

**BOSTON CHILDREN'S HOSPITAL COMMUNITY HEALTH NEEDS ASSESSMENT:
Final Report**

**SUBMITTED TO:
Boston Children's Hospital**

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**SUBMITTED BY:
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**Boston Children’s Hospital
2013 Community Health Needs Assessment**

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Boston Children's Hospital 2013 Community Health Needs Assessment

EXECUTIVE SUMMARY

Background and Methods

Boston Children's Hospital is a 395-bed comprehensive center for pediatric health care that offers a complete range of health care services for children from birth through adulthood and has a long-standing commitment to community health and its community benefits programming. In April 2013, Boston Children's conducted a community health needs assessment (CHNA) to ensure that it is addressing the most pressing health concerns across Boston and its four priority communities—Roxbury, Mission Hill, Fenway, and Jamaica Plain. In addition to fulfilling the requirement by the MA Attorney General's office and the IRS Section H/Form 990 mandate, the CHNA process was undertaken to achieve the following overarching goals:

- To examine the current health status of residents (with a specific focus on children and families) of Boston Children's targeted communities, including met and unmet health needs, and compare these rates to city and state data
- To identify the current health priorities—as well as new and emerging health concerns—among children and families within the larger social context of their community
- To explore community strengths, resources, and gaps in services in order to guide future programming, funding, and policy strategic priorities for Boston Children's

The CHNA utilized a participatory, collaborative approach and examined health in its broadest context. The assessment process included: synthesizing existing data on social, economic, and health indicators in Boston, including results from the 2012 Boston Child Health Study telephone survey; as well as, conducting eight focus groups and thirteen interviews with a range of diverse individuals – including providers, elected officials, community-based organizational staff, and residents – to identify the perceived health needs of the community, challenges to addressing these needs, current strengths and assets, and opportunities for action. The qualitative discussions in the 2013 CHNA engaged over 100 individuals.

Findings

The following provides a brief overview of key findings that emerged from this assessment:

Community Social, Economic, and Physical Context

The residents of Boston Children's priority neighborhoods are ethnically and linguistically diverse, with wide variations in socioeconomic level. Minority and low-income residents are disproportionately affected by the social and economic context in which they live.

- **Demographic Characteristics:** Residents and stakeholders commented on the variety of cultures represented in the communities served by Boston Children's. Quantitative data illustrate that racial and ethnic diversity varies across Boston Children's priority neighborhoods and citywide. While the majority of residents in Roxbury/Mission Hill self-identify as Black (60.9%), Fenway and Jamaica Plain have a larger proportion of White residents (70.2% and 62.0%, respectively) compared to the city (53.9%).
- **Poverty, Income, and Employment:** The economic challenges facing Boston residents were a frequent topic of conversation among focus group and interview participants, including poverty, income, and employment. Economic data demonstrate that among the priority neighborhoods, a greater proportion of families in Roxbury/Mission Hill (31.0%) were living in poverty compared to

families citywide (16.0%). Additionally, nearly half of female headed households with children under five years of age in Boston were living in poverty (46.7%).

- **Education:** While some participants identified the schools and colleges in Boston as an asset, addressing access to a quality education – from pre-school through college – emerged as a priority community issue among interview participants. Quantitative data show that educational attainment across the priority neighborhoods ranges from 71.0% of Fenway residents with a bachelor’s degree or higher to 25.0% of Roxbury/Mission Hill adults. Additionally, Black and Hispanic students graduate at lower rates than their White and Asian counterparts.
- **Housing:** Housing issues were identified as a pressing concern among focus group and interview participants, especially the lack of affordable housing in Boston. Many of the housing concerns discussed disproportionately affect renters, who represent the majority in Boston; 42.4% of renters in Boston contribute 35% or more of their income to housing costs.
- **Neighborhood Crime and Perceptions of Safety:** Neighborhood violence and perceptions of safety were discussed in almost every focus group and interview as a community health concern, ranging from gun and drug violence to domestic violence. Quantitative data validate residents’ concerns; between January and June 2013, Boston Children’s priority neighborhoods collectively accounted for approximately 40% of the total crimes reported citywide during this time period, the majority of which were classified as larceny or attempted larceny. Furthermore, over half of all homicides occurred in Roxbury/Mission Hill.

“With housing costs escalating so high, and people having to pay more of their income on housing, they don’t have anything left.”

– Stakeholder participant

“At night it can get very violent. The day time is calm but the night is full of gun shots.”

– Community resident participant

Community Health Issues

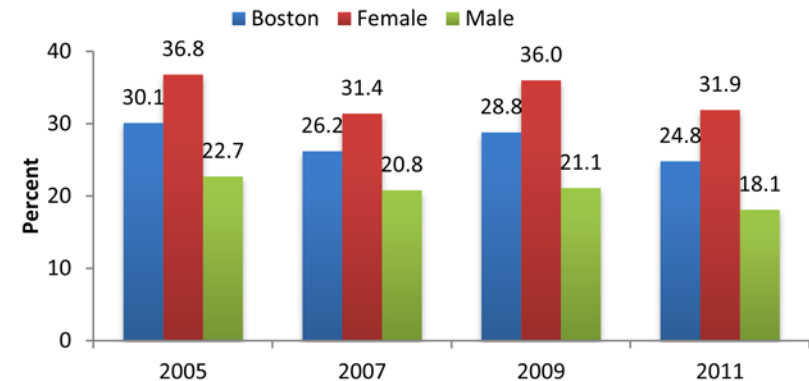
While obesity and asthma emerged as pressing health issues, the impact of economic stress and exposure to violence on mental health was the foremost community health concern raised by residents and stakeholders. Improving access to services was viewed as critical to address these community health issues.

- **Childhood Obesity, Physical Activity, and Nutrition:** Participants cited obesity and its related factors as a concern in priority neighborhoods; however, quantitative data show that obesity rates have been generally steady or trending downward. While, 14.2% of Boston high school students were considered obese in 2011, obesity and overweight rates are disproportionately higher among Black and Hispanic students, compared to their White counterparts. According to stakeholders, families lack access to healthy food and physical activity, which presents formidable barriers to addressing childhood obesity.
- **Asthma:** Asthma emerged as a key health issue for Boston Children’s priority neighborhoods, particularly among focus group participants residing in Mission Hill and Fenway; however, a few stakeholders also described disparately high rates of asthma in Roxbury and Jamaica Plain, especially among children of color. Children under age five in Roxbury/Mission Hill (38.8 per 1,000) experienced higher rates of visits to the emergency department due to asthma, compared to children citywide (31.5 per 1,000 children).
- **Violence, Injury, and Trauma:** As discussed earlier, violence was raised as a critical issue permeating the lives of residents. The majority of participants primarily expressed concerns regarding the effects of residents witnessing violence in their neighborhoods, particularly among youth. According to the 2011 Youth Risk Behavior Survey, high school students are mainly experiencing school based violence in the form of bullying. Additionally, rates for emergency department visits

for nonfatal stabbing or gunshot wounds are highest in Roxbury/Mission Hill (2.1 visits per 1,000 residents), which is more than double the citywide rate (0.9 visits per 1,000 residents).

➤ **Mental and Behavioral Health:** Mental health emerged as a pervasive community health issue across focus groups and interviews, ranging from stress and depression to attention deficit disorders and schizophrenia. Quantitative data demonstrate that between 2005 and 2011, the proportion of Boston high school students who reported feeling sad or hopeless decreased from 30.1% to 25%; however, these symptoms are more prevalent among female high school students compared to their male counterparts (Figure 1).

Figure 1: Percent of Boston High School Students Reported Feeling Sad or Hopeless for Two Weeks Straight During the Past Year by Gender, 2005-2011



DATA SOURCE: Centers for Disease Control and Prevention, Youth Online: High School YRBS, Boston, MA 2005-2011 Results

➤ **Early Childhood Issues:** Issues specific to early childhood were not frequently discussed among community residents, although they indicated that early intervention programs and parental involvement were important for younger children to be healthy. In Boston, Blacks experience disproportionately higher rates of low birth weight births (less than 2,500 grams), pre-term births (before 37 weeks gestation), and infant mortality compared to other racial/ethnic groups.

➤ **Access to Medical Care and Prevention Services:** Accessing care was raised as a primary concern among stakeholders who frequently described the barriers residents face navigating the complex health care system. In addition to the challenges of obtaining affordable and consistent health insurance coverage, transportation was identified by several stakeholders as preventing residents from getting to appointments.

Community Assets and Resources

Focus group and interview participants identified several community strengths and assets, including community cohesion, civic engagement, and availability of neighborhood resources; however, the reach of those services – especially youth programming- was considered limited by lack of awareness and funding.

➤ Despite the challenges noted previously, community residents and stakeholders identified several neighborhood assets. Boston was described as a vibrant city whose diversity of cultures was a strength. Residents and stakeholders also described a “sense of community” where neighbors were “friendly” and residents as well as organizations work to improve the community through activism and advocacy.

➤ In addition to the myriad of neighborhood resources available – such as playgrounds, parks, community centers, and libraries – the business community was identified by several participants as an asset.

➤ Focus group and interview participants also noted that Boston has a robust social service sector. They acknowledged the invaluable support and services provided by non-profit and community-based organizations.

- While Boston was considered to be a city rich in resources, participants identified a gap in the awareness of available services. Residents and stakeholders frequently expressed concern regarding the lack of youth programming available in neighborhoods.

Community Suggested Approaches to Address Needs

When participants were asked to suggest future programs and services, the overarching themes that emerged included offering health education and information, providing services in the community, strengthening youth engagement and development, increasing physical activity opportunities for families and children, and having a collaborative and community driven approach.

- Community residents and some stakeholders encouraged the provision of health education through workshops that focus on prevention. Specific topics of interest included stress (e.g., coping skills) and nutrition (e.g., healthy cooking classes for families).
- In order to improve access to services, many participants advocated for the provision of services in the community. A key aspect of this approach was increasing the staff (e.g., social workers, case managers, community health workers, patient navigators and advocates) available to provide support and connect families with wrap around services locally, especially to address mental health. Having a physical space in neighborhoods for community members to convene and receive services (e.g., community center) was also recommended.
- Adult and youth participants noted that there is a high demand for youth-specific or youth-friendly programming, including the expansion of employment opportunities and training for high school students (e.g., summer jobs, internships, and volunteer programs). Along similar lines, providing after school activities for children of all ages through music, sports, and academic programs (e.g., tutoring) was also recommended.
- With regard to specific health issues, increasing opportunities for physical activity was a common suggestion made by focus group participants, including family-oriented fitness options. Parents and youth encouraged the provision of affordable and accessible recreational facilities, such as indoor basketball courts and community centers.
- Stakeholders indicated that greater partnership and collaboration among community-based organizations, area hospitals, and government agencies was warranted to facilitate a coordinated approach that addresses the complexity of community health needs. Additionally, engaging the community as a partner in program and policy development was considered key to ensure programs and services meet their needs.

“I think we also need a place to go... A lot of these services are given over at places we have to travel to. They need to come into our communities.”

– Community resident participant

“I want there to be a place for kids to get together, and teenagers can interact with each other and learn from each other.”

– Stakeholder participant

“I am playing for this soccer team and they pay for certain things. If there was more opportunities like that, maybe youth would join.”

– Community resident participant

Key Themes and Conclusions

Through a review of the secondary social, economic, and epidemiological data, as well as, discussions with community residents and stakeholders, several overarching themes emerged, which are presented below in no particular order:

Key Themes and Potential Priority Areas

- ❖ *The social, economic, and physical context of Boston Children’s priority neighborhoods has a substantial impact on families and the health of the community. Issues related to poverty and violence permeates resident’s lives.*

- ❖ *Mental health emerged as a pressing health issue for children and families, for which there is a growing unmet need.* Residents and stakeholders were particularly concerned with the stress and trauma resulting from witnessing violence as well as economic instability.
- ❖ *Early childhood was identified as an important time period for intervention.* Stakeholders indicated that intervening at a young age and engaging parents were vital for children to be successful later on in life.
- ❖ *Asthma disproportionately affects minority and low-income residents residing in Boston Children's priority neighborhoods.* Poor air quality and the unsuitable housing environments in these neighborhoods were identified as reasons for an increase in asthma rates.
- ❖ *Childhood obesity and related behaviors of physical activity and healthy eating were also viewed as important community health issues.* Improving access to healthy food and physical activity in Boston Children's priority neighborhoods were identified as key steps to reducing childhood obesity.
- ❖ *While healthcare coverage has improved, barriers to accessing care remain.* Despite the expansion of healthcare coverage, financial, transportation, and linguistic barriers prevent residents from receiving care in a timely and consistent manner.

Conclusion

The relationship between violence and mental health, environmental triggers and asthma, and limited physical activity, nutrition, and obesity were seen as significant concerns that affect many residents. Yet, the distribution of these behaviors and health outcomes consistently follow social and economic patterns. Furthermore, barriers to accessing care prevent current programs and initiatives from reaching the populations most in need. These challenges present important opportunities for the future. As Boston Children's moves forward, it can leverage the multitude of community assets to improve the health of residents in Boston and Boston Children's priority neighborhoods.

Boston Children's Hospital 2013 Community Health Needs Assessment

BACKGROUND

Overview of Boston Children's Hospital

Boston Children's Hospital is a 395-bed comprehensive center for pediatric health care, the primary pediatric teaching hospital of Harvard Medical School, and the only free-standing independent children's hospital in New England. Boston Children's offers a complete range of health care services for children from birth through adulthood and has a long-standing commitment to community health and to its community benefit programming. Dating back to its opening, Boston Children's has worked to improve the health and well-being of children and families at the neighborhood level across the city of Boston. In 1993, this effort was formalized and added to the hospital's mission. For Boston Children's, the community benefit mission means that the hospital:

1. Provide the best quality care to our patients and serve as a safety net hospital
2. Develop and support community programs to make an impact and address the most pressing community health needs—asthma, obesity, mental health and child development
3. Work with partners to address health and non-health issues that affect the entire community

Purpose and Scope of Assessment

In April 2013, Boston Children's contracted Health Resources in Action (HRiA), a non-profit public health organization in Boston, to conduct its community health needs assessment (CHNA). This report describes the process and findings from this effort. In addition to fulfilling the requirement by the MA Attorney General's office and the IRS Section H/Form 990 mandate, the CHNA process was undertaken to achieve the following overarching goals:

- To examine the current health status of residents (with a specific focus on children and families) of Boston Children's targeted communities, including met and unmet health needs, and compare these rates to city and state data
- To identify the current health priorities—as well as new and emerging health concerns—among children and families within the larger social context of their community
- To explore community strengths, resources, and gaps in services in order to guide future programming, funding, and policy strategic priorities for Boston Children's

Definition of Community Served

Boston Children's has undertaken a community health needs assessment to ensure that it is addressing the most pressing health concerns across Boston and its four priority communities—Roxbury, Mission Hill, Fenway, and Jamaica Plain.

METHODS

The following section describes how data for the community health needs assessment was compiled and analyzed, as well as the broader lens used to guide this process. Specifically, the CHNA defines health in the broadest sense and recognizes that numerous 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., air quality). The beginning discussion of this section discusses the larger social determinants of health framework which helped guide this overarching process.

