	21224	74.0	113.7	780.8
Orangeville/East Highlandtown	21224	71.0	124.7	1267.8
Patterson Park North & East	21224	70.1	133.6	1310.7
Southeastern	21224	71.1	115.7	1525.9
Canton	21231	76.9	86.7	506.6
Fells Point	21231	74.3	110.4	798.8
Baltimore City	N/A	71.8	110.4	1372.3

Source: Baltimore City Neighborhood Health Profiles

* per 10,000 residents

Top 10 Causes of Death by CBSA ZIP Code, 2005 to 2009

21202			
Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	33.1	25.3%	14.9%
2. Cancer	25.2	20.1%	13.8%
3. HIV/AIDS	7.0	6.7%	11.8%
4. Stroke	5.8	4.3%	2.6%
5. Homicide	4.3	3.8%	11.0%
6. Diabetes	4.4	3.6%	2.4%
7. Chronic Lower Respiratory Disease	4.2	3.2%	2.1%
8. Drug-induced Deaths of Undetermined Manner	3.5	3.1%	5.8%
9. Injury	3.1	2.5%	4.3%
10. Septicemia	2.8	2.1%	1.6%

Source: Baltimore City 2011 Neighborhood Health Profiles

21205			
Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	33.3	23.8%	16.5%
2. Cancer	26.6	20.0%	14.6%
3. Homicide	6.0	6.0%	15.5%
4. Stroke	6.7	4.2%	2.1%
5. HIV/AIDS	5.0	4.0%	6.8%
6. Chronic Lower Respiratory Disease	5.2	3.4%	1.7%
7. Diabetes	4.6	3.3%	2.1%
8. Septicemia	4.4	3.2%	2.6%
9. Drug-induced Deaths of Undetermined Manner	3.7	2.9%	5.3%
10. Injury	3.1	2.5%	4.3%

Source: Baltimore City 2011 Neighborhood Health Profiles

21206			
Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	31.3	27.1%	15.3%
2. Cancer	25.2	22.5%	17.8%
3. Stroke	5.5	4.9%	2.5%
4. Chronic Lower Respiratory Disease	4.3	3.4%	1.0%
5. Diabetes	3.3	2.9%	1.5%
6. Homicide	2.8	2.9%	9.9%
7. Septicemia	2.9	2.5%	1.9%
8. Injury	2.6	2.4%	4.9%
9. Drug-induced Deaths of Undetermined Manner	2.1	2.2%	5.8%
10. HIV/AIDS	1.6	1.7%	3.8%

Source: Baltimore City 2011 Neighborhood Health Profiles

21213			
Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	29.8	22.5%	12.9%
2. Cancer	26.4	21.3%	13.8%
3. Homicide	7.0	6.4%	18.6%
4. Stroke	6.4	4.6%	2.4%
5. HIV/AIDS	4.3	3.6%	6.1%
6. Diabetes	3.9	3.1%	1.9%
7. Drug-induced Deaths of Undetermined Manner	3.5	3.1%	5.6%
8. Chronic Lower Respiratory Disease	4.0	2.9%	1.4%
9. Injury	3.0	2.7%	3.6%
10. Septicemia	3.2	2.4%	1.7%

Source: Baltimore City 2011 Neighborhood Health Profiles

21218			
Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	26.6	23.4%	15.3%
2. Cancer	22.9	21.0%	14.2%
3. HIV/AIDS	5.4	5.1%	10.2%
4. Stroke	5.5	4.7%	2.6%
5. Diabetes	5.0	4.4%	3.0%
6. Homicide	4.1	3.8%	12.6%
7. Septicemia	3.7	3.3%	2.2%
8. Drug-induced Deaths of Undetermined Manner	3.3	3.0%	6.5%
9. Chronic Lower Respiratory Disease	3.4	2.8%	1.6%
10. Injury	2.6	2.3%	4.5%

Source: Baltimore City 2011 Neighborhood Health Profiles

21224			
Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	35.1	27.2%	15.2%
2. Cancer	26.7	21.0%	16.6%
3. Chronic Lower Respiratory Disease	6.1	4.5%	2.0%
4. Stroke	4.6	3.5%	2.7%
5. Drug-induced Deaths of Undetermined Manner	3.7	3.5%	10.0%
6. Injury	3.7	3.2%	6.6%
7. Homicide	2.2	2.7%	9.3%
8. Diabetes	3.3	2.5%	1.6%
9. Septicemia	3.1	2.4%	1.7%
10. HIV/AIDS	2.1	2.1%	4.5%

Source: Baltimore City 2011 Neighborhood Health Profiles

21231			
Cause of Death	Rate (deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	25.7	25.6%	15.1%
2. Cancer	25.5	24.8%	17.6%
3. Chronic Lower Respiratory Disease	5.7	5.3%	1.8%
4. Stroke	4.2	4.6%	3.9%
5. Injury	3.1	3.5%	6.9%
6. Diabetes	2.9	2.9%	2.2%
7. Septicemia	2.9	2.7%	2.0%
8. Drug-induced Deaths of Undetermined Manner	2.0	2.5%	8.9%
9. Homicide	0.9	1.2%	5.8%
10. HIV/AIDS	0.8	0.9%	2.8%

Source: Baltimore City 2011 Neighborhood Health Profiles

Mortality by Age by Neighborhood, 2005 to 2009

Neighborhood	ZIP Code	<1 year*	1–14 years	15–24 years	25–44 years	45–64 years	65–84 years	85 and up
Downtown/Seton Hill	21202	9.5	1.5	13.5	44.4	114.7	430.0	1335.6
Greenmount East	21202	15.7	5.2	22.1	62.4	147.3	529.1	1506.1
Jonestown/Oldtown	21202	12.1	0.0	5.4	8.6	83.3	354.9	1284.8
Midtown	21202	11.5	0.0	9.5	18.6	106.8	480.1	1126.0
Claremont/Armistead	21205	4.4	4.8	14.4	23.9	95.1	314.5	1317.6
Madison/East End	21205	16.7	3.2	12.8	26.6	81.9	366.4	1350.2
Perkins/Middle East	21205	8.8	1.7	26.4	53.0	139.2	550.1	1193.0
Cedonia/Frankford	21206	12.5	0.0	4.4	4.7	80.2	370.6	1605.3
Hamilton	21206	18.8	9.3	16.3	61.9	179.6	472.0	1579.8
Lauraville	21206	17.9	10.1	13.6	27.8	128.8	410.3	1434.3
Belair Edison	21213	19.4	2.6	17.6	33.7	87.4	354.4	1761.9
Clifton-Berea	21213	16.8	1.7	13.4	20.3	124.2	537.1	1219.5
Greater Charles Village/Barclay	21218	12.9	2.4	7.1	24.9	88.4	302.9	1172.7
Greater Govans	21218	10.6	0.0	3.1	13.9	119.9	505.4	1269.5
Midway-Coldstream	21218	14.8	0.0	2.2	18.3	111.7	342.1	1070.3
Northwood	21218	12.0	0.0	0.8	9.4	57.1	256.0	1258.0
The Waverlies	21218	11.1	7.8	23.4	60.9	191.0	627.2	1240.2
Highlandtown	21224	4.8	1.0	7.9	22.2	70.3	361.4	1700.9
Orangeville/East Highlandtown	21224	1.1	0.0	5.5	37.7	96.4	262.6	1326.8
Patterson Park North & East	21224	8.8	4.3	8.2	31.8	144.9	493.5	1568.4
Southeastern	21224	8.6	8.1	2.7	9.1	100.5	593.4	1761.2
Canton	21231	6.0	6.8	15.3	40.3	143.5	471.1	1632.0
Fells Point	21231	7.1	4.1	11.1	42.1	141.2	400.3	1132.4
Baltimore City	N/A	12.1	1.8	28.9	43.6	115	489.9	1333.3

Source: Baltimore City 2011 Neighborhood Health Profiles

Rates are deaths per 10,000 residents in that age group

* Infant mortality rate (IMR); Infant deaths per 1,000 live births

Rates are annual averages for 2005–2009

Appendix B2: Maternal and Child Health

Births and Infant Mortality, 2005 to 2009

Neighborhood	ZIP Code	Birth Rate (live births per 1,000 persons)	Teen Birth Rate (live births per 1,000 persons)*	Infant Mortality Rate (per 1,000 live births)
Downtown/Seton Hill	21202	11.3	76.1	9.5
Greenmount East	21202	17.7	108.7	15.7
Jonestown/Oldtown	21202	16.3	92.0	12.1
Midtown	21202	6.3	6.3	11.5
Claremont/Armistead	21205	16.4	60.2	4.4
Madison/East End	21205	25.8	121.5	16.7
Perkins/Middle East	21205	15.3	98.0	8.8
Cedonia/Frankford	21206	16.7	66.0	12.5
Hamilton	21206	13.4	54.9	18.8
Lauraville	21206	12.3	41.1	17.9
Belair Edison	21213	17.2	66.2	19.4
Clifton-Berea	21213	18.3	102.8	16.8
Greater Charles Village/Barclay	21218	9.3	13.6	12.9
Greater Govans	21218	15.8	68.3	10.6
Midway-Coldstream	21218	18.3	95.8	14.8
Northwood	21218	10.0	21.6	12.0
The Waverlies	21218	14.0	75.9	11.1
Highlandtown	21224	18.9	69.0	4.8
Orangeville/East Highlandtown	21224	20.5	131.3	1.1
Patterson Park North & East	21224	20.7	92.0	8.8
Southeastern	21224	18.1	68.0	8.6
Canton	21231	12.6	69.8	6.0
Fells Point	21231	15.4	133.3	7.1
Baltimore City	N/A	15.4	65.4	12.1

