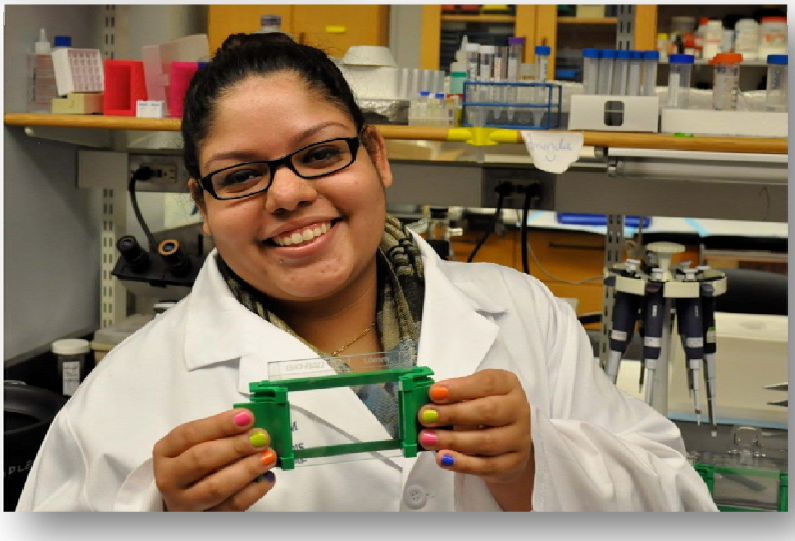
BRIGHAM AND WOMEN'S HOSPITAL



# Community Health

# Needs Assessment Report

# 2013

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# ACKNOWLEDGMENTS

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# BACKGROUND

## About Brigham and Women's Hospital

Brigham and Women's Hospital (BWH) is a not-for-profit 793-bed academic medical center located in historic Boston, Massachusetts. A national leader in patient care, research, innovation, education and community health, BWH is a teaching affiliate of Harvard Medical School with specialty care for cancer, heart disease, orthopedic conditions, and women's health, including the largest obstetrical program in Massachusetts. Along with its modern inpatient facilities, BWH offers extensive outpatient services and clinics, neighborhood primary care through its two licensed community health centers and primary care sites, state-of-the art diagnostic and treatment technologies and research laboratories. As New England's largest birthing center and a regional leader in high-risk obstetrics and newborn care, approximately 9,000 babies are born each year at BWH, and the Newborn Intensive Care Unit cares for more than 1,300 infants annually. To meet the needs of its patient population, BWH employs more than 15,000 people, including 3,000 physicians, fellows and residents, more than 1,000 researchers, and 2,800 nurses. The hospital is a top recipient of research grants from the National Institutes of Health and has ranked on *US News and World Report's* Honor Roll of America's Best Hospitals for 21 consecutive years and in 2012 and 2013, it ranked 9$^{th}$ in the nation.

## BWH Commitment to the Community

BWH has a long-standing commitment to promoting health equity and reducing health disparities for patients, families, employees, and vulnerable members of the community. BWH is particularly committed to working with residents of Boston's diverse neighborhoods to break through the barriers to health – economic, social, educational and cultural – so often encountered by the individuals and families in our community. As part of that commitment, the Center for Community Health and Health Equity (CCHHE) was established in 1991 to serve as the coordinating department for community health programs and acts as a liaison for community-based organizations and the hospital. The CCHHE develops, implements, manages, and evaluates initiatives that aim to address and minimize disparities in health status. To achieve these goals, the Center works in partnership with other hospital departments and with community health centers, schools, and community-based organizations to identify barriers to health care and related services and to address the social factors contributing to health and well being.

The Center's programs have evolved over the past two decades and include efforts aimed at eliminating disparities in infant mortality, cardiovascular disease and cancer; promoting youth development and employment through education and career opportunities; curbing the cycle of violence in our communities and improving knowledge of healthy habits and behaviors. CCHHE efforts in FY12 included:

- Domestic violence advocacy services were provided by the Passageway program to more than 1,258 BWH and Brigham and Women's Faulkner Hospital patients and employees and patients at participating health centers and community centers

- More than 400 young people participated in educational enhancement and healthcare employment opportunities within BWH; over 300 employees volunteered their time to be mentors and engaged partners with young people
- 389 patients were referred to a patient navigator who supported patients to be screened for colorectal cancer and 72 percent of these patients completed colonoscopies
- 135 low-income women with breast cancer were provided financial assistance to cover expenses associated with their treatment that were not covered by insurance
- 120 young parents participated in the Annual Summit of Teen Empowerment and Parenting Success
- More than 21,000 patients received care at our two BWH-licensed health centers in Jamaica Plain (Southern Jamaica Plain and Brookside)
- 576 women received pregnancy and parenting services from health-center-based case managers through the Perinatal Case Management Program
- 123 patients who were victims of intentional injury were referred to the Violence Recovery program, 44 of whom have been connected with mental health services

More details about BWH community programs can be found in Appendix A.

## Community Health Needs Assessment

To ensure that BWH's outreach activities and programs are meeting the health needs of the community, the CCHHE partnered with Health Resources in Action (HRiA), a non-profit public health consultancy organization in Boston, to undertake a community health needs assessment (CHNA) to examine the health needs and strengths of its priority communities. A comprehensive CHNA was conducted in 2011/12 and in 2013, supplemental CHNA work was conducted to assess any changes and delve further into the themes that had been identified in the earlier work. Together, this assessment work engaged over 150 residents and stakeholders in key informant interviews or one of the thirteen focus groups conducted at community sites throughout BWH priority neighborhoods. The assessment informs BWH's community activities and programs that address the health needs in our priority neighborhoods of Roxbury, Mission Hill, Dorchester, Mattapan, and Jamaica Plain. Mattapan, North and South Dorchester, and Roxbury are predominantly Black communities (41.7%-81.1%); whereas nearly a quarter of Jamaica Plain's population (24.6%) is Hispanic. The BWH community benefit mission specifically cites these neighborhoods as a focus for effort with residents who experience disproportionately high rates of poverty, unemployment and higher rates of chronic disease.

### 2011-2012 BWH CHNA

BWH conducted a comprehensive CHNA in 2011-2012 to explore community health concerns, assets, and areas of opportunities across the city of Boston and BWH's priority neighborhoods of Roxbury, Mission Hill, Dorchester, Mattapan, and Jamaica Plain – neighborhoods with some of the most pressing needs in the city of Boston. In addition to analyzing secondary data on key social, economic, and health indicators, HRiA

conducted 10 focus groups and 29 key informant interviews, engaging a total of 113 individuals in the process. Several key findings emerged from this effort including the following:

- Many of the BWH's priority neighborhoods possess numerous strengths however issues related to poverty and violence underscore aspects of resident's daily lives
- The distribution of behaviors and health outcomes consistently follow social and economic patterns
- Obesity, chronic disease such as diabetes and heart disease, mental health, and the impact of violence were considered pressing concerns among both community residents and organizational leaders
- While health care coverage is less of a significant challenge than it once was, perceived quality and utilization of primary care continue to be concerns
- The primary recommendation from residents when designing programs and services was to engage the community more through dialogue and outreach

Following the 2011-2012 CHNA process, BWH conducted three community dialogues to share findings with the public and engage residents in further conversations about services and programming. These discussions helped shape current programs under the CCHHE umbrella, which focus on community violence, poverty and employment, mental health and sexual health.

### 2013 BWH CHNA

In Spring 2013, BWH embarked on a supplementary community health needs assessment process aimed at exploring whether key findings from the earlier assessment changed as well as examine in-depth the perceptions, challenges, and opportunities around the aforementioned focus areas. Prioritization of community health needs identified during the CHNA process involved consideration of a number of factors including: the magnitude and severity of the issue; feasibility including technical and financial capacity and strength of partnerships; alignment with Brigham and Women's Hospital's mission and current work; and potential impact such as the ability to 'move the needle' and demonstrate measurable outcomes.

This report discusses the findings of this most recent process, which included a review of secondary data and results from three focus groups and thirteen key informant interviews.

# METHODS AND APPROACH

This CHNA defines health in the broadest sense and recognizes that factors at multiple levels impact a community's health — from lifestyle behaviors (e.g.diet and exercise), to clinical care (e.g. access to medical services), to social and economic factors (e.g. employment opportunities), to the physical environment (e.g. open space). We begin this section with the social determinants of health framework which informed the methodology and findings of this assessment.

## Social Determinants of Health

Where we are born, grow, live, work, and age—from the environment in the womb to our community environment later in life—and the interconnections among these factors are critical to our health. While genes and lifestyle behaviors affect health, it is most profoundly influenced by more upstream factors such as quality of education, economic stability, employment status, quality of housing stock and issues of race and racism. These factors determine the context in which people live and shape the opportunities that are available to them which in turn, impact their health and the health of their families. Communities of color throughout the nation experience poorer health outcomes. These poorer outcomes are also apparent in Boston and in the priority communities of BWH. There is growing interest and body of research on the health impact of inequality and racism (structural, institutional, interpersonal and internalized) on the opportunities available to people of color. Understanding the health impacts of racism, how it operates in societal structures, organizations and between people is important area of interest for those seeking to promote health equity.

The following diagram illustrates the impact of various factors on the health outcomes.

**Figure 1: The Health Impact Pyramid**


DATA SOURCE: A Framework for Public Health Action: The Health Impact Pyramid, Thomas R. Frieden, MD, MPH, U.S. Centers for Disease Control and Prevention, Am J Public Health. 2010 April; 100(4): 590–595.

## Data Collection Methods

Quantitative Data: Reviewing Existing Secondary Data

The BWH CHNA incorporates data on important social, economic, and health indicators pulled from the Boston Public Health Commission's Health of Boston report as well as other sources, such as U.S. Census, Centers for Disease Control and Prevention, U.S. Bureau of Labor and previous BWH assessments. Types of data included self-report of health behaviors from large, population-based surveys such as the Boston Behavioral Risk Factor Surveillance System (BBRFSS), the Youth Risk Behavior Survey as well as vital statistics based on birth and death records. Additional charts and graphs can be viewed in Appendix C.

Qualitative Data: Focus Groups and Interviews

During June 2013, three focus groups and thirteen key informant interviews were conducted in Boston to gather feedback on resident's priority health concerns, community challenges to addressing these concerns, current strengths of the area, and opportunities for the future. The qualitative discussions in the 2013 BWH CHNA engaged 39 individuals and examined in greater detail the issues raised by the 113 individuals from the 2011-2012 assessment.

