



# **The Johns Hopkins Hospital & Johns Hopkins Bayview Medical Center**

**Community Health Needs Assessment & Implementation Plan**

**Overview**

**June, 2016**



*Cover Photo: Due to HIPAA Privacy Rule regulations, uncredited photos appearing in this publication do not depict identified Baltimore residents.*

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## I. Introduction

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

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

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

The Treasury and the IRS require the CHNA to include:

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

The CHNA process for The Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center (JHBMC) included the collection and analysis of primary and secondary data. Both public and private organizations, such as faith-based organizations, government agencies, educational systems and health and human services entities were engaged to assess the needs of the community. In total, the extensive primary data collection phase resulted in the contribution of more than 750 community stakeholders/leaders and community residents. The 2013 CHNA served as a baseline to provide a deeper understanding of the health, as well as the socioeconomic needs, of the community.

The Johns Hopkins Institutions' Implementation Plan describes the assessment process, the needs identified, and the specific priorities that were chosen. Within the implementation plan for each priority, the plan reports the findings and the strategies that will be taken as a result of the identified needs. These actions are supported and backed by the Johns Hopkins Institutions in collaboration with community organizations, groups, and businesses.

The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center will continue to work closely with local partners and organizations to strengthen the needs of the community and make certain JHH and JHBMC's mission and values are present in the strategies.

## II. Addressing Community Health Needs

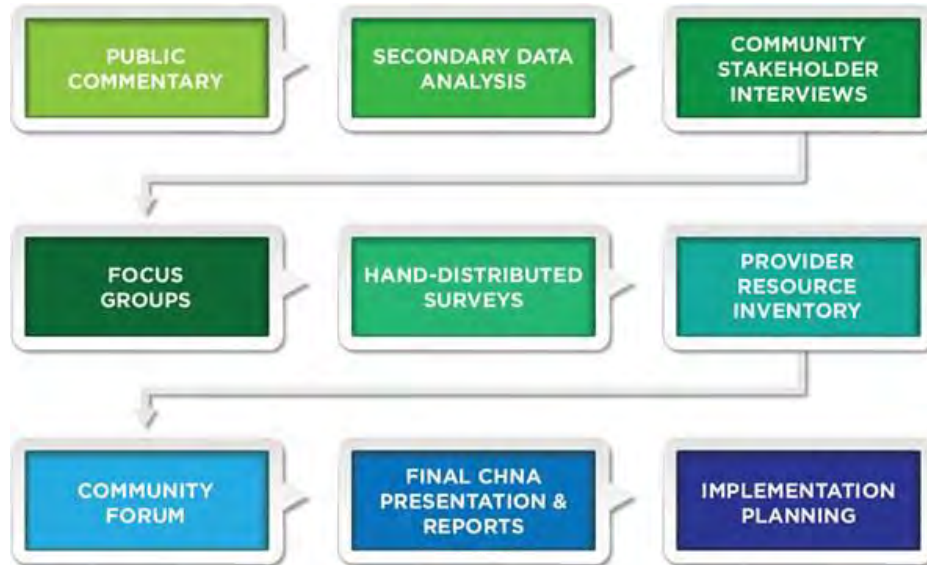
### A) Community Health Needs Assessment Process

In 2015, The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center began a joint process of conducting a comprehensive Community Health Needs Assessment (CHNA). The process connected public and private organizations, such as health and human service entities, government officials, faith-based organizations, and educational institutions to evaluate the needs of the community. The 2015 assessment included primary and secondary data collection and incorporated a multitude of phases as part of the assessment process.

### B) Community Engagement: Input, Collaboration, Achievement

- Public Commentary
- Secondary Data Analysis
- Community Stakeholder Interviews
- Focus Groups
- Hand-Distributed Surveys
- Provider Inventory
- Community Forum
- Final Presentation & Reports
- Implementation Planning

### C) Community Health Needs Identified



#### **Public Commentary**

Public comments related to the 2013 CHNA and 2014 Implementation Plan completed on behalf of the Johns Hopkins Institutions were obtained. These community comments offered community residents, hospital personnel, and committee members the opportunity to react to the methods, findings, and subsequent actions taken as a result of the previous CHNA and planning process.

Respondents were asked to review and comment on, via a survey, the 2013 CHNA report and the 2014 Implementation Plan adopted by the Johns Hopkins Institutions. There were no restrictions or qualifications required of public commenters. The collection period for the public comments began August 2015 and continued through September 2015. In total, 21 surveys were collected and analyzed.

#### **Secondary Data Analysis**

A secondary data profile was produced from state and federal agencies and organizations. It included, but was not limited to, The Annie E. Casey Foundation Kids Count, Baltimore City Health Department, Centers for Disease Control and Prevention, Community Commons, County Health Rankings & Roadmaps, Maryland Department of Health and Mental Hygiene Vital Statistics, Maryland Health Services Cost Review Commission, Maryland State Health Improvement Process, Neighborhood Health Profile Baltimore City, and the Substance Abuse and Mental Health Services Administration. The data sources were related to socioeconomic factors, behavioral habits, and disease prevalence. Data were benchmarked against state and national trends.

### **Community Stakeholder Interviews**

Interviews were conducted with community stakeholders to better understand the changing community health environment. Community stakeholders targeted for interviews encompassed a wide variety of professional backgrounds including: 1) public health expertise; 2) professionals with access to community health related data; and 3) representatives of underserved populations. The interviews offered community stakeholders an opportunity to provide feedback on the needs of the community, secondary data resources, and other information relevant to the study. The interviews provided a platform for stakeholders to identify health issues and concerns affecting residents in their service area, as well as ways to address those concerns.

### **Focus Groups**

Six focus groups within the study area were conducted with at-risk populations; in total, 83 individuals participated. Targeted underserved focus group audiences were identified and selected with direction from hospital leadership based on their knowledge of their Community Benefits Service Area (CBSA).

The identified focus group audiences were:

1. Ex-offenders
2. Latinos/Spanish-speaking residents
3. Providers who have access to “at-risk kids”
4. Seniors in Baltimore County
5. Seniors in East Baltimore City
6. Substance abusers/recovering addicts

### **Hand-Distributed Surveys**

A hand-survey was utilized to collect input, especially from underserved populations within the CBSA. The hand-survey, available in both English and Spanish, was designed to capture and identify the health risk factors and health needs of those within the study area. Tripp Umbach worked with community-based organizations to collect and distribute the surveys to end-users in the underserved populations. The engagement of the community-based organizations was vital to the collection process.

In total, 648 surveys were used for the analysis; 619 surveys were collected in English and 29 surveys were collected in Spanish.

### **Provider Inventory**

An inventory of programs and services available in the region was created to highlight programs and services within JHH and JHBMC’s CBSA. The inventory identified the range of organizations and agencies in the community that are serving the various target populations within each of the priority needs. It provided program descriptions and collected information to facilitate potential coordination of community activities and linkages among agencies.

## **Community Forum**

A regional community planning forum was held at Breath of God Lutheran Church in Baltimore, MD on December 7, 2015. Roughly 30 community leaders attended the event representing a variety of community organizations, health and human services agencies, health institutions, and additional community agencies. The purpose of the community forum was to present the CHNA findings and provide critical feedback and prioritize key need areas for the CHNA.

## **Final Presentation & Reports**

A final report was developed that summarized key findings from the CHNA and identified the top key needs of the community. The final report has been posted on The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center's website.

## **Implementation Planning**

With the completion of the CHNA, an implementation phase began to strategize and provide goals and measures which will result in the development of an implementation/action plan that will meet system and IRS standards.



Johns Hopkins Medical Campus in Baltimore City

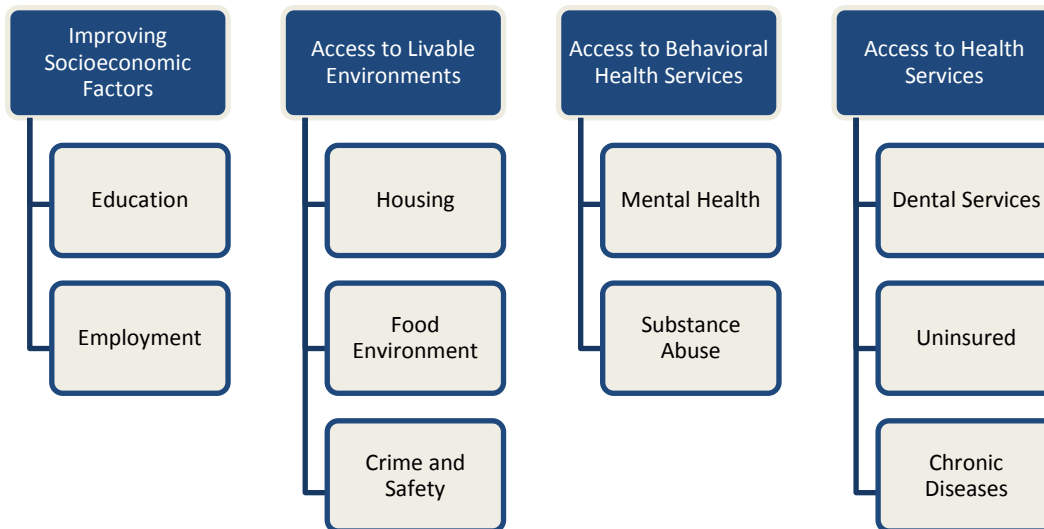


### III. Prioritizing Community Health Needs

#### A) The Selection and Prioritization Process

The community health needs assessment, focusing on the primary and secondary data, identified the community needs that were prevalent in the CBSA. Upon review of all data collected, with feedback from community leaders who were present at the community forum, and input from internal hospital leadership, the following needs were identified as the key community health needs in the Johns Hopkins Institutions' community.

#### B) Prioritized Community Health Needs



**Priority: Improving Socioeconomic Factors**

The health issues an individual will experience can be the result of the biological makeup or genetics of the person; however, socioeconomic factors also play a vital role in how people behave and how they access health services and programs.

Education levels, employment opportunities, environmental factors (e.g. crime rates), living conditions, etc. all have a direct and indirect impact on a community resident’s health status. The inability to secure employment due to low levels of education will lead to additional struggles for the individual and their family. Basic living needs (e.g. housing, food, utilities) will be impacted and community residents will face continued hardships and challenges to meet these needs.

The role of education is essential to residents, as it can dictate employment opportunities and income levels. Community residents who are better educated are more aware of their health needs, and are better equipped to navigate the health care system, capitalize on tools and programs which can assist them in improving their environment, understand the importance of preventive care, and ultimately make better choices for themselves and their families.

A snapshot from County Health Rankings and Roadmaps compares Baltimore City to Baltimore County in years 2012 and 2015. The ranking scale enables communities, organizations, and agencies to assess where their communities lie in comparison to the remaining counties in Maryland. Baltimore City ranked 24 out of 24 on Socioeconomic Factors in years 2012 and 2015; while Baltimore County ranked 12 in years 2012 and 2015.

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

Table 1: County Health Rankings and Roadmaps Social and Economic Factors

County Health Rankings and Roadmaps <sup>1</sup>	Social and Economic Factors Rankings
Baltimore City	
2012	24
2015	24
Baltimore County	
2012	12
2015	12

Source: County Health Rankings & Roadmaps 2015 and 2012

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

**Priority: Access to Livable Environments**

A healthy or livable environment refers to the surroundings in which one resides and interacts. The inability to secure a livable environment can impact the mental well-being and overall health of community residents. Residents who live in a poor environment are more likely to engage in unhealthy behaviors, e.g., poor diet, lack of exercise, smoking, substance abuse, etc.