Source: Baltimore City 2011 Neighborhood Health Profiles

* 15–19 year olds

Maternal Care

Neighborhood	ZIP Code	Live Births w/Inadequate Spacing	Women Receiving Prenatal Care in 1st Trimester	Births to Women Who Reported Smoking While Pregnant
Downtown/Seton Hill	21202	6.8%	79.5%	9.6%
Greenmount East	21202	15.2%	66.5%	11.6%
Jonestown/Oldtown	21202	14.1%	78.0%	9.0%
Midtown	21202	10.1%	83.8%	5.1%
Claremont/Armistead	21205	8.9%	74.8%	13.3%
Madison/East End	21205	13.4%	72.6%	13.4%
Perkins/Middle East	21205	18.6%	70.0%	8.6%
Cedonia/Frankford	21206	15.2%	77.4%	8.1%
Hamilton	21206	11.5%	82.8%	3.4%
Lauraville	21206	14.5%	80.1%	5.3%
Belair Edison	21213	15.1%	74.9%	10.4%
Clifton-Berea	21213	18.2%	71.8%	12.2%
Greater Charles Village/Barclay	21218	13.7%	77.1%	6.5%
Greater Govans	21218	24.3%	75.7%	10.7%
Midway-Coldstream	21218	14.2%	69.3%	10.2%
Northwood	21218	13.9%	76.5%	3.6%
The Waverlies	21218	13.8%	67.9%	6.4%
Highlandtown	21224	15.3%	78.8%	2.9%
Orangeville/East Highlandtown	21224	11.8%	74.9%	11.8%
Patterson Park North & East	21224	14.3%	73.4%	8.6%
Southeastern	21224	12.4%	74.3%	14.2%
Canton	21231	11.8%	91.2%	2.9%
Fells Point	21231	10.8%	83.5%	2.2%
Baltimore City	N/A	15.1%	77.3%	8.8%

Source: Baltimore City 2011 Neighborhood Health Profiles

Preterm Births and Low Birthweight

Neighborhood	ZIP Code	Live Births Occurring Preterm (<37 weeks)	Births Classified as LBW (<5 lbs., 8 oz.)
Downtown/Seton Hill	21202	8.2%	8.2%
Greenmount East	21202	17.7%	15.9%
Jonestown/Oldtown	21202	10.7%	11.3%
Midtown	21202	9.1%	11.1%
Claremont/Armistead	21205	13.3%	10.4%
Madison/East End	21205	16.4%	16.9%
Perkins/Middle East	21205	11.4%	10.0%
Cedonia/Frankford	21206	14.7%	15.7%
Hamilton	21206	20.1%	16.7%
Lauraville	21206	11.3%	10.6%
Belair Edison	21213	13.4%	15.1%
Clifton-Berea	21213	15.5%	14.4%
Greater Charles Village/Barclay	21218	13.7%	14.4%
Greater Govans	21218	19.5%	18.3%
Midway-Coldstream	21218	14.8%	11.9%
Northwood	21218	12.7%	12.7%
The Waverlies	21218	13.8%	13.8%
Highlandtown	21224	10.2%	10.9%
Orangeville/East Highlandtown	21224	15.0%	6.4%
Patterson Park North & East	21224	11.0%	11.0%
Southeastern	21224	8.8%	8.8%
Canton	21231	10.8%	10.8%
Fells Point	21231	10.8%	10.1%
Baltimore City	N/A	13.1%	12.8%

Source: Baltimore City 2011 Neighborhood Health Profiles

Appendix B3: Socioeconomic

Socioeconomic Indicators by Neighborhood, 2005 to 2009

Neighborhood	ZIP Code	Median Household Income	Unemployment Rate	Family Poverty Rate
Downtown/Seton Hill	21202	$36,632	4.8%	21.8%
Greenmount East	21202	$20,708	19.7%	37.7%
Jonestown/Oldtown	21202	$20,515	14.7%	26.6%
Midtown	21202	$33,303	5.7%	11.2%
Claremont/Armistead	21205	$30,606	8.4%	13.2%
Madison/East End	21205	$30,389	14.4%	27.6%
Perkins/Middle East	21205	$18,522	17.5%	28.4%
Cedonia/Frankford	21206	$38,144	10.7%	12.5%
Hamilton	21206	$51,668	6.8%	6.0%
Lauraville	21206	$55,122	12.8%	3.9%
Belair Edison	21213	$43,769	14.0%	8.9%
Clifton-Berea	21213	$24,696	20.0%	18.4%
Greater Charles Village/Barclay	21218	$33,258	7.2%	10.5%
Greater Govans	21218	$37,047	14.9%	11.6%
Midway-Coldstream	21218	$30,068	20.9%	22.7%
Northwood	21218	$50,512	11.6%	6.2%
The Waverlies	21218	$33,239	12.8%	23.5%
Highlandtown	21224	$49,680	9.8%	7.6%
Orangeville/East Highlandtown	21224	$38,467	12.7%	17.5%
Patterson Park North & East	21224	$44,252	11.3%	16.1%
Southeastern	21224	$28,912	8.5%	19.7%
Canton	21231	$77,222	3.1%	1.6%
Fells Point	21231	$62,185	3.8%	10.6%
Baltimore City	N/A	$37,395	11.1%	15.2%

Source: Baltimore City 2011 Neighborhood Health Profiles

Appendix B4: Education

School Readiness and Reading Proficiency by Neighborhood, 2007 to 2009

Neighborhood	ZIP Code	Kindergartners "Fully Ready" to Learn	3rd Graders at "Proficient or Advanced" Reading Level	8th Graders at "Proficient or Advanced" Reading Level
Downtown/Seton Hill	21202	65.5%	72.5%	48.1%
Greenmount East	21202	43.3%	72.4%	44.4%
Jonestown/Oldtown	21202	57.9%	72.8%	52.6%
Midtown	21202	59.6%	75.1%	56.3%
Claremont/Armistead	21205	67.6%	73.4%	57.1%
Madison/East End	21205	64.2%	70.9%	41.0%
Perkins/Middle East	21205	44.7%	73.8%	45.7%
Cedonia/Frankford	21206	70.5%	77.6%	62.0%
Hamilton	21206	54.7%	74.7%	68.8%
Lauraville	21206	62.8%	86.4%	67.2%
Belair Edison	21213	54.5%	71.1%	57.2%
Clifton-Berea	21213	71.0%	65.0%	42.8%
Greater Charles Village/Barclay	21218	68.9%	87.0%	71.6%
Greater Govans	21218	72.1%	78.4%	62.7%
Midway-Coldstream	21218	66.5%	78.1%	53.3%
Northwood	21218	65.8%	80.9%	58.1%
The Waverlies	21218	69.3%	79.8%	65.1%
Highlandtown	21224	76.3%	72.1%	47.4%
Orangeville/East Highlandtown	21224	58.3%	74.6%	58.6%
Patterson Park North & East	21224	60.1%	62.1%	43.6%
Southeastern	21224	38.3%	80.8%	58.6%
Canton	21231	47.8%	79.2%	75.7%
Fells Point	21231	74.3%	78.2%	52.3%
Baltimore City	N/A	65.0%	77.6%	58.6%