The focus groups included discussions with residents of Jamaica Plain, public housing residents in Mission Hill, and staff from community-based organizations serving residents in Mattapan. Focus group participants were specifically selected to ensure representation and participation of community members that were low income, medically underserved as well as communities of color in the priority communities of BWH. Interviews were with organizational and governmental leaders within Boston, including those with special knowledge and expertise in public health, as well as clinicians/staff at BWH who focus on trauma/violence, mental health, and working with at-risk populations such as youth and immigrant families.

A semi-structured guide was used across interviews and focus groups to ensure consistency in the topics covered. Each focus group and interview was facilitated by a trained moderator, and detailed notes were taken during conversations. On average, focus groups lasted 90 minutes and included 6-12 participants, while interviews lasted approximately 30-60 minutes. A complete list of interviewees along with their titles and expertise may be found in the accompanying Appendix B.

The collected qualitative data were coded and data analysts identified key themes that emerged across all groups and interviews. Frequency and intensity of discussions on a specific topic were key indicators used for extracting main themes. While neighborhood differences are noted where appropriate, analyses emphasized findings common across neighborhoods. Selected quotes – without personal identifying information – are highlighted in this report to further illustrate points within topic areas.

## Limitations

As with all research efforts, there are several limitations related to this study's research methods that should be acknowledged. It should be noted that for the secondary data analyses, in several instances, current neighborhood level data were not available. Additionally, the U.S. Census and most population-based surveys do not disaggregate the Roxbury and Mission Hill neighborhoods; these neighborhoods are generally analyzed as one in this report, and, in keeping with the nomenclature of the data sources, referred to as "Roxbury." In regard to the Boston Behavioral Risk Factor Survey (BBRFS), neighborhood-level data generally do not include homeless people or people whose neighborhood of residence was not reported in the survey (except in the Boston overall numbers).

Data based on self-reports should be interpreted with particular caution. In some instances, respondents may over- or underreport behaviors and illnesses based on fear of social stigma or misunderstanding the question being asked. In addition, respondents may be prone to recall bias—that is, they may attempt to answer accurately but remember incorrectly. In some surveys, reporting and recall bias may differ according to a risk factor or health outcome of interest.

While the focus groups and interviews conducted for this study provide valuable insights, results are not statistically representative of a larger population due to non-random recruiting techniques and a small sample size. Recruitment for focus groups was conducted by community organizations, and participants were those individuals already involved in community programming. Because of this, it is possible that the responses received provide limited perspective of the issues discussed. In addition, organizations did not exclude participants if they did not live in the particular neighborhood, so participants in a specific community's focus group might not necessarily live in that area, although they did spend time there through the organization. Lastly, it is important to note that data were collected at one point in time, so findings, while directional and descriptive, should not be interpreted as definitive.

# FINDINGS

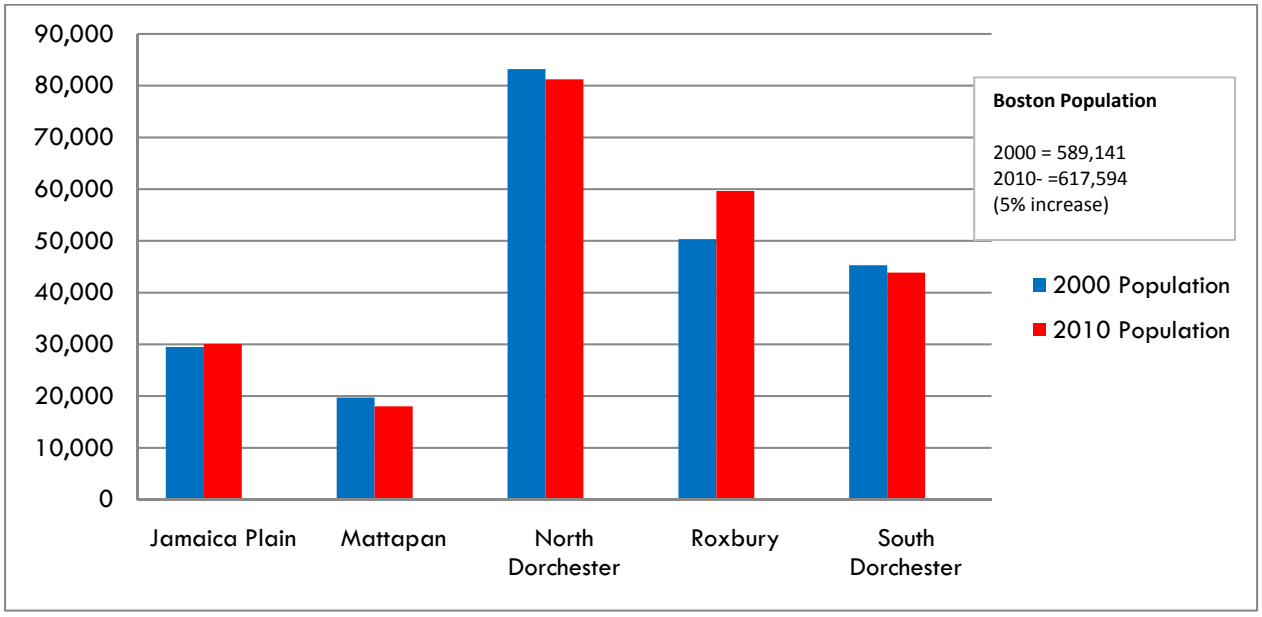
## Social, Economic, and Physical Environment

The health of a community is associated with numerous factors including what resources and services are available (e.g. safe green space, access to healthy foods) as well as who lives in the community. The section below provides an overview of the population of the Boston region and BWH's priority neighborhoods of Roxbury, Mission Hill, Dorchester, Mattapan, and Jamaica Plain. The demographics of a community are significantly related to the rates of health outcomes and behaviors of that area. While age, gender, race, and ethnicity are important characteristics that have an impact on an individual's health, the distribution of these characteristics in a community may affect the number and type of services and resources available. Additionally, the social, economic, and physical environments are important contextual factors shown to have a significant impact on the health of individuals and the community.

### Population

In 2010, Boston's total population was estimated to be 617,594 people, a growth of almost 5% since 2000, when the city's population was 589,141. Over the past decade, several Boston neighborhoods have experienced growth rates similar to that of the city overall. Notably, Roxbury (18.5%) has seen the most substantial population growth among BWH's priority neighborhoods. Of the seventeen neighborhoods that comprise the city of Boston, five experienced a decrease in their populations over the past decade—and three of them are BWH's priority neighborhoods (North Dorchester (-2.4%), South Dorchester (-3.1%) and Mattapan (-8.7%).

**Figure 2: Total Population by Priority Neighborhoods, 2000-2010**




DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, 2000 and 2010 Census as reported by Health of Boston 2012-2013

Age Distribution

While there have been fluctuations over time, the percent of residents aged 15-24 and 45-64 has generally increased since 1990. Residents aged 25-34 have seen the largest decrease in percent of total population between 1990 and 2010. Table 1 presents the age distribution in Boston by priority neighborhood. In 2010, Jamaica Plain (12.8%) was the neighborhood with the lowest percentage of youth aged 14 years and under, while Roxbury had the highest (22.3%). Meanwhile, Mattapan (6.7%) had the highest percentage of adults aged 65-74 years, while North Dorchester had the lowest (4.7%).

**Table 1: Age distribution by city and priority neighborhoods, 2010**

| | Boston | Roxbury | North Dorchester | South Dorchester | Mattapan | Jamaica Plain |
|---|---|---|---|---|---|---|
| Under 5 years | 5.2% | 7.5% | 5.8% | 6.8% | 6.9% | 5.2% |
| 5-14 years | 8.6% | 14.8% | 9.7% | 13.3% | 14.6% | 7.6% |
| 15-24 years | 22.4% | 17.7% | 20.0% | 15.4% | 16.6% | 21.9% |
| 25-34 years | 20.7% | 14.5% | 20.4% | 15.2% | 13.1% | 21.2% |
| 35-44 years | 12.5% | 12.6% | 13.9% | 14.8% | 13.4% | 12.7% |
| 45-64 years | 20.4% | 23.6% | 21.9% | 24.2% | 24.6% | 20.7% |
| 65-74 years | 5.3% | 5.5% | 4.7% | 5.9% | 6.7% | 5.7% |

DATA SOURCE: US Department of Commerce, Bureau of the Census, American FactFinder, 2010 Census

Several key informant and focus group participants focused on the adolescents and young adults in their neighborhood. Interviewees and focus group participants from Mission Hill (which is included under Roxbury in Census data) specifically discussed the influx of college students in their neighborhood which has changed the demographics. Some noted that the growth of residents of this age group may have increased the alcohol and substance abuse problems in their neighborhood, as well as increased the noise level due to parties, while others noted that the late hours of college students make the neighborhood seemed safer. Interview and focus group participants from all neighborhoods highlighted the importance of focusing on the young people in their area when addressing any type of social, economic, or health issue.