An essential need for residents in the CBSA is a livable environment which includes safe, affordable, clean housing options, a community with low crime rates, and access to healthy food options. Currently, many community residents live in old, outdated, unsafe buildings, many containing hazardous materials (e.g. lead) which can create and/or exacerbate chronic conditions such as asthma. The lack of available, affordable healthy food options, and the community’s crime rates are common issues for families who face challenges securing employment. For those families who are unable to secure employment, safe and affordable housing, therefore, becomes a critical need.

County Health Rankings define severe housing as the percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen, or inadequate plumbing facilities. County Health Rankings do not take into consideration lead paint violations, energy cut-off rates, etc. Under this category, these factors determine the overall physical environment ranking of Baltimore City, thus, providing a viewpoint of how the City compares to other counties within the state.

Table 2: County Health Rankings & Roadmaps Physical Environment

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

Source: County Health Rankings and Roadmaps 2015 and 2012

Indicative of a poor environment is an environment with high crime rates. The inability to participate in outdoor activities prohibits community residents from exercising and playing outside; therefore, having a direct and indirect effect on physical and mental health overall. For residents who have a limited income, joining a gym is unaffordable. Residents in the CBSA are unable to capitalize on outdoor activities within their communities due to the city’s high crime rates.

**Priority: Access to Behavioral Health Services**

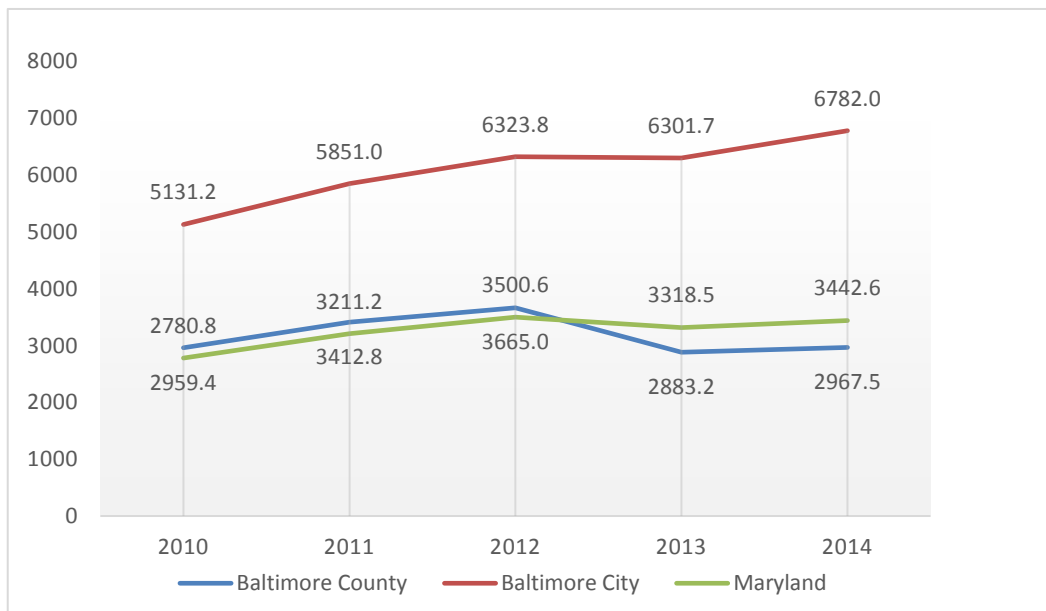
Nationally, behavioral health is a community health issue and is also a key priority in the CBSA. The shortage of mental and behavioral health providers is well documented and has forced community residents to travel for care and/or wait long periods of time to obtain an appointment from a mental health provider. The need and the demand for mental and behavioral health services will continue to grow with the growing population. Mental health is shaped in part by the socioeconomic factors and physical environment where people reside, and data collected from the CHNA reinforce these statements.

Secondary data, results from the hand-distributed survey, discussions from community leaders, and focus groups with vulnerable populations, also highlighted the growing national and local need to increase access to behavioral health services.

The Maryland State Health Improvement Process data revealed that Baltimore City residents saw a steady increase in emergency room visits from 2010-2014 related to mental health conditions compared to Baltimore County and the state. In 2014, there were 6782.0 per 100,000 population of Baltimore City residents who visited the emergency room related to a mental health condition compared to 3442.6 in the state and 2967.5 in Baltimore County.

It was also revealed that Baltimore City emergency department visits related to mental health conditions beginning in 2010 was 5131.2 visits per 100,000 population and steadily rose throughout the years to 6301.7 with a minor decrease in the number of visits in 2013 (per 100,000 population). However, an additional 480.0 visits occurred from 2013-2014. The data regarding care for mental health services are a reflection of a growing concern that needs to be addressed.

Chart 1: Emergency Department Visits Related to Mental Health Conditions (Per 100,000 population)



Source: Maryland State Health Improvement Process 2014

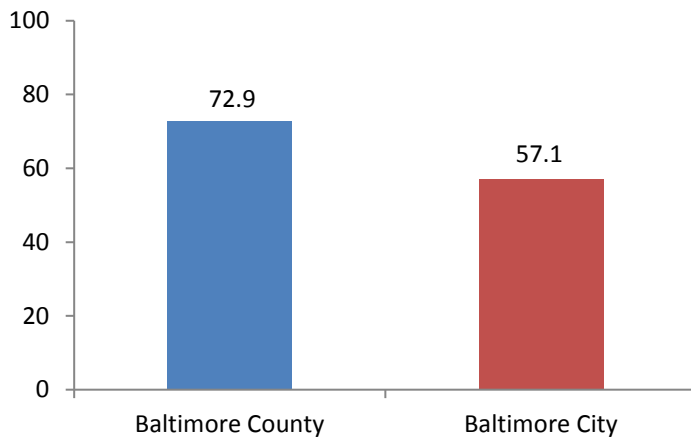
**Priority: Access to Health Services**

Accessing health care is a barrier for many and a recurring problem for those who are uninsured and underinsured. Additional factors such as limited affordability, physician availability, transportation etc. are barriers which also prohibit many from obtaining needed health care services. Primary data collected reconfirm why community residents are unable to obtain consistent care.

The community health needs assessment identified areas of focus regarding access to health services. Dental care, access to the uninsured populations, and accessibility to services related to chronic diseases were specific areas of focus. Creating a pathway for community residents to receive health care services will address the health disparities and allow residents to seek and obtain needed health care services.

Data obtained from HRSA (Health Resources and Services Administration) reveal Baltimore City residents face access barriers to dental providers based upon availability. City residents have less access to dental care providers at 57.1 per 100,000 population than in Baltimore County (72.9 per 100,000 population). The inaccessibility of dentists has taken a significant toll on the oral health of residents.

Chart 2: Access to Dentist (Per 100,000 Population)



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

The CNI<sup>2</sup> (Community Needs Index) insurance rankings for the CBSA show ZIP codes 21202, 21205, 21213, and 21218 had a score of 5 (ranked on a scale of 1.0–5.0) which indicates that community residents in these specific neighborhoods have additional insurance access issues when compared to the remaining neighborhoods in the CBSA.

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<sup>2</sup> Truven Health Analytics, formerly known as Thomson Reuters, is a multinational health care company that delivers information, analytic tools, benchmarks, research, and services to a variety of organizations and companies. Truven Health Analytics uses: Demographic data, poverty data (from The Nielsen Company), and insurance coverage estimates (from Truven Health Analytics) to provide Community Needs Index (CNI) scores at the ZIP code level. A score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need.

CNI data revealed neighborhoods 21205 (26.3 percent), 21213 (21.2 percent), 21202 (15.7 percent), and 21218 (14.6 percent) had higher percentages of unemployment when compared to the remaining ZIP codes in the CBSA. CNI calculates the percentage of the unemployed population in the labor force, aged 16 and older, and the percentage of the population without health insurance when calculating the insurance barriers. The inability to secure employment will block many from receiving and obtaining health services.

Examining clinical care rankings, where higher scores reflect a poorer clinical care environment, Baltimore County’s clinical care score increased from a five in 2012 to a ranking of eight in 2015. Baltimore City’s ranking score also increased from a 15 to a 19 between 2012 and 2015. The increase in these ranking scores indicate that specific measures such as the uninsured, primary care physicians, dentists, mental health providers, preventable hospital stays, diabetic monitoring, and mammography screening rates have been impacted; thus, altering the overall ranking outcome.

Table 3: County Health Rankings; Clinical Care

	Clinical Care Rankings
Baltimore City	
2012	15
2015	19
Baltimore County	
2012	5
2015	8

Source: County Health Rankings and Roadmaps 2015 and 2012

Chronic diseases are the leading cause of death and disability among citizens. Chronic diseases are responsible for seven of 10 deaths each year, and treating people with chronic diseases accounts for 86.0 percent of our nation’s health care costs according to the Centers for Disease Control and Prevention (C DC). Overall, the toll and the costs associated with chronic diseases are astounding. Many chronic diseases are preventable.

Living a healthy lifestyle by incorporating exercise, eating healthily, and avoiding tobacco and alcohol may prevent residents from developing certain diseases. Participating and engaging in a healthy lifestyle can increase the odds of positive health outcomes.

## IV. Community Health Services to Meet Community Needs

### Priority: Improving Socioeconomic Factors: Education

Education plays a major role in the success of our youth, and access to a quality education is imperative for all. Supportive efforts that encourage and promote education are the key to reducing high risk behaviors such as drug use, teen pregnancy, and crime among our youth.

Our dynamic society as well as our workplaces, reflect a diversity of backgrounds, skills and experiences. Succeeding in this society requires an education that incorporates

many forms of academic and practical experiences, particularly in a challenging socioeconomic environment. Mounting evidence shows that schools that emphasize early career development provide a clear path to better outcomes in school achievement and future employment.

Data obtained from Truven Health Analytics noted significant barriers to education in the community health needs assessment, and education was verbalized as a significant need among community leaders, focus groups attendees, and community forum participants.

Education attainment statistics of the CBSA or the overall study area compared poorly with the state and the nation. One-third (34.0 percent) of community residents only have a high school diploma. This percentage is higher than the state (26.0 percent) and the nation (28.1 percent). Just 21.6 percent, or one in five community residents, have a bachelor's degree or greater; this is much lower than the overall rates for both the state (36.8 percent) and the nation (28.9 percent).



Henderson-Hopkins School ribbon-cutting ceremony

Table 4: Education Level in the CBSA

	21202	21205	21206	21213	21218	21219	21222	21224	21231	Overall Study Area	MD	USA
Less than High School	5.6%	12.9%	4.8%	5.3%	4.9%	5.2%	6.5%	12.5%	8.1%	7.2%	4.4%	5.9%
Some High School	17.4%	23.6%	10.4%	18.2%	12.6%	12.0%	12.7%	12.6%	8.6%	13.5%	6.7%	8.0%
High School Diploma	28.3%	37.0%	37.0%	42.1%	27.5%	41.1%	43.9%	28.1%	16.5%	34.0%	26.0%	28.1%
Some College / Assoc. Degree	18.4%	19.1%	31.5%	24.0%	24.2%	30.6%	27.3%	18.4%	13.9%	23.8%	26.1%	29.1%
Bachelor's Degree or Greater	30.3%	7.4%	16.2%	10.4%	30.9%	11.1%	9.6%	28.4%	52.9%	21.6%	36.8%	28.9%

Source: Truven Health Analytics 2015

The Maryland City Schools Assessment (MSA) is administered in the spring of each year to all students in grades 3 to 8 and notes 84,976 students enrolled in Baltimore City schools during the 2013-2014 school year.<sup>3</sup> The MSA was recently replaced by the Partnership for Assessment of Readiness for College and Careers (PARCC) assessment as it is more aligned to Maryland’s College and Career-Ready Standards.