Study Approach and Community Engagement Process

So that the process was informed by diverse perspectives, the community health needs assessment employed a participatory approach, when possible. This type of approach helps guide the research methods and questions so that they are salient to the community as well as aids in building support and buy-in at the community level for both the assessment study and subsequent planning processes. As part of this effort, Boston Children’s sought input from its community advisory board (CAB) members at several stages of the assessment study. Boston Children’s CAB is comprised of community leaders who represent a range of community-based organizations, community coalitions, the Boston Public Health Commission, and Boston Public Schools, among other entities. A list of CAB members can be found in Appendix A. A CHNA subcommittee of CAB members was engaged in two formal meetings during assessment planning, communicated with Boston Children’s through a number of emails, reviewed the list of potential stakeholders for interviews, provided suggestions on who to engage, and gave feedback on the stakeholder and focus group guides. In addition to CAB members, community-based organizations were involved in the qualitative research process, helping to recruit and host the focus groups with parents and youth.

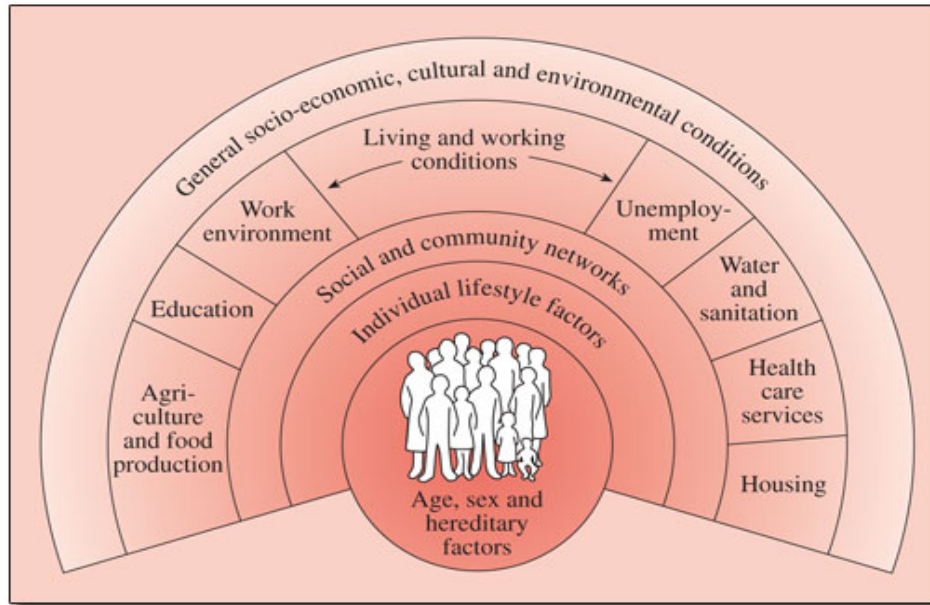
Boston Children’s Hospital also recognizes that a number of community health needs assessment studies are going throughout the City of Boston, including those conducted by other hospitals and the Boston Alliance for Community Health (BACH) and its member coalitions. It was important not to duplicate efforts among assessments. In this vein, the HRiA communicated with other hospitals, coalitions, and organizations within Boston Children’s focus area to build off of existing assessment processes and to engage population groups not involved in the other assessments occurring around the city.

Social Determinants of Health

It is important to recognize that multiple factors have an impact on health and there is a dynamic relationship between real people and their lived environments. 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 consider. That is, not only do people’s genes and lifestyle behaviors affect their health, but health is also influenced by more upstream factors such as employment status and quality of housing stock. The social determinants of health framework addresses the distribution of wellness and illness among a population.

The following diagram provides a visual representation of this relationship, demonstrating how individual lifestyle factors, which are closest to health outcomes, are influenced by more upstream factors such as educational opportunities and the built environment.

Figure 1: Social Determinants of Health Framework



DATA SOURCE: World Health Organization, Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health: Discussion paper for the Commission on the Social Determinants of Health, 2005.

Quantitative Data

The following section describes the quantitative data sources included in this report.

Review of Secondary Data

In an effort to develop a social, economic, and health portrait of the City of Boston—with special attention to the priority communities of Roxbury, Mission Hill, Fenway, and Jamaica Plain—HRIA reviewed existing data drawn from state and local sources. Sources of data included the U.S. Census, Massachusetts Department of Public Health, Boston Redevelopment Authority, Boston Public Health Commission, and Boston Police Department, among others. Data analyses were generally conducted by the original data source (e.g., U.S. Census, Boston Public Health Commission). Types of data included self-report of health behaviors from large, population-based surveys such as the Boston Behavioral Risk Factor Surveillance System (BBRFSS), as well as vital statistics.

BPHC and Boston Children’s Child Health Study

The Boston Child Health Study is a collaborative effort by the Boston Public Health Commission (BPHC) and Boston Children’s to provide accurate and actionable data on parents’ perceptions about their children’s health and healthcare resources, the relationship between environmental issues and child health, and patterns of diagnosis, health care utilization, and treatment in Boston neighborhoods. The Boston Child Health Study includes: (1) A random digit-dial telephone survey of 2,100 Boston parents and caregivers of children ages 0 to 17 years that provides data on a range of child health issues from the parent perspective; (2) An environmental assessment of Boston neighborhoods through a child health lens using citywide GIS analyses and primary data collection methods in selected communities; and (3) An analysis of insurance claims data for children ages 0 to 17 years to identify prevalence of child health issues by zip code and where children are receiving care. At the time of this CHNA, only the telephone survey data were collected and analyzed. Key findings from the Boston Child Study telephone survey are included in this report.

The Boston Child Health Study telephone survey questionnaire and methodology are modeled after the National Survey of Children's Health and was implemented from April 2012 through August 2012. The survey provides neighborhood-level data describing disease prevalence, access to services and other opportunities that promote child health, and the level of engagement with existing services among Boston's children and families.

Qualitative Data: Focus Groups and Interviews

In addition to analyzing epidemiological data from Children's priority neighborhoods, HRiA conducted qualitative research with community stakeholders and residents to gauge their perceptions of the community, their health concerns, what programming or services are most needed to address these concerns, and their perceptions of Children's Hospital to accomplish this. To this end, during May-July 2013, eight 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 Boston Children's CHNA engaged a total of 115 individuals.

To gather information from leaders and organizational staff who work directly in the priority communities or on key children's health issues across the city or state, HRiA conducted thirteen interviews and three focus groups with a diverse range of individuals. HRiA and Boston Children's—in collaboration with CAB members—brainstormed to identify individuals working across a range of sectors and neighborhoods. A total of 13 completed interviews with 16 individuals were conducted either by phone or face-to-face. Individuals interviewed included health care providers, organizational directors, elected officials, staff from community-based organizations and youth serving agencies, and early childcare specialists, among others. Focus group stakeholders included staff from neighborhood health centers, Boston Children's Hospital, and members of the Martha Elliot Health Center. Interviews and focus groups were led by experienced HRiA facilitators and lasted approximately 20-60 minutes and 40-90 minutes, respectively. Lists of stakeholder interview and focus group participants can be found in Appendix B and C, respectively.

Parents and youth were also engaged in the qualitative research process. In total, five focus groups—three with parents, one of which was conducted in Somali, and two with male youth, including young parents—were conducted across the four priority neighborhoods of Roxbury, Mission Hill, Fenway, and Jamaica Plain. Focus group discussions explored participants' perceptions of their neighborhood, priority health concerns, and suggestions for future programming and services to address these issues. A semi-structured moderator's guide was used across all discussions to ensure consistency in the topics covered. While similar, separate guides were used for the parent and youth focus groups so that they were age and developmentally appropriate.

Each focus group was facilitated by an experienced HRiA staff member, while a note-taker took detailed notes during the discussion. On average, focus groups lasted 90 minutes and included 3-12 participants. Before the start of the groups, all youth and parent participants were explained the purpose of the study and signed a consent form. They were also notified in writing and verbally that group discussions would remain confidential, and no responses would be connected to them personally. All youth and parent participants were provided a small stipend (\$30) for their time.

Participants for the groups were recruited by community and social service organizations located in Roxbury, Mission Hill, Fenway, and Jamaica Plain, which were compensated \$200 per group for their efforts. A list of focus group participants can be found in Appendix D and a list of the organizations involved in focus group recruitment can be found in Appendix E.

The collected qualitative data were coded and analyzed thematically, where 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 presented in the narrative of this report to further illustrate points within topic areas.

Limitations and Information Gaps

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). Lastly, most of the quantitative data on health issues among youth are available for adolescents, but not younger children. The amount of information on children under 13 years old is limited.

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 only provide one 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

Community Social, Economic, and Physical Context

The residents of Boston Children’s priority neighborhoods are ethnically and linguistically diverse, with wide variations in socioeconomic level. Minority and low-income residents are disproportionately affected by the social and economic context in which they live.

The social, economic, and physical environments are important contextual factors shown to have an impact on the health of individuals and the community. The health of a community is associated with numerous factors including who lives in the community as well as what resources and services are available (e.g., safe green space, access to healthy foods). The section below provides an overview of the population of the Boston region and Boston Children’s priority neighborhoods of Roxbury, Mission Hill, Fenway, and Jamaica Plain.

Demographic Characteristics

- *“It’s very diverse. We have a nice mixture of elderly, middle age, younger crowd, students. It’s changed throughout the years, but I love it here.”* – Community resident focus group participant

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. Almost all focus group participants and several interview participants noted the diversity of Boston, including the range of age, racial/ethnic, and linguistic groups that characterize its neighborhoods.

Table 1 shows the age distribution for Boston’s population citywide as well as Boston Children’s priority neighborhoods. Boston citywide trend data shows a slight decrease in the proportion of the population under the age of 5 years over the past two decades (1990-2010); whereas the proportion of the population between 45 and 64 years of age has been increasing, comprising one-fifth of the total population in 2010 (20.4%). Of Boston Children’s priority neighborhoods, the Roxbury/Mission Hill communities have the youngest population; more than a fifth of their residents (22.3%) are less than 15 years of age (compared to 13.8% city-wide). In contrast, older adolescents and young adults (ages 15-24) constitute the majority (67.7%) of Fenway residents, with less than 2% under age 15. The age distribution in Jamaica Plain more closely mirrors that of Boston citywide: children under 15 years of age comprise 12.8% of the neighborhood’s population.

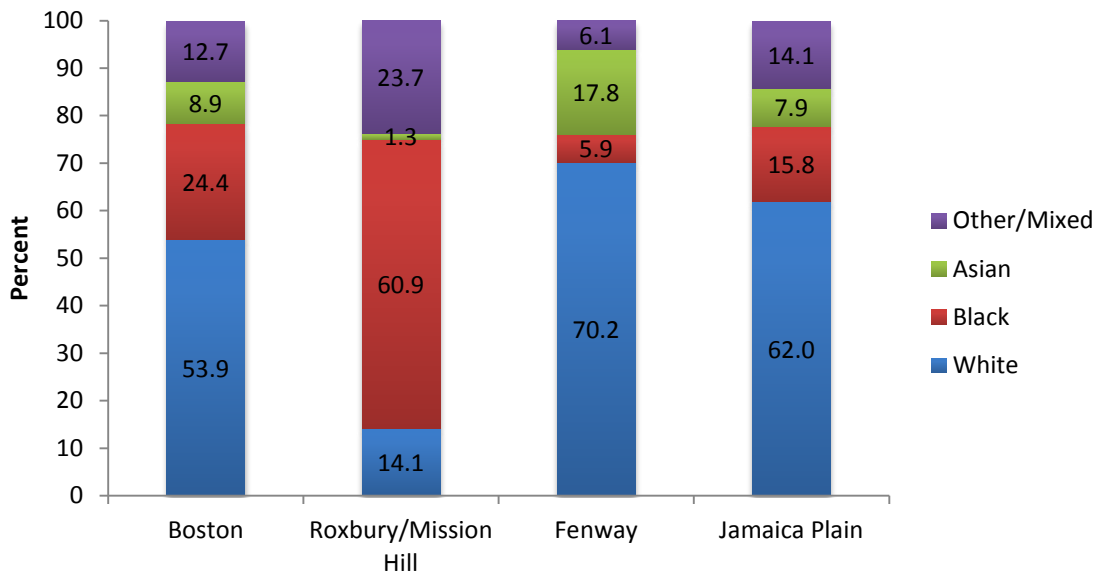
Table 1: Age Distribution City-Wide and by Priority Neighborhood, 2010

	Boston City-Wide Trend			By Priority Neighborhood, 2010		
	1990	2000	2010	Roxbury/ Mission Hill	Fenway	Jamaica Plain
% <5 yrs	6.2	5.4	5.2	7.5	0.8	5.2
% 5-14 yrs	9.9	11.2	8.6	14.8	0.8	7.6
% 15-24 yrs	20.2	19.3	22.4	17.7	67.7	21.9
% 25-34 yrs	23.2	21.2	20.7	14.5	16.7	21.2
% 35-44 yrs	13.6	14.7	12.5	12.6	4.1	12.7
% 45-64 yrs	15.3	17.8	20.4	23.6	5.6	20.7
% 65-74 yrs	6.3	5.3	5.3	5.5	2.2	5.7
% 75-84 yrs	3.8	3.7	3.3	2.9	1.6	3.5
% 85+ yrs	1.4	1.4	1.5	1.1	0.7	1.6

DATA SOURCE: US Department of Commerce, Bureau of the Census, American FactFinder, 2010 Census, 2000 Census, 1990 Census

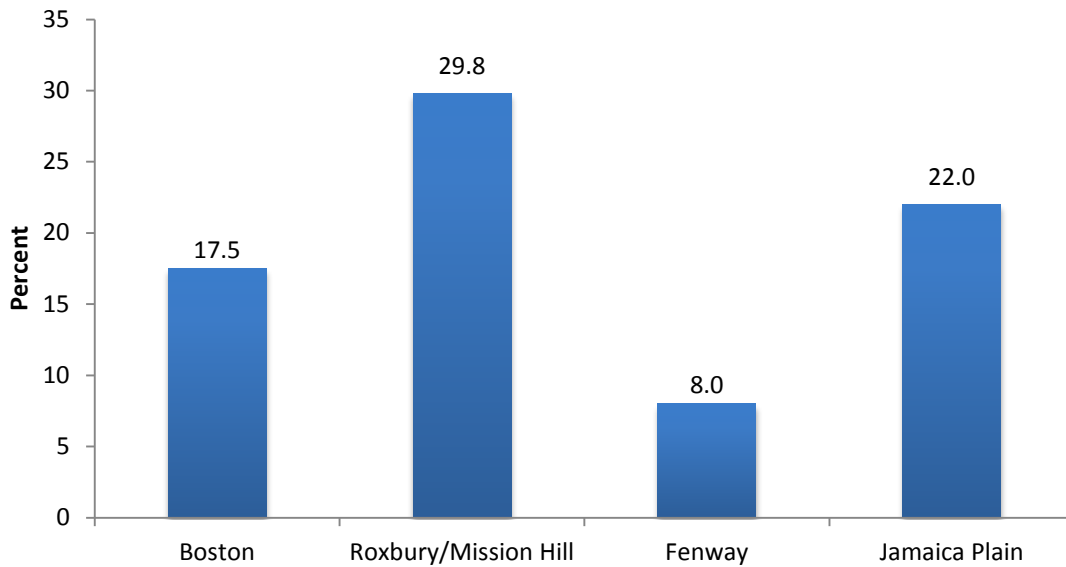
Residents and stakeholders commented on the variety of cultures represented in the communities served by Boston Children’s. Quantitative data presented in Figure 2 and Figure 3 illustrate that racial and ethnic diversity varies across Boston Children’s priority neighborhoods and citywide. Slightly over half of Boston residents self-identify as White (53.9%), while Fenway and Jamaica Plain have a larger proportion of White residents (70.2% and 62.0%, respectively) compared to the city. In contrast, the majority of residents in Roxbury/Mission Hill self-identify as Black (60.9%). Of Boston Children’s priority neighborhoods, the largest proportion of Asians reside in Fenway (17.8%), nearly double that of Boston (8.9%). The largest proportion of Hispanic residents are in Roxbury/Mission Hill (29.8%), followed by Jamaica Plain (22.0%); census tract data indicate that the highest concentration of Hispanic residents in Jamaica Plain are in Jackson Square (35.8%-55.8%). It should be noted that the U.S. Census considers race and ethnicity two separate categories which are not mutually exclusive, thus White and Black individuals may also be considered Hispanic/Latino.