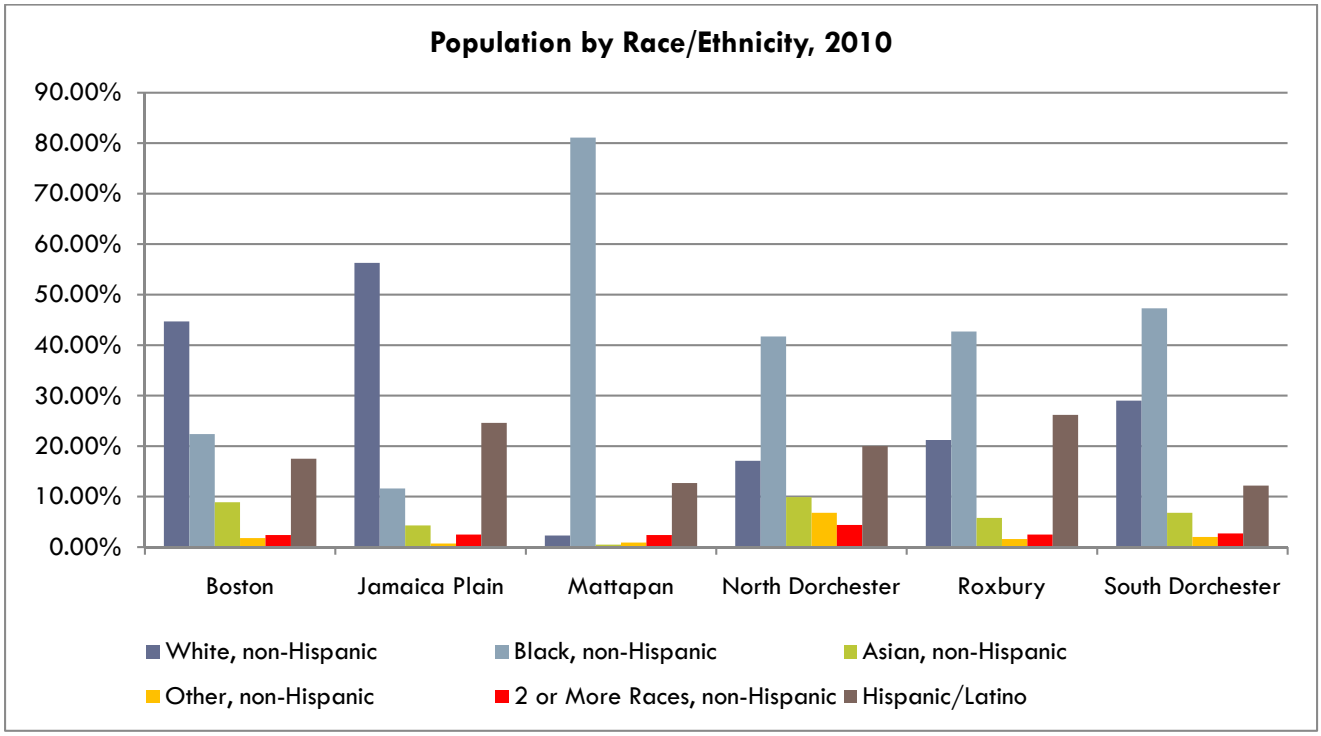
Racial and Ethnic Diversity

Quantitative results illustrate that some neighborhoods exhibit greater resident diversity than others. Racial/ethnic diversity is also increasing; a greater proportion of the city identified as non-White than reported in the last several years. Although nearly half of all Boston residents were White (47%) in 2010, there is substantial variation in the racial and ethnic diversity stratified by neighborhood.

> *"It's so diverse here, but we get along. We celebrate each other's cultures."*
> Focus group participant

For example, in the North End, South Boston, Back Bay, Charlestown, West Roxbury, Fenway, and Allston/Brighton, over two-thirds of residents are White (66.1%-88.1%). In contrast, Mattapan, North and South Dorchester, Hyde Park, and Roxbury are predominantly Black communities (41.7%-81.1%); whereas the majority of East Boston residents (52.9%) and nearly a quarter of Jamaica Plain's population (24.6%) are Hispanic. Additionally, while English was the most common language spoke at home in Boston (65.0%); other languages included Spanish (15.0%), French (5.0%), Chinese (4.0%), Portuguese (2.0%), and Vietnamese (2.0%).

**Figure 3: Racial/Ethnic Composition by City and Priority Neighborhoods, 2010**



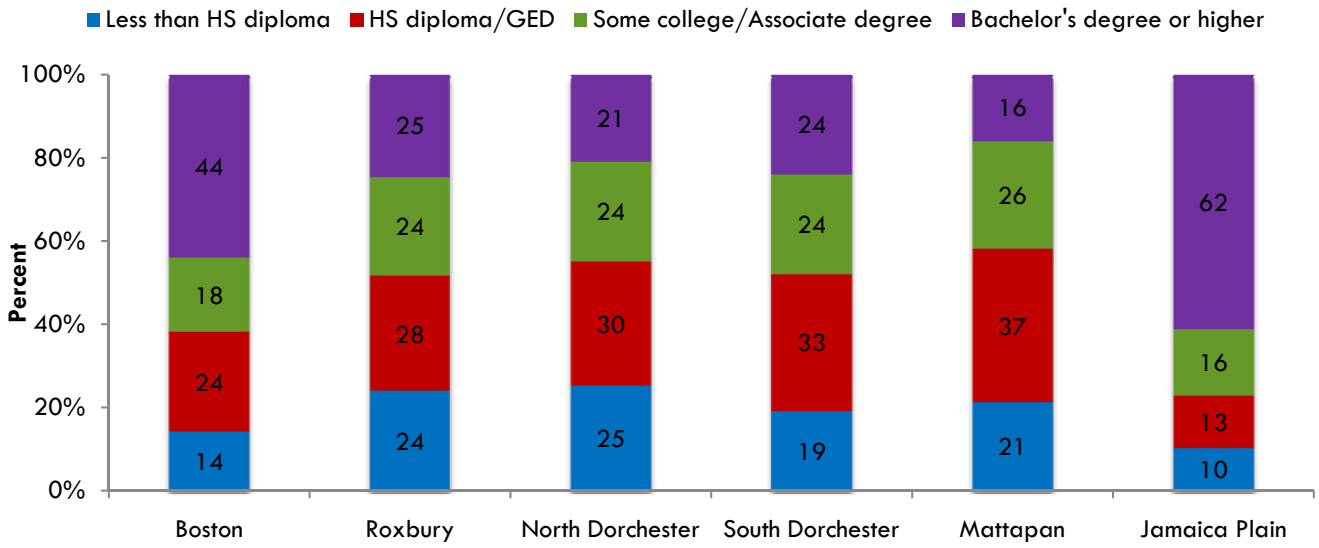

DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, 2010 Census as reported by Health of Boston 2012-2013 (Note: 'Other Race' consists of American Indians/Alaskan Natives and Some Other Races)

Interview and focus group participants from all neighborhoods involved in the CHNA identified diversity as one of the great strengths of their neighborhood and Boston overall as a city. However, participants also noted the challenges encountered with this increased diversity. Interviewees and focus group participants from Jamaica Plain noted the very different compositions of the neighborhood, with communities of color of lower socioeconomic status as one key population group and upwardly mobile, mainly White, families as another population group. The changing demographics of the neighborhood were described as causing challenges, particularly regarding escalating housing and business costs. Other challenges related to a diverse population included the language and cultural competency needed to provide adequate services. Participants shared that those who do not speak the language have difficulties navigating the health and social service environment, while organizations face challenges in meeting the cultural and language needs of residents.

Educational Attainment

Quantitative data show some variation in educational attainment across the priority neighborhoods Jamaica Plain reported the highest educational attainment with 62.0% of adult residents aged 25 years or older having a bachelor's degree or higher, which was above that of the state (44.0%). Approximately one-fourth of Roxbury, North Dorchester, South Dorchester, and Mattapan adults had some college or an Associate's degree. North Dorchester had the highest percentage of adults with less than a high school diploma (25.0%). *The Health of Boston* report for 2012-2013 showed the percentage of residents in Boston with less than a high school diploma or GED is highly differentiated by race with 32% of Latino adults, 24% of Asian adults and 20% of Black adults without this qualification compared to 14% of the Boston overall and 7% of White Boston residents.

**Figure 4: Educational Attainment of Adults 25 Years and Older by City and Priority Neighborhood, 2006-2010**




DATA SOURCE: US Department of Commerce, Bureau of the Census, 2006-2010 American Community Survey, Reported in Health of Boston 2012-2013

Income, Poverty, and Employment

Economic data demonstrate that considerable proportions of neighborhood residents are in poverty. In 2010, the median household income in Boston was $49,893. Yet, the median income for Latino households ($23,243) was significantly less than White households ($61,636). The percentage of families below the poverty line in Boston in 2010 was 23%); this is higher than data presented in the 2011-2012 BWH CHNA, which reported a city-wide family poverty rate of 15%. Among the priority neighborhoods, a greater percentage of families in Roxbury (31.0%) and North Dorchester (26.0%) were living in poverty compared to families city-wide.

Poverty and difficult economic circumstances arose in nearly every discussion as a critical factor that permeated the lives of many residents. Poverty was discussed as a generational issue that has been exacerbated by the recent economic downturn of the past few years and a major contributor to many of the community's problems—from violence to substance abuse to obesity. Many discussed poverty as the root of chronic stress experienced by families: parents needing to work multiple jobs, influencing the time available to provide guidance and emotional support for their children, and affecting all decisions.

> *"A lot of women have struggled to support their families, taking buses with kids in strollers, juggling work. Problems multiply exponentially when you don't have the skills, education and opportunities to earn a living wage."*
> - Interview participant

Interviewees noted that poverty and associated stressors differentially impact women and men. With many poor families comprised of female-headed households, women were described as suffering from cumulative stress. On the other hand, a few interviewees discussed the challenges facing many young poor men, particularly those of color. Many focus group and interview participants discussed the intersection between poverty and unemployment. Quantitative data show the disproportionate rates among some population groups. While the unemployment rate in Boston fluctuated throughout 2011, there was an overall downward trend from 7.9% in January to 6.0% in December. However, unemployment differentially affects racial/ethnic groups. For example, Black males (32.0%) experienced unemployment at almost four times the rate of White males (9.0%)

> *"We have a generation of men who face a lack of good jobs and therefore no upward mobility; they really are not going to do better than their parents. This cycle then continues with lack of role models for the next generation of men."*
> - Interview participant

Several interview and focus group participants discussed the lack of affordable housing and resulting overcrowding as concerns that affected residents throughout BWH's priority neighborhoods. Housing affordability was described as an issue that spans the age ranges. Many of the housing concerns discussed disproportionately affect renters, who represent the majority in Boston. A greater percentage of Boston residents rent (66.0%) than own homes (34%). While this is consistent across Boston, percentages vary by neighborhood. Among the priority neighborhoods, Roxbury has the highest percentage of residences that are renter-occupied (84.0%), while Jamaica Plain has the highest percentage of residences that are owner-occupied (46.0%).

## Organizational Environment

Participants discussed the strengths and assets in their community, particularly around organizations and services, as well as the challenges to providing those services, from an organizational perspective.

### Community Strengths and Assets

Similar to the 2011-2012 BWH CHNA, many interviewees and focus group residents cited multiple assets in their neighborhood despite the challenges. There is a tremendous amount of social capital in these communities in the form of social networks and support. While some participants indicated that it seemed harder to know their neighbors than previously, community cohesion remained a theme mentioned by

several participants. Participants noted groups of people in each neighborhood who were civically active and worked with neighbors to advance change. On a smaller scale, participants cited that many neighbors will look out for one another. In addition, participants cited the organizational resources, discussed commercial resources (e.g. local businesses, farmer's markets) and the built environment (e.g. bike paths, parks) as important assets in the community.