The MSA documented the ethnicity of students enrolled during the 2014 school year as 83.0 percent African American, 8.0 percent Caucasian, 7.0 percent Hispanic, 1.0 percent Asian and less than 1.0 percent Multi-racial. A 4.5 percent low English proficiency was also noted in this report.

School attendance rates over the three-year period decreased slightly from 90.1 percent (2012 and 2013) to 89.7 percent (2014). The 2015 MSA report documents graduation rates of 67.0 percent (2012), 68.0 percent (2013) and 70.0 percent (2014).

Research shows that participation and performance in youth development and mentoring programs have a direct relationship to school graduation, retention, and career readiness outcomes. The 901 Arts program, the Aspiring Scientists, Engineers and Physicians Partnership, the Patterson Park Public Charter School robotics competition and the Baltimore Alliance are among the plethora of programs supported by Johns Hopkins Institutions to inspire youth to fulfill their education, succeed in future employment, and offer career development in health care, science and technical vocations.

<sup>3</sup> Maryland City Schools Assessment (MSA) Report: <http://reportcard.msde.maryland.gov/index.aspx?K=30AAAA>



The Johns Hopkins Institutions will address the educational challenges through the following goal and strategies:

**Goal: Improve the health and well-being of our youth.**

- Strategy 1: Support youth mentoring.
- Strategy 2: Increase child participation in early childhood education and integrate health services into schools.



Patterson Park Public Charter School students participating in robotics competition

Concerted and diverse efforts must be made to prepare our youth for the world in which they will live, work, and play. Mentoring initiatives, afterschool programs, educational clubs, faith-based youth groups, active city parks, and neighborhood recreational facilities all serve to support our youth and to provide that pathway toward success as noted in the goal and strategies.

One specific program recently developed, P-TECH (Pathways in Technology Early College High School) creates a school-to-industry pipeline for Baltimore students. The program is a partnership between the state, Johns Hopkins University and Health System, Dunbar High School and the Baltimore City Community College to provide training from high school through community college, linking Baltimore students to positions in the healthcare industry. This program assists young residents in creating a pathway into science, technology, engineering, and math (STEM) fields.

**Priority: Improving Socioeconomic Factors: Employment**

Over the past decades, a decline in the steel industry, manufacturing, and shipping businesses have left many US cities in economic despair. Baltimore and Detroit are among those cities facing high rates of unemployment and severe economic challenges.

Economic development can be defined as efforts that seek to improve the economic well-being and quality of life for a community by creating and retaining jobs and supporting or growing incomes. The

economic well-being of a community and its residents is measured by income, rates of employment, levels of poverty, housing, and overall health.

The World Health Organization reports that only 20 percent of a patient's health is related to medical outcomes. The remaining 80 percent is related to social and economic factors, the environment, and behavioral practices. Where we live, work, and play are the major drivers of health outcomes. Throughout the 2016 CHNA process, community groups and individuals verbalized



concerns and reported significant disparities in the social and economic well-being across the Johns Hopkins Institutions' CBSA.

Minorities comprising the majority of the population of Baltimore City face many social and economic challenges. The 2015-2016 CHNA documents a greater need for social and emotional support in Baltimore City (29.1 percent) as compared to Baltimore County (20.3 percent), the state (19.8 percent), and the nation (20.7 percent).<sup>4</sup>

According to recent data available from the U.S. Census Bureau, young African American men between the ages of 20 and 24 had an unemployment rate of 37.0 percent in 2013 as compared to a rate of 10.0 percent unemployment among Caucasian men ages 20 to 24.

A large chasm exists when comparing the incomes of minority residents within the city of Baltimore to Caucasian residents. Caucasian residents earn almost twice as much as minority residents.<sup>5</sup> These disparities cross over to the city's youth where more than 1 in 3 of Baltimore's children live below the federal poverty line and more than 30.0 percent of Baltimore households earn less than \$25,000 per year. Economic and social disparities among employment, income, poverty, and race have an enormous impact on health outcomes.<sup>6</sup>

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<sup>4</sup> Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Community Commons.

<sup>5</sup> CNN Money: Baltimore's Economy in Black and White, CNN News, April 2016.  
<http://money.cnn.com/2015/04/29/news/economy/baltimore-economy/>

<sup>6</sup> Baltimore City Health Department-White Paper "State of Health in Baltimore: Summary of Key Issues, Services and Policies" 2016.  
<http://health.baltimorecity.gov/state-health-baltimore-winter-2016>

As a major economic driver, the Johns Hopkins Institutions will collaborate with community organizations to address the social and economic challenges through the following goal and strategies:

**Goal: Increase employment opportunities to local and minority communities.**

- Strategy 1: Improve career development among youth.
- Strategy 2: Create new employment opportunities for local communities and minorities; increase youth and adult workforce training programs.
- Strategy 3: Support/Contract with local and minority vendors to improve the local economy.

To help address socioeconomic disparities in Baltimore, The Johns Hopkins Hospital Department of General Services partnered with the Baltimore City Department of Social Services to create an avenue for individuals receiving state assistance to obtain full-time and part-time employment in the healthcare field. Applicants are certified through IMPACT, a 20-week, innovative, and researched-based curriculum specifically developed to provide the training that a competent worker needs to effectively and



The Johns Hopkins Hospital Department of General Services' healthcare internship program cohort

efficiently perform duties. IMPACT also provides invaluable information to help employees make better personal choices, recognize unethical behavior, and develop problem solving skills. This program has saved the health system in training dollars and, more importantly to the disadvantaged residents of Baltimore, has produced skilled workers for front-line jobs in a healthcare setting.

HopkinsLocal, an initiative that offers new approaches to build on community partnerships, projects with city schools, and job training programs to sustain healthier, safer and more vibrant communities is a firm commitment to leverage Johns Hopkins' economic power to expand participation of local, minority and women-owned businesses in construction and purchasing opportunities; increase hiring of city residents; and enhance economic growth, employment, and investment in Baltimore.

In conjunction with 24 other local Baltimore organizations, Johns Hopkins launched an economic inclusion initiative called BLocal. The committed organizations will invest at least \$69 Million into Baltimore's economy over the next three years by spending more on goods and services supplied by

disadvantaged, women-owned and minority-owned businesses in the city; providing summer jobs for city youth; and mentoring growing businesses.

## Priority: Access to Livable Environments: Housing

Over two decades ago, public health practitioners defined poor housing as a critical determinant of health, and linked poor housing with a wide range of health conditions, such as asthma, respiratory infections, lead poisoning, injuries and mental illness. They also noted that poor and substandard housing results in nearly 2 million emergency department visits for asthma, nationally.<sup>7</sup>

Across the nation, approximately one million young children have high lead blood levels that adversely affect their intelligence, behavior and development. Nearly two million Americans occupy homes with severe physical problems and an additional 4.8 million live in homes with moderate problems. Lack of affordable housing was linked also to



Johns Hopkins volunteers working on a Habitat for Humanity project

inadequate nutrition, especially among children as low-income families may be forced to use their limited resources to obtain shelter, leaving less resources available for other necessities such as food.<sup>7</sup>

With nearly 24.0 percent of Baltimore City residents living below the poverty level of \$20,090 a year for a family of three, poor housing poses a critical factor in health outcomes and quality of life.

The median value of owner-occupied housing units in Baltimore City is \$157,900. That value is less than half of the \$292,700 median for Maryland and well below the national median of \$176,700.<sup>8</sup>

According to the Housing Authority of Baltimore City (2011), complex housing issues include an estimated 16,000 vacant buildings, 14,000 vacant lots, and the presence of a lead paint violation rate of 11.8 per 10,000 households.<sup>9</sup>

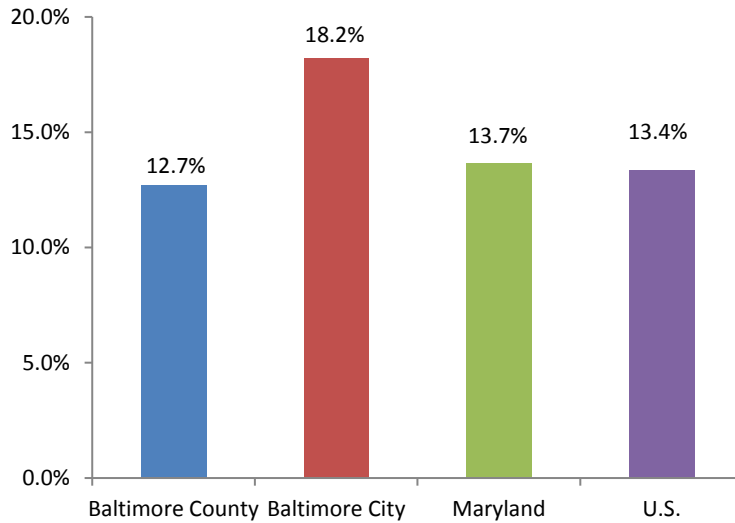
<sup>7</sup> The American Journal of Public Health, May 2002

<sup>8</sup> CNN Money: Baltimore's Economy in Black and White, Jordan Malter, CNN News. April 29, 2015

<sup>9</sup> Baltimore City Health Department: Baltimore City Neighborhood Health Profile 2011  
<http://health.baltimorecity.gov/neighborhoods/neighborhood-health-profile-reports>

The 2016 CHNA documents the occurrence of asthma among adults age 18 and above as notably higher in Baltimore City (18.2 percent) when compared to Baltimore County (12.7 percent), the state of Maryland (13.7 percent) and the U.S. (13.4 percent).

Chart 3: Asthma (Percent of Adults 18 and older with Asthma)



Source: Centers for Disease Control and Prevention

The 2016 CHNA Implementation Plan draws a strong association between poor and substandard housing and environmental health hazards such as asthma, allergy triggers, the presence of lead-based paint and poor indoor air quality. The implementation plan addresses the issue of housing as an important social determinant of health and offers the following goal and strategies:

**Goal: Increase access to housing and healthy homes in the CBSA.**

- Strategy 1: Expand capacity to identify housing issues among low-income, uninsured and homeless residents including challenges related to asthma triggers and lead among children.
- Strategy 2: Provide social support services to low-income, uninsured and homeless residents including improving homelessness initiatives.

At the Helping Up Mission, the Johns Hopkins Institutions are committed to providing support and funding assistance in transitional housing where homeless residents receive counseling for their addictions while living in a nurturing stable residential home in order to retain sobriety and independence.