Source: Baltimore City 2011 Neighborhood Health Profiles

Chronic Absenteeism by Neighborhood, 2008 to 2009

Neighborhood	ZIP Code	Elementary School Students Missing 20+ Days	Middle School Students Missing 20+ Days	High School Students Missing 20+ Days
Downtown/Seton Hill	21202	5.6%	22.2%	41.9%
Greenmount East	21202	14.2%	21.3%	45.3%
Jonestown/Oldtown	21202	13.1%	21.1%	50.9%
Midtown	21202	13.3%	13.9%	46.9%
Claremont/Armistead	21205	10.2%	11.9%	35.0%
Madison/East End	21205	14.2%	26.5%	52.6%
Perkins/Middle East	21205	17.1%	27.0%	47.2%
Cedonia/Frankford	21206	10.2%	9.3%	32.3%
Hamilton	21206	7.0%	12.5%	27.6%
Lauraville	21206	6.2%	9.3%	27.4%
Belair Edison	21213	11.2%	13.4%	42.1%
Clifton-Berea	21213	12.7%	18.6%	45.4%
Greater Charles Village/Barclay	21218	7.5%	13.1%	39.1%
Greater Govans	21218	13.5%	10.3%	35.2%
Midway-Coldstream	21218	10.3%	15.9%	48.3%
Northwood	21218	7.6%	10.0%	30.2%
The Waverlies	21218	8.0%	12.2%	37.7%
Highlandtown	21224	11.6%	24.1%	51.8%
Orangeville/East Highlandtown	21224	11.7%	19.1%	34.7%
Patterson Park North & East	21224	13.4%	23.7%	46.3%
Southeastern	21224	8.0%	15.2%	38.1%
Canton	21231	9.9%	14.7%	33.3%
Fells Point	21231	6.3%	19.4%	31.9%
Baltimore City	N/A	16.3%	16.4%	42.2%

Source: Baltimore City 2011 Neighborhood Health Profiles

Adult Educational Attainment by Neighborhood, 2005 to 2009

Neighborhood	ZIP Code	Residents 25 years and older with a high school degree or less	Residents 25 years and older with a bachelor's degree or more
Downtown/Seton Hill	21202	29.7%	58.7%
Greenmount East	21202	76.1%	8.1%
Jonestown/Oldtown	21202	63.7%	17.5%
Midtown	21202	32.2%	52.5%
Claremont/Armistead	21205	67.5%	7.7%
Madison/East End	21205	68.1%	4.4%
Perkins/Middle East	21205	66.4%	17.3%
Cedonia/Frankford	21206	60.5%	14.8%
Hamilton	21206	45.8%	23.6%
Lauraville	21206	41.4%	31.6%
Belair Edison	21213	63.2%	12.2%
Clifton-Berea	21213	78.5%	7.0%
Greater Charles Village/Barclay	21218	35.2%	48.5%
Greater Govans	21218	62.2%	14.2%
Midway-Coldstream	21218	74.3%	5.0%
Northwood	21218	48.0%	25.7%
The Waverlies	21218	55.3%	20.7%
Highlandtown	21224	51.4%	32.7%
Orangeville/East Highlandtown	21224	58.6%	18.4%
Patterson Park North & East	21224	59.9%	21.6%
Southeastern	21224	73.5%	6.5%
Canton	21231	25.8%	58.9%
Fells Point	21231	28.3%	57.0%
Baltimore City	N/A	52.6%	25.0%

Source: Baltimore City 2011 Neighborhood Health Profiles

Appendix B5: Housing

Energy Cutoffs and Single-Parent Households by Neighborhood

Neighborhood	ZIP Code	Energy Cutoff Rates*	Single-Parent Households^
Downtown/Seton Hill	21202	4.1	25.0%
Greenmount East	21202	59.9	33.0%
Jonestown/Oldtown	21202	11.9	47.3%
Midtown	21202	7.4	15.9%
Claremont/Armistead	21205	36.8	33.0%
Madison/East End	21205	89.8	39.0%
Perkins/Middle East	21205	32.2	42.9%
Cedonia/Frankford	21206	51.6	29.2%
Hamilton	21206	33.9	23.0%
Lauraville	21206	35.2	18.7%
Belair Edison	21213	42.9	31.5%
Clifton-Berea	21213	61.2	28.8%
Greater Charles Village/Barclay	21218	18.0	19.3%
Greater Govans	21218	46.5	26.9%
Midway-Coldstream	21218	70.4	27.9%
Northwood	21218	34.7	21.4%
The Waverlies	21218	39.1	29.2%
Highlandtown	21224	20.6	15.5%
Orangeville/East Highlandtown	21224	29.0	19.2%
Patterson Park North & East	21224	51.2	25.5%
Southeastern	21224	35.3	25.9%
Canton	21231	7.2	6.8%
Fells Point	21231	5.7	10.2%
Baltimore City	N/A	39.1	26.0%

Source: Baltimore City 2011 Neighborhood Health Profiles

* 2009–2010

^ 2010

Appendix B6: Built Environment

Alcohol and Tobacco Store Density by Neighborhood, 2009

Neighborhood	ZIP Code	Alcohol Store Density*	Tobacco Store Density^
Downtown/Seton Hill	21202	20.2	130.3
Greenmount East	21202	9.7	49.7
Jonestown/Oldtown	21202	5.5	25.8
Midtown	21202	8.3	28.7
Claremont/Armistead	21205	2.4	14.6
Madison/East End	21205	5.1	50.1
Perkins/Middle East	21205	6.5	50.1
Cedonia/Frankford	21206	4.7	13.2
Hamilton	21206	2.3	11.6
Lauraville	21206	3.3	9.0
Belair Edison	21213	5.2	21.8
Clifton-Berea	21213	8.1	49.6
Greater Charles Village/Barclay	21218	7.3	39.0
Greater Govans	21218	0.0	15.9
Midway-Coldstream	21218	7.3	39.6
Northwood	21218	0.6	4.2
The Waverlies	21218	5.1	27.0
Highlandtown	21224	5.4	41.1
Orangeville/East Highlandtown	21224	2.2	46.0
Patterson Park North & East	21224	2.7	32.3
Southeastern	21224	4.8	36.7
Canton	21231	4.9	23.5
Fells Point	21231	6.6	50.9
Baltimore City	N/A	4.6	21.8

Source: Baltimore City 2011 Neighborhood Health Profiles

* Number of Class A alcohol stores per 10,000 residents

^ Number of tobacco stores per 10,000 residents

Food-Store Density by Neighborhood, 2009

Neighborhood	ZIP Code	Fast-Food Density*	Carryout Density*	Corner-Store Density*
Downtown/Seton Hill	21202	35.7	96.2	23.3
Greenmount East	21202	0.0	10.8	28.1
Jonestown/Oldtown	21202	0.9	22.1	7.4
Midtown	21202	3.8	14.7	6.4
Claremont/Armistead	21205	2.4	8.5	2.4
Madison/East End	21205	1.3	24.4	25.7
Perkins/Middle East	21205	10.9	34.9	10.9
Cedonia/Frankford	21206	2.5	11.9	4.7
Hamilton	21206	1.5	8.5	4.6
Lauraville	21206	0.8	4.1	4.1
Belair Edison	21213	0.0	12.6	9.2
Clifton-Berea	21213	3.0	13.2	17.2
Greater Charles Village/Barclay	21218	4.3	19.5	11.6
Greater Govans	21218	0.9	3.7	7.5
Midway-Coldstream	21218	1.0	19.8	20.8
Northwood	21218	1.2	4.2	0.6
The Waverlies	21218	0.0	12.9	5.1
Highlandtown	21224	2.8	22.1	19.3
Orangeville/East Highlandtown	21224	8.8	16.4	14.2
Patterson Park North & East	21224	0.7	14.4	19.9
Southeastern	21224	11.2	9.6	8.0
Canton	21231	2.5	12.3	2.5
Fells Point	21231	3.3	14.4	15.5
Baltimore City	N/A	2.4	12.7	9

Source: Baltimore City 2011 Neighborhood Health Profiles

* Number of stores per 10,000 residents

Estimated Travel Time to Supermarket by Car, Bus and Walking, by Neighborhood, 2009

Neighborhood	ZIP Code	Est. Travel Time to Nearest Supermarket by Car (min)	Est. Travel Time to Nearest Supermarket by Bus (min)	Est. Travel Time to Nearest Supermarket by Walking (min)
Downtown/Seton Hill	21202	3.0	4.0	4.0
Greenmount East	21202	4.0	11.0	13.0
Jonestown/Oldtown	21202	5.0	19.0	17.0
Midtown	21202	2.0	N/A	8.0
Claremont/Armistead	21205	3.0	9.0	15.0
Madison/East End	21205	5.0	8.0	15.0
Perkins/Middle East	21205	4.0	8.0	14.0
Cedonia/Frankford	21206	4.0	10.0	19.0
Hamilton	21206	3.0	11.0	11.0
Lauraville	21206	3.0	15.0	18.0
Belair Edison	21213	2.0	N/A	7.0
Clifton-Berea	21213	4.0	10.0	14.0
Greater Charles Village/Barclay	21218	4.0	12.0	17.0
Greater Govans	21218	4.0	15.0	15.0
Midway-Coldstream	21218	6.0	13.0	18.0
Northwood	21218	3.0	7.0	10.0
The Waverlies	21218	2.0	10.0	13.0
Highlandtown	21224	1.0	3.0	5.0
Orangeville/East Highlandtown	21224	5.0	7.0	15.0
Patterson Park North & East	21224	3.0	3.0	4.0
Southeastern	21224	7.0	17.0	21.0
Canton	21231	2.0	2.0	4.0
Fells Point	21231	3.0	N/A	10.0
Baltimore City	N/A	3.7	12.3	16.6