Figure 2: Population by Race and Priority Neighborhood, 2010



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

Figure 3: Percent of Hispanic Population by Priority Neighborhood, 2010



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

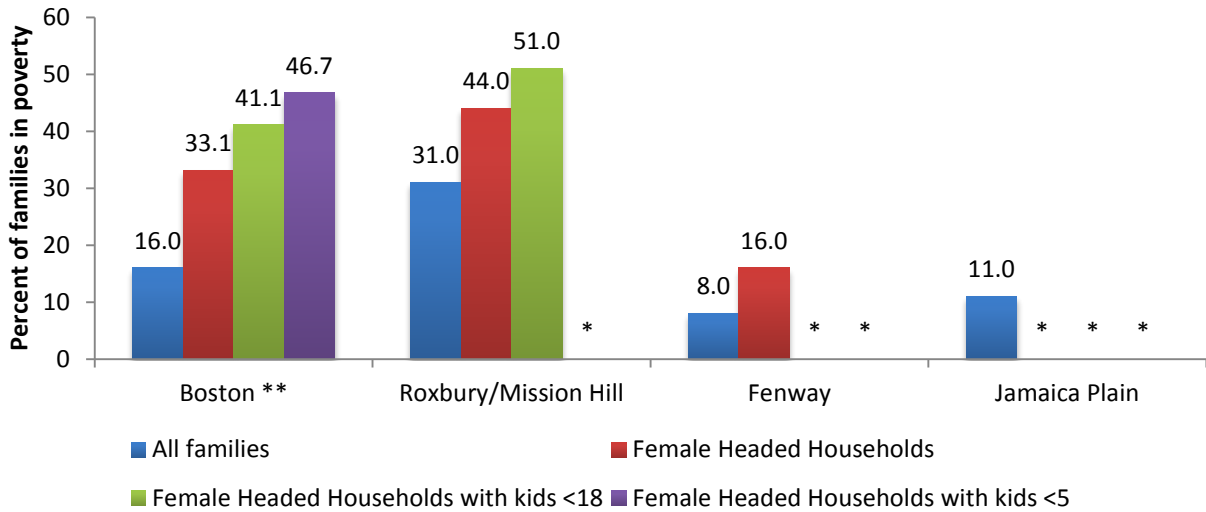
Poverty, Income, and Employment

- *“The cost of living is horrible. Families are totally stretched from an economic point of view and that triggers lots of other things. They have no time or mental capacity to be reflective raising kids.”* – Stakeholder focus group participant
- *“It goes back to the economy and lack of jobs. Some young families are just not making it, which creates stress, which leads to substance abuse, crime.”* – Stakeholder interview participant

The economic challenges facing Boston residents were a frequent topic of conversation among focus group and interview participants. Stakeholders described the rising cost of living as placing a tremendous strain on families; they indicated that families are struggling to meet basic needs ranging from food and clothing to rent and electric bills. Some parent focus group participants stated that their older children are seeking employment in order to support their family and help make ends meet. Poverty was highlighted by several stakeholders as a source of community health issues in Boston Children’s priority neighborhoods.

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 Hispanic households (\$23,243) was less than half that of White households (\$61,636). According to the 2007-2011 American Community Survey, the percent of families living below the poverty line in Boston was 16% (Figure 4). Among the priority neighborhoods, a greater proportion of families in Roxbury/Mission Hill (31.0%) were living in poverty compared to families city-wide. Additionally, nearly half of female headed households with children under five years of age in Boston were living in poverty (46.7%).

Figure 4: Percent of Families in Poverty by Family Type and by Priority Neighborhood, 2006-2010



* insufficient sample size

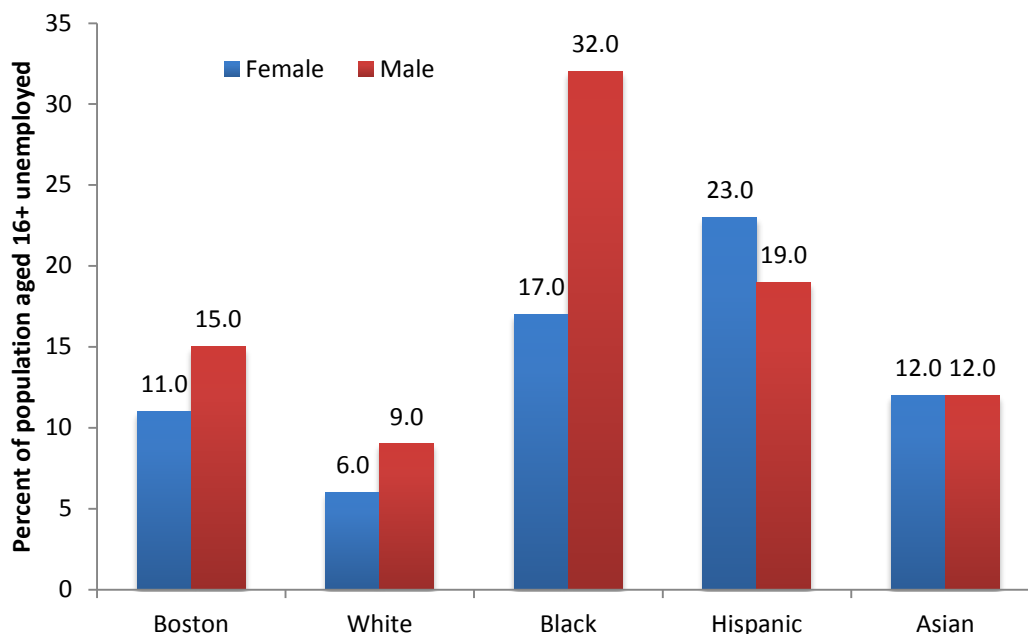
** 2007-2011 American Community Survey

DATA SOURCE: US Census Bureau, 2006-2010 and 2007-2011 American Community Survey as reported in Health of Boston 2012-2013

Unemployment was also identified by participants as a challenge facing families in Boston Children’s priority neighborhoods. Employment was considered critical for families to be financially stable and support their dependents. Focus group and interview participants mentioned that there is a dearth of job opportunities in Boston, especially for those with a criminal record, which poses an additional barrier to employment. They emphasized the importance of creating employment opportunities for the working class, including job training for youth.

Quantitative data show that racial/ethnic groups are disproportionately affected by unemployment. For example, in 2010, Black males (32.0%) experienced unemployment at more than three times the rate of White males (9.0%) (Figure 5). Similarly, Hispanic females (23.0%) were almost four times as likely to be unemployed compared to White females (6.0%).

Figure 5: Percent of 16+ Population Unemployed by Gender and Race/Ethnicity, 2010



DATA SOURCE: US Census Bureau, 2010 American Community Survey, as Reported in Health of Boston 2012-2013

Jamaica Plain, in particular, was described by focus group and interview participants as a neighborhood with varying socioeconomic levels that ranged from “blue collar immigrant minorities” to “White collar professionals”. A few stakeholders indicated that there are “two Jamaica Plains,” which results in neighborhood inequities. Several stakeholders commented on the negative impact of gentrification in Jamaica Plain (e.g., the closing of Hi-Lo Foods, a Latin American supermarket, and arrival of Whole Foods), resulting in the growth of the middle class and marginalization of the lower class. Examining economic data from the 2006-2010 American Community Survey reveals that while the percent of families living below poverty in Jamaica Plain was 11% overall, it ranged from 3.8% to 39.6% by census tract. Census tracts 812 and 813, which are adjacent to Jackson Square where housing developments and a federally qualified health center are located, have the highest proportion of families living below poverty. These census tracts also have the lowest levels of educational attainment in Jamaica Plain; 24.5% (census tract 812) and 43.2% (census tract 813) of adults (25 years or older) have less than a high school education.

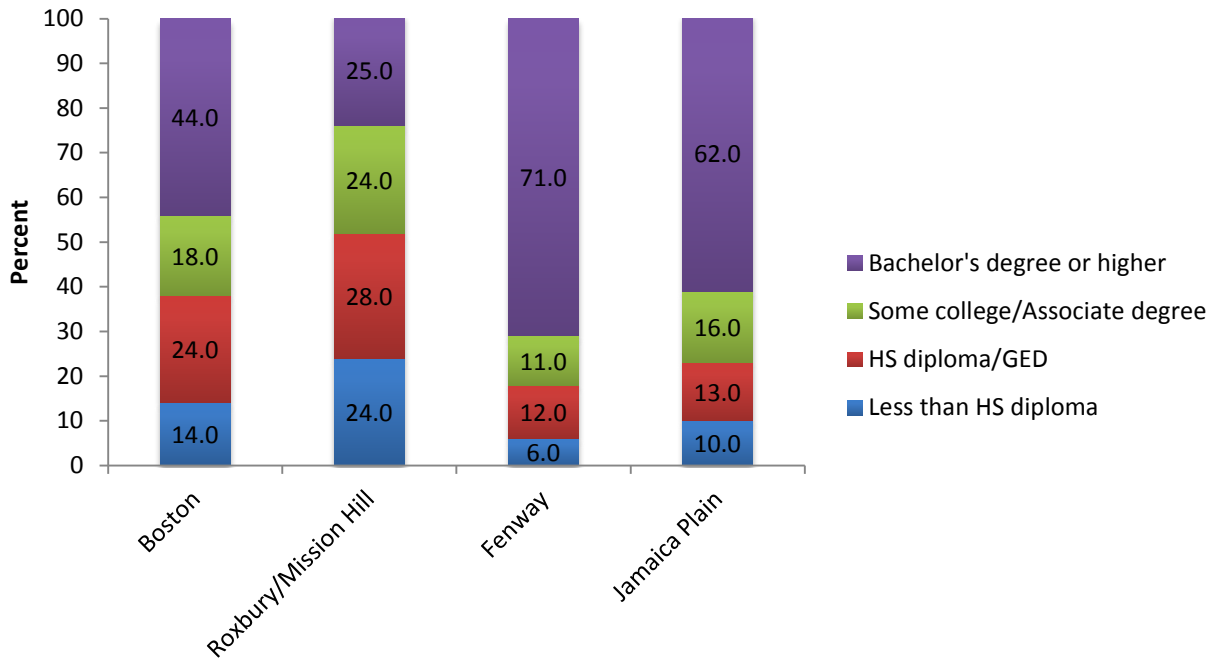
Education

While some participants identified the schools and colleges in Boston as an asset, addressing education emerged as a priority community issue among interview participants. Stakeholders indicated that access to a quality education – from pre-school through college – for Boston residents is a primary concern. Concerns ranged from absenteeism among young children to the high school and college dropout rate among Boston’s youth; they emphasized the importance of addressing not only college enrollment but completion. Participants also stressed the implications of a poor education system and a lack of college educated youth for the health of a community.

Quantitative data show some variation in educational attainment across the priority neighborhoods (Figure 6). Residents of Fenway had the highest educational attainment with 71.0% of adults aged 25 years or older having a bachelor’s degree or higher, followed by Jamaica Plain (62.0%), both of which were above that of the Boston (44.0%). In contrast, 25.0% of Roxbury/Mission Hill adults had a bachelor’s degree or higher. Additionally, examining Boston Public School graduation rates by

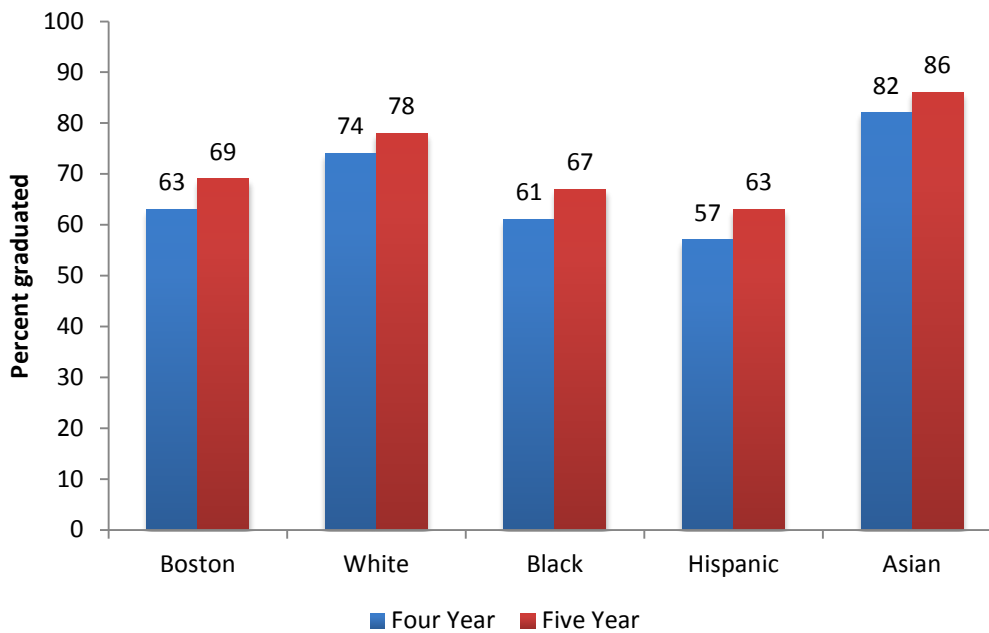
race/ethnicity demonstrates that Black and Hispanic students graduate at lower rates than their White and Asian counterparts (Figure 7).