> *"I am constantly amazed by the resilience of folks. People are very determined to make the lives of their children and the entire community better."*
> Interview participant

Organizational Challenges

As discussed in the 2011-2012 CHNA, almost every key informant named limited funding as a primary challenge for organizations and agencies serving BWH's priority communities. Interview participants explained that due to the economic climate, funding has been cut and programs have been reduced, terminated, or are at capacity (e.g. long waiting lists). In addition to being under-resourced and under-staffed, a few organizational staff participants also commented that lack of available physical space—for meetings and other group settings—was problematic for advancing collaboration and community engagement.

Lack of coordination among entities was another challenge noted by some interviewees. While there are numerous organizations working to address the pressing health issues in communities, several interviewees commented that there seemed to be a lack of coordination of services, which has led to duplication of efforts in some areas, and service gaps in other areas.

In these conversations, many interviewees viewed partnerships and collaboration among organizations as a major strength for improving coordination of services and leveraging resources. However, a few noted that there were disadvantages that organizations face in these processes; namely, due to limited funding available in the social service and health fields, community organizations are in competition with each other for that funding and for developing their niche.

## Leading Causes of Mortality and Hospitalization

Mortality

Overall, cancer ranked as the city's most common cause of death, with 181.6 deaths per 100,000 population, followed by heart disease (139.1 deaths per population), and stroke (34.6 per 100,000 population). Among BWH's priority neighborhoods, residents in Roxbury (222.1 deaths per 100,000 population), Mattapan (216.1 deaths per population), and South Dorchester (198.1 deaths per 100,000 population) experience death due to cancer at a higher rate than residents citywide. In addition, Roxbury (167.9 deaths per 100,000 population) and North Dorchester (168.5 deaths per 100,000 population) have heart disease mortality rates above that of Boston. According to the 2012 Health of Boston Report, the death rates due to heart disease and stroke have decreased between 2005 and 2010.

**Table 2: Rate of the Leading Causes of Death per 100,000 Population by City and Neighborhoods, 2010**

| Geography | Cancer | Heart Disease | Cerebrovascular Disease (Stroke) |
|---|---|---|---|
| Boston | 181.6 | 139.1 | 34.6 |
| Allston/Brighton | 163.6 | 124.9 | 30.7 |
| Back Bay | 157.8 | 88.1 | 28.6 |
| Charlestown | 162.6 | 143.3 | 48.4 |
| Chinatown | 152.9 | 73.9 | 43.9 |
| East Boston | 182.0 | 145.0 | * |
| Fenway | 58.8 | 106.9 | * |
| Hyde Park | 224.0 | 158.9 | * |
| Jamaica Plain | 146.5 | 104.4 | * |
| Mattapan | 216.1 | 116.2 | 30.0 |
| North Dorchester | 168.5 | 168.5 | 49.2 |
| North End | 209.0 | 62.6 | 33.2 |
| Roslindale | 160.8 | 130.8 | * |
| Roxbury | 222.1 | 167.9 | * |
| South Boston | 237.7 | 189.1 | * |
| South Dorchester | 198.1 | 135.6 | 49.2 |
| South End | 162.9 | 113.8 | * |
| West Roxbury | 199.1 | 127.8 | 34.5 |

DATA SOURCE: Boston Resident Deaths, Massachusetts Department of Public Health DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office as reported by Health of Boston 2012-2013 (* Rate from small samples. Data should be interpreted with caution.)

Hospitalization

The *Health of Boston* 2012-2013 report identifies that Black and Latino residents of Boston have higher rates of hospitalizations for diabetes, heart disease and cerebrovascular disease compared to White residents. Leading causes for inpatient and emergency room admissions at BWH varied by age group in the priority neighborhoods. For the purposes of this community health needs assessment, BWH hospitalization data from fiscal year 2012 were analyzed.

Rates of BWH inpatient admissions appear to be disproportionately higher for some diagnoses among residents of BWH's priority neighborhoods. For example, among those 18-64 years old, the rates of inpatient admissions per 1,000 population for any of the leading primary diagnoses (childbirth complications, injury and poisoning, heart disease, cancer, or morbid obesity) were higher among BWH Mattapan patients, and in some cases Roxbury patients, than overall BWH Boston patients. Among BWH

patients 65 years old or older, Jamaica Plain and Mission Hill patients had higher inpatient admission rates for heart disease and injury and poisoning than overall Boston patients. It should be noted that while this data does not represent the type of patient that is going to BWH vs. other hospitals in the city, it does provide potentially further validation of the differential rates of health outcomes in BWH's priority communities.

## Key Health Issues – Behaviors and Outcomes

This section focuses on the health issues and concerns that emerged as the most prominent in the BWH community health needs assessment process. Specifically, areas that rose to the top as far as severity and magnitude from the quantitative data, as well as issues of greatest concern and opportunity among interview and focus group participants included: mental health; violence and trauma; obesity, healthy eating, and active living; chronic disease such as diabetes, heart disease; sexual health, reproductive and maternal health; and access to care.

### Mental Health

Quantitative data show that depressive symptoms affect both youth and adults in Boston. While most neighborhoods were largely consistent with Boston overall (9%), Mattapan (17%) had nearly double the proportion of adults reporting persistent sadness (feeling sad, blue, or depressed 15 or more of the past 30 days) compared to adults citywide. The *Health of Boston* 2012-2013 reports that Latino and Black adult residents had higher rates of self- report of persistent sadness (feeling sad, blue or depressed 15 or more of the past 30 days). Additionally, 25% of Boston youth reported persistent sadness; however, this percentage has decreased since 2001. These symptoms are more prevalent among female high school students compared to their male counterparts.

Mental health was an important issue of concern among interview and focus group participants, and one that was considered multi-faceted and complex to address. Interviewees noted that mental health concerns range from the cumulative stress and anxiety of not being able to pay the bills due to economic hardship, to depression and trauma due to victimization of community violence, to specific mental health disorders such as schizophrenia and bipolar disorder. Participants reiterated that the issues of mental health, poverty, and violence are very much intertwined. Furthermore, several participants noted the important link between physical and mental health and how this more holistic approach is often overlooked.

> *"In mental health, you're talking about a substantial proportion of population, especially those who are most vulnerable. Mental health problems have a deep effect on physical health, ability to get a job, be in healthy relationships, staying healthy. It's enormous. Unless one addresses mental health, then the downstream effects are great."* - Interview participant

When describing mental health, interview and focus group participants were most likely to discuss the consequences of stress, anxiety, depression, and trauma (rather than other specific disorders). They noted that some of these issues permeate throughout poorer populations yet are not addressed due to several barriers, including the stigma associated with mental illness. Discussions also focused on how mental health problems affect all other aspects of residents' lives and the entire community.

When discussing the challenges to addressing the mental health concerns in the community, participants cited a number of barriers. The issues of stigma and cultural differences were raised in several conversations. Participants mentioned that stigma around mental health and seeking services continues to be a major barrier. People do not want to identify that they have a problem or ask about seeking services. Similarly, several participants noted that this stigma is especially pervasive in immigrant communities, as residents attribute mental health problems to certain people *"just being a little off"* or "*that's just the way they are."* Other barriers included people not knowing where or how to seek treatment for mental health concerns, the limited number of providers being able to meet the demand overall and specifically in community settings, and the challenges to reimbursement for mental health services among providers.

Violence and Trauma

Quantitative data indicate that BWH's priority neighborhoods are affected by violent crime. According to the Boston Police Department Crime Statistics, between January and June 2013, the City of Boston had a total of 9,840 crimes reported, the majority of which have been classified as larceny or attempted larceny. BWH's priority neighborhoods experienced a disproportionate number of person-to-person crimes in this time period, collectively accounting for approximately 59% of the city's homicides, sexual assaults, aggravated assaults, and robberies, yet only comprising 37% of the city's population.

**Table 3: Total Crimes Reported by City and District, January 1 - June 24, 2013**

| | Boston | Roxbury/ Mission Hill | Mattapan/ North Dorchester | Dorchester | Jamaica Plain |
|---|---|---|---|---|---|
| Homicide | 23 | 12 | 3 | 1 | 1 |
| Rape/Attempted Rape | 110 | 28 | 9 | 23 | 6 |
| Robbery/Attempted Robbery | 853 | 158 | 75 | 173 | 62 |
| Aggravated Assault | 1,297 | 287 | 206 | 217 | 57 |
| Burglary/Attempted Burglary | 1,389 | 195 | 128 | 188 | 119 |
| Larceny/Attempted Larceny | 5,551 | 635 | 243 | 538 | 317 |
| Vehicle Theft/ Attempted Theft | 617 | 119 | 57 | 100 | 32 |
| Total Crimes Reported | 9,840 | 1,434 | 721 | 1,240 | 594 |

DATA SOURCE: Boston Police Department Crime Statistics, Accessed 2 July 2013

When looking at specific violent crimes, data demonstrate higher rates in BWH priority neighborhoods. For homicide, the average annual rate from 2005-2011 was 33.2 homicides per 100,000 population in Mattapan, substantially higher than any other neighborhood and Boston citywide (7.9 homicides per 100,000 population). Similarly, rates for emergency department visits for nonfatal stabbing or gunshot

wounds are highest in Mattapan, Roxbury, and South Dorchester (2.1 visits per 1,000 residents) and more than double the citywide rate (0.9 visits per 1,000 residents)

Similar to the 2011-2012 BWH CHNA, in recent discussions, violence remained a major theme raised by interview and focus group participants. Still at the core of discussions, the state of the economy, unemployment, poverty, and pervasive inequality were cited as the root causes of increased violence in the various neighborhoods. When discussing types of violence, participants were most likely to describe community violence and its stressors; however, several participants also emphasized the problems and pervasiveness of family violence, domestic or intimate partner violence, and sexual assault. Issues such as gang violence and the increase of girls involved in gangs were also mentioned in conversations.