Source: Baltimore City 2011 Neighborhood Health Profiles

Appendix B7: Social Environment

Crime Rates by Neighborhood, 2005 to 2009

Neighborhood	ZIP Code	Juvenile Arrest Rate (per 1,000)*	Domestic Violence Rate (per 1,000 residents)	Nonfatal Shooting Rate (per 10,000 residents)	Homicide Incidence Rate (per 10,000)^
Downtown/Seton Hill	21202	906.7	45.5	69.8	34.1
Greenmount East	21202	280.3	53.2	115.5	39.9
Jonestown/Oldtown	21202	187.5	46.6	76.6	29.5
Midtown	21202	249.1	19.1	22.3	11.5
Claremont/Armistead	21205	61.5	52.5	26.7	14.6
Madison/East End	21205	280.2	66.2	169.6	46.3
Perkins/Middle East	21205	337.1	59.7	117.7	61.0
Cedonia/Frankford	21206	84.0	42.7	32.7	6.8
Hamilton	21206	62.1	30.5	17.0	3.1
Lauraville	21206	51.5	31.5	11.4	15.5
Belair Edison	21213	98.2	47.6	42.5	24.1
Clifton-Berea	21213	326.5	58.2	126.6	61.8
Greater Charles Village/Barclay	21218	257.2	25.9	41.5	20.7
Greater Govans	21218	104.6	41.0	31.8	15.9
Midway-Coldstream	21218	220.2	56.0	119.8	45.8
Northwood	21218	81.4	30.6	26.5	8.4
The Waverlies	21218	163.1	44.3	33.4	21.9
Highlandtown	21224	206.1	32.3	17.9	9.7
Orangeville/East Highlandtown	21224	172.0	44.2	16.4	13.1
Patterson Park North & East	21224	205.4	42.6	49.5	20.6
Southeastern	21224	138.5	57.3	36.7	19.2
Canton	21231	179.3	18.7	2.5	2.5
Fells Point	21231	129.4	21.7	13.3	8.9
Baltimore City	N/A	145.1	40.6	46.5	20.9

Source: Baltimore City 2011 Neighborhood Health Profiles

* 10–17 year olds

^ Based on location of incident, not residence of the victim

Appendix B8: Environmental Health

Lead Paint Violations and Children with Lead Poisoning, by Neighborhood

Neighborhood	ZIP Code	Lead Paint Violation Rate*	Children with Elevated Blood Lead Levels (>10 µg/dL)^
Downtown/Seton Hill	21202	0.9	0.0
Greenmount East	21202	64.6	11.5
Jonestown/Oldtown	21202	1.1	2.2
Midtown	21202	1.5	3.6
Claremont/Armistead	21205	1.3	0.6
Madison/East End	21205	90.3	10.7
Perkins/Middle East	21205	24.9	5.7
Cedonia/Frankford	21206	2.5	1.2
Hamilton	21206	2.2	2.5
Lauraville	21206	5.2	2.9
Belair Edison	21213	9.3	2.9
Clifton-Berea	21213	63.6	8.2
Greater Charles Village/Barclay	21218	7.7	4.2
Greater Govans	21218	12.6	5.9
Midway-Coldstream	21218	47.1	5.9
Northwood	21218	1.8	3.5
The Waverlies	21218	9.1	1.8
Highlandtown	21224	4.5	3.8
Orangeville/East Highlandtown	21224	9.3	1.9
Patterson Park North & East	21224	34.0	5.5
Southeastern	21224	0.5	0.0
Canton	21231	1.3	1.2
Fells Point	21231	3.3	2.8
Baltimore City	N/A	11.8	4.1

Source: Baltimore City 2011 Neighborhood Health Profiles

* Number per year, per 10,000 households

^ Children 0–6 years out of all children tested in 2008

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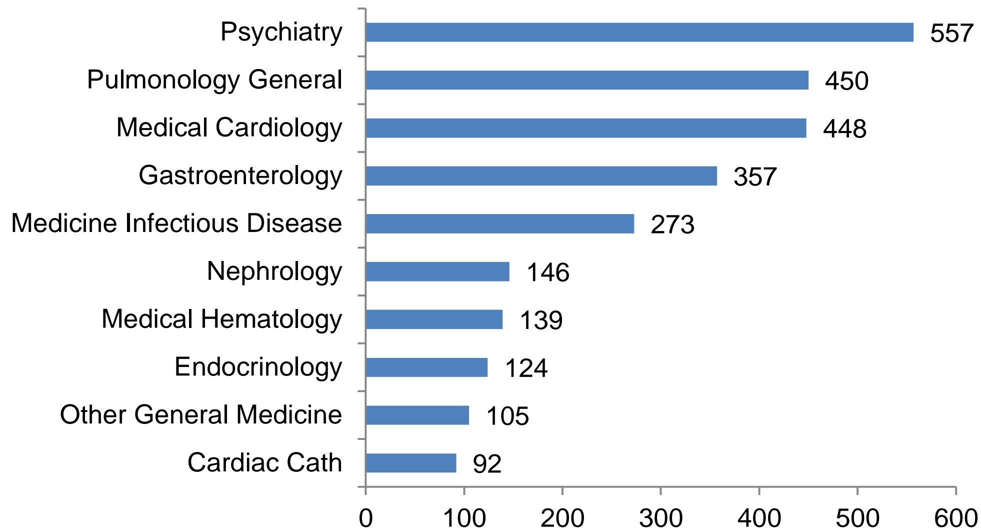
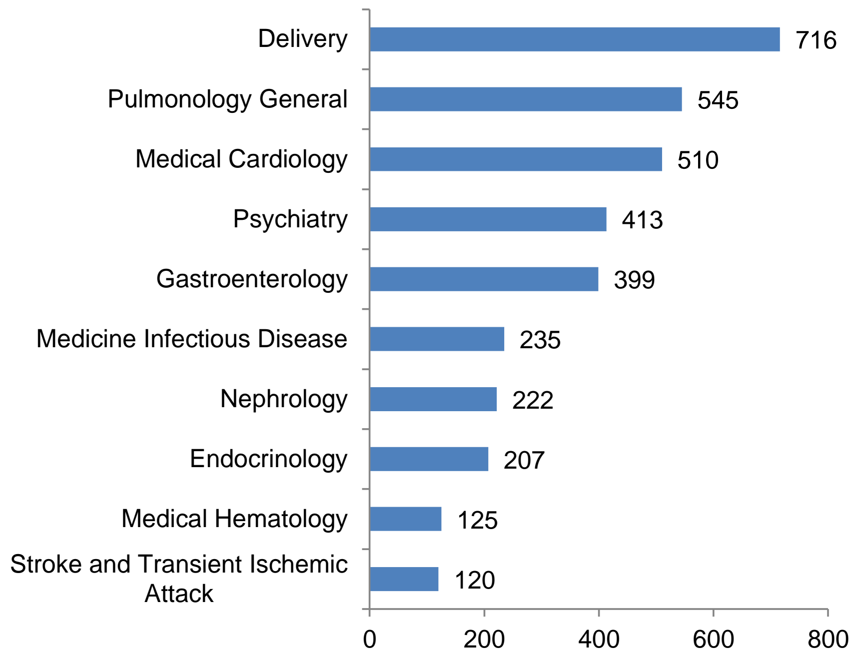
Appendix D: Tableau Inpatient Discharges by Demographic Group

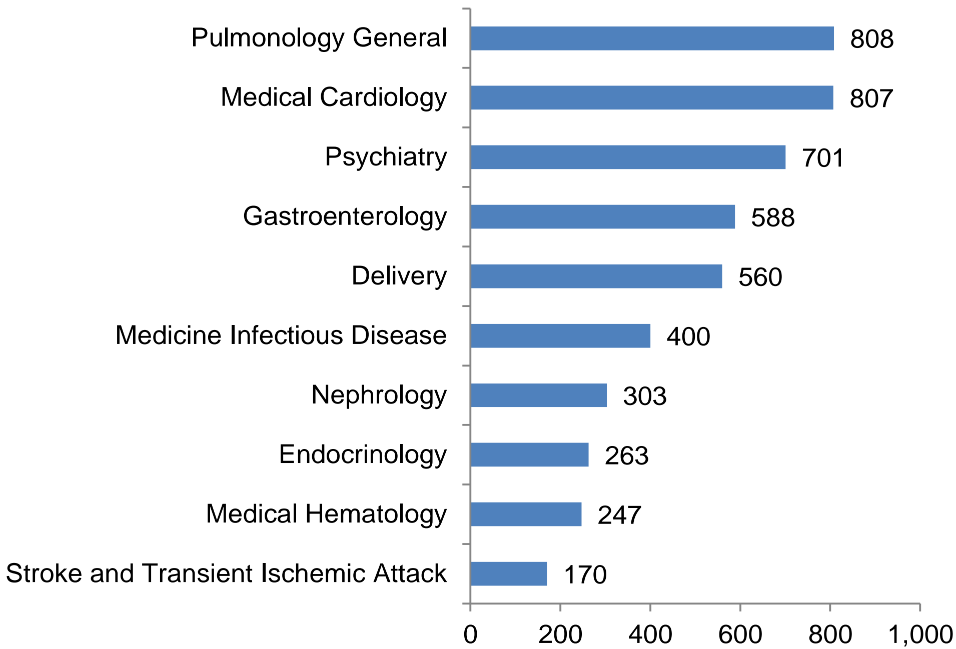
Top 10 Inpatient Discharges in JHH CBSA, Male, FY 2011