Figure 6: Educational Attainment by Priority Neighborhood, 2010



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

Figure 7: Percent of Boston Public School Student Graduates at Four and Five Years by Race/Ethnicity, 2010-2011



DATA SOURCE: Boston Public Schools 2011, as Reported in Health of Boston 2012-2013

Housing and Transportation

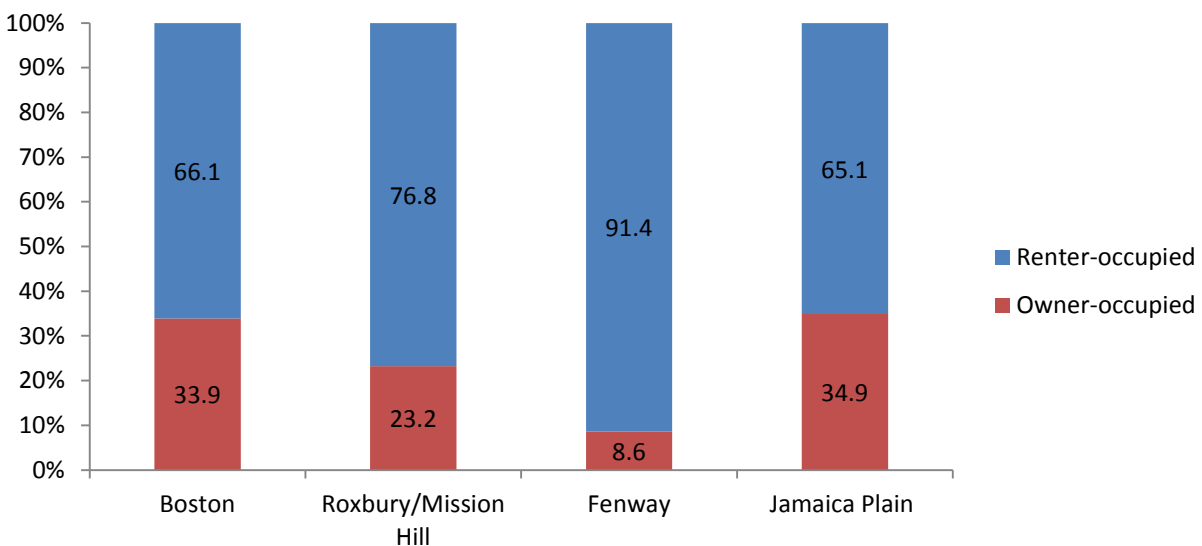
- *“With housing costs escalating so high, and people having to pay more of their income on housing, they don’t have anything left.”* – Stakeholder focus group participant

Housing issues emerged as a pressing concern among focus group and interview participants. Several focus group and interview participants commented on the lack of affordable housing in Boston. Residents described difficulties obtaining housing and struggling with the rising cost of rent. Stakeholders shared that high housing costs are consuming the majority of resident’s income, leaving little to cover the cost of other basic needs, such as food and transportation. Participants also expressed concerns regarding the quality of housing in Boston.

Issues specifically related to public housing in Boston were raised by residents and stakeholders. According to some, the physical and social isolation of public housing developments results in a concentration of poverty and residents being disconnected from the neighborhood as a whole. Public housing residents of Fenway described challenges with pest management due to the high turnover of college students in the neighborhood and poor relations with property managers. Several Fenway focus group participants indicated that property managers were disrespectful of public housing residents and expressed the need for improved communication and increased support for tenants. Stakeholders also noted poor relations between property managers and tenants, creating a fear of eviction among residents.

Many of the housing concerns discussed disproportionately affect renters, who represent the majority in Boston. As illustrated in Figure 8, 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, Fenway has the highest percentage of residences that are renter-occupied (91.4%), while Jamaica Plain has the highest percentage of residences that are owner-occupied (34.9%). Furthermore, 42.4% of renters in Boston contribute 35% or more of their income to housing costs.

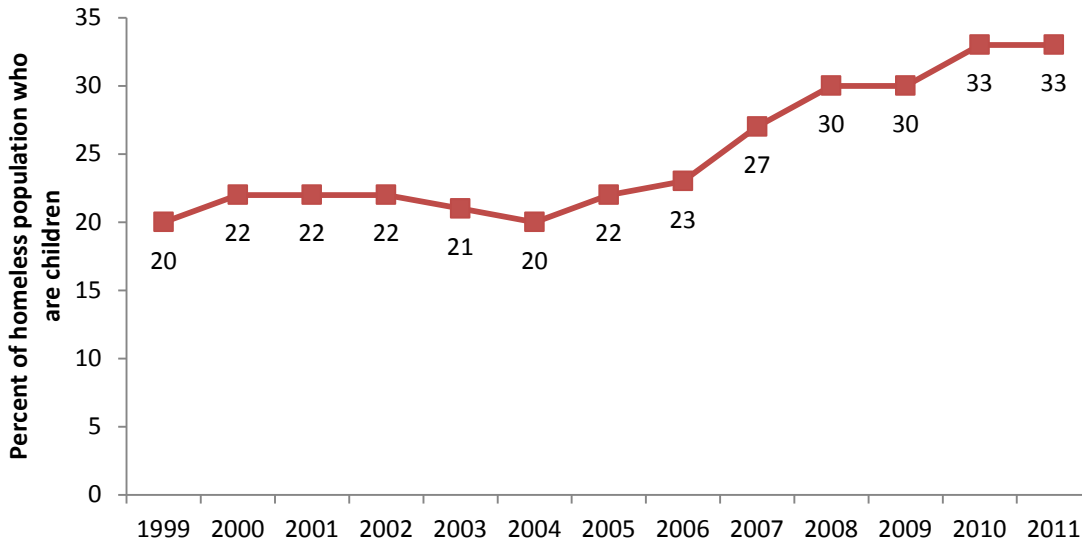
Figure 8: Home Occupancy by Priority Neighborhood, 2010



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

The lack of affordable housing was described by stakeholders as resulting in overcrowding and homelessness. Since 1999, the number of homeless individuals in Boston has been steadily increasing. Since 2004, the number of homeless individuals has increased by 32% to approximately 7,662 homeless individuals in 2011; of these, 33% (approximately 2,500) were children (Figure 9).

Figure 9: Percent of Homeless Population who are Children, 1990-2011



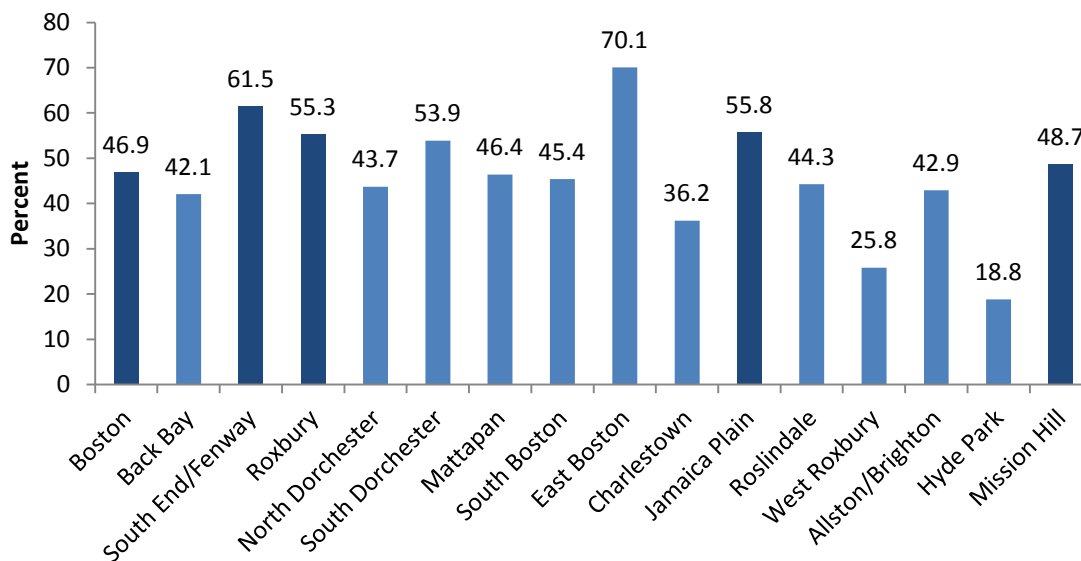
DATA SOURCE: Homeless Counts, City of Boston Emergency Shelter, as Reported in Health of Boston 2012-2013

Many focus group participants praised the conveniences in their neighborhoods, including their central location, as well as the accessibility of services and transportation. However, the cost of transportation was identified as a challenge for residents. Somali focus group participants in particular, noted difficulties affording public transportation, especially in light of other living expenses, such as housing. Additionally, several stakeholders commented on transportation barriers experienced by their clients when accessing services. This ranged from limited T accessibility to paying for parking. According to some participants, the recent increase in the MBTA fare is having a widespread impact on the community's health.

Physical Environment

A few focus group participants raised concerns regarding the physical condition of their neighborhood, specifically noise and air pollution, as well as a general lack of street sanitation. This was particularly true among young male participants, who described their community as "dirty." Mission Hill residents also noted the traffic congestion in their neighborhood. Results from the 2012 Boston Child Health Study show that survey respondents from Boston Children's priority neighborhoods were more likely to report litter or garbage on the sidewalk compared to Boston overall (Figure 10).

Figure 10: Percent Report Litter or Garbage on the Sidewalk by Neighborhood, 2012



DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

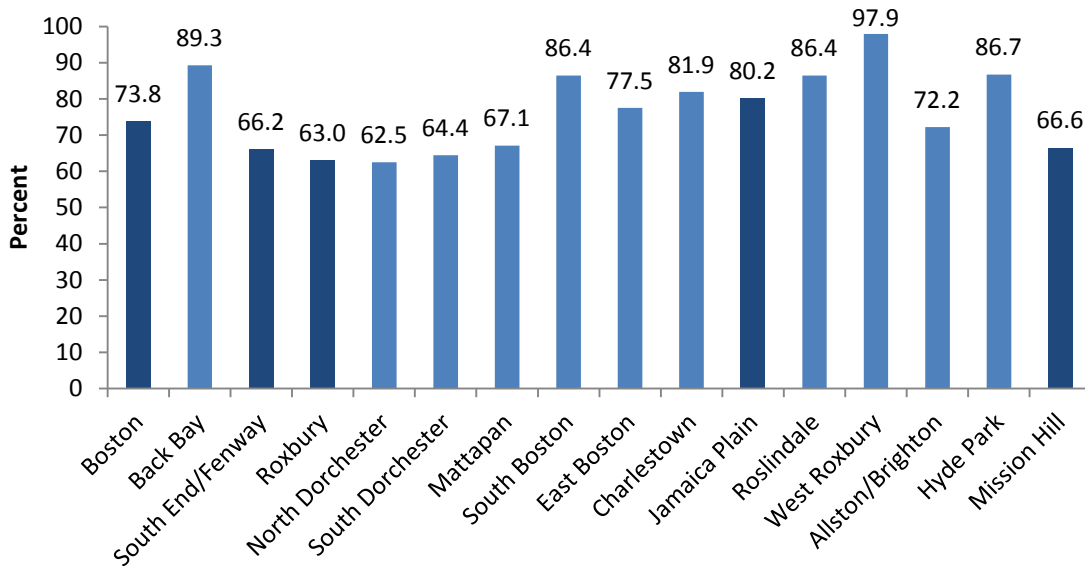
Neighborhood Crime and Perceptions of Safety

- *“A girl was killed in my neighborhood. Police are always there, chasing people. In my neighborhood people chase each other and kill each other. There are sirens all the time.”* – Community resident focus group participant
- *“At night it can get very violent. The day time is calm but the night is full of gun shots.”* – Community resident focus group participant

Neighborhood violence and perceptions of safety were discussed in almost every focus group and interview as a community health concern. While some residents indicated that their neighborhood was safe, others described frequent shootings and a lack of safety. Participants shared how different forms of violence affect their community, ranging from gun and drug violence to domestic violence. Several participants also mentioned the presence of gang related activity in their neighborhood. While stakeholders considered violence to be a community wide issue affecting residents of all ages, youth emerged as a particularly vulnerable population. Additionally, young male focus group participants commonly described experiencing racial profiling by police in their neighborhood and a resulting distrust of law enforcement. For example, one participant said police, *“make assumptions about you based on looks.”* Another participant observed that *“police always stop the minorities.”* It is important to note that these focus group discussions occurred during the Trayvon Martin case, which received widespread media coverage. The effects of violence on residents are further illustrated in the section describing community health issues.

According to the Boston Child Health Study, parents and caregivers in Boston Children’s priority neighborhoods, with the exception of Jamaica Plain, were less likely to report that they usually feel their child is safe than those citywide (Figure 11).

Figure 11: Percent who Usually Feel Their Child is Safe by Neighborhood, 2012



DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

Quantitative data validate residents' concerns. Table 2 illustrates the total crime count stratified by crime type and Boston Children's priority neighborhood in Boston. Between January and June 2013, the City of Boston had a total of 9,840 crimes reported, the majority of which were classified as larceny or attempted larceny. Boston Children's priority neighborhoods collectively accounted for approximately 40% of the total crimes reported citywide during this time period. Over half of all homicides occurred in Roxbury/Mission Hill.

Table 2: Crime Reported by Type, City-Wide and by Priority Neighborhood, January 1-June 24, 2013

	Boston Total	Roxbury/ Mission Hill	Back Bay/ South End/ Fenway	Jamaica Plain
Homicide	23	12	0	1
Rape/Attempted Rape	110	28	8	6
Robbery/Attempted Robbery	853	158	108	62
Aggravated Assault	1,297	287	123	57
Burglary/Attempted Burglary	1,389	195	135	119
Larceny/Attempted Larceny	5,551	635	1,484	317
Vehicle Theft/ Attempted Theft	617	119	72	32
Total Crimes Reported	9,840	1,434	1,930	594

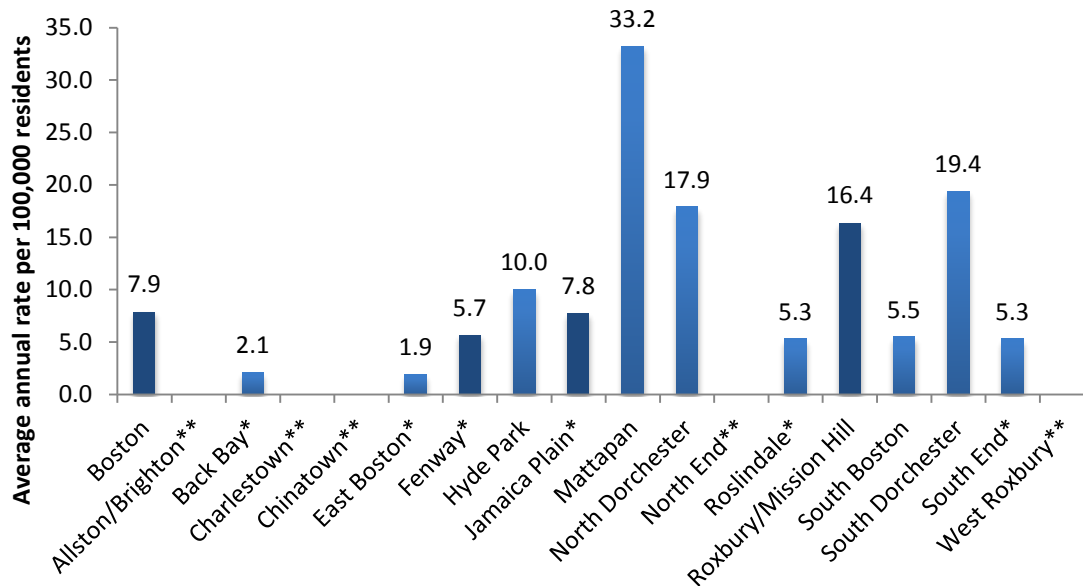
DATA SOURCE: Boston Police Department Crime Statistics, Accessed 2 July 2013

http://www.pdfdownload.org/pdf2html/view_online.php?url=http%3A%2F%2Fwww.bpdnews.com%2Fwordpress%2Fwp-content%2Fuploads%2FJune-25-2013.pdf

Figure 12 further demonstrates that Roxbury/Mission Hill experiences disproportionately higher rates of violent crime compared to Boston and Boston Children's other priority neighborhoods. Among Boston Children's priority neighborhoods, Roxbury/Mission Hill reported the highest average annual homicide

rate at 16.4 homicides per 100,000 residents, which approximately twice the city-wide rate (7.9 homicides per 100,000 residents).