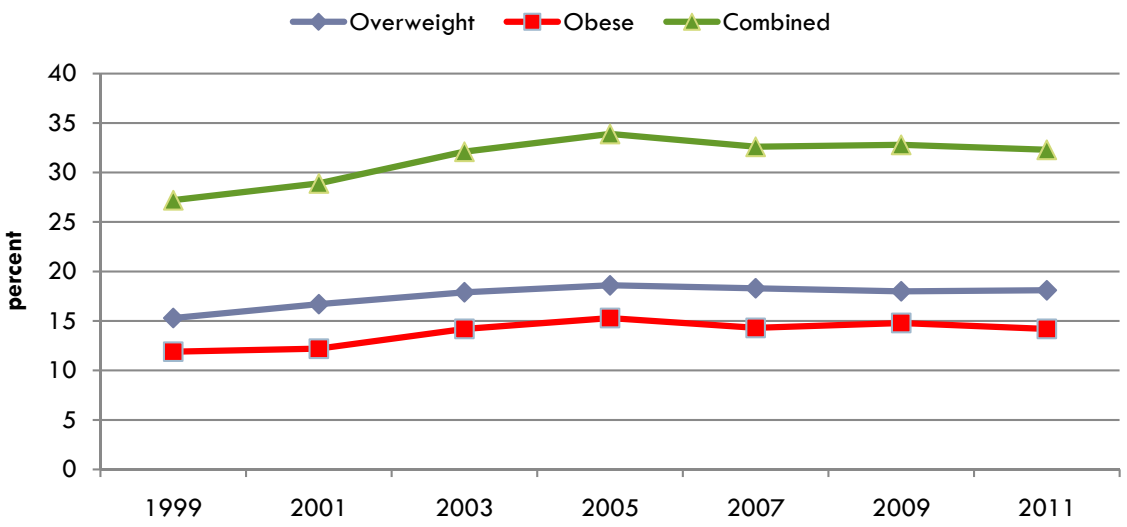
In addition to the physical injury related to violence, participants focused on the psychological and mental health consequences. Specifically, the cumulative stress and anxiety of living in a violent neighborhood or household was considered a way of life for many residents. Domestic violence was cited as another area of victimization among residents. Mattapan, Dorchester, and Roxbury/Mission Hill have the most domestic violence crimes reported. These neighborhoods—along with West Roxbury—also have the highest percentages of domestic crime as a proportion of total crime.

Interview and focus group participants were concerned about the toll violence takes on youth. In addition to problems youth may face in the larger community or at home, school can be both a protective as well as a harmful setting. The 2011 Youth Risk Behavior Survey results show 13.2% of Boston high school students indicated that they have been bullied at school, although this percentage is higher among females (17.7%) compared to males (10.4%). At least 8% of students said they have been threatened with a weapon at school or fought at school, both of which were more common among males.

Obesity, Healthy Eating, and Active Living

While participants cited obesity and its related factors as a concern in priority neighborhoods, quantitative data show that obesity rates have been generally steady or trending downward. The Youth Risk Behavior survey shows 14.2% of Boston high school students were considered obese in 2011. This is lower than the adult Boston population where 21% of residents are considered obese. This rate has also seen a slight decrease over the years. Still, obesity rates are disproportionately higher in BWH's priority communities, specifically Mattapan, Dorchester, and Roxbury.

**Figure 5: Percentage of Boston Secondary School Students Classified as Overweight or Obese According to Height and Weight, 1999-2011**




DATA SOURCE: Centers for Disease Control and Prevention, Youth Online: High School YRBS, Boston, MA 1999-2011 Results

Many interview and focus group participants discussed the interconnectedness of physical, mental, and overall health. They were concerned that obesity rates, particularly among youth, continue to be high. In particular, the issue of healthy eating was cited more often than physical activity. Participants commented on the concerns about the nutritional value of school lunches, the density of fast food restaurants, and the affordability of healthy foods. However, a few interviewees commented that farmer's markets in the area are available and accept SNAP benefits, yet many residents are unaware of this resource or not inclined to shop there.

A few participants also mentioned cultural differences around eating. In some instances, they discussed that when immigrants come to the U.S. they eat more traditional foods, but as they become more assimilated to their environment, they are more likely to eat fast food.

## Chronic Disease

While obesity's contribution to chronic diseases such as heart disease and diabetes was raised by interview and focus group participants, specific chronic diseases did not dominate the discussions. However, asthma was the exception, which was mentioned by a number of participants who specifically focused on Mission Hill or Roxbury. The following section provides an overview of key statistics around several chronic diseases, particularly in light of the fact that cancer and heart disease are the leading causes of death in the city.

***Heart Disease***

Among Boston neighborhoods, Roxbury (14.7 hospitalizations per 1,000 residents) experienced the highest rate of hospitalization due to heart disease, followed by North Dorchester (12.5 hospitalization per 1,000 residents), both of which were above the citywide rate (11.2 hospitalizations per 1,000 residents). Additionally, in 2011, Blacks in Boston experienced hospitalization due to heart disease (13.6 hospitalizations per 1,000 residents) at a higher rate than residents citywide (10.5 hospitalizations per 1,000 residents) and other racial/ethnic groups. According to the 2012 Health of Boston Report, the heart disease hospitalization rate in Boston has decreased since 2005.

***Cancer***

Throughout the 1998-2007 period (most current data available), prostate cancer had the highest incidence, with 188 cases per 100,000 population in 2007. Age-adjusted incidence of female breast cancer was the next highest over the period shown, with 141 cases per 100,000 population in 2007. Lung and colorectal cancer incidence were both consistently lower than prostate and breast, with respective incidences of 71.3 and 55.3 per 100,000 population in 2006.

***Diabetes***

Quantitative data demonstrate that diabetes disproportionately affects residents in certain neighborhoods. In 2010, among the priority neighborhoods, Roxbury (11%) and Mattapan (10%) had the highest prevalence of adults with diabetes; almost double that of Boston overall (6%).

***Asthma***

In 2010, the highest asthma prevalence rates were in North Dorchester (18%), followed by Jamaica Plain (15%), and Roxbury (15%). These rates were higher than that recorded for Boston overall (11%).

<u>Reproductive and Maternal Health</u>

Data indicated that Black women in Boston have disproportionately high rates of low birth weight babies, preterm births and infant mortality than all other groups. *The Health of Boston 2012-2013* shows that, in Boston, the percentage pre-term births (before 37 weeks gestation) was 9.9%. Though the percentage of preterm births was largely consistent across neighborhoods, among BWH priority neighborhoods, South Dorchester (13.1%), Roxbury (12.1%), and Mattapan (11.6%) experienced rates above the citywide level. Consistent with preterm births, Mattapan (12.9%), Roxbury (12.4%), and South Dorchester (12.4%) reported the highest percentage of low birth weight babies (less than 2,500 grams). Most other neighborhoods were largely consistent with or below the percentage of low birth weight births reported for Boston overall (9.3%). The aggregate infant mortality rate between 2006 and 2010 for the city of Boston was 5.9 deaths per 1,000 live births. Stratifying this data by neighborhood indicate that Roxbury experienced the highest infant mortality rate (9.3 per 1,000 live births), at nearly twice the rate of Boston overall, followed by North Dorchester (8.5 per 1,000).

In discussions, several interviewees noted BWH's work in their Birth Equity Initiative, and commented that healthy birth outcomes were an important issue. While reproductive and maternal health was not a top-of-mind issue, some participants remarked that the other concerns that were mentioned as vitally pressing—mental health, poverty, violence—all have a significant impact on the health of the community environment and the families in which a baby is being raised. They noted that ensuring a healthy environment would help in improving birth outcomes overall.

Sexual Health

Several key informant interviews cited sexual health as a concern in the community, particularly for youth. They discussed that teenage girls are particularly vulnerable and at-risk for life-changing consequences. Teens overall were considered a vulnerable and hard to reach population in this area.

> *"By nature of being teens, it is hard for them to take information in, critically consider the issues, and make wise decisions"*
> Interview participant

Interviewees were concerned that families and organizations were inaccessible to youth for support and information about positive sexual health. Sexually transmitted infections were seen as particularly concerning, as Chlamydia rates are high among older adolescents. Similarly, HIV was still considered an issue of concern, as one participant commented: *"HIV still remains. Youth don't see it as a big deal anymore, but people are still dying."*

During the discussion around poverty and chronic stress, several interviewees noted that one of the many issues that contribute to this stressful environment is teen pregnancy, since teen mothers may be more likely to cease their education and therefore have limited employment opportunities. According to quantitative data, the teen birth rate in East Boston (38.5 per 1,000 females ages 15-17 years) was almost double that of Boston overall (20.1 per 1,000), and was also higher in North Dorchester (26.0 per 1,000 females ages 15-17 years old). According to the 2012 Health of Boston Report, the adolescent birth rate in Boston has decreased since 2005.

Access to Care

The challenges of accessing care were frequently raised in focus group and interview discussions and emerged as a primary concern. With health care reform enacted in 2006 in Massachusetts, the proportion of residents with health insurance has risen dramatically. Yet, community members still face numerous barriers to care. The key challenges to accessing care described by key informant interviewees and focus group participants, included financial barriers of accessing care, lack of coordinated care, and culturally competent care.

# OVERALL CONCLUSIONS AND SIGNIFICANT HEALTH ISSUES

**Chronic diseases and their related risk factors disproportionately affect residents of BWH's priority neighborhoods and significant and persistent racial health disparities continue**

Chronic diseases represent leading causes of morbidity and mortality in Boston and BWH's priority neighborhoods experience higher rates of several health conditions. It is therefore important to continue efforts to prevent and manage chronic conditions and reduce obesity including increased access to affordable, healthy food and safe, accessible opportunities for physical activity in priority neighborhoods and access to health care.

**Despite improvements in health care coverage, residents still experience barriers to accessing care**

With health care reform enacted in 2006 in Massachusetts, the proportion of residents with health insurance has risen dramatically. Yet, community members still report facing barriers to care including financial barriers. Efforts to support improvements in care coordination and enhance culturally competent care are also important to increasing health care access for community members.

**Mental health and violence emerged as key issues facing BWH's priority neighborhoods that are intertwined and permeate resident's daily lives and health opportunities and outcomes**

Mental health concerns range from the cumulative stress and anxiety of economic hardship, to depression and trauma due to the impact of community violence, to specific mental health disorders. Violence in the community and the related trauma experienced by community members were identified as issues of paramount concern.

**Poverty and income are important social determinants of long term health**

Educational attainment and employment are associated with better health outcomes throughout the life course. Residents of BWH priority communities, particularly Black and Latina/o residents, experience higher rates of unemployment and poverty. BWH initiatives to increase employment opportunity for community members, particularly young people in our community were identified as an important contribution to reducing poverty and increasing opportunities for good long term health.