**Priority: Access to Livable Environments: Food Environment**

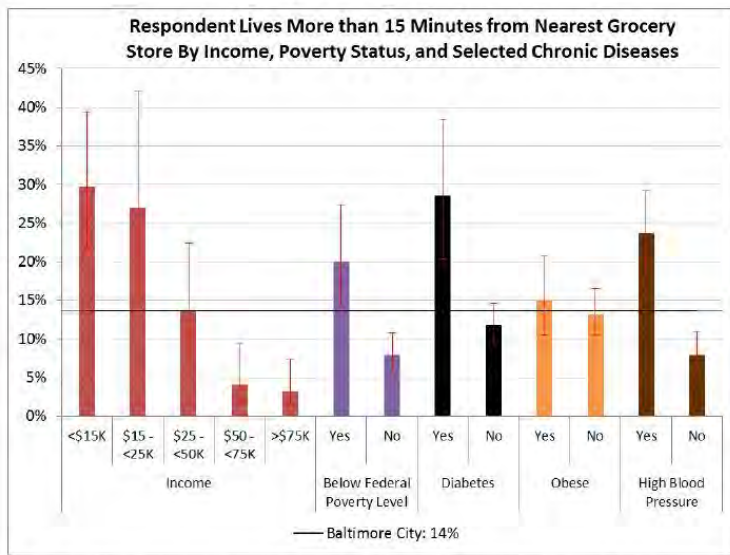
Having access to a variety of healthy and affordable foods and supermarkets is a key factor in the promotion of healthy lifestyles and the prevention of obesity among adults and children. Many health risks associated with obesity are preventable. Obesity prevention, weight management, behavioral intervention, and support programs must focus on the food environment, the promotion of physical activity and healthy nutrition as these efforts can have lasting effects on the quality of health for adults and children.

The literature notes that neighborhood residents with better access to supermarkets and limited access to convenience stores tend to have healthier diets and reduced risk for obesity. Some residents, and especially those without reliable transportation, may be limited to shopping at small neighborhood convenience and corner stores, where fresh produce and low-fat items are limited and/or not available.



Johns Hopkins doctors highlight healthy foods at the Northeast Market

Chart 4: Respondent Lives More than 15 Minutes from Nearest Grocery Store by Income, Poverty Status, and Selected Chronic Diseases<sup>10</sup>



Note: The red bars on the chart represent 95% confidence intervals that estimate the precision of each calculation.

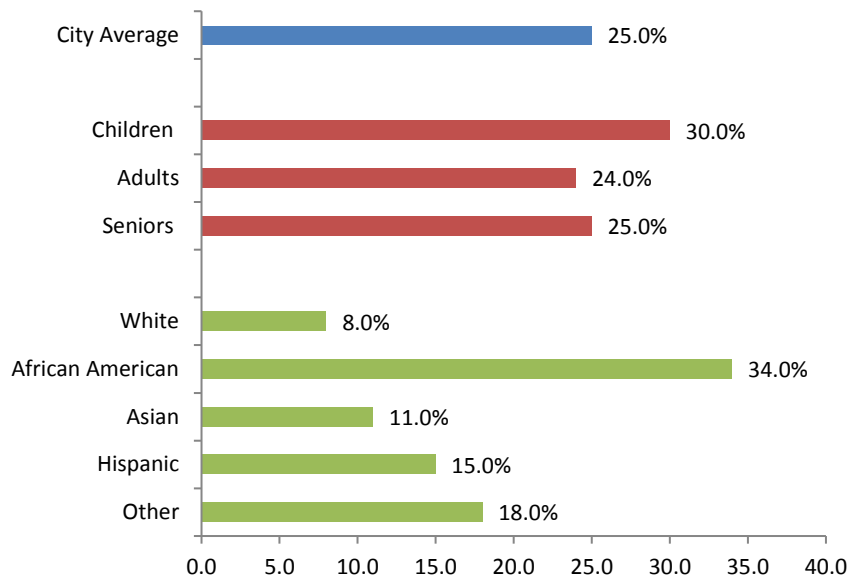
Source: Baltimore Community Health Survey 2014: Summary Results Report

<sup>10</sup> Baltimore Community Health Survey 2014: Summary Results Report  
<file:///C:/Users/HTP/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/BZ3PDTUT/Baltimore%20Community%20Health%20Report%202015.pdf>

A clear connection is found between access to food, social determinants of health, and chronic diseases. Those who reported having diabetes were twice as likely to live 15 minutes or more from the nearest grocery store than respondents without diabetes. Respondents that reported having high blood pressure were three times more likely to live 15 minutes or more from the nearest grocery store than respondents without high blood pressure.<sup>10</sup>

Data from the CHNA reported that 25.0 percent of people residing in Baltimore City live in food deserts. A population disparity was noted, with 34.0 percent of African Americans living in food deserts as compared to 8.0 percent Caucasians, 11.0 percent Asians, 15.0 percent Hispanic and other races at 18.0 percent.<sup>11</sup>

Chart 5: Percentage of Each Population Group Living in Food Deserts



Source: Mapping Baltimore City's Food Environment: 2015 Executive Summary

Despite the report of food deserts by population, a growth of convenience/corner stores, fast food restaurants, and carryout facilities is noted according to the Neighborhood Health Profile Report (2011). Accessibility to the nearest supermarket by walking is 16.6 minutes according to the study. The limited accessibility to city supermarkets for seniors and residents with limited transportation options is daunting, and oftentimes distance is a barrier for many residents.

<sup>11</sup> Mapping Baltimore City's Food Environment: 2015 Executive Summary  
<http://mdfoodsystemmap.org/wp-content/uploads/2015/06/Baltimore-Food-Environment-Report-2015-1.pdf>

Table 5: Food Retail Environment

	Baltimore City
<b>Fast Food Density</b> Number of fast food restaurants per 10,000 residents in Baltimore City (2009)	2.4
<b>Carryout Density</b> Number of carry-out restaurants per 10,000 residents in Baltimore City (2009)	12.7
<b>Corner Store Density</b> Number of corner stores per 10,000 residents in Baltimore City (2009)	9.0
<b>Nearest Supermarket Proximity is estimated</b>	
By car	3.7 minutes
By bus	12.3 minutes
By walking	16.6 minutes

Source: Neighborhood Health Profile 2011

### Adult Obesity

The National Obesity Action Coalition (2015) regards obesity as a serious and rising health epidemic in our country. The Coalition estimates that nearly 93 million Americans are obese and that number is predicted to climb to 120 million within the next five years.<sup>12</sup> Adult obesity is defined by the National Institutes of Health (NIH) as a Body Mass Index (BMI) of 30 and above, or approximately 30 pounds overweight. The BMI relates body weight in kilograms (kg) divided by height in meters (m) squared.<sup>13</sup>

According to The State of Obesity: Better Policies for a Healthier America (2014), it was reported that Maryland has the 26th highest adult obesity rate in the nation.<sup>14</sup> The adult obesity rate in Maryland has increased to 29.6 percent in 2014 from 19.6 percent in 2000 and 10.8 percent in 1990.<sup>15</sup>

<sup>12</sup> National Obesity Coalition: <http://www.obesityaction.org/educational-resources/resource-articles-2/general-articles/the-national-diabetes-goal-turning-the-tide-of-pre-diabetes-in-america>

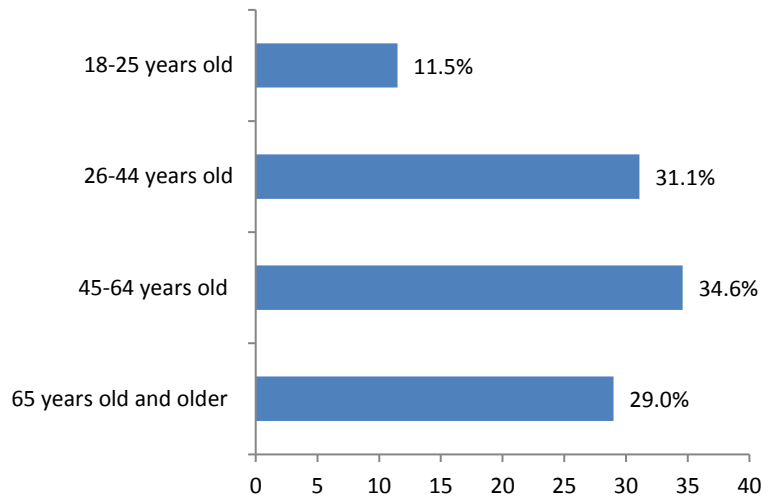
<sup>13</sup> National Institutes of Health: <http://www.niddk.nih.gov/health-information/health-statistics/Pages/overweight-obesity-statistics.aspx>

<sup>14</sup> Trust for America's Health: <http://healthyamericans.org/report/115>

<sup>15</sup> State of Obesity: <http://stateofobesity.org/adult-obesity/>



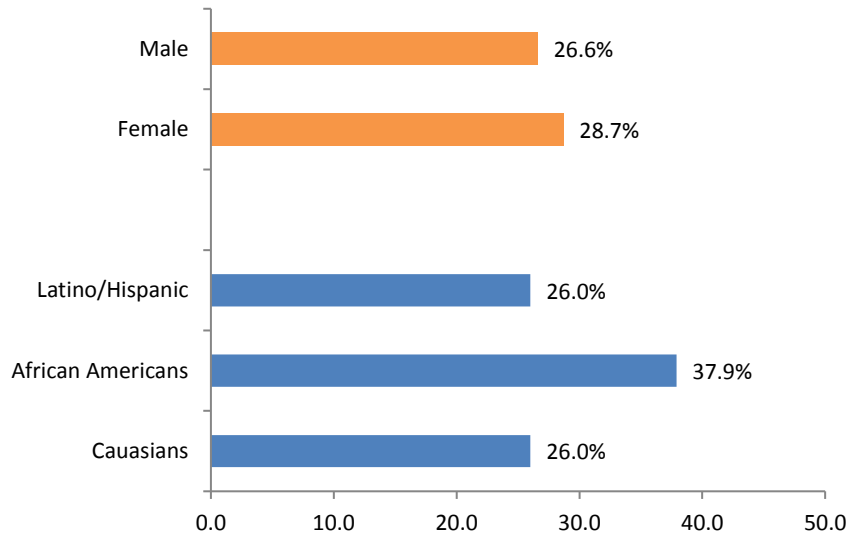
Chart 6: Obesity by Age in Maryland (2014)



Source: The State of Obesity: Better Policies for a Healthier America

More than one-third of African Americans in Maryland are considered obese.

Chart 7: Obesity by Race and Gender in Maryland (2015)



Source: Trust for America's Health and Robert Wood Johnson Foundation, 2015

## Childhood Obesity

Across the nation, childhood obesity has doubled over the past 30 years, resulting in costly and damaging effects on the overall quality of life.<sup>16</sup> For many children and teens, obesity continues into adulthood and with it comes more severe health risks and complications. Obesity in children can lead to many immediate health concerns including hypercholesterolemia, hepatitis, sleep apnea, depression, early heart disease and hypertension. As these harmful illnesses occur at an early age, the health risks of obesity and chronic ailments occurring in adulthood is greater.

The Centers for Disease Control and Prevention (CDC) defines childhood obesity as the following: For children and teens, the BMI is age and sex specific and referred to as BMI-for-age. A BMI at or above the 85<sup>th</sup> percentile and below the 95<sup>th</sup> percentile is defined as overweight. A BMI-for-age at or above the 95<sup>th</sup> percentile for children and teens of the same age and sex is defined as obese.<sup>17</sup>

For example, a 10-year-old boy of average height (56 inches) who weighs 102 pounds would have a BMI of 22.9 kg/m<sup>2</sup>. This would place the boy in the 95<sup>th</sup> percentile for BMI, and he would be considered as obese. This means that the child's BMI is greater than the BMI of 95.0 percent of 10-year-old boys in the referenced population.

Changing behaviors can have long term impacts on the health and quality of life for adults, children and families. It was concluded that a 1.0 percent reduction in overweight and obese adolescents between the ages of 16-17 years of age could reduce the future number of obese adults by 52,821. This reduction in obesity would further reduce medical costs and increase quality of life for these individuals.<sup>18</sup>

Improving the food environment includes a focus on goals and strategies that address adult and childhood obesity and improves access to healthy foods. The implementation plan intends to address the issue and offers the following goal and strategies:



Dayspring Programs' community garden

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<sup>16</sup> Centers for Diseases Control and Prevention: Childhood Obesity Facts.