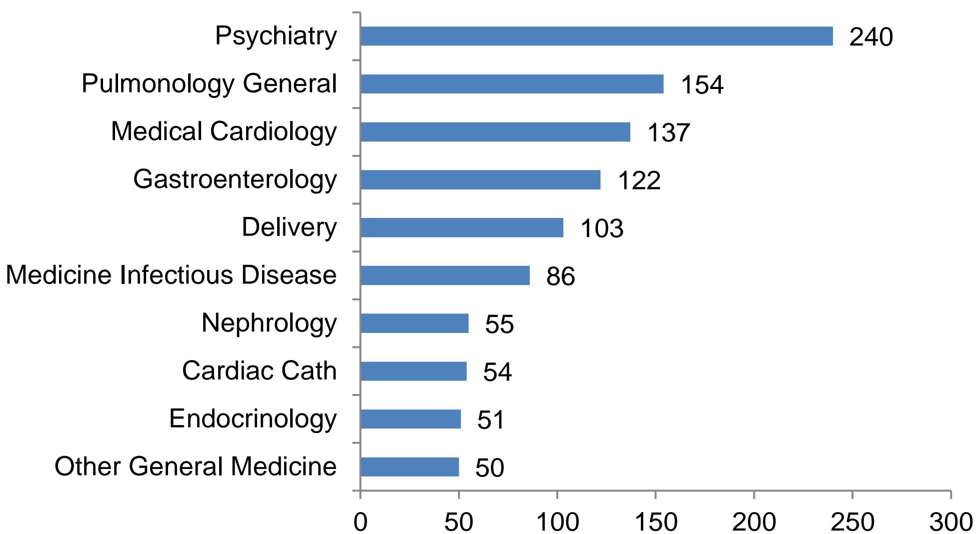
Top 10 Inpatient Discharges in JHH CBSA, Female, FY 2011



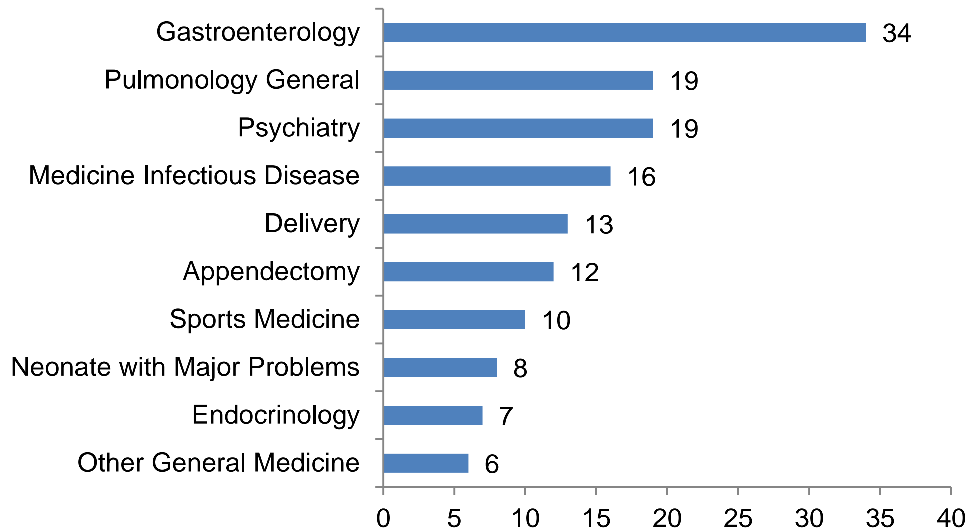
Top 10 Inpatient Discharges in JHH CBSA, African American, FY 2011



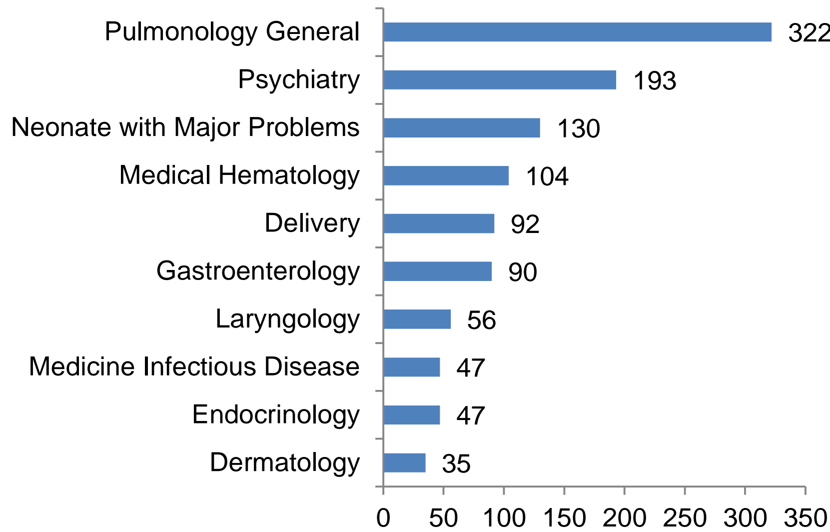
Top 10 Inpatient Discharges in JHH CBSA, White, 2011



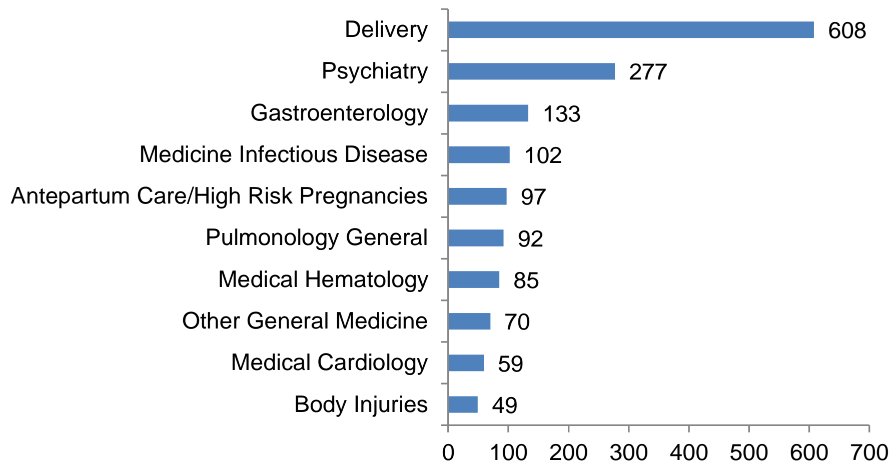
Top 10 Inpatient Discharges in JHH CBSA, Hispanic, FY 2011



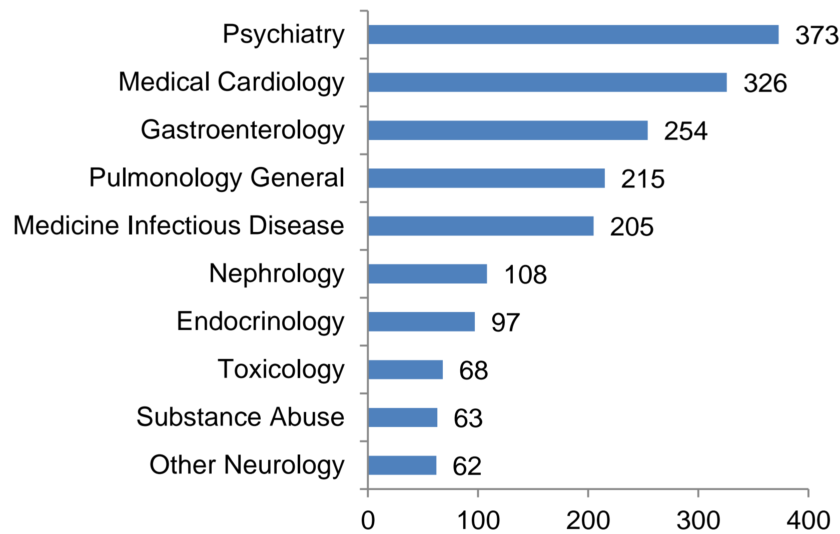
Top 10 Inpatient Discharges in JHH CBSA, Children Aged 0-18, FY 2011