**Opportunities exist to build on community assets and further coordinate efforts to address priority health issues**

BWH priority neighborhoods possess multiple assets including community cohesion, civic action, and an abundance of resources. Building upon effective community health approaches and the coordination of local effort was seen as both needed and essential for maximum impact

# IMPLEMENTATION STRATEGY

BWH recognizes that multiple factors have an impact on health and that there is a dynamic relationship between people and their lived environment. As such, this CHNA implementation plan will not only address health but also various social determinants of health.

Chronic Diseases

**Cardiovascular disease**

- BWH has cardiovascular wellness programs encompassing community outreach throughout Boston, online resource guide and screening tools as well as its heart disease prevention research programs. Components of this initiative include:
    - Heart Happening: This program provides free screening and educational seminars on maintaining a healthy heart.
    - Heart Healthy Living: A six-week weight loss and cardiovascular risk reduction programs for African American women
    - Open Doors to Health: Peer-leader program promoting heart-health at Roxbury Tenants of Harvard (RTH) and Madison Park Development Corporation in partnership with Dana Farber Cancer Institute
    - ClimbCorps: Public service corps that promotes heart disease prevention through fitness programming, education and fundraising events in office buildings, the community and high schools
    - Online Wellness Program: A free, comprehensive internet-based program that guides users in building a healthier heart
- BWH aims to improve readmission rates for patients with in congestive heart failure who are residents of our five priority neighborhoods by engaging patients and their families in the development of strategies.

**Cancer**

- BWH maintains effort to increase the rates of colorectal cancer screening among diverse patients served at our two licensed community health centers by connecting patients to a patient navigator in our colorectal cancer patient navigator program.
- Through its Connecting Hope, Assistant and Treatment (CHAT) program, BWH provides financial assistance to low income, uninsured and underinsured patients with breast cancer to pay for necessary services related to their breast cancer treatment. Eligible patients may receive up to $1,200 per calendar year to help with the cost of medication, breast prostheses, bras, wigs, compression sleeves, transportation to treatment, child care during treatment and other breast cancer-related expenses.

**Asthma**

- Through its efforts in the Partners Asthma Center Community Asthma Program (CAP), BWH offers an asthma education program that provides services for adults and children in Greater Boston and beyond in community health centers, schools and other locations to decrease the burden of asthma. The

package of services includes bilingual (English and Spanish) in-home asthma education for patients, environmental assessment and remediation, and specialized asthma care.

Obesity, Healthy Eating and Active Living

- BWH is committed to promoting healthy eating choices, lifestyles and physical activity among our employees, patients and visitors through efforts led by the BWH Nutrition Department, Food Services, the Cardiovascular Division and our licensed community health centers.
- BWH Nutrition Department's "*Your Health, Your Choice*" program seeks to promote healthy eating among the hospital's 15,000 employees as well as patients and visitors. Its main goal is to help individuals choose healthy foods at Brigham and Women's Hospital using evidence-based nutritional research as recommended by Harvard School of Public Health's Healthy Eating Plate. These guidelines support making food choices that promote health and prevent disease. In addition, BWH Nutrition, Food Services and the Cardiovascular Division have teamed up to offer regular cooking demonstrations for staff, patients and visitors. The hospital will continue to explore ways to encourage employees, patients and visitors to make healthy eating choices.
- BWH Center for Community Health and Health Equity partnered with the BWH Nutrition department to host a free community forum to discuss research findings related to nutrition and weight management, as well as tips on how to reduce one's risk for diabetes, choose healthy fats and understand the difference between whole grains and refined carbohydrates. BWH plans future events to share important research findings on nutrition and wellness with the community.
- BWH licensed community health center, Southern Jamaica Plain Health Center, provide personal, quality health care with respect and compassion to our diverse community through its health promotion center. One of its signature programs, Nuestra Generacion currently serves about 50 seniors per year with plans to expand to 75. Seniors range in age from 59 to 80 and all are at risk of depression, social isolation, lack of exercise and poor nutrition, or have difficulties managing chronic disease.
- Brookside Community Health Center, a licensed community health center of BWH, offers the "Fitness in the City" program that serves children between the ages of 6-18 years who are obese or at risk of obesity (BMI at or above the 85%). Participants receive free nutrition counseling with a registered dietitian and free fitness counseling/referrals from our Urban Youth Sports Coordinator. Family and group activities are included too. In addition, the health center offers therapeutic nutrition counseling services to patients (adult and pediatric) who have a nutrition related medical condition (such as diabetes, hypertension, hyperlipidemia) and who are referred by their medical provider.

Violence and Trauma

- Through its Passageway program, BWH raises awareness of domestic violence and providing free, voluntary and confidential services to patients, employees and community members who are experiencing domestic violence.
- BWH works to prevent violence in our communities through our Violence Intervention and Prevention Programs. The Violence Recovery Specialist supports patients admitted to the BWH as a result of intentional violence both during their inpatient stay and following discharge. Our prevention efforts

provide training, education and support to the BWH and local community, particularly youth, on the health impacts of violence.

- BWH is exploring funding sources and identify potential partners for a case management and job readiness model for young people who are at greatest risk of being victims of intentional violence.

Mental Health

- Working collaboratively with our community partners, BWH is exploring programmatic options to address the issue of stigma that prevents access to mental health services. We will also seek to expand resources for trauma informed care and trauma training for first responders.

Income and Poverty

- BWH Student Success Jobs Program (SSJP) introduces high school students in the 10th through 12th grades from partnering Boston Public Schools to careers in health care, science and medicine by offering paid after school and summer internships within the hospital, and by providing the guidance of health care professionals who serve as role models and mentors. SSJP creates pathways into science, health or medicine careers for those who have traditionally been underrepresented in the field with 96 percent of students self-identified as people of color. BWH will expand the SSJP over the next three years to accommodate 100 students.
- BWH will continue to increase the number of young people who transition from our summer science and health care career exposure programs for rising 9th and 10th graders to SSJP and develop a program model for middle school students to enable a continuum of opportunity for low income local students.
- BWH Workforce Development Office offers community residents guidance to increase their hiring potential at BWH. By working collaboratively with preferred community agencies, BWH provides employment and career counseling to residents, identifying skill gaps and referring residents to appropriate programs available in the community and facilitating interviews of qualified community residents.

Reproductive and Maternal Health

- For more than 20 years, the BWH Perinatal Case Management Program has addressed the issues of infant mortality and low birth weight by connecting patients at six Boston-based community health centers with case managers who provide them with education, guidance and support throughout their pregnancies. BWH also provides ongoing technical assistance and training for the case managers.
- BWH leads a consortium of 30 organizations to plan and convene an annual Summit for Teen Empowerment, Progress and Parenting Success (STEPS). The summit provides pregnant and parenting adolescents and young adults with resources, peer support and education to help them achieve their goals, both for themselves and their children. In addition to interactive workshops, the summit features young parent ambassadors who learn about leadership, advocacy and public health, then educate their peers through in-person gatherings, social media and future summits.
- As a certified Centering Pregnancy site, BWH provides a group-based prenatal care combined with pregnancy related assessment, education and support, and health promotion and risk reduction to adolescent and young mothers.

Access to Care

- Consistent with its strategic commitments, BWH will continue its efforts to delivery high-quality, culturally- and linguistically-competent healthcare to our patients and their families and ensure access to financial counselors for patients facing economic challenges. BWH employs a team of patient financial counselors at its main campus and other locations to assist patients with health insurance enrollment.
- BWH Interpreter Services is engaged in an ongoing campaign to raise awareness of using professional interpreters through communications and presentations with clinical staff, management and front-line workers; in doing so, we obtain valuable feedback that provides opportunities for improvement. In addition, Interpreter Services continues to participate in the annual community fair for persons with disabilities at neighboring Northeastern University, to educate the public about our American Sign Language interpreting program. This has also resulted in an increase in the number of requests for American Sign Language interpreters.