<sup>17</sup> Centers for Diseases Control and Prevention:

[http://www.cdc.gov/healthyweight/assessing/bmi/childrens\\_bmi/about\\_childrens\\_bmi.html](http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html)

<sup>18</sup> National Center for Biotechnology Information by LY Wang - 2010 - Cited by 38 - Related articles

J Adolesc Health. 2010 May;46(5):467-73. doi: 10.1016/j.jadohealth.2009.11.204. Epub 2010 Jan 13. ... Wang LY(1), Denniston M, Lee S, Galuska D, Lowry R. PubMed Result - NCBI [www.ncbi.nlm.nih.gov/pub](http://www.ncbi.nlm.nih.gov/pub).

**Goal: Improve access to healthy food and healthy behaviors among youth and adults.**

- Strategy 1: Expand program education on healthy eating and health practices.
- Strategy 2: Support programs that improve access to healthy foods for low-income families.
- Strategy 3: Increase physical activity among adults and youth.

Johns Hopkins pediatric gastroenterologist and weight expert Dr. Ann Scheimann says obesity and overweightness are nearly always multi-factorial problems. But, she adds, the greatest drivers are lifestyle habits that begin at birth.<sup>19</sup>

According to Dr. Scheimann, “The key to healthy eating is getting buy-in by every single member of the family and healthy eating must be incorporated in a stepwise fashion, or else you’ll get right back on the same old bandwagon.”

This whole-family concept is at the heart of the Weigh Smart program launched by Scheimann—a “no-fault,” family-based group therapy approach

to healthy living. During two-hour evening sessions over 10 weeks, small groups of overweight children and their families first meet with a nutritionist to talk about what they eat—and how much—and learn how to choose healthier foods and smaller portions. The therapy session is always paired with 60 minutes of group exercise in the hospital’s gym. Now after two years, hundreds of children have completed the program—and it is working. Weigh Smart kids have shredded away pounds, including body fat, and kept the weight off over time.<sup>20</sup>

Increased physical activity can help prevent overweightness and obesity among adults and children. It is noted that lower income neighborhoods may lack available physical activity resources such as parks, walks and recreational facilities than higher income neighborhoods, making it difficult to lead a physically active lifestyle.

To address obesity, improve physical activity and access to healthy foods, the Johns Hopkins Institutions will enhance their focus on the food environment. Prevention is important. Healthy lifestyle habits, including healthy eating and physical activity, can lower the risk of becoming obese and developing related chronic diseases. The Johns Hopkins Institutions has many successful programs designed to raise



Days of Taste program with Chef John Shields

<sup>19</sup> The Johns Hopkins Hospital: [www.hopkinschildrens.org/Ann-Scheimann-MD.aspx](http://www.hopkinschildrens.org/Ann-Scheimann-MD.aspx)

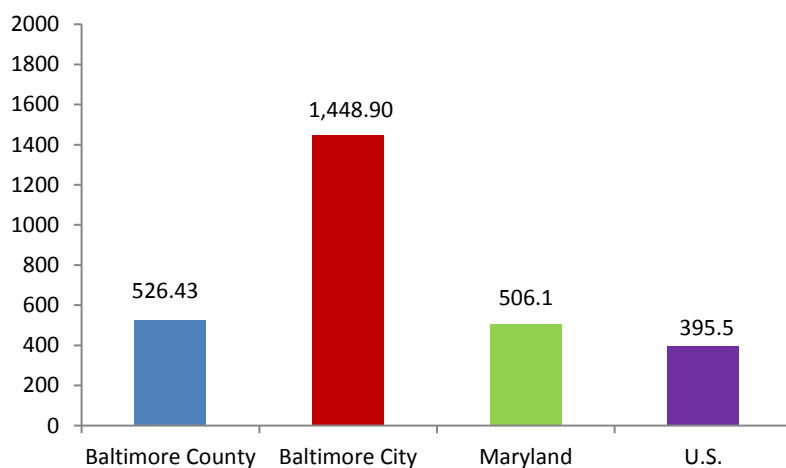
<sup>20</sup> Children’s Hospital at Johns Hopkins, “Tackling Childhood Obesity” January 16, 2014. <http://www.hopkinschildrens.org/tackling-childhood-obesity.aspx>

awareness, prevention and treatment of obesity as well as evidence-based education and workshops on obesity and proper nutrition. Programs such as Weigh Smart, Food Re-education for Elementary School Health (FRESH), Days of Taste, and Stepping Out for Health, target healthy weight, the benefits of healthy nutrition habits and physical activity.

### Priority: Access to Livable Environments: Crime and Safety

A healthy community is a safe community. From a healthy community perspective, the prevalence of crime is often strongly associated with level of education, income and other socioeconomic factors. A high incidence of violent crime is noted in Baltimore City. The Baltimore City crime rate of 1,448.90 per 100,000 population is significantly higher than Baltimore County at 526.43, the state of Maryland at 506.1 and the U.S. at 395.5. This high rate is nearly triple the rate of many of its counterparts.

Chart 8: Violent Crime (Rate per 100,000 pop.)



Source: Federal Bureau of Investigation, FBI Uniform Crime Reports, 2010-2012 via Community Commons

The Baltimore Department of Health regards crime and public safety as a key priority for the city and strongly believes that preventing violence is an essential function of public health. Through its Safe Streets program, a reduction in shootings and homicides in some of the targeted communities has occurred.<sup>21</sup>

Results from the hand-survey indicated that 62.0 percent of survey respondents feel “somewhat safe” from crime in their neighborhood/community. The prevalence of crime (25.3 percent), violence (24.2 percent), and drugs (23.7 percent) were highly cited as the top three reasons why survey respondents did not feel safe in their neighborhood and community.

<sup>21</sup> Baltimore City Health Department: BCHD White Paper: State of Health in Baltimore (Winter 2016). <http://health.baltimorecity.gov/state-health-baltimore-winter-2016>.

When residents fear crime and perceive that their neighborhood is not safe, less physical activity such as walking, jogging and biking take place. Many of the elderly limit their outdoor activity based on perceptions of safety and crime. In another CHNA hand-survey question, crime and assault were further reported as third (8.4 percent) among the top ten (10) health concerns in the community. The highest concerns were drug and alcohol use/addiction at 11.5 percent, and the second highest response was affordable housing/homelessness at 9.2 percent.

In response to the crime and safety issues which plague the city, the implementation phase plans to address the problem through the following goal and strategies:

**Goal: Enhance neighborhood safety.**

- Strategy 1: Establish safe haven facilities for after school programs, summer camps, and neighborhood youth recreation programs.
- Strategy 2: Establish safety education sessions and intervention programs.

Addressing crime and safety is a daunting task for any community and must be accomplished through the combined efforts of diverse health services, faith communities, and public organizations working in concert to better serve their community.

Partnerships among public health and community organizations are essential in working together to reduce and prevent crime and violence. The presence of quality after-school programs, city parks and neighborhood recreational facilities also serves to build safe communities and engage broad community involvement.

Operation PULSE (People United to Live in a Safe Environment), the Craig Cromwell Basketball League, A Mother's Cry and Adelante Familia are examples of programs designed to focus on crime prevention, provide support to families and promote community safety.



## Access to Behavioral Health Services: Mental Health & Substance Abuse

Behavioral health issues were frequently discussed during the CHNA process. Behavioral health services support the emotional health and well-being for individuals and families affected by substance use and mental health disorders. Mental illness affects people of all ages, ethnicity and socioeconomic backgrounds. Behavioral health treatment and support services assist individuals and families living with mental illness to lead productive lives.

In 2014, the National Institute of Mental Health reported that 18.1 percent of adults age 18 and older have a mental illness, 43.6 million Americans. Of those, 9.8 million have been determined to have a serious mental illness, representing 4.1 percent of all adult Americans. The report notes that 1 out of 25 adults need both mental health and substance use disorder treatment and 68.0 percent of adults with mental illness or substance use disorders also have one or more chronic medical conditions. The report noted that individuals with mental illness die 10 to 25 years earlier than those without a mental illness.

Baltimore has one of the highest rates of heroin use and overdose in the country. In 2014, 192 deaths were heroin-related. Over 60,000 people in the City are estimated to have a drug or alcohol addiction.<sup>22</sup>

Just over 20.0 percent of children (1 in 5) in the U.S. were reported to have a serious mental health condition.<sup>23</sup> More than one-quarter (30.0 percent) of children in Baltimore have Adverse Childhood Experience (ACE) scores of 2 or more, meaning that they have experienced more than two incidences of events such as domestic violence, living with someone with an alcohol/drug problem, the death of a parent, or being a victim/witness of neighborhood violence.<sup>24</sup>

Untreated mental illness can result in substantial social and economic costs. Individuals with untreated mental illness are more likely to experience unemployment, homelessness, and incarceration. These



Johns Hopkins psychiatrist Denis Antoine directs the Cornerstone program at the Helping Up Mission, a nonprofit, faith-based mission that offers a residential addictions recovery program

<sup>22</sup> Baltimore City Health Department: BCHD White Paper: State of Health in Baltimore (Winter 2016). <http://health.baltimorecity.gov/state-health-baltimore-winter-2016>.

<sup>23</sup> The National Institute of Mental Health 2014.

<sup>24</sup> Baltimore City Dept. of Health White Paper, Winter 2016.

experiences, in turn, increase individuals' exposure to trauma and can exacerbate symptoms of mental illness, creating a devastating cycle of poor health, instability and crisis.<sup>25</sup>

**Goal: Improve access to mental health and behavioral health services.**

- Strategy 1: Provide individual, group, family therapy, medication treatment and other mental health services, as well as prevention interventions, in local schools.
- Strategy 2: Develop program(s) to support emergency room patients waiting for outpatient mental health and/or substance use disorder treatment.

Comprehensive behavioral health services provide treatment and support services needed to improve the quality of life for individuals and families and reduce the unnecessary use of hospital emergency departments, community resources and shelters.

Utilizing support from Community Social Workers and Health Behavior Specialists, a new service offers assistance to patients who could benefit from additional social work assistance after they are discharged from the hospital or emergency room. The designated social worker assists with housing, transportation, food, identification of multi-lingual providers, and other issues potentially affecting their ability to successfully manage on their own. Community Social Workers help patients with mental health needs connect to services.

Behavioral health care and services assist individuals and families affected by mental illness and substance use. The following goals and strategies improve access to behavioral health services and focus on innovative approaches for prevention, early intervention, treatment and recovery.

**Goal: Improve access to available substance abuse services.**

- Strategy 1: Expand outpatient treatment for homeless men needing substance abuse services.
- Strategy 2: Provide substance abuse and mental health services to pregnant women with active substance use disorders.
- Strategy 3: Provide addiction treatment services to address opioid addiction in local community.

The Broadway Center for Addiction, often referred to as 911 because of its address at 911 N. Broadway, is operated by The Johns Hopkins Hospital Center for Addictions. For more than two decades, the center has provided methadone maintenance therapy for people with opioid addiction.

Broadway Center offers federally approved addiction medication and a menu of required addiction counseling and group classes for patients. A strong collaboration was created to connect the Broadway Center to several Baltimore-based physicians in order to identify patients with addiction and connect

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<sup>25</sup> The Behavioral Health System of Baltimore  
[http://www.bhsbaltimore.org/site/wp-content/uploads/2015/12/30522-Mental\\_Illness\\_OnePager.pdf](http://www.bhsbaltimore.org/site/wp-content/uploads/2015/12/30522-Mental_Illness_OnePager.pdf)

them to the center, which in turn connected addicted patients to local physicians for physical health care services.