Figure 12: Average Annual Homicide Rate per 100,000 Residents by Neighborhood, 2005-2011



Note: 'Back Bay' includes Beacon Hill, Downtown, the North End, and the West End

Note: 'South End' includes Chinatown

* Rates based on counts less than 20 should be interpreted with caution

** Insufficient data

DATA SOURCE: Boston Resident Deaths, Massachusetts Department of Public Health as reported by Health of Boston 2012-2013

Community Health Issues

While obesity and asthma emerged as pressing health issues, the impact of economic stress and exposure to violence on mental health was the foremost community health concern raised by residents and stakeholders. Improving access to services was viewed as critical to address these community health issues.

This section focuses on the health issues and concerns that emerged as the most prominent in the Boston Children's 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: childhood obesity, physical activity, and nutrition; asthma; injury and violence; mental and behavioral health; substance use and abuse; sexual health and teen pregnancy; early childhood issues; and access to medical care and prevention services.

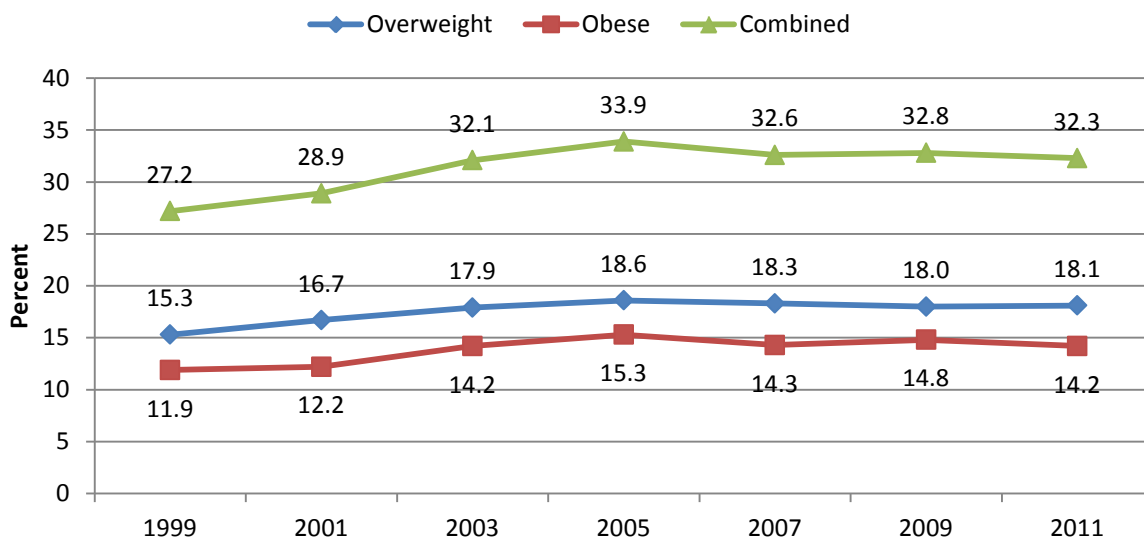
Childhood Obesity, Physical Activity, and Nutrition

- “Obesity is a big issue, especially for Hispanics and African-Americans.” – Stakeholder interview participant
- “Access to healthy foods in general is a real challenge. In the Roxbury, Dorchester, Jamaica Plain area, there’s one big Stop and Shop, but the corner store options are more accessible.” – Stakeholder focus group participant

Childhood obesity was mentioned in several focus groups and interviews as a pressing health concern in the community. While some parent and youth focus group participants identified obesity as a community health issue, it was more often discussed among stakeholders. Among Somali parents, obesity was considered a problem for adults; however, it was culturally acceptable for children to be overweight because it was positive indicator of health. As one focus group participant illustrated, “We do not believe that being overweight is bad because in the refugee camps being real thin meant you had no food. When our children gain weight, it means they are healthy.” Among youth focus group participants, eating healthy and being physically active were considered important factors for one’s health. Consequently, the lack of green space and presence of fast food restaurants in their neighborhoods were identified as barriers for maintaining a healthy lifestyle.

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. As shown in Figure 13, 14.2% of Boston high school students were considered obese in 2011. However, obesity and overweight rates are disproportionately higher among Black and Hispanic students, compared to their White counterparts (Table 3).

Figure 13: Percent of Boston High School Students Overweight or Obese, 1999-2011



Overweight students were ≥ 85 th percentile and < 95 th percentile for body mass index, by age and sex, based on reference data.

Obese students were > 95 th percentile for body mass index, by age and sex, based on reference data.

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

Table 3: Percent of Boston High School Students who are Overweight or Obese by Race/Ethnicity, 2011

Weight Status	Boston	White	Black	Hispanic
Overweight*	18.1%	12.6%	19.3%	19.5%
Obese**	14.2%	12.9%	14.4%	16.6%

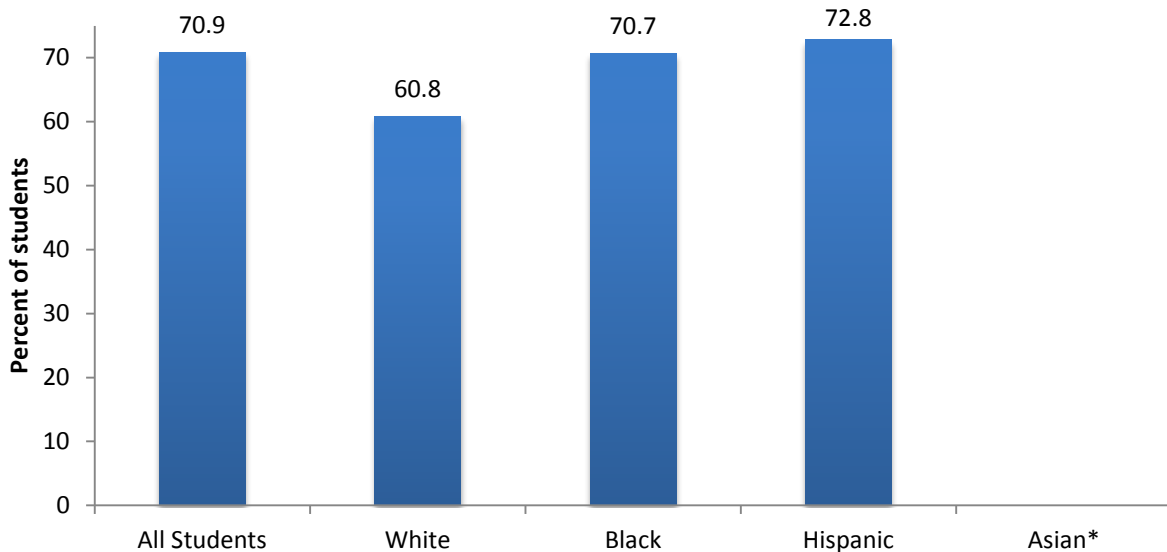
*Students were ≥85th percentile and <95th percentile for body mass index, by age and sex, based on reference data.

**Students were > 95th percentile for body mass index, by age and sex, based on reference data.

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

Despite racial/ethnic disparities in weight status, quantitative data indicate that Black and Hispanic students are more likely to be physically active than White students (Figure 14). According to the 2011 Youth Risk Behavioral Surveillance System (YRBS), over 70% of Black and Hispanic high school students reported that they were physically active for a total of at least 60 minutes per day on five or more of the past seven days, compared to 60.8% of White students.

Figure 14: Percent of Boston High School Students Reporting 60+ Minutes of Physical Activity at least 5 Days/Week, 2011

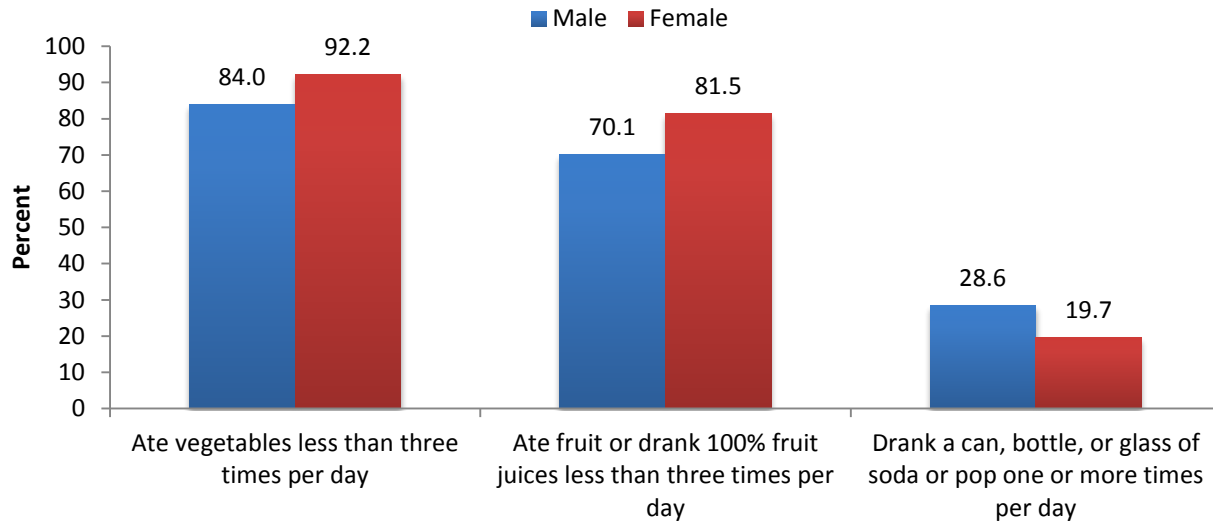


* <100 respondents for the subgroup

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

Examining dietary behaviors among Boston high school students reveals that females were more likely to report consuming vegetables (92.2%) and fruit (81.5%) less than three times per day compared to males (84.0% and 70.1%, respectively) (Figure 15). Additionally, more than a quarter of male students (28.6%) reported drinking soda at least once a day compared to less than 20% of females (19.75).

Figure 15: Percent of Boston High School Students with Reported Dietary Behaviors by Gender, 2011

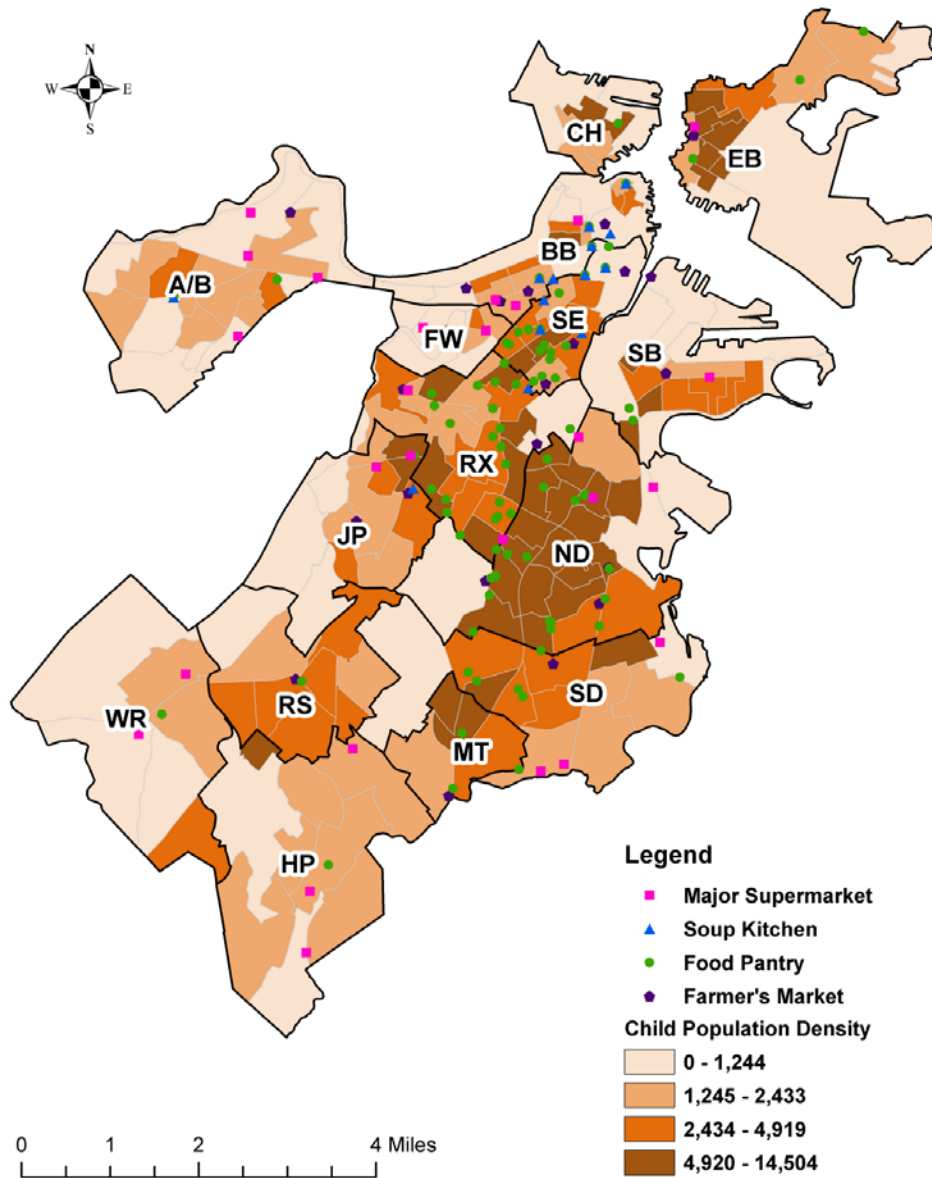


DATA SOURCE: Centers for Disease Control and Prevention, Youth Online: High School YRBS, Boston, MA 2011 Results

According to stakeholders, families lack access to healthy food and physical activity, which presents formidable barriers to addressing childhood obesity. They indicated that the high density of fast food restaurants and corner stores in neighborhoods presents a convenient option for families that are juggling multiple priorities. Other participants shared that low income families are limited by what they receive from food pantries, which was considered less nutritious. Some stakeholders also noted that families may lack the skills to prepare healthy meals.

Figure 16 displays food access in Boston’s neighborhoods overlaid with child population density. Examining Boston Children’s priority neighborhoods demonstrates that Jamaica Plain and Fenway have two major supermarkets, while Roxbury has three. For the most part, these supermarkets are located in the peripheries of these neighborhoods; however, they are often in areas with the highest child population density. Additionally, Jamaica Plain and Roxbury have two farmer’s markets while Fenway has none. Roxbury also has an abundance of food pantries.