# APPENDIX A: SELECTED BWH COMMUNITY HEALTH PROGRAMS

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| **Health Equity Programs** | | | | |
| Perinatal Case Management Program (PCMP) | PCMP seeks to improve birth outcomes by addressing the social and medical needs of pregnant women. BWH provides technical assistance and training for case managers at each of five of the hospital's licensed or affiliated health centers. | Pregnant and postpartum patients at Brookside, Southern Jamaica Plain, Mattapan, South End and Whittier Street Health Centers | Based at health centers in Jamaica Plain, Roxbury, South End and Mattapan and serves their eligible patients | 576 women |
| Summit for Teen Empowerment, Progress and Parenting Success (STEPS) | The Annual Summit for Teen Empowerment and Parenting Success, brings young families and community agencies together to provide a safe forum for teens to expand their knowledge and access resources to help them accomplish their goals. | The Summit is opened any pregnant and parenting young families aged 25 and younger | Greater Boston area communities | 120 young parents attend the summit and other related events |
| Centering Pregnancy | Centering Pregnancy® is a multifaceted group model of care that integrates the three major components of care: health assessment, education, and support, into a unified program within a group setting. | Pregnant patients receiving care in BWH Adolescent Reproductive Health Service | Pregnant and parenting BWH teens patients under 22 years | 38 patients |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Peaceful Mama Yoga | Stress and mental health have been identified as important contributors to poor birth outcomes. The prenatal yoga provides helpful relaxation tools to assist with the management of stress both during pregnancy and at the time of labor through stretching and relaxation. | Pregnant and postpartum women BWH clinics | Patients at BWH licensed and affiliated health centers | 51 pregnant and postpartum patients from BWH clinics and BWH licensed and affiliated health centers |
| Connecting Hope, Assistance and Treatment (CHAT) | CHAT provides financial assistance of up to $1,200 per year, to low income, uninsured and underinsured women with breast cancer to help pay for necessary services related to their breast cancer treatment (e.g. breast prostheses/ bras, transportation to treatment appointments). | Low income women in Massachusetts with a breast cancer diagnosis whose individual income is $25,000 or less or whose family income is $42,000 or less | Greater Boston area communities | 135 women |
| Open Doors to Health Colorectal Cancer (CRC) Patient Navigator | This program provides patients from Southern Jamaica Plain and Brookside Community Health Centers with the services of a patient navigator to direct, guide, educate and support them as they prepare for and undergo a colonoscopy. The CRC program is offered in partnership with the Dana Farber Cancer Institute. | Colonoscopy patients at Southern Jamaica Plain Health Center and Brookside Community Health | Jamaica Plain and other neighborhoods served by the health centers | 389 patients |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| **Cardiovascular Wellness Services : The BWH Cardiovascular Wellness Service is a multidisciplinary effort dedicated to preventing heart disease and promoting heart health through a variety of programming** | | | | |
| Heart Happening | This program provides free screening and educational seminars on maintaining a healthy heart. | Program opened to the general public | Boston Communities | 163 |
| Heart Healthy Living | A six-week weight loss and cardiovascular risk reduction programs for African American women. | African American Women | Boston Communities | 62 |
| Open Doors to Health | Peer-leader program promoting heart-health for residents at local public housng developments in partnership with Dana Farber Cancer Institute. | Low-income residents in housing developments | RTH, Madison Park Village, Orchard Gardens, Ruggles/ Shawmut, and Central Boston Elder residents | 900 |
| ClimbCorps | Public service corps that promotes heart disease prevention through fitness programming, education and fundraising events in office buildings, the community and high schools. | Opened to the general public | Select office buildings in Boston, high school students, Boston communities | 3,000 |
| Online Wellness Program | A free, comprehensive internet-based program that guides users in building a healthier heart. | Opened to the general public | National | 8,600 |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| **Youth Programs: Our continuum of youth programs provide educational and development opportunities for young people in our communities to advance their education and prepare for careers in health and science.** | | | | |
| Student Success Jobs Program (SSJP) – High School | SSJP is an intensive year-round employment and mentoring program that introduces students to careers in health care, science and medicine. Students are offered paid internships within the hospital with the guidance of health care professionals who serve as role models and mentors. Tutoring support is also provided to ensure students' academic success and college scholarships of up to $5,000 per year for four years of undergraduate education are available to all seniors in SSJP. | 10th to 12th grade Boston public high school students eager to explore careers in health and/or science who attend one of our seven partnering schools | SSJP partnering schools are based in Roxbury, Hyde Park, West Roxbury and Dorchester. SSJP students come from 13 Boston neighborhoods, with 36% coming from Dorchester. | 80 students |
| Student Success Jobs Program (SSJP) - College | An intensive summer employment opportunity for students that have successfully graduated from the SSJP. Summer internships are paid positions in a BWH department and are available to students for ten weeks, 40 hours per week, from June through August. | College students who are alumni of the SSJP high school program | Boston neighborhoods | 24 students |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Project TEACH (Teen Education About Careers in Health) | A summer program designed to stimulate interest in health, science and medical careers for students attending partnering public high schools in the surrounding Roxbury and Mission Hill neighborhoods. | Rising 10th graders at partnering Boston public schools | Boston neighborhoods that are home to Project TEACH participants | 25 students |
| Brigham Book Buddies | The Brigham Book Buddies program is designed to help strengthen reading, comprehension and listening skills in preschool to second grade students in select Mission Hill schools. Book Buddies read aloud to an entire classroom once a month for the school year, and then the book is donated to the classroom. | Preschool to second grade students at participating schools | Boston | 120 students participated in the Brigham Book Buddy program |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Pen Pal Program | The Pen Pal program is designed to strengthen literacy skills in 2nd and 3rd graders. BWH employee volunteer as pen pals and develop a relationship with a child through the exchange of letters. Students are able to practice their literacy skills by receiving and responding to letters and increase their exposure to health care careers and BWH. | Second and third grade students at participating schools | Boston | 104 students were partnered with a BWH Pen Pal |
| Summer Science Academy (SSA) | SSA program for rising 9th graders provides exposure to careers in health and science education through field trips, intensive science instruction, and opportunities to explore careers in health care. Students spend the summer at BWH as paid scholars working on research and linking scientific concepts to real-life applications within the hospital. | Rising 9th grade students from participating schools and community organizations | Boston | 14 Students |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Health and Science Clubs | An informal learning environment in which 4th and 5th grade students work together on science experiments in small groups led by hospital employees and listen to presentations by BWH staff guest speakers. The curriculum is aligned to the MA state science curriculum frameworks and standards. Students are exposed to new health careers and are introduced to the types of education and training that are necessary to pursue specific health careers. | 4th and 5th grade students from participating schools | Boston | 81 Students |
| Workforce Development Summer jobs | As part of the Mayor's Summer Jobs Program, BWH provides a real work experience for youths from Boston during the summer. The overarching theme of the whole program is about continuing education beyond high school – be it in healthcare or not – and workshops and associated activities offered to students over the program support that theme. | High school students 16+ from Boston Public Schools | Boston | 105 |
| **Violence Intervention and Prevention (VIP) Programs: Our VIP programs seek to address violence as an emergent social justice issue through a multi-disciplinary approach rooted in public health and grassroots mobilization** | | | | |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Passageway | Passageway provides free, voluntary, and confidential services to patients, employees and community members who are experiencing domestic violence. | Victims of domestic violence referred to a domestic violence advocate | Advocates are located at sites in the Mission Hill and Dorchester communities as well as in Roxbury and Jamaica Plain | 1,258 |
| Violence Recovery Program | The Violence Recovery Program provides direct intervention to any patient admitted to BWH as a result of intentional violence. The Violence Recovery Specialist (VRS) meets with patients within 72 hours of admission, provides safety assessments, and helps tailor an individualized plan for ongoing advocacy after discharge. The VRS also provides supportive services to the patient's family and significant others as appropriate. The VRS provides ongoing support, case management and community linkages as needed for victims of violence. | Any patient admitted to the BWH as a result of intentional injury | Boston communities | 122 cases referred to VRS |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Violence Prevention Program | The Violence Prevention Program provides training, education and support to the BWH and local community on the health impacts of both community and domestic violence. The program works directly with youth in the community to provide education and support to local programs on violence prevention. | Community members, representatives from community organizations | Greater Boston | Conducted 17 trainings to approximately 504 youth workers, youth and community members |
| **Other Community Health Initiatives** | | | | |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Racial Healing and Reconciliation Project (@ Southern Jamaica Plain Health Center) | As an approach to improving community health, SJPHC is working with a group of youth (8 white and 8 youth of color) in a racial healing and reconciliation process. Through readings, affinity groups, workshops, speak outs and community teaching, youth are challenged and supported to understand the levels of the system of racism, explore racial identity development theory, and transform into racial justice activists, channeling their efforts to address the impact of racism on the social determinants of health with a focus on employment, workforce development and education. | Open to young people ages 14 - 21 | Boston communities | 12 |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Brigham Community Learning Network | Free community learning forums, opened to the public and designed to encourage dialogue between BWH researchers and community members about research findings and health news that can be applied to daily life. BWH partners with community organizations to identify research topics of interest to the community and then identifies experts in the field to hold a dialogue with the community. | Open to the general public | Boston communities | About 100 people have attended one of two forums |

| BWH Community Programs | Description | Eligibility/Who Served | Community Served | # served (FY12) |
|---|---|---|---|---|
| Workforce Development | BWH Workforce Development has an experienced bilingual Community Career Liaison offering community residents guidance to increase their hiring potential at BWH. In our commitment to promote career advancement opportunities for Mission Hill residents, BWH works collaboratively with preferred community agencies to qualify community residents for positions in our institution by providing employment and career counseling, identifying skill gaps and referring residents to appropriate programs available in the community and facilitating interviews of qualified residents. | Open to the public | Boston communities, with a focus on Mission Hill | 247 people |

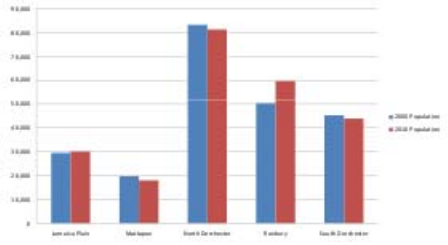
# APPENDIX B: LIST OF KEY STAKEHOLDERS INTERVIEWED

| Name | Title/Organization | Subject Matter Expertise |
|---|---|---|
| Maggie Cohn | Mission Hill Health Movement | Local community health needs |
| Brenda English | St. Mary's Center for Women and Children, Dorchester | Interpersonal violence, poverty, basic needs |
| Maureen Fagan | Executive Director, Center for Patients & Families, BWH | Affordability and Patient needs |
| Catherine Fine | Director of the Division of Violence Prevention, Boston Public Health Commission | Violence Intervention and Prevention |
| Dr. Jonathan Gates | Medical Director of Trauma Services, BWH | Violence/Trauma |
| Daphne Griffin | Executive Director, Boston Center for Youth and Families | Factors impacting youth and families |
| Kathy Hamilton | Youth Transitions Director, Boston Private Industry Council | Workforce Development |
| Tom Kieffer | Executive Director, Southern Jamaica Plain Health Center | Patient Centered Medical Home (PCMH)/ Population Mgmt, Racial Equity |
| Yilu Ma | Director of Interpreter Services, BWH | Culturally responsive care |
| Laura Miller | Vice Chair for Academic Clinical Services, Psychiatry Dept | Mental Health |
| Dr. Huy Nguyen | Medical Director, Boston Public Health Commission | Public health priorities for the city |
| Haji Shearer | Director of the Fatherhood Initiative | Mens Health/Fatherhood |
| Dr. David Sibersweig | Chairman, Dept. Of Psychiatry and Institute for Neurosciences, Psychiatry Dept, BWH | Mental Health |