In 2009, when Dr. Stoller became director, the center began collaborating with outside medical centers. “I visited primary care and psychiatric sites to get referrals from physicians who wanted their patients to receive treatment for substance use disorders.”

Gene, a 45-year-old Baltimore native was able to receive care and treatment which was tailored to his needs. Gene came to the Broadway Center in 2015, after a decade long battle with heroin addiction that began after he received prescription painkillers for injuries during his semi-pro football career. Losing his job, family, and home, Gene was living in a nearby halfway house. “I looked in the mirror one day and didn’t know who I was,” he said. After his attempted suicide, Gene ended up at Johns Hopkins Bayview Medical Center where he received psychiatric treatment and detoxification from heroin; ultimately, he was referred to the Broadway Center for outpatient treatment and care.

The center provided Gene a tailored treatment program and “opened up a whole new world” for him. As part of the recovery process, Gene’s first step was an intensive outpatient program which included mandatory classes, one individual counseling session, and a urinalysis to determine whether he was using any illicit drugs. Gene also received occupational therapy and made regular visits to a primary care physician because of his pain and injuries.

Gene graduated to standard outpatient care in six weeks. He started visiting the center twice a week and received take-home prescription for buprenorphine. While continuing to work on pain management and confident he had kicked his addiction, Gene relocated to be closer to his sister. With his support network removed and no access to group counseling, he relapsed.

In March 2016, Gene was readmitted to the Broadway Center. “It’s easy to return to treatment because you know what to expect,” he said. “But there’s a certain humility you have to deal with. I didn’t come here right away. I had to man up to do it.”

Gene said he is confident his continued treatment plan will work. “I know it works. I’m living proof that it works. If you do what you’re supposed to do, there’s no reason you can’t make it work.”

Based on patient needs, the Broadway Center is able to transition from one level of addiction treatment to another. “It’s about the right treatment for the right person at the right time, using a combination of medications and counseling,” Stoller said. “Just like any other medical condition, we use all available tools to achieve the best outcomes for our patients.”

### **Access to Health Services: Dental Services**

Seeking dental care and finding a dental care provider is a challenge for many, especially among uninsured and low-income populations. The biggest barrier to dental care and preventive dental services most frequently reported through the CHNA was the financial barrier or high cost of care. Many Americans cannot obtain the dental care they need, resulting in poor dental health, work, and life productivity.



Many communities surveyed frequently noted that low-income and uninsured populations may forgo a dental visit and may ignore an oral health condition until forced to seek care. The main reason often given is affordability due to the lack of insurance.

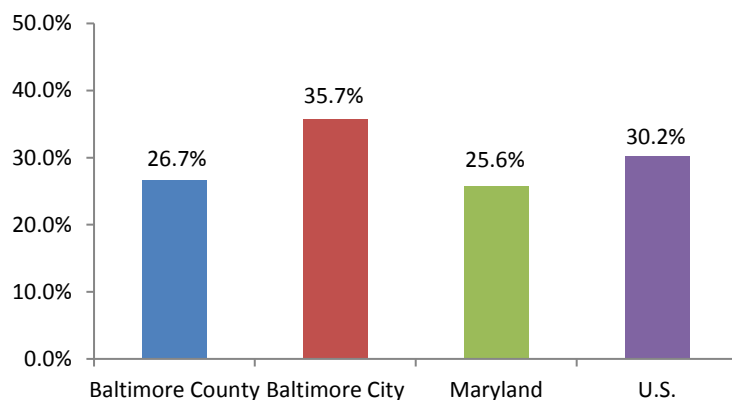
To maintain optimal oral health, the American Dental Association (ADA) recommends regular dental visits, at intervals determined by a dentist. The ADA reminds consumers that the frequency of regular dental visits should be tailored by their dentists to accommodate for their current oral health status and health history. Personalized oral care is a necessity for good dental health. The ADA encourages people to work closely with their dentists to identify any potential risk factors that would determine the need for and frequency of follow up visits to enhance the outcomes of preventive care.



Unfortunately, the emergency room may be the only place that some Americans obtain dental care. Preventable dental conditions were the reason for more than 830,000 visits to the emergency room in 2009.<sup>26</sup> Due to a lack of insurance and an inability to pay for care, an increase in visits to the emergency departments for urgent dental visits is noted.

In addition to financial barriers to dental care, the lack of health literacy on dental health and preventive dental services plays a key role in accessing dental health services. Many populations may not understand the importance of dental health care and lack education and understanding of available dental care options and preventive care services.

Chart 9: Dental Care Utilizations (Percent of Adults Age 18+ Who Have Not Visited a Dentist in Past Year)



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

<sup>26</sup> Dental Health for Families USA; May 2012 “A Nation in Need of Dental Care”

The CHNA reported that 35.7 percent of Baltimore City adults 18 and older had not visited a dentist in the past year. This percentage was higher than Baltimore County (26.7 percent), the state (25.6 percent), and the U.S. (30.2 percent). The report also noted that 20.4 percent of Baltimore City residents aged 18 and older had six or more teeth removed due to poor dental health as compared to Baltimore County (16.2 percent), the state (13.4 percent), and the nation (15.7 percent).

Improving access to dental health care for the uninsured requires collaboration among health systems, dentists, and community organizations. The following goal and strategies are offered to improve access to dental services and focuses on approaches for prevention, early intervention, and treatment.

**Goal: Increase access to dental care services for uninsured patients.**

- Strategy 1: Increase network of dental providers serving uninsured/underinsured patients accepting referrals from Johns Hopkins facilities.
- Strategy 2: Provide dental health education outreach.

TAP (The Access Partnership) will expand their scope of work to include exploring new resources to provide dental care to CBSA residents without coverage. This will include identifying area providers who will provide dental care at no cost and transporting residents in need to appointments.

**Access to Health Services: Uninsured**

The lack of health insurance has served as a major barrier to accessing health care, health outcomes, and quality of life. Prior to the Affordable Care Act (ACA), low-income, uninsured and underinsured individuals and families struggled to gain access to health care when needed. Many individuals and families delayed seeking care because they lacked health insurance and were unable to pay out of pocket health care costs. As a result, low-income and uninsured populations sought care in the emergency room rather than through regular doctor office visits.

With the enactment of the Affordable Care Act (ACA) and health care reform, all Americans are required to purchase health insurance coverage or pay a tax penalty. A plethora of state and national insurance exchanges and insurance options were made available. Across the nation and locally, the number of uninsured has significantly declined and more individuals and families are now covered by health insurance.

According to the Baltimore Community Health Survey 2014: Summary Results Report<sup>27</sup>

- The disparity in health insurance coverage in 2014 between African American respondents and Caucasian respondents decreased compared to the 2009 survey.
- 14.0 percent of respondents reported obtaining health insurance through the Affordable Care Act (“Obamacare”) or the Maryland Health Exchange.

A recent Baltimore Sun article also noted that over 130,000 more people were insured in Maryland. The number of uninsured people fell to 463,000, or 7.9 percent of the state’s population in 2014, from 593,000, or 10.2 percent in 2013. Nationally, the survey found 8.8 million more people secured health insurance in 2014, leaving about 33 million people without coverage, or about 10.4 percent of the U.S. population.<sup>28</sup>



JHBMC’s Care-A-Van takes health services into the community.

Although the gap is closing, there is much yet to do in assessing eligibility, enrolling the uninsured in appropriate insurance coverage and keeping them enrolled. The CHNA Implementation Plan goal and strategies further advance initiatives to achieve insurance coverage for all community residents.

**Goal: Improve access to healthcare services for uninsured and underinsured residents across JHH/ JHBMC CBSA.**

- Strategy 1: Connect uninsured residents into private insurance, Medicaid, or other available coverage.
- Strategy 2: Reduce transportation barriers and enhance awareness of available services.
- Strategy 3: Provide annual training for all JHH/JHBMC medical staff on accessing and utilizing interpretive services.

<sup>27</sup> Baltimore Community Health Survey 2014: Summary Results Report  
file:///C:/Users/HTP/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/BZ3PDTUT/Baltimore%20Community%20Health%20Report%202015.pdf  
<http://health.baltimorecity.gov/sites/default/files/BCHD%20CHS%20Report%20Sept%202016%202015.pdf>

<sup>28</sup> The Baltimore Sun: [www.baltimoresun.com/health/blog/bal-number-of-uninsured-in-maryland-declines-20150916-story.html](http://www.baltimoresun.com/health/blog/bal-number-of-uninsured-in-maryland-declines-20150916-story.html)

One initiative that provides and addresses the accessibility to health care services is Care-A-Van. JHBMC's Community Care-A-Van is a free, mobile medical unit staffed by Medical Center health care professionals, where services are provided directly to patients who are unlikely to visit health care facilities. Bilingual services are always available at the Care-A-Van.

Care-A-Van provides primary medical care, immunizations, acute care, physicals and education on various health-related topics. Free testing for sexually transmitted diseases is offered, as well as referrals for Women, Infants and Children (WIC). Pregnancy testing and referrals for prenatal care also are available.

### **Access to Health Services: Chronic Diseases**

Communities across the nation face a health crisis as the occurrence of chronic diseases continues to increase. It is estimated that almost 50.0 percent of Americans live with at least one chronic disease. It is also noted that 7 of the 10 leading causes of death in the United States are chronic diseases. The leading chronic diseases include cardiovascular disease such as heart attacks and stroke, arthritis, diabetes, cancer and obesity. Chronic disease not only affects health outcomes but causes limits in function, activity, and work, as well as the overall quality of life among individuals and families.<sup>29</sup>

Over the past decade, the overall mortality rate in Baltimore City has declined, but the City still has a mortality rate that is 30.0 percent higher than the rest of the state and ranks last on key health outcomes compared to other jurisdictions in Maryland. The leading causes of death for Baltimore City are noted as heart disease, cancer, and stroke, HIV/AIDS and chronic lower respiratory disease.<sup>30</sup>

Underlying these chronic diseases and conditions are significant health risk factors such as tobacco use and its exposure. Smoking is a preventable cause of disease and death among both male and female smokers. In the United States, the smoking mortality is about three times higher than that among similar people who never smoked. Over 480,000 deaths occur annually due to smoking and secondhand smoke. The life expectancy for smokers is at least 10 years shorter than for nonsmokers. It is further noted that quitting smoking before the age of 40 reduces the risk of dying from a smoking-related disease by about 90.0 percent.<sup>31</sup>

One-quarter (25.0 percent) of adults living in Baltimore City are regular smokers, compared to a national average of 17.0 percent.<sup>32</sup> The major causes of mortality among smokers are cancer, respiratory illness

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<sup>29</sup> Centers for Disease Control and Prevention (CDC) Preventing Chronic Diseases and Reducing Health Risk Factors, Oct 2013.

<http://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/overview/diseasesandrisk.htm>

<sup>30</sup> Baltimore City Health Department: BCHD White Paper: State of Health in Baltimore (Winter 2016).

<http://health.baltimorecity.gov/state-health-baltimore-winter-2016>.