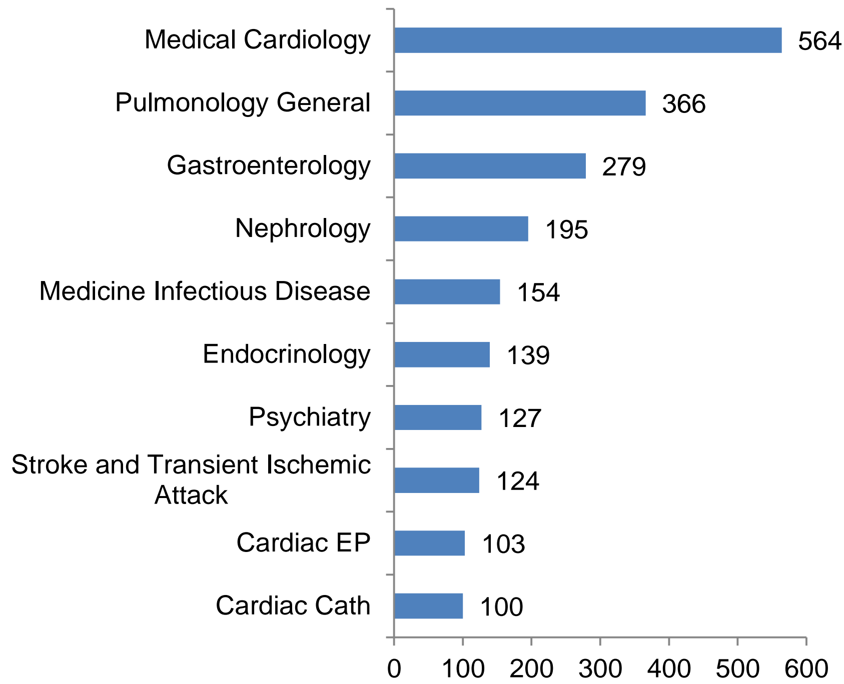
Top 10 Inpatient Discharges in JHH CBSA, Adults Aged 19-39, FY 2011



Top 10 Inpatient Discharges in JHH CBSA, Adults Aged 40-55, FY 2011



Top 10 Inpatient Discharges in JHH CBSA, Adults Aged 40-55, FY 2011



Appendix E: Key Informant Interviewees

Key informants are listed alphabetically by last name in the following categories:

- Johns Hopkins Administration and Staff
- Baltimore Public Health Experts
- Maryland Elected Officials
- Community-Based Organization Leaders

Johns Hopkins Administration and Staff

Name	Title
Anderson, Dr. Annette	Assistant Dean, School of Education
Bitzel, Daniel	Administrator, East Baltimore Medical Center
Boyne, Catherine	Sr. Director Operations Integration
Cheng, Dr. Tina	Professor, Pediatrics and Adolescent Medicine
Cook, Dr. Barbara	Sr. Vice President Johns Hopkins Medicine
Cullen, Dr. Bernadette	Assistant Professor of Psychiatry, Director Community Psychiatry Program
De La Torre, Desiree	Assistant Director, Health Policy Planning
Dickson, Conan	Administrator OPS Support
Feldman, Dr. Leonard	Director, Med-Peds Urban Health Residency Program
Ford, Dr. Daniel	Vice Dean for Clinical Investigation
Ford, Dr. Jean	Director, Johns Hopkins Center to Reduce Cancer Disparities, Associate Director of Community Programs and Research, Sidney Kimmel Comprehensive Cancer Center
Gibbons, Dr. Michael Christopher	Assistant Professor, Associate Director Johns Hopkins Urban Health Institute: Population, Family and Reproductive Health
Hill, Dean Martha	Dean, School of Nursing

Name	Title
Klag, Dean Michael	Dean, Bloomberg School of Public Health
Kravet, Dr. Steven	President of Johns Hopkins Community Physicians
Langley, Anne	Director, Health Policy Planning
Leaf, Phil	Director, Center for the Prevention of Youth Violence
Mosley, Adrian	Administrator, Community Health
Nichols, Dr. David	Professor of Anesthesiology and Critical Care Medicine and Professor of Pediatrics
Olsen, Dr. Yngvild	Assistant Professor of Medicine; Medical Director, Outpatient Substance Abuse Treatment Services
Page, Dr. Kathleen	Assistant Professor of Medicine
Peterson, Ronald	President, Johns Hopkins Health System & Johns Hopkins Hospital
Reitz, Dr. Judy	Chief Operating Officer
Rogers, Mike	Program Development & Training Coordinator
Shaefer, Dr. Jodi	Assistant Professor, School of Nursing
Strain, Dr. Eric	Director, JH Center for Substance Abuse Treatment and Research
Weisfeldt, Dr. Myron	Chair, Department of Medicine
Zellars, Dr. Richard	Associate Professor School of Medicine, Radiation/Oncology

Baltimore Public Health Experts

Name	Title
Barbot, Dr. Osiris	Commissioner, Health Department of Baltimore City
Beilenson, Dr. Peter	Howard County Health Officer, (former Health Commissioner of Baltimore)
Sharfstein, Josh	Secretary, Department of Health and Mental Hygiene, (former Health Commissioner of Baltimore)

Maryland Elected Officials

Name	Title
Branch, Warren	Councilman, Baltimore City Council, District 13
Cummings, Elijah	Congressman, U.S. Representative, Maryland's 7th congressional district
Curran, Robert	Councilman, Baltimore City Council, District 3
Davis, Clarence	Former MD State Delegate, District 45
Glenn, Cheryl	Maryland State Delegate, District 45
Harrison, Hattie	Maryland State Delegate, District 45
Kraft, James	Councilman, Baltimore City Council, District 1
McFadden, Nathaniel J.	Maryland State Senator, District 45
Nathan-Pulliam, Shirley	Maryland State Delegate, District 10
Scott, Brandon	Councilman, Baltimore City Council, District 2
Stokes, Carl	Councilman, Baltimore City Council, District 12

Community-Based Organization Leaders

Name	Title
Doxzen, Erica	MHS, Research Assistant, Department of Behavioral and Community Health, School of Public Health, University of Maryland
English, Sister Bobby	Julie Community Center
Gehman, Robert	Executive Director Helping Up Mission
Lindamood, Kevin	President/CEO Health Care for the Homeless
O'Keefe, Gena	Director of Healthy Communities Initiative, Family League of Baltimore
Wilcox, Thomas	President, Baltimore Community Foundation

Appendix F: Community Health Care Resources

General Health Care

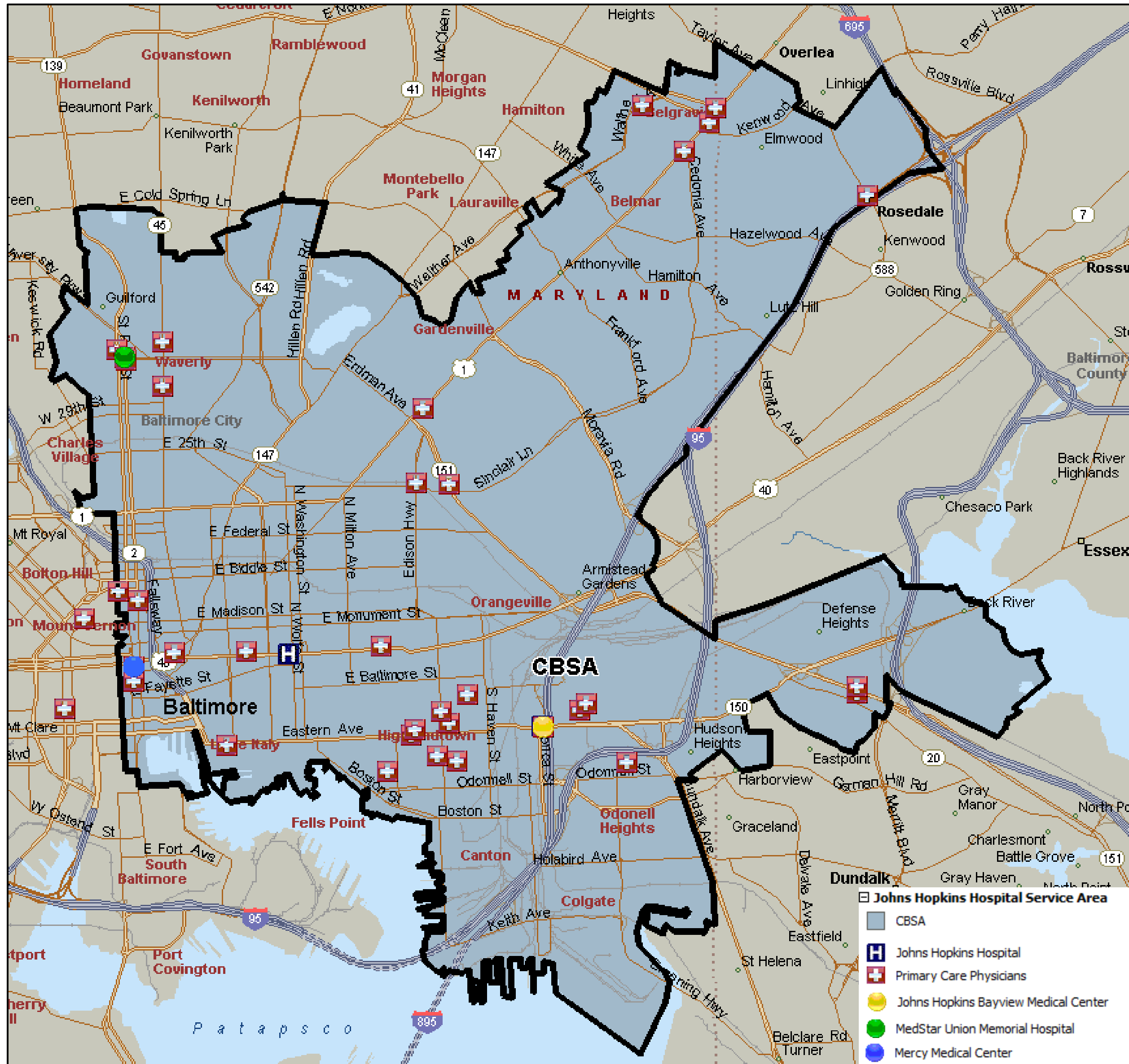
In addition to JHH, residents in the CBSA have access to health care services at other hospitals located throughout the CBSA. The three other hospitals located in JHH's CBSA are:

- Johns Hopkins Bayview Medical Center (JHBMC) – part of Johns Hopkins Health System; is a full-service, Joint Commission-accredited academic medical institution with more than 560 beds. JHBMC offers "one of Maryland's most comprehensive neonatal care clinics, a sleep disorders center, an area-wide trauma center, the state's only regional burn center and a wide variety of nationally-recognized post-acute care and geriatrics programs."[4]
- MedStar Union Memorial Hospital – 249-bed acute care teaching hospital specializing in cardiac care, orthopedics and sports medicine.
- Mercy Medical Center – a full-service, university-affiliated hospital delivering a comprehensive range of health services and is regionally known for programs in oncology, digestive health and liver disease, orthopedics and gynecology.

[4] Source: www.hopkinsbayview.org

Hospitals and Primary Care Physicians in JHH's CBSA

The map below depicts the distribution of independent primary care physicians and hospitals in Johns Hopkins Hospitals' Community Benefit Service Area. The shaded area is composed of the seven ZIP Codes in JHH's CBSA (21202, 21205, 21206, 21213, 21218, 21224 and 21231).



Health Clinics in JHH's CBSA

The table below represents a list of primary care clinics with more than one primary care physician in JHH's CBSA. These clinics are not represented on the previous map. Where applicable, notes are provided to describe any special considerations or characteristics of the clinic.

Group	ZIP Code	Important Notes (where applicable)
Adult Medicine Center	21218	
Adult Medicine Specialists	21218	
Baltimore Medical System	21224	A Federally Qualified Health Center (FQHC) offering a full range of primary care dedicated to serving medically underserved communities in Baltimore; Offers a sliding fee scale for the uninsured
BelAir Edison Family Health Center	21213	One of Baltimore Medical System's health centers; See 'Baltimore Medical System' for details
Bose Medical Group	21202	
Comprehensive Care Practice	21224	In addition to routine medical care, CCP at Johns Hopkins Bayview Medical Center offers case management, care and education services for HIV patients
East Baltimore Medical Center	21202	This clinic, which first opened in 1975, provides comprehensive health care services to East Baltimore residents. This is the busiest primary care facility in the Johns Hopkins Community Physician network, providing more than 70,000 patient visits during fiscal year 2010.
Edwards & Stephens MDs	21224	
Family Health Centers Of Baltimore	21202	An FQHC that provides primary care at four locations and seeks to eliminate health disparities; Offers a sliding fee scale for health and dental care services
Healthcare For The Homeless	21202	With a nationally-recognized model for delivering care to the underserved and homeless populations, HCH offers a multitude of services including health and dental care, mental health services, pediatric care, housing and much more.
Jai Medical Center	21202	Part of Jai Medical Systems Managed Care Organization, Jai Medical Center is a participating provider and offers a sliding fee scale
Jeffrey D Gaber & Associates PA	21202	
Joel D Meshulam MD	21202	
Kennedy Krieger Institute	21205	This internationally recognized institute seeks to improve the lives of children and adolescents with brain, spinal cord, musculoskeletal and other developmental disabilities; They offer patient care services, special education, research and professional training
Loch Raven VA Outpatient Clinic	21218	
Michael A Randolph MD PC	21218	
Miguel Karacuschansky MD	21218	
Patient First	21224	Patient First offers extended hours (8 am to 10 pm every day), including holidays and weekends, to accommodate patient schedules
Saint Paul & Biddle Med Assocs	21224	
Seton Medical Group	21224	
Total Healthcare	21218	This FQHC provides health care services to medically underserved and uninsured residents; Also offers a sliding fee scale
Union Memorial Hospital Internal Medicine	21218	

Community Resources

The following is a review of community benefit programs coordinated, funded and/or staffed by JHH or an affiliated institution, as well as programs coordinated by community partners. These programs were examined in response to the hospital priorities identified through the CHNA. They provide assistance to the residents in JHH's CBSA and the Baltimore area through the various methods described below.

- **Asthma**

  There is one large-scale project identified through the Johns Hopkins Children's Center, the Center for Childhood Asthma in the Urban Environment (CCAUE). The Center's goal is to examine the burden of asthma in children living in the inner city of Baltimore concerning pollutants and allergens.

  Treatment and health education programs are offered in the community for asthma through the Baltimore City Health Department (BCHD) and Healthy Homes Bureau. Breathmobile, a custom-built pediatric asthma and allergy clinic, travels to schools providing treatment to children. The Healthy Homes Bureau has educational sessions for families of children living with asthma including information on how to recognize attacks, access medications and establish support networks within the community.

  Despite the severity of asthma in children, there are limited resources in the community. Expanding programs targeting children would be beneficial to addressing the issue.

- **Cancer**

  A major resource offered through JHH is the Sidney Kimmel Comprehensive Cancer Center. As one of 40 comprehensive cancer centers in the U.S. designated by the National Cancer Institute, the Kimmel Cancer Center is active in clinical and laboratory research, education, community outreach, and cancer prevention and control. Additionally, patients have access to some of the most innovative and advanced cancer therapies, as well as free screenings throughout the year. There is also a unique resource for children sponsored by the Kimmel Cancer Center. Camp Sunrise is a week-long summer camp for children who have been diagnosed with or survived cancer. The children at Camp Sunrise have the opportunity to spend time with others who are going through similar situations and build relationships. The American Cancer Society has a

presence on the campus of Johns Hopkins University through programs such as Colleges Against Cancer and events such as Relay For Life.

There are also programs directed at specific cancer types. For prostate cancer, the Kimmel Cancer Center sponsors the Man to Man Prostate Cancer Education and Support Group, while the BCHD offers the Baltimore City Prostate Cancer Demonstration Project. Colorectal cancer patients have the opportunity to discuss topics of interest and questions relating to their disease with JHH physicians through the Colorectal Cancer Survivor Educational Program. Johns Hopkins Hospital physicians, in conjunction with the Baltimore City Health Department, offer residents in the CBSA access to colorectal cancer screenings through the Baltimore City Health Department Colorectal Cancer Screening Collaboration.

Other screening programs available to CBSA residents include those available through the Baltimore City family planning clinics. The clinics offer breast, cervical, prostate and testicular screenings on a sliding fee scale.

- **Cardiovascular Disease**

  There are a variety of programs identified through JHH in the CBSA that address cardiovascular disease (CVD), including strategies targeting: stroke prevention and risk factor identification, smoking cessation, blood pressure screenings and adolescent CVD risk factor prevention and awareness.

  Currently, free blood pressure screenings are offered for individuals in the community through the Stroke Center Community Outreach Program and the student organization Hopkins Association for Stroke Awareness (HASA). Screenings are performed in various venues including health fairs and a monthly event at the North East market. The programs also provide information on seeking treatment and increasing awareness of stroke. These programs' outreach initiatives also focus on African American and Hispanic populations.
  Additionally, two long-standing programs in the Bayview area, Healthy Eating, Activity and Recreation for Today's Scouts (HEARTS) and Food Re-Education for Elementary School Health (FRESH), focus on cardiovascular disease and obesity prevention in adolescents. They offer

educational sessions on healthy food choices, consequences of tobacco use and physical activity. However, these programs are only in the Bayview area, and expansion could benefit other areas of the community.