Figure 16: Supermarkets, Food Pantries, Farmer’s Markets, Soup Kitchens, and Child (0-17 years) Population



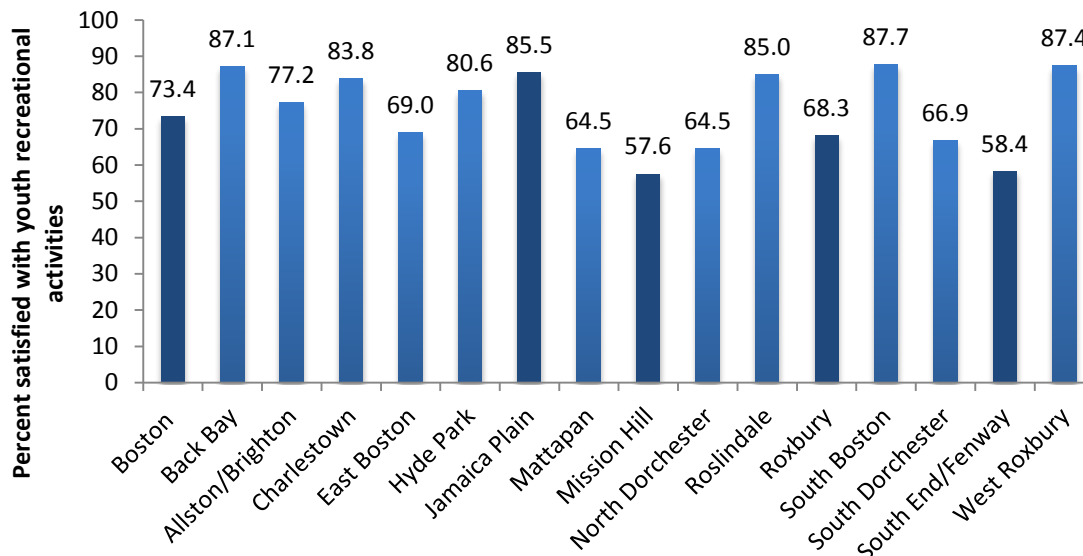
NOTES: Major supermarkets include grocery chain stores and grocery stores with an area larger than 40,000 square feet. Data for major supermarkets were updated by BPHC in May of 2012.
 DATA SOURCES: Boston Redevelopment Authority, 2010; Census 2010, US Department of Commerce, Bureau of the Census, American FactFinder
 DATA ANALYSIS AND MAP PROVIDED BY: Boston Public Health Commission Research and Evaluation Office

Similarly, stakeholders stated that a lack recreational space in neighborhoods prevents families from being physically active. Limited transportation was also identified as a barrier to accessing programming provided by community-based organizations, such as the YMCA, as well as supermarkets. Finally, the cost associated with accessing recreational activities was considered prohibitive for families.

Results from the Boston Child Survey show that residents of Boston Children’s priority neighborhoods, with the exception of Jamaica Plain, were least satisfied with youth recreational activities compared to residents citywide (Figure 17). Mission Hill had the lowest proportion of parents/caregivers satisfied

with youth recreational activities (57.6%) across all neighborhoods, followed by South End/Fenway (58.4%).

Figure 17: Percent of Parents/Caregivers Satisfied with Youth Recreational Activities by Neighborhood, 2012



DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

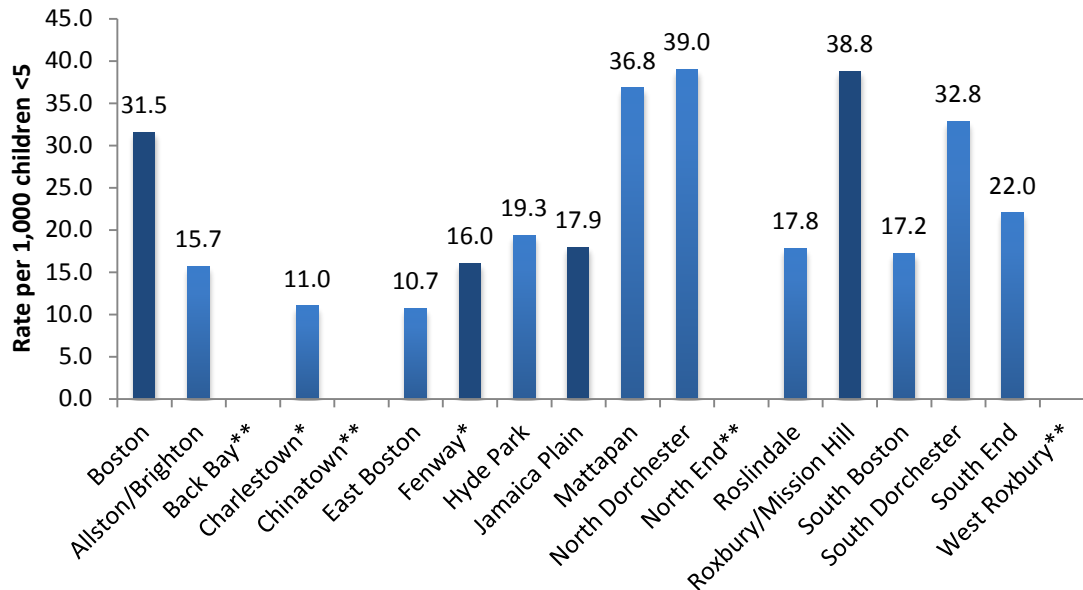
Asthma

- *“In our building, all of the units were built with carpets even though a lot of residents have asthma. We were able to have management change the carpet to wood floors just for accommodating the asthma problem, but we had to fight for it for 10 years first.”* – Community focus group participant

Asthma emerged as a key health issue for Boston Children’s priority neighborhoods, particularly among focus group participants residing in Mission Hill and Fenway; however, a few stakeholders also described disparately high rates of asthma in Roxbury and Jamaica Plain, especially among children of color. Participants discussed the environmental triggers of asthma present in their neighborhood as well as housing, including tobacco smoke, mold, carpeting, exhaust, and dust. Stakeholders also identified the poor quality of housing in Boston, especially public housing, as a cause of increased asthma prevalence in the community.

As illustrated in Figure 18, among children less than five years old, the rate of asthma emergency department visits in the city of Boston was 31.5 per 1,000 children in 2011. Children under age five in Roxbury/Mission Hill (38.8 per 1,000) experienced higher rates of visits to the ED due to asthma, compared to children citywide.

Figure 18: Rate of Asthma Emergency Department Visits per 1,000 Children <5 by Neighborhood, average 2005-2011



Note: 'Back Bay' includes Beacon Hill, Downtown, the North End, and the West End

Note: 'South End' includes Chinatown

* Rates based on counts less than 20 should be interpreted with caution

** No Data

DATA SOURCE: Inpatient Hospital Discharge Database, Outpatient Hospital Emergency Department Database and Outpatient Hospital Observation Database, Massachusetts Center for Health Information Analysis, as reported by Health of Boston 2012-2013

Violence, Injury, and Trauma

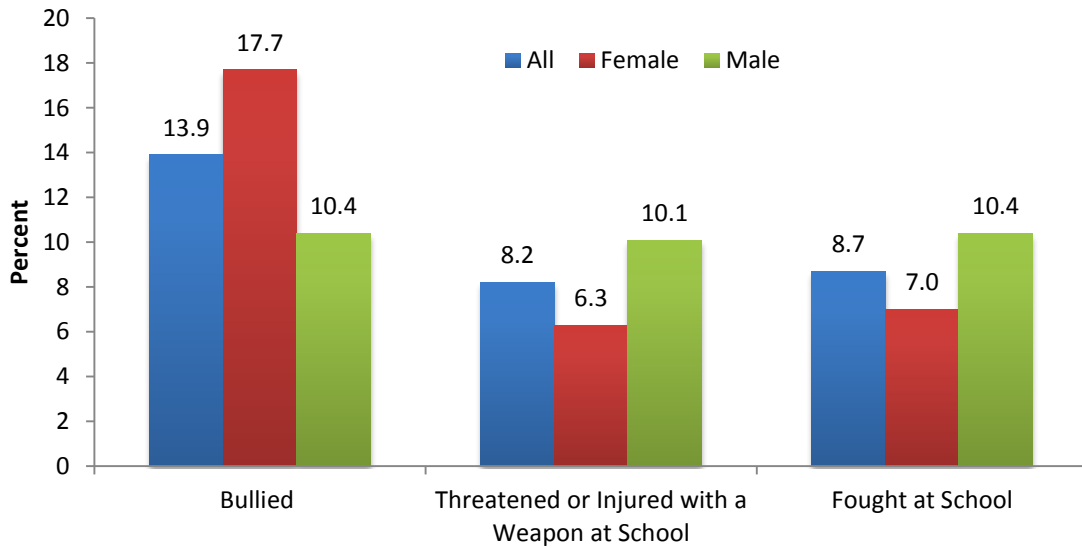
- *“A big issue is kids’ exposure to community violence and trauma.”* - Stakeholder interview participant

As discussed earlier in this report, violence was raised as a key issue permeating the lives of residents. While some participants identified injuries as a concern, the majority of residents and stakeholders primarily expressed concerns regarding the effects of residents witnessing violence in their neighborhoods. The prevalence of violence in these communities was described as creating a *“sense of fear”* and *“hopelessness”* among residents. Children’s exposure to community violence was a common topic raised among focus group participants and interviewees. The resulting trauma experienced by children in these neighborhoods was described as leading to emotional and behavioral issues and having detrimental effects on every aspect of their lives, including not only health, but education, and family stability. The adolescent population was identified as particularly vulnerable population, as youth services and supports were considered to be lacking. Refugees were also identified as a population exposed to trauma due to conflict in their home countries, which is then compounded by further witnessing violence in these neighborhoods. While some stakeholders indicated that there is a good community response to episodes of violence, others stated that trauma informed care did not address violence prevention far enough upstream.

As noted earlier, 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 a

protective as well as a harmful setting. According to the 2011 Youth Risk Behavior Survey, high school students are primarily experiencing school based violence in the form of bullying (Figure 19). Females were more likely to report being bullied (17.7%) than males (10.4%). Additionally, approximately one in ten male students reported that they were threatened or injured with a weapon at school (10.1%).

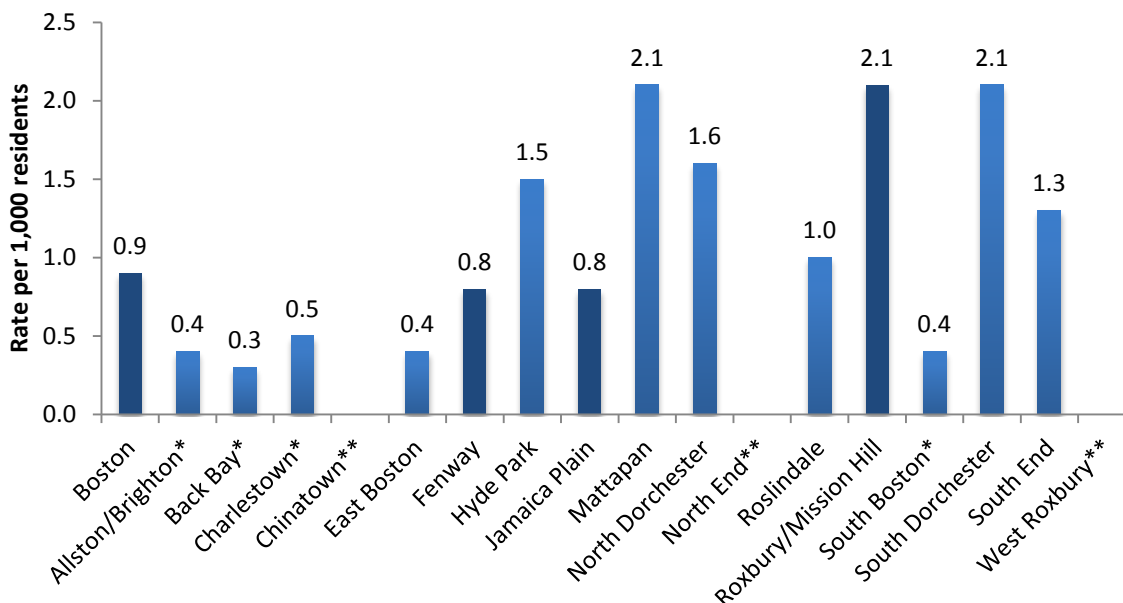
Figure 19: Percent of Boston High School Youth Experiencing School Based Violence by Gender, 2011



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

Figure 20 shows that rates for emergency department visits for nonfatal stabbing or gunshot wounds are highest in Roxbury/Mission Hill (2.1 visits per 1,000 residents) and more than double the citywide rate (0.9 visits per 1,000 residents).

Figure 20: Rate of Nonfatal Gunshot/Stabbing Emergency Department Visits per 1,000 Residents by Neighborhood, 2010



Note: 'Back Bay' includes Beacon Hill, Downtown, the North End, and the West End. 'South End' includes Chinatown

* Rates based on counts less than 20 should be interpreted with caution

** Insufficient data

DATA SOURCE: Inpatient Hospital Discharge Database, Outpatient Hospital Emergency Department Database and Outpatient Hospital Observation Database, Massachusetts Center for Health Information Analysis, as reported by Health of Boston 2012-2013

Mental and Behavioral Health

- *“Mental health is a huge health issue; unless somebody reaches the point of acute clinical services it’s typically not identified.”* – Stakeholder Interview participant
- *“A lot of cultures generally do not like to address issues or acknowledge mental health issues. And that stigma creates a huge barrier to making or keeping appointments.”* – Stakeholder focus group participant

Mental health emerged as a pervasive community health issue across focus groups and interviews, ranging from stress and depression to attention deficit disorders and schizophrenia. Residents and stakeholders described the impact of stress on families caused by the emotional burden of poverty, violence, and other social determinants of health, which create a sense of hopelessness among residents. The public housing environment was also viewed as a source of mental health issues (e.g., social isolation). Participants further noted that youth are increasingly suffering from mental illness for which available services are insufficient to meet their needs. However, Somali focus group participants indicated that their children are incorrectly diagnosed for behaviors that they consider normal and expressed concerns regarding their children being overmedicated for problems such as attention deficit hyperactivity disorder. For example, a participant stated, *“We do want [our children] to take medication. Some people and doctors always want to give them medication which will make our children numb and stupid.”*

Figure 21 demonstrates that between 2005 and 2011, the proportion of Boston high school students who reported feeling sad or hopeless decreased from 30.1% to 24.8%. However, these symptoms are more prevalent among female high school students compared to their male counterparts.