<sup>31</sup> Centers for Disease Control and Prevention: Tobacco Fact Sheet, August 2015

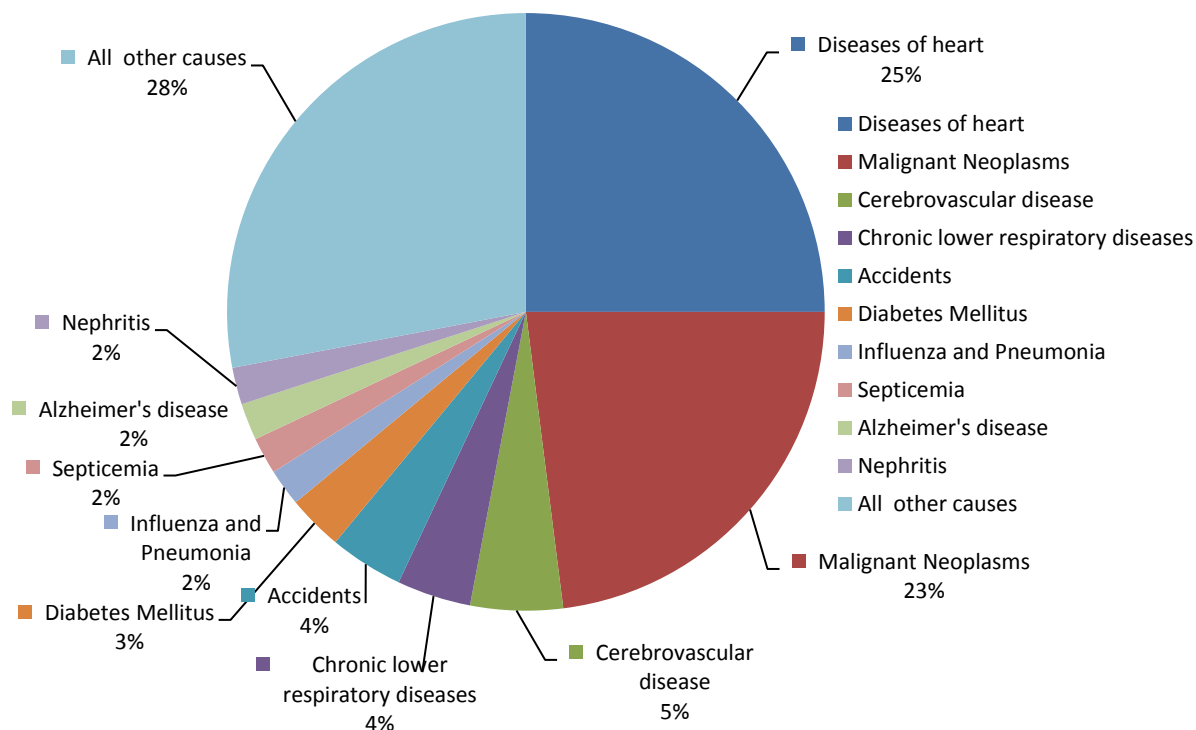
[http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/fast\\_facts/](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/)

<sup>32</sup> Baltimore City Health Department: BCHD White Paper: State of Health in Baltimore (Winter 2016).

<http://health.baltimorecity.gov/state-health-baltimore-winter-2016>.

and vascular disease. One of every five deaths across the nation is related to tobacco, representing more than five million years of potential life lost and resulting in nearly \$50 billion in health care costs per year. Smoking affects both adults and adolescents and results in illness, injury and environmental hazards.<sup>33</sup>

Chart 10: Leading Causes of Death in Maryland 2013



Source: Maryland Department of Health and Mental Hygiene Vital Statistics 2013

Diseases of the heart were identified as the major cause of death in Maryland, reported at 25.0 percent of total deaths.<sup>34</sup> According to the American Heart Association, Heart Disease and Stroke Statistics, 2013 Update, Maryland has the 17th highest death rate from cardiovascular disease in the country.<sup>35</sup>

Hypertension is one of the most common risk factors for diseases of the heart. The presence of hypertension increases the risk of heart disease times two in men and times three in women.<sup>36</sup> It is

<sup>33</sup> Centers for Disease Control and Prevention: Tobacco Fact Sheet, August 2015  
[http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/fast\\_facts/](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/)

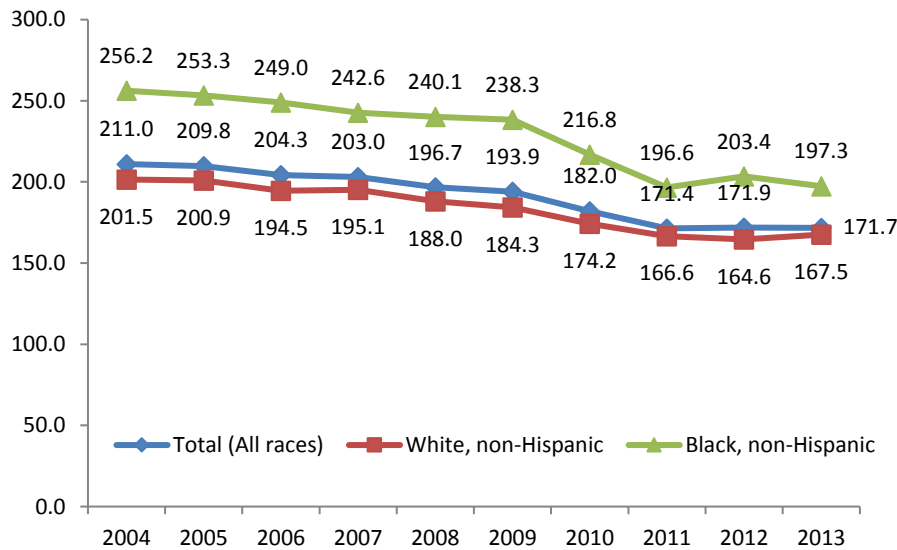
<sup>34</sup> Maryland Department of Health and Mental Hygiene Vital Statistics 2013.  
<http://dhmh.maryland.gov/vsa/Documents/13annual.pdf>

<sup>35</sup> American Heart Association:  
[https://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_307180.pdf](https://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_307180.pdf)

<sup>36</sup> American Heart Association 2012.

documented that African Americans have a greater risk than Caucasians for cardiovascular disease due to more severe high blood pressure problems.<sup>37</sup> Educating the broad community to understand the risks and signs of heart disease and stroke serves as the major impetus in the prevention and treatment of heart disease.

Chart 11: Diseases of the Heart Age-Adjusted Death Rate for Diseases of the Heart by Race. Rate per 100,000 Population



Source: Maryland Department of Health and Mental Hygiene Vital Statistics, 2013

The implementation of initiatives that provide health education, promote wellness, and encourage prevention can yield a positive impact on health status and reduce the incidence of heart disease.

Diabetes is a widespread, chronic disease caused by the inability of the body to produce or properly use insulin. It is characterized by high blood sugar levels. Diabetes predisposes people to costly complications, including heart disease, hypertension and stroke. Diabetes is the leading cause of new cases of blindness, end-stage renal failure, and non-traumatic lower extremity amputation.

There are a reported 618,156 people in Maryland living with diabetes and nearly 1.6 million people with prediabetes who are at risk of developing diabetes, according to the American Diabetes Association of Baltimore.<sup>38</sup> The occurrence of diabetes is more prevalent in the 65 and older age group and is coupled with increasing rates of obesity due to more sedentary lifestyles.

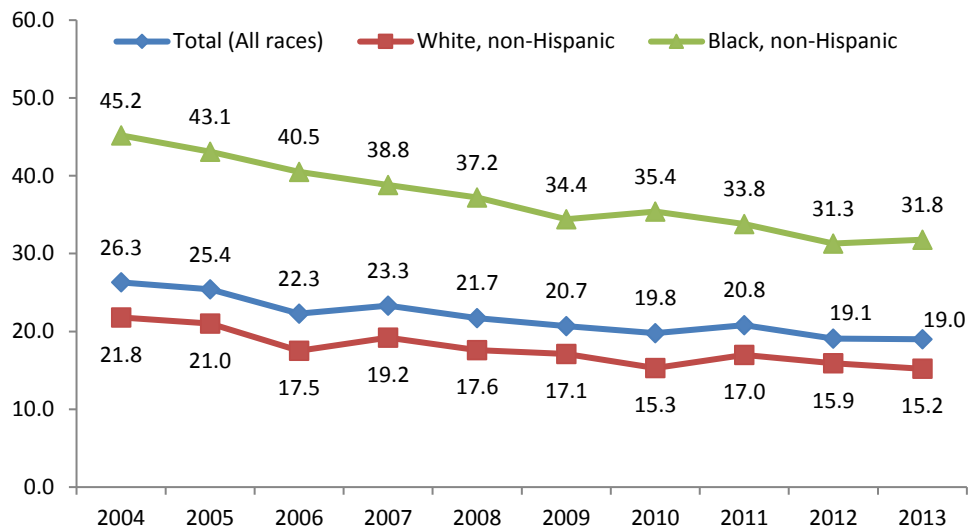
<sup>37</sup> Maryland Department of Health and Mental Hygiene Vital Statistics 2013.

<http://dhmh.maryland.gov/vsa/Documents/13annual.pdf>

<sup>38</sup> American Diabetes Association of Baltimore: <http://www.diabetes.org/in-my-community/local-offices/baltimore-maryland/?referrer=https://www.google.com/>

The death rate due to diabetes of 31.8 per 100,000 among African Americans was notably higher than other races in 2013 according to the Maryland Department of Health and Mental Hygiene Vital Statistics. Given the enormous impact of this disease on the cost and quality of health care, it remains essential to continue to screen, prevent, and treat diabetes as a high priority.

Chart 12: Diabetes Mellitus Age-Adjusted Death Rate for Diabetes Mellitus by Race. Rate per 100,000 Population<sup>39</sup>



Source: Maryland Department of Health and Mental Hygiene Vital Statistics, 2013

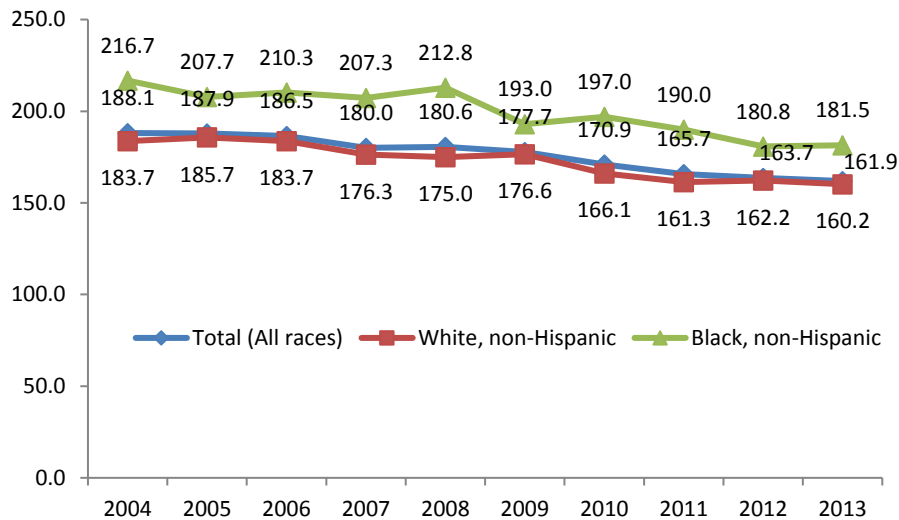
Cancer in some form affects more than one million American people annually as reported by the American Cancer Society (ACS).<sup>40</sup> In 2015, the ACS estimated that the 171,000 cancer deaths would be caused by tobacco use alone and that 25.0 percent to 33.0 percent of cancer cases would be attributed to poor nutrition, physical inactivity, overweightness and obesity. The ACS noted that the suffering and death caused by cancer could be prevented by more systematic efforts to reduce underlying causes and to expand the use of established screening tests. Therefore, a greater emphasis must be placed on cancer screenings to provide early detection and public education and awareness to reduce the risk and prevent the various types of cancer.