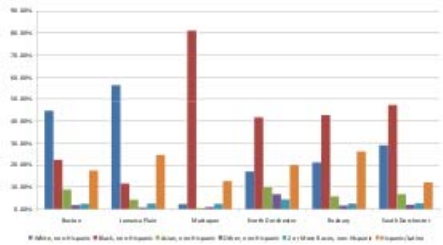
# APPENDIX C: PROFILE OF BWH PRIORITY NEIGBHORHOODS

Demographics of BWH Priority Communities

Total Population, 2000 - 2010



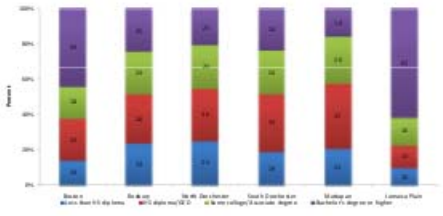
Population by Race/Ethnicity 2010



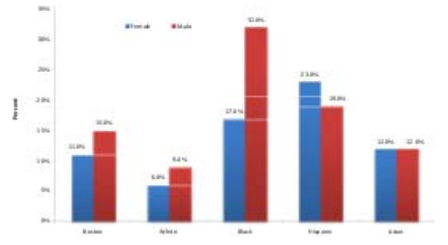
Population by Age Group, 2010

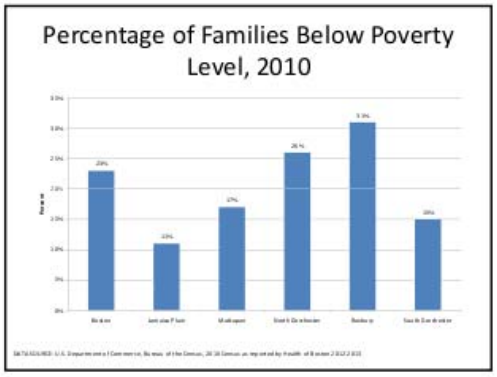
| Ages | Boston | Jamaica Plain | Mattapan | North Dorchester | Roxbury | South Dorchester |
|---|---|---|---|---|---|---|
| Under 5 | 5.2% | 5.2% | 6.9% | 5.8% | 7.5% | 6.8% |
| 5 – 14 yrs | 8.6% | 7.6% | 14.6% | 9.7% | 14.8% | 13.3% |
| 15 – 24 yrs | 22.4% | 21.9% | 16.6% | 20.0% | 17.7% | 15.4% |
| 24 – 34 yrs | 20.7% | 21.2% | 13.1% | 20.4% | 14.5% | 15.2% |
| 35 – 44 yrs | 12.5% | 12.7% | 13.4% | 13.9% | 12.6% | 14.8% |
| 45 – 64 yrs | 20.4% | 20.7% | 24.6% | 21.9% | 23.6% | 24.2% |
| 65 – 74 yrs | 5.3% | 5.7% | 6.7% | 4.7% | 5.5% | 5.9% |

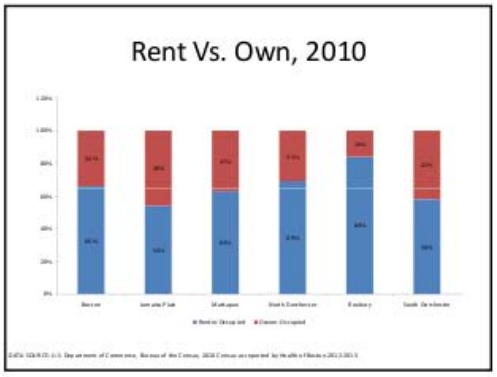
Educational Attainment, 2010



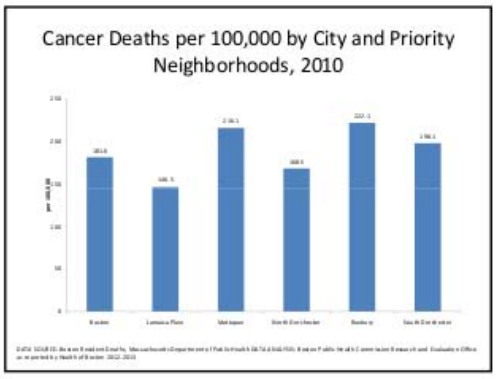
Unemployed Population Aged 16 Years and Older by Race and Gender, Boston 2010

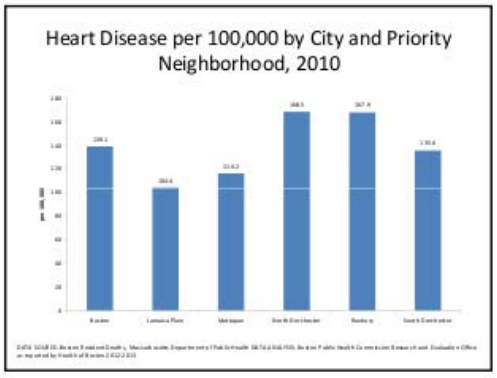


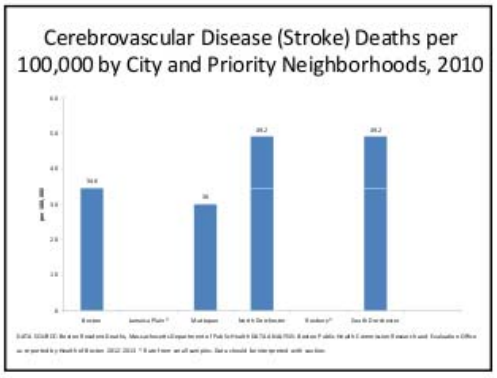


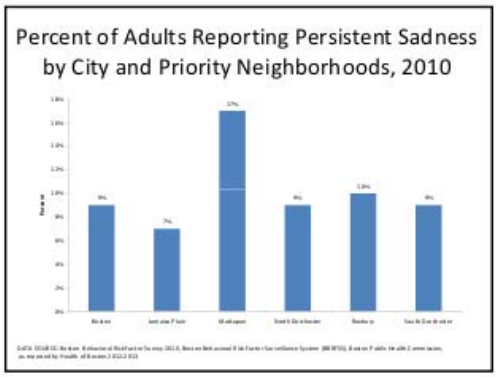



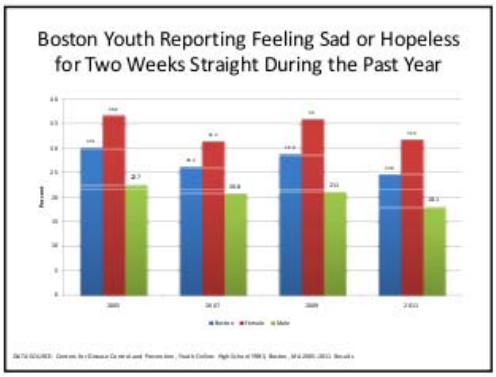

Selected Health Indicators for BWH Priority Neighborhoods

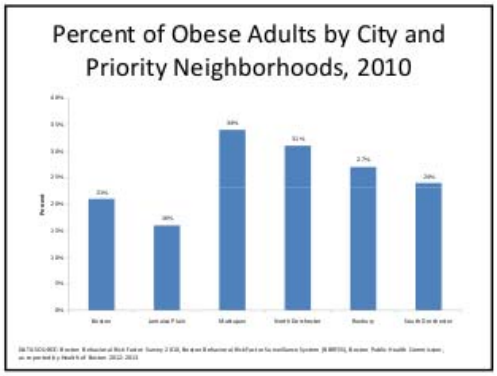


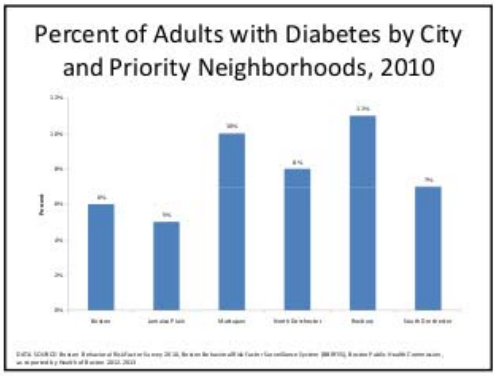



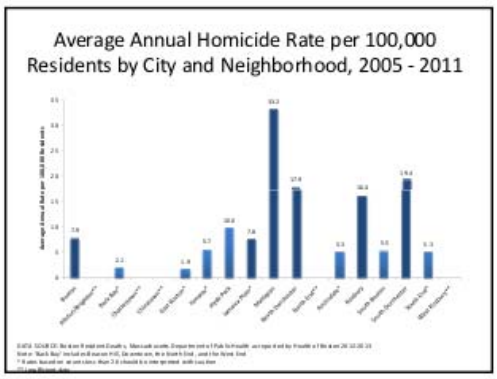



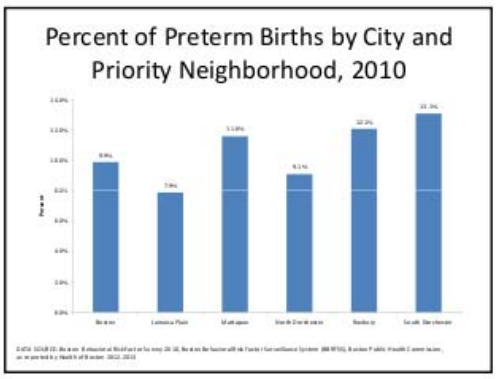

Percent of Adults Reporting Persistent Sadness by City and Priority Neighborhoods, 2010

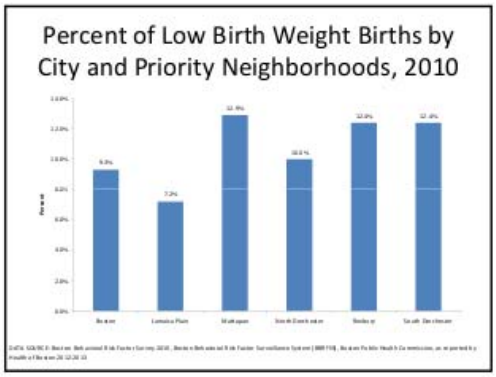

Boston Youth Reporting Feeling Sad or Hopeless for Two Weeks Straight During the Past Year

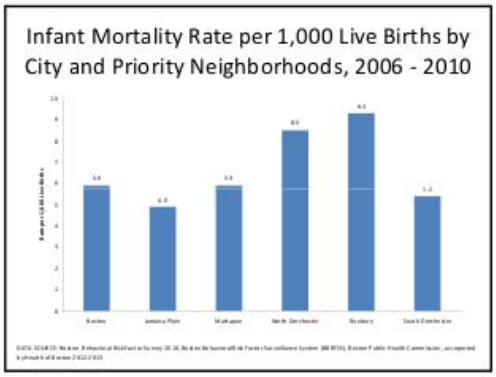

Percent of Obese Adults by City and Priority Neighborhoods, 2010


Percent of Adults with Diabetes by City and Priority Neighborhoods, 2010


Average Annual Homicide Rate per 100,000 Residents by City and Neighborhood, 2005 - 2011


Percent of Preterm Births by City and Priority Neighborhood, 2010


Percent of Low Birth Weight Births by City and Priority Neighborhoods, 2010


Infant Mortality Rate per 1,000 Live Births by City and Priority Neighborhoods, 2006 - 2010