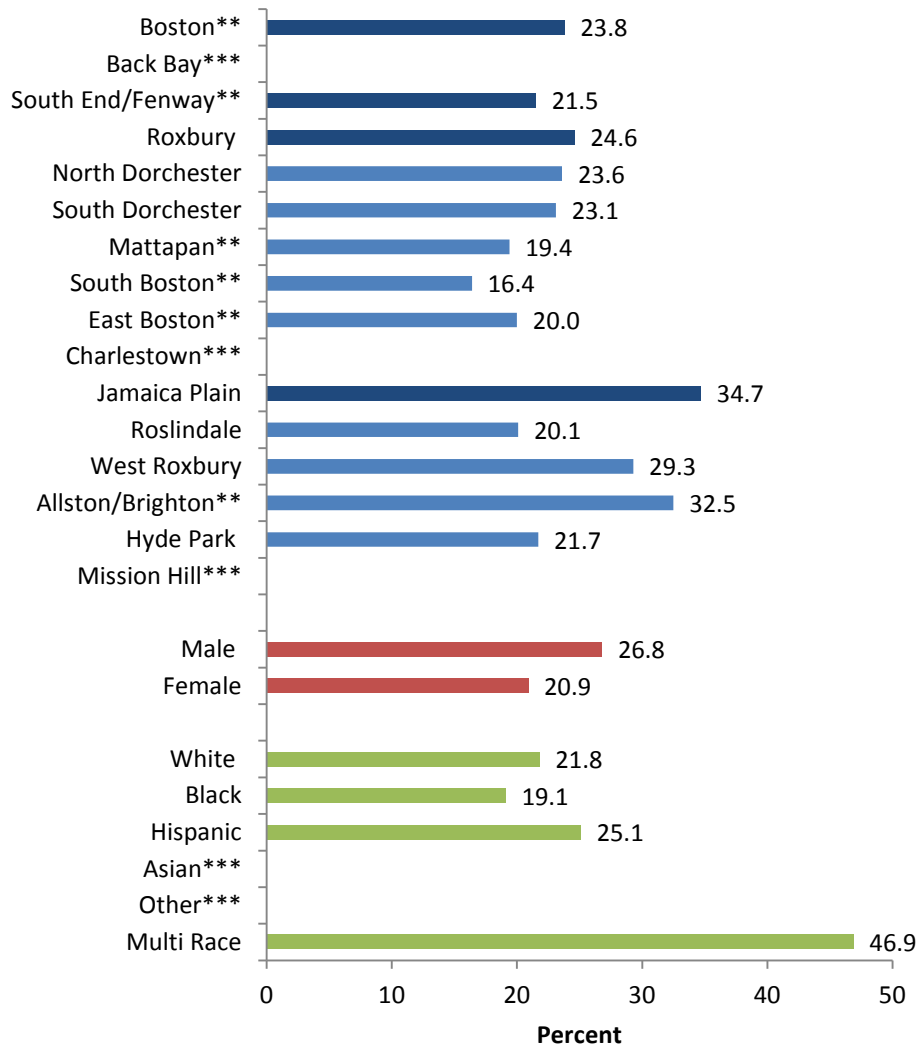
Figure 21: Percent of Boston High School Students Reported Feeling Sad or Hopeless for Two Weeks Straight During the Past Year by Gender, 2005-2011



DATA SOURCE: Centers for Disease Control and Prevention, Youth Online: High School YRBS, Boston, MA 2005-2011 Results

Results from the Boston Child Health Survey show that in 2012, nearly 24% of 6-17 year olds in Boston were unhappy, sad, or depressed at least sometimes during the past month (Figure 22). Among Boston Children’s priority neighborhoods, over one-third (34.7%) of 6-17 year olds in Jamaica Plain reported these symptoms, compared to less than one-quarter in Roxbury (24.6%) and South End/Fenway (21.5%). These symptoms were also more likely to be reported among males and those of multiple races.

Figure 22: Percent of 6-17 Year Olds who are Unhappy, Sad or Depressed Sometimes, Usually or Always during the Past Month, 2012



Note: all races reported are non-Hispanic

* < 5 respondents in subgroup

** Unstable measurement, coefficient of variation > 30%

*** < 50 respondents in subgroup

DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

Interview and focus group participants expressed that the stigma associated with mental health prevents proper treatment. They further noted a relationship between mental health and substance abuse, stating that individuals with mental health issues will seek drugs and alcohol to self-medicate. Mental health was also viewed as affecting physical health; thus, stakeholders encouraged a holistic approach to emotional health that establishes community norms and provides coping skills and strategies.

Substance Use and Abuse (Alcohol, Tobacco, and Other Drugs)

- *“I live in a building, in front they smoke pot. The hallway smells like pot. I am afraid this will harm the kids.”* – Community focus group participant

While substance use and abuse was mentioned in every community resident focus group and raised as a community health issue among a few stakeholders, it was not heavily discussed. Drug use was often noted in the context of mental health as a means of self-medication. Parents expressed concerns regarding their children’s exposure to second-hand smoke from tobacco as well as marijuana. Young male participants expressed concern regarding the presence of drugs in their community, including marijuana, tobacco, cocaine, and heroine, noting its harmful effects. Stakeholders identified substance abuse among youth as an unmet need due to the lack of resources.

The Youth Risk Behavioral Surveillance System (YRBS) survey collected data on substance use among youth in Boston. While 43.5% of Boston youth reported ever smoking cigarettes in 2011, less than 10% indicated they were a current smoker (Table 4). However, tobacco use is higher among White students, compared to other racial/ethnic groups. For example, the proportion of White students who were current smokers (16.3%) was more than double that of Asian (7.8%), Hispanic (6.2%), or Black (4.2%) students.

Table 4: Percent of Boston High School Students by Smoking Status and Race/Ethnicity, 2011

	Boston	Asian	Black	Hispanic	White
Ever tried cigarette smoking	43.5%	32.2%	41.6%	41.7%	50.8%
Current smoker*	7.5%	7.8%	4.2%	6.2%	16.3%
Current heavy smoker**	2.1%	4.1%	1.3%	0.9%	5.3%
Currently using chewing tobacco, snuff, or dip***	3.9%	0.6%	2.1%	2.8%	10.6%

* “Current smoker”: has smoked a cigarette in the 30 days before the survey

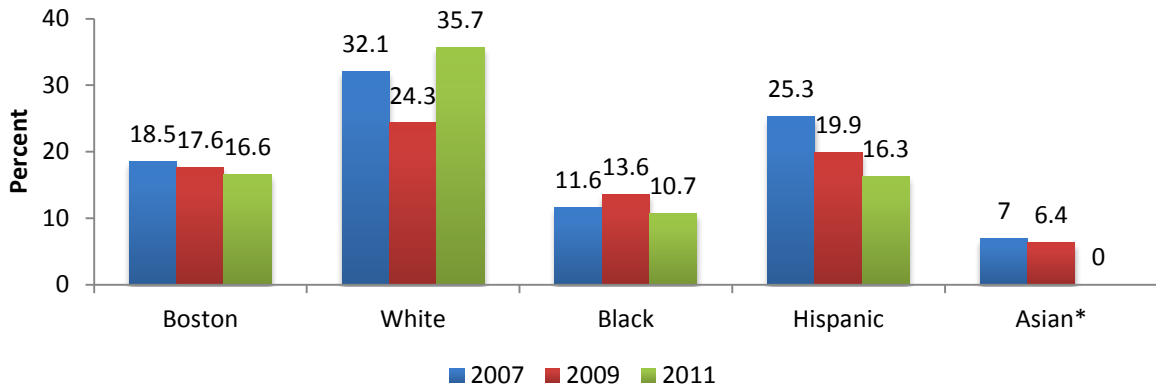
** “Current heavy smoker”: has smoked 20 or more cigarettes in the 30 days before the survey

*** “Currently using chewing tobacco, snuff, or dip”: has used at least one of these products at least one time in the 30 days before the survey

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

Trend data for alcohol consumption among youth is displayed in Figure 23. Overall, the proportion of students reporting binge drinking decreased from 18.5% in 2009 to 16.6% in 2011. A similar downward trend is viewed among Hispanic, Asian, and Black students. Conversely, the proportion of White students who reported binge drinking increased during this time period. In 2011, over two-thirds of White students indicated excessive alcohol consumption (35.7%), which was twice that of Boston students overall.

Figure 23: Percent of Boston High School Students who Reported Binge Drinking within Past 30 Days by Race/Ethnicity, 2007-2011

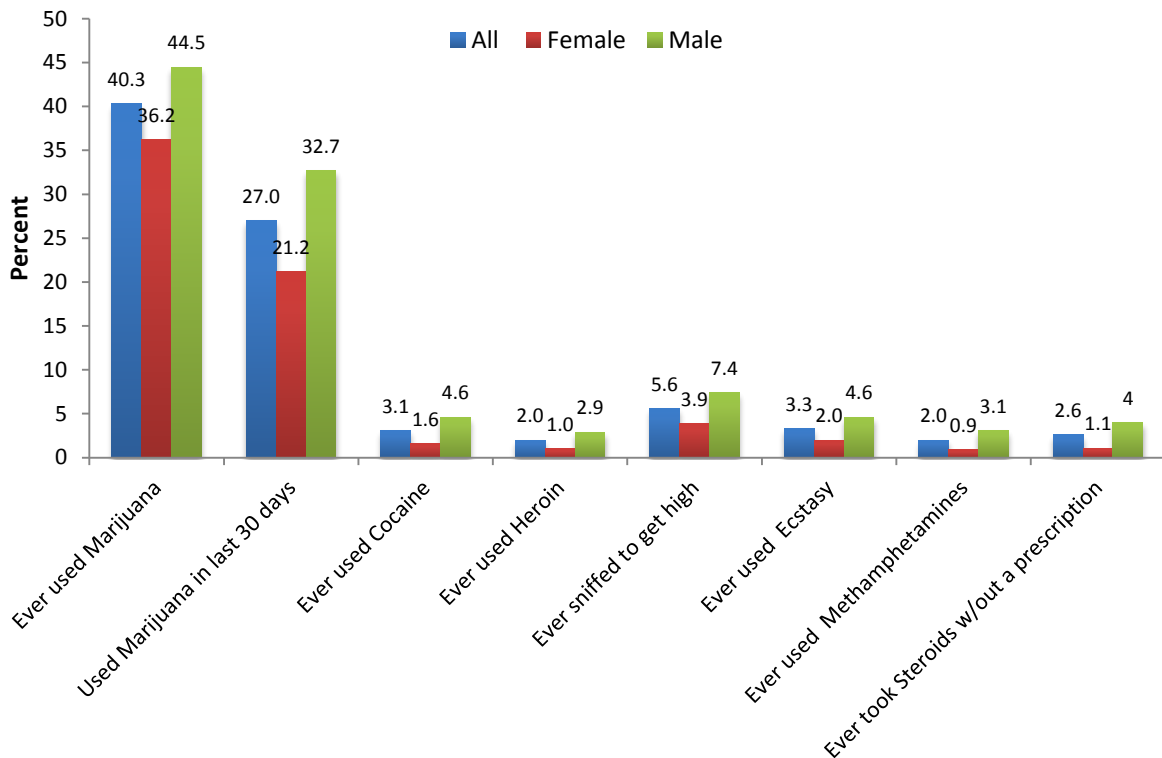


* <100 respondents for the subgroup

DATA SOURCE: Centers for Disease Control and Prevention, Youth Online: High School YRBS, Boston, MA 2007-2011 Results

Examining the use of other substances among youth demonstrates that in 2011 40.3% had ever used marijuana (Figure 24). The use of other drugs, such as cocaine and heroin, is substantially lower, less than 6%. However, a higher proportion of male students reported the use of marijuana and other drugs compare to females and Boston students overall.

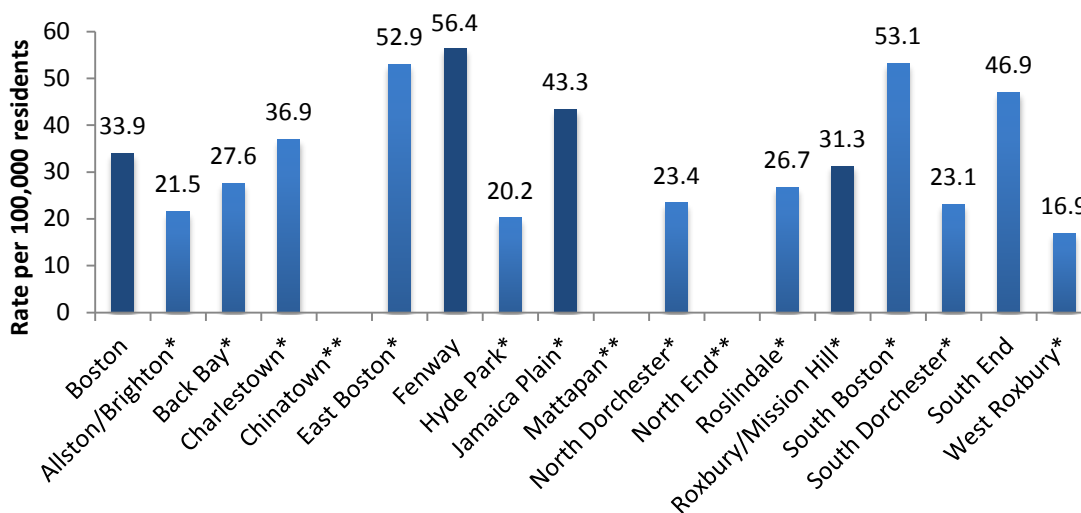
Figure 24: Percent Boston High School Students Substance Use by Type and Gender, 2011



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

According to the Massachusetts Department of Public Health, in 2010 the rate of substance abuse deaths in Boston was 33.9 per 100,000 residents. Rates in Boston Children’s priority neighborhoods were generally higher than other neighborhoods. The substance abuse mortality rates in Fenway (56.4 deaths per 100,000) and Jamaica Plain (43.3 deaths per 100,000 residents) were above that of the citywide rate; whereas the rate in Roxbury/Mission Hill (31.3 deaths per 100,000) was slightly below that of Boston.

Figure 25: Age-Adjusted Substance Abuse Mortality per 100,000 Residents by Neighborhood, 2010



Note: 'Back Bay' includes Beacon Hill, Downtown, the North End, and the West End

Note: 'South End' includes Chinatown

* Rates based on counts less than 20 should be interpreted with caution

** Insufficient data

DATA SOURCE: Boston Public Health Commission, as reported by Health of Boston 2012-2013

Sexual Health and Teen Pregnancy

Sexual health did not emerge as a concern among community focus group participants, although a few young male participants mentioned sexually transmitted diseases as a health issue. Some stakeholders did indicate that sexual activity among adolescents warranted attention due to teen pregnancy and sexually transmitted diseases. They emphasized the importance of sexual health education for school aged children. Table 5 shows that over half of Boston high school students reported every having sexual intercourse (55.5%) and over one-third being currently sexually active (35.8%). These percentages were higher among Hispanic and Black students. Furthermore, among those who are sexually active at least one in ten high school students have had four or more sexual partners in their lifetime.