The CHNA reported malignant neoplasms as 23.0 percent among the leading causes of death in the state of Maryland. The rate of malignant neoplasms was higher among African Americans (181.5 per 100,000) as compared to Caucasians at (160.2 per 100,000).

<sup>39</sup> Maryland Department of Health and Mental Hygiene Vital Statistics, 2013

<sup>40</sup> American Cancer Society: <http://www.cancer.org/?gclid=COjFq8rDhcwCFcYkhgodmyMGrA>

Chart 13: Malignant Neoplasm Age-Adjusted Death Rate for Malignant Neoplasm by Race. Rate per 100,000 Population<sup>41</sup>



Source: Maryland Department of Health and Mental Hygiene Vital Statistics, 2013

Goals and strategies that improve access to chronic disease prevention, risk reduction and disease management are important. Health screenings, broad community education and awareness are among the interventions deployed to address chronic disease and underlying factors. The implementation plan will address the issue of chronic diseases and offers the following goal and strategies:

**Goal: Share clinical expertise with community organizations to prevent, detect, and manage chronic diseases.**

- Strategy 1: Work with community organizations and congregational health networks to improve care, awareness, management and promote prevention of chronic diseases.
- Strategy 2: Support patients with chronic conditions during transitions and in accessing resources to reduce barriers to patient engagement (i.e., social determinants).

The Mary Harvin Transformation Center is a community based center in East Baltimore that supports individuals of all ages with the goal of assisting them in their quest to move towards quality living. Johns Hopkins is partnering with Reverend Donte Hickman and the Southern Baptist Church to create an East Baltimore Hub for Community Engagement. This new initiative, led by the Healthy Community Partnership, the Johns Hopkins Department of Spiritual Care and Chaplaincy, and Medicine for the

<sup>41</sup> Maryland Department of Health and Mental Hygiene Vital Statistics, 2013



Greater Good, will provide health education sessions (including chronic disease management and health screenings), intervention counseling and connection to social determinant services.

The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center also work collaboratively with providers and community organizations such as the American Heart Association, the American Diabetes Association, and the American Cancer Association to deploy strategies that maximize a collective impact on preventing

chronic disease, improving community health, and reducing health disparities. As an example, the “You Gotta Have Heart Program” is a collaboration between The Johns Hopkins Hospital CPR Office, the Johns Hopkins Health System Office of Community Health and members of the faith community which provides education on various health topics and life saving techniques such as CPR.



Community CPR training classes organized by the JHHS Office of Community Health.

## V. Conclusion

In 2015, The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center committed over 242 million dollars in charity care and community benefits activities. This report guides the actions within the community benefits efforts for the strategic priorities of the region.

The implementation plan includes goals and strategies which were designed to strategically address the needs and opportunities for program success. The implementation plan also reflects a coordinated and collaborative effort to achieve and address the communities’ needs.

As a mission driven health care entity, the Johns Hopkins Health System is driven to improve the health of their communities and the world by setting the standard of excellence in patient care. Through internal and external funding initiatives in partnership and collaboration with community organizations, The Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center will address the key priority issues identified through the CHNA. Grants and support from local businesses and service organizations will also provide additional funding opportunities. Community support on education, programs, and services will continue where populations at-risk will obtain needed support and accessibility to services and care.

## Appendix A: Community Benefits Service Area

### Communities Served by JHH and JHBMC

#### Community Benefits Service Area of JHH and JHBMC<sup>42</sup>

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

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

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

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

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<sup>42</sup> Information in this section (Communities Served by JHH and JHBMC) was obtained from the Johns Hopkins Health System Community Benefits Report.

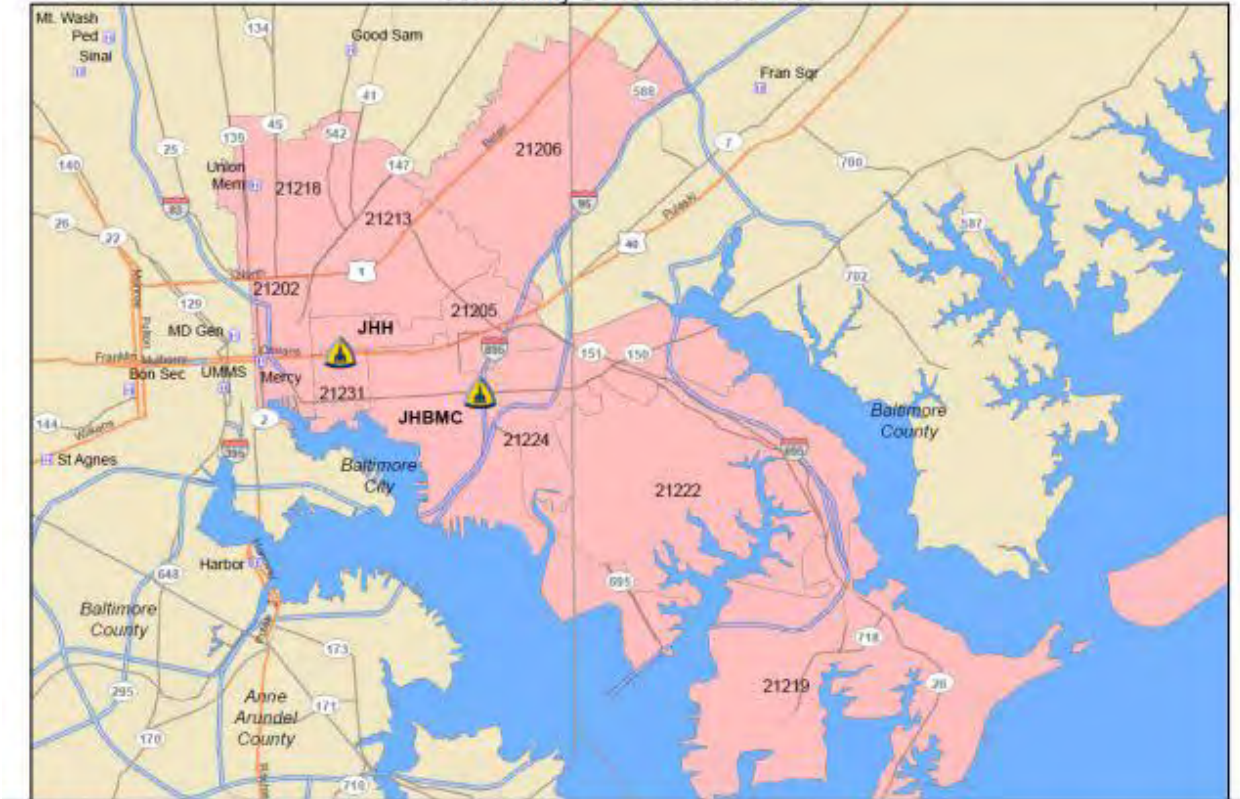
Johns Hopkins Bayview Medical Center is located in east Baltimore City and southeast Baltimore County, the CBSA population demographics have historically trended as Caucasian middle-income, working-class communities; however, in the past few decades, southeast Baltimore has become much more diverse with a growing Latino population clustered around Patterson Park and Highlandtown. In Baltimore County, Dundalk, Sparrows Point and Edgemere have been predominantly Caucasian with increasing populations of Hispanic and African American residents. Many of these new residents come to JHBMC for their health care needs. Challenges for Hispanic families include poor access to primary care, need for prenatal care for women, unintentional injury related deaths and high rates of alcohol use among Latino men. To address these disparities, Johns Hopkins Bayview has increased clinical services and developed new initiatives including more language interpretations for patient services, the Care-a-Van mobile health unit, the Children's Medical Practice, and Centro SOL, which provides outreach, education, mental health support and improved access to services.

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

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

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

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



CBSA shaded in pink

## Appendix B: Community Organizations and Partnerships

Amazing Grace Lutheran Church  
American Diabetes Association  
American Heart Association  
Baltimore City Community College  
Baltimore City Council  
Baltimore City Health Department  
Baltimore City School District  
Baltimore CONNECT  
Baltimore County Department of Health  
Baltimore County School District  
Baltimore Curriculum Project  
Baltimore Medical System, Inc.  
Baltimoreans United in Leadership  
Development (BUILD)  
Baltimore's Safe and Sound Campaign  
Bayview Community Association  
Bea Gaddy Family Center  
Berea East Side Community Association  
Breath of God Lutheran Church  
C.A.R.E. Community Association Inc.  
Catholic Charities  
Center for Urban Families  
Centro de la Comunidad  
Charm City Clinic  
Civic Works  
Clergy United for Renewal of E. Baltimore  
(CURE)  
Community College of Baltimore County,  
Dundalk Campus  
Creative Alliance  
Dayspring Programs  
Dundalk Chamber of Commerce  
Dundalk Renaissance Corporation  
Dundalk Youth Services Center  
Earl's Place/United Ministries  
East Baltimore Medical Center  
Edgemere Senior Center  
Elder Plus  
Esperanza Center  
Franciscan Center  
Friends of Patterson Park  
G. Cooper Construction & Maintenance Co.  
Greater Dundalk Alliance  
Greater Dundalk Communities Council (GDCC)  
Greektown Community Development  
Corporation  
Green & Healthy Homes Initiative  
Health Care for the Homeless  
Health Leads  
Helping Up Mission  
Henderson-Hopkins School  
Highlandtown Community Association  
Historic East Baltimore Community Action  
Coalition, Inc.  
Hob's Citgo Service & Car Wash  
Humanim Inc.  
International Rescue Committee (IRC),  
Baltimore Resettlement Center  
Johns Hopkins Center for Substance Abuse  
Treatment and Research  
Johns Hopkins Community Advisory Board  
Johns Hopkins Community Health Partnership  
(J-CHIP)  
Johns Hopkins Health System  
Johns Hopkins HealthCare  
Johns Hopkins Hospital Broadway Center for  
Addictions  
Johns Hopkins University Bloomberg School of  
Public Health  
Johns Hopkins University School of Medicine  
Johns Hopkins University School of Nursing  
Judy Center at the Commodore John Rodgers  
School  
Koinonia Baptist Church  
Latino Family Advisory Board/Johns Hopkins  
Centro SOL  
Latino Providers Network  
Light of Truth  
Living Classrooms  
Marian House  
Mary Harvin Transformation Center  
Maryland Department of Human Resources  
Maryland Food Bank  
Maryland New Directions  
Meals on Wheels of Central Maryland  
Men & Families Center

Millers Island Edgemere Business Association  
(MIEBA)  
Operation Pulse  
Parkview Ashland Terrace  
Patterson High School  
Patterson Park Neighborhood Association  
Patterson Park Public Charter School  
Paul Laurence Dunbar High School  
Playworks  
Rales Center at the KIPP School  
Sacred Heart Church  
Shepherd's Clinic  
Sisters Together and Reaching Inc. (STAR)  
South East Community Development  
Corporation  
Southern Baptist Church  
Sowers of the Seed  
St. Matthew United Methodist Church  
St. Nicholas Greek Orthodox Church  
St. Philip's Evangelical Lutheran Church  
THREAD  
Turner Station Conservation Team  
United States Congressman Maryland's 7th  
District  
United States Senator Maryland's District 45  
United Way 2-1-1  
Weinberg Early Childhood Center  
Zion Baptist Church

The full report can be viewed online at:  
<http://web.jhu.edu/administration/gca/CHNA>

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