The BCHD has an initiative addressing cardiovascular disease and health disparities in minority populations and free screenings are available in the home, at local churches, clinics and in barbershops through community health workers.

- **Diabetes**

  There are a few programs identified through Johns Hopkins to address diabetes in the community, and these programs, offered through the Johns Hopkins Diabetes Center and the Isaiah Wellness Center, are focused solely on self-management in existing diabetics across the lifespan.

  In the community, there are programs through Maryland's American Diabetes Association (ADA) including Live Empowered, a faith-based health ministry initiative to prevent diabetes in the African American community through education, family support programs and information for those with children living with diabetes. Additionally, the ADA plans to host a national Rally day in 2013 to promote diabetes awareness.

  There is a lack of resources in the CBSA regarding prevention, risk factor identification, screening and health education.

- **Health Care Access**

  There are various programs, clinics and hospital options for residents in the CBSA, particularly those in minority populations including African Americans and Hispanics; all offer free or sliding scale service options for individuals with limited or no health insurance. The hours of most of the clinics are within normal working hours, leaving a gap in services for those who may not have the ability to leave work, or who lack reliable transportation during the day. This was of particular concern in the focus groups as well as in the key informant interviews.

Many programs, including the Community Care Initiative, The Access Partnership (TAP) and Salud, work to connect community members to existing health care networks as well as reduce the cultural barriers that inhibit some individuals from accessing care. Additionally, the CARE-A-VAN Clinic provides ambulatory care services and screenings. The Community Outreach Program through Johns Hopkins School of Nursing enlists nursing students to serve in the community and provide screenings and educational support.

- **Infectious Diseases**

  In JHH's CBSA, there are nine programs designed to address STIs and/or HIV/AIDS.

  There are two resources for children and adolescents relating to STIs. The HIV Big Buddy/Little Buddy program provides support and friendship to children infected with HIV through birth by pairing them with Johns Hopkins University students. The CRASH Program (Creating Responsibility for Adolescent Sexual Health) addresses sexual health of adolescents through educational sessions.

  Two group-specific programs are available for women and low-income individuals. Sisters Together and Reaching (STAR) is a Christian-based organization dedicated to providing spiritual support, direct services and preventive education to HIV/AIDS-infected women in the community. AIDS Interfaith Residential Services (AIRS) seeks to assist low-income individuals and families through a continuum of quality care and support.

  The Baltimore Needle Exchange Program aims to reduce HIV and other infections by reducing the circulation of unclean syringes. Moveable Feast serves nutritionally appropriate meals and provides nutrition counseling to people affected by HIV/AIDS. There are other programs in JHH's CBSA that offer counseling and testing (Student HIV Counseling and Testing), promote AIDS awareness and conduct HIV infection research.

  The addition of resources focusing on prevention of infectious diseases including syphilis, chlamydia, gonorrhea and HIV/AIDS will benefit the Baltimore City community. Evidence-based research indicates that programs should target adolescents through the delivery of STI

prevention strategies by trained instructors and development of skills in avoiding risky sexual behavior.[5]

- **Maternal and Child Health**

  There are a number of programs available to address various aspects of maternal and child health including: provision of healthy food, shelters for the homeless, reproductive health, lead poisoning and substance abuse.

  The Johns Hopkins Women, Infants and Children (WIC) program serves pregnant women, new mothers, infants and children under the age of five by providing healthy supplemental foods and nutrition counseling.

  The Bea Gaddy Women's and Youth Center and My Sister's Place Women's Center offer housing and daily meal service to homeless women and children. Each facility also offers education and job training opportunities.

  Programs such as Planned Parenthood, B'More for Healthy Babies, Birth Companions Program and The Stork's Nest are aimed at improving reproductive health of women in Baltimore. The Stork's Nest is a unique program that offers incentives to women who receive early and regular prenatal care. By visiting their health care providers often during the pregnancy and attending health education classes, women are awarded shopping points which can be redeemed for a wide array of baby care products.

  Head Start programs in the community are also available to low-income pregnant women and mothers with young children. Women who are pregnant or have children up to three years old may utilize the Southeast Head Start program for a variety of services. The Martin Luther King Jr. Head Start program offers similar services and services to HIV-positive families and children.

[5] Centers for Disease Control and Prevention, (2011). *Effective HIV and STD Prevention Programs for Youth*. Retrieved from website: http://www.cdc.gov/healthyyouth/sexualbehaviors/effective_programs.htm

The community has two programs tailored to specific maternal and child health issues. The Coalition to End Childhood Lead Poisoning seeks to prevent childhood lead poisoning through the development of resources, programs and policies. The Center for Addiction and Pregnancy offers overnight housing to evaluate and care for drug-dependent mothers and their drug-affected babies.

As previously mentioned, the CRASH Program educates adolescents on sexual health, STIs, teen pregnancy and relationships. The Harriet Lane clinic addresses teen pregnancy in the context of improving the health of adolescents through the provision of health care services and nutrition, breastfeeding and parenting education and support.

There are limited resources focusing on teen pregnancy. An expansion of programs within the CBSA targeting teens will provide a more comprehensive approach to combating this issue.

- **Mental Health**

  There are over 45 programs designed to address a variety of mental health issues across different age groups in the JHH CBSA. Some of the programs targeting general mental health are Addiction Treatment Services, Mobile Treatment at Community Psychiatry, Creative Alternatives and the National Alliance for the Mentally Ill.

  There are treatment programs for psychiatric illnesses and psychotic disorders, individuals living with intellectual disabilities, rehabilitation services and bereavement groups.

  Fourteen programs specifically target mental health in children or adolescents. These include bereavement and support groups for children who have lost siblings, detained youth, children in after-school programs, children with behavioral, emotional and psychiatric problems, promotion of positive social behaviors and programs for violence prevention through stress relief. Additionally, there are programs that serve black or African Americans (Black Mental Health Alliance), Hispanics (Hispanic Clinic at Community Psychiatry at the Johns Hopkins Hospital), Asians (South Asian Wellness Clinic) and other underserved communities (Diversity Brain Trust Council).

The PATCH (Psychogeriatric Assessment and Treatment in City Housing) program offers a mobile treatment center in which nurses help treat serious and persistent mental illness in the elderly. Bernie's Place provides housing and supportive services for individuals with mild mental disabilities. Other programs in the CBSA target the homeless population and low-income individuals and families.

- **Obesity/Overweight**

  There are many different options for children and adolescents through schools to be physically active in a safe environment, including organized and unorganized activities. Other programs are aimed at improving dietary habits and educating Baltimore's youth about health food preparation.

  Playworks Baltimore places trained adults at various schools (some within the CBSA) to transform organized play during recess and after school activities into learning and personal growth experiences for adolescents of various ages. Community centers in the CBSA offer after school activities for adolescents and teenagers including basketball, weightlifting and soccer.

  There are parks and walking areas that are free throughout the CBSA, but the main issue expressed was safety for residents. While there may be access, many residents do not feel safe utilizing these available resources and many are unable to pay recreational physical activity facilities. Additionally, not all residents have reliable transportation, and public transportation routes may not service areas where resources are located.

  Programs that seek to educate children about healthy eating and cooking habits include Youth Fitness Circle at Harriet Lane Clinic, Cooking with Kids, Food for Life, Food Re-Education for Elementary School Health (FRESH) and Saint Francis Xavier Healthy Start Center. Youth Fitness Circle at Harriet Lane Clinic and FRESH also have an exercise component.

  Get Fresh! Baltimore is a campaign supported by various local not-for-profits and health entities who work to promote healthy eating habits and food security throughout the community.

Programs include farmers markets, some within the CBSA, that welcome the use of WIC vouchers, Independence Cards and SNAP benefits.

Baltimarket, a program sponsored by the Baltimore City Health Department, is a Virtual Supermarket that utilizes an online ordering system. Computer access through George Washington Elementary School and Enoch Pratt Free Library allows those with limited to no transportation to access healthy foods. This service delivers food to participants and can be paid for using cash and food stamps.

Since most exercise programs focus on children, there is a lack of accessible adult focused physical activity options (access in this case refers to safety, transportation, location, hours and affordability). There is also a lack of family physical activity programs.

- **Substance Abuse and Addictive Behaviors**

  In JHH's CBSA, there are 19 programs focused on helping those suffering from substance abuse and addiction.

  Seven programs assist children or adolescents affected by substance abuse including: Center for Addiction and Pregnancy (CAP), ARK Preschool, Harriet Lane Adolescent Clinic and Safe Schools/Healthy Students. The programs focus on prevention, intervention and treatment strategies while others offer services to children affected by the addiction of a family member.

  There are also programs tailored specifically to women, homeless men, mothers and infants and ex-offenders.

  The other eight programs in the JHH CBSA offer a variety of services including: counseling, case management, outpatient treatment centers and research programs to develop and evaluate interventions.