Table 5: Sexual Activity of Boston High School Students by Race/Ethnicity, 2011

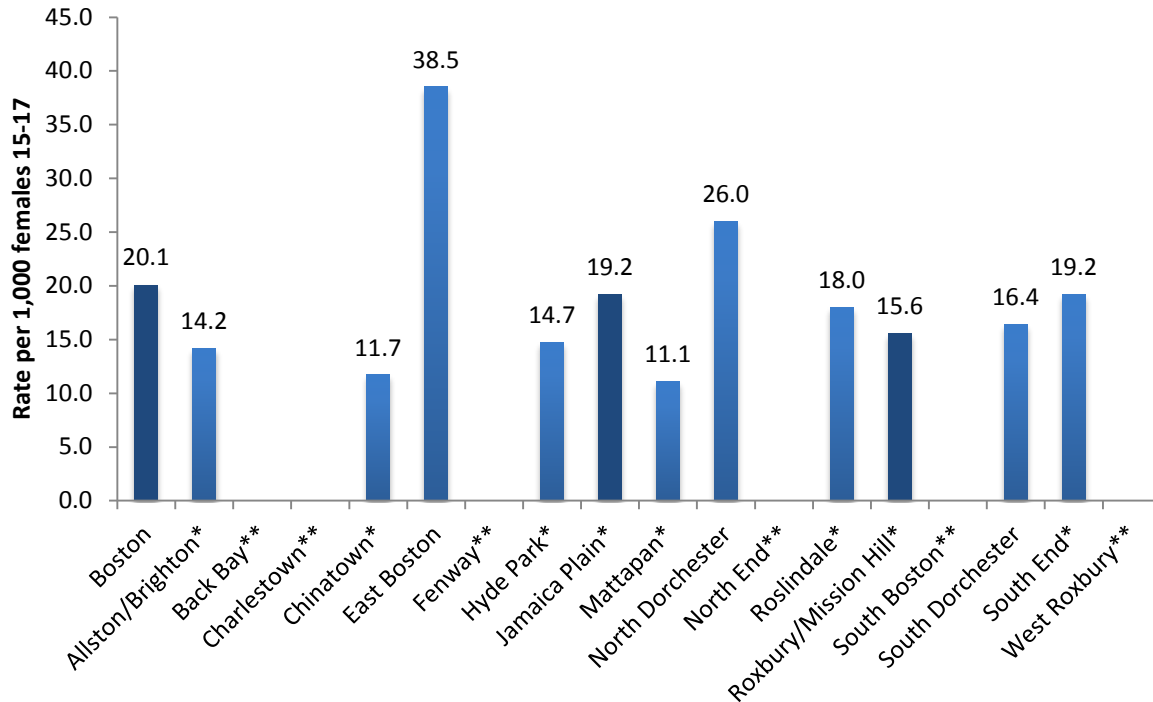
	Boston	Asian	Black	Hispanic	White
Ever Had Sexual Intercourse	55.5%	*	56.8%	60.5%	*
First Intercourse < 13 years old	11.4%	*	13.0%	10.2%	*
4+ Lifetime Sexual Partners	22.2%	*	30.8%	20.1%	*
Currently Sexually Active	35.8%	*	37.7%	37.4%	*

* <100 respondents for the subgroup

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

According to the 2012 Health of Boston Report, the adolescent birth rate in Boston has decreased since 2005. Figure 26 summarizes city and neighborhood-level data on the rate of teen births per 1,000 females ages 15-17, where it was available. Among Boston Children’s priority neighborhoods, Jamaica Plain had the highest rate of teen pregnancy (19.2 births per 1,000 females ages 15-17 years old), similar to that of Boston overall (20.1 per 1,000).

Figure 26: Birth Rate per 1,000 Female 15-17 by Neighborhood, 2005-2011



Note: 'Back Bay' includes Beacon Hill, Downtown, the North End, and the West End

Note: 'South End' includes Chinatown

* Rates based on counts less than 20 should be interpreted with caution

** Insufficient Data

DATA SOURCE: Massachusetts Department of Public Health; Massachusetts Births 2009. Boston, MA: Division of Research and Epidemiology, Bureau of Health Information, Statistics, Research, and Evaluation, Massachusetts Department of Public Health. August 2011, as reported by Health of Boston 2012-2013

Early Childhood Issues

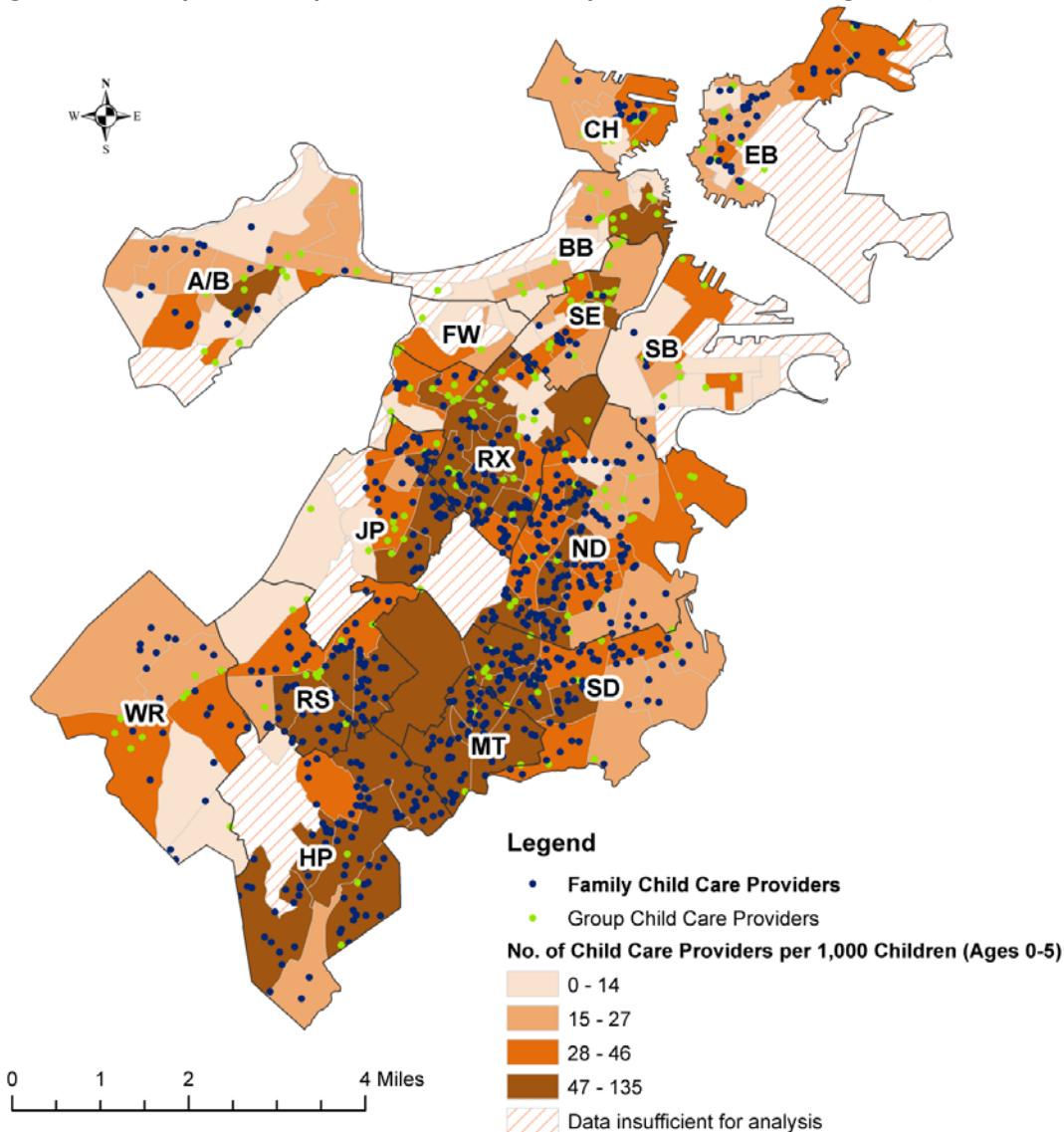
- *“Issues related to continuum of care and child development are important. We need to engage parents when children are very young.”* – Stakeholder interview participant

Issues specific to early childhood were not frequently discussed among community residents, although they indicated that early intervention programs and parental involvement were important for younger children to be healthy. Stakeholders agreed that intervening at a young age and engaging parents were critical for children to be successful later on in life. Young children were considered to be particularly vulnerable to the social determinants of health. For example, stakeholders noted the impact of witnessing violence on mental and behavioral health and poverty on malnutrition among young children.

Challenges to accessing early childhood education were raised by several stakeholders. They mentioned a lack of affordable childcare and that current programs are underfunded and at maximum capacity (e.g., waiting lists to enter subsidized child care and Head Start). Due to sequestration cuts, Boston Head Start indicated they will reduce the number of young children served from 2,500 to 2,250-2,300 by keeping new families on the waiting list (From Masslive.com, July 29, 2013, by Shira Schoenberg). Early and periodic screening, diagnostic, and treatment (e.g., hearing, vision, and lead screening) were considered critical; thus, supporting a range of providers in multiple settings – such as school teachers, day care staff, and pediatricians – to identify issues early was recommended. A few stakeholders also mentioned the usefulness of home visits as a way to engage parents early on in child health and developmental services.

Figure 27 shows the location, type, and rate of child care providers per 1,000 children (ages 0-5). The majority of Roxbury has 47-135 child care providers per 1,000 children; whereas, Fenway has fewer than 47 child care providers per 1,000 children. Many areas of Jamaica Plain and Fenway have less than 15 child care providers per 1,000 children. While family child care providers tend to be more common than group child care providers in Jamaica Plain and Roxbury, Fenway only has group child care providers.

Figure 27: Family and Group Child Care Providers per 1,000 Children (Ages 0-5)



NOTES: Group childcare providers include childcare centers, nursery schools, and Head Start programs where children (infants, toddlers and preschoolers) are cared for in groups according to their age and number of adult caregivers. Most group childcare providers are licensed by the Massachusetts Department of Early Education and Care (EEC). Family childcare providers are individuals licensed by the EEC to care for children in their own home. Typically they are licensed to care for up to six children including their own but in some cases care for up to 10 children with an approved assistant.

DATA SOURCES: Census 2010, US Department of Commerce, Bureau of the Census, American FactFinder; Child Care Choices of Boston, April 2012

DATA ANALYSIS AND MAP PROVIDED BY: Boston Public Health Commission Research and Evaluation Office

Table 6 presents results from the Boston Child Health Survey specific to children under the age of 6 years. Less than five percent of survey respondents indicated that their children aged 0-5 years had developmental problems for which there is a written intervention plan. This proportion was slightly higher among male (5.1%) and Hispanic (6.1%) children. Over half of survey respondents reported that a family member read to their children aged 0-5 years daily (58.6%). Survey respondents who self-

identified as White were more likely to report their children being read to compare to Blacks (48.8%) or Hispanics (51.2%).

Table 6: Development of 0-5 Year Olds

	0-5 year olds with developmental problems for which there is a written Individualized Family Service Plan or Individualized Education Program	0-5 year olds read to by a family member every day of the week
Boston	4.5%	58.6%
Male	5.1%	56.9%
Female	4.0%**	60.3%
White	4.8%**	70.6%
Black	2.7%**	48.8%
Hispanic	6.1%**	51.2%
Asian	***	***
Other	***	***
Multi Race	*	82.3%**

Note: all races reported are non-Hispanic

*<5 respondents in subgroup

** Unstable measurement, coefficient of variation >30%

***<50 respondents in subgroup

DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

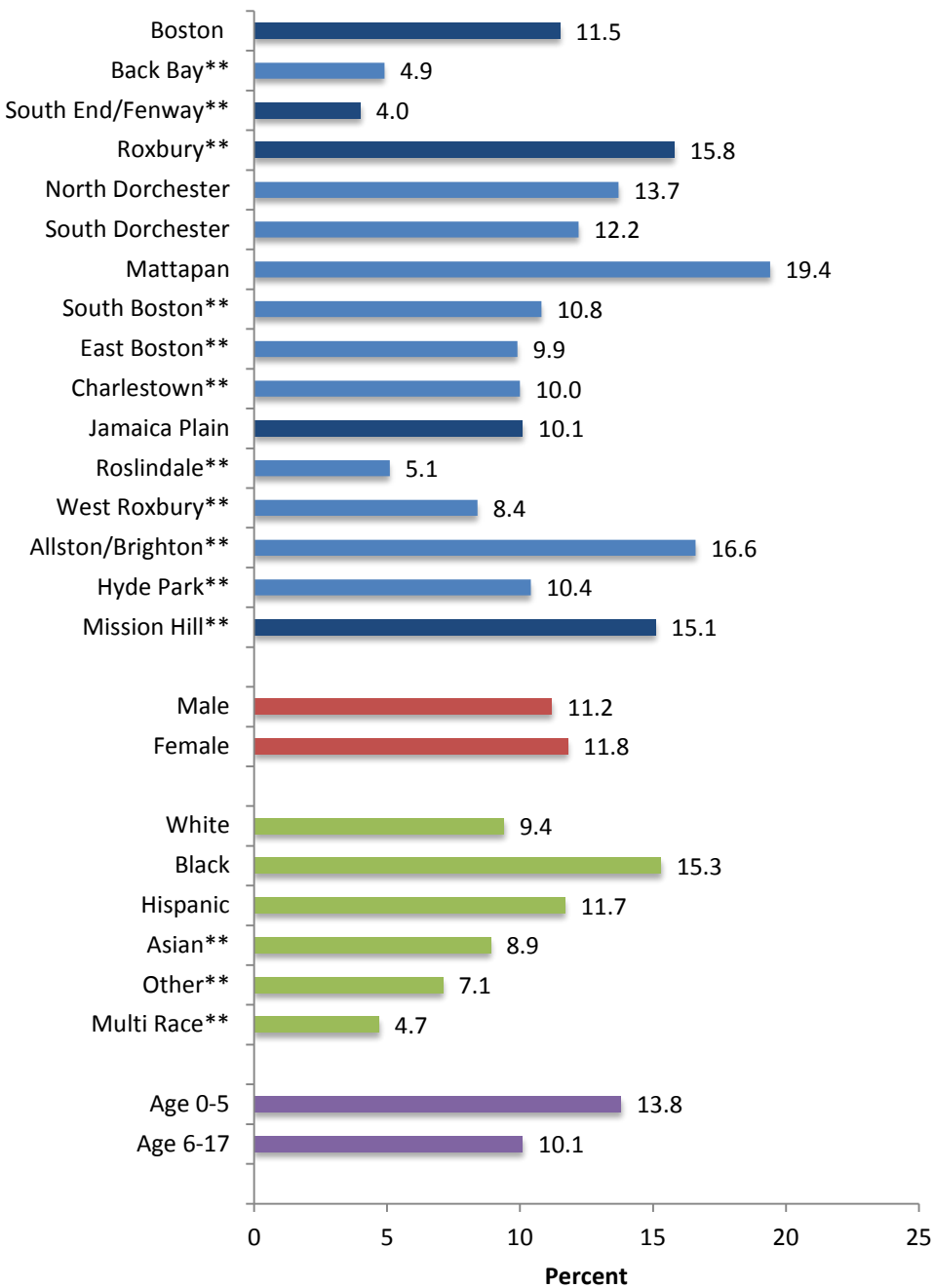
In Boston, the percentages of low birth weight births (less than 2,500 grams) and pre-term births (before 37 weeks gestation) were both 9.4% (Table 7). These proportions are higher among Blacks compared to other racial/ethnic groups. Figure 28 displays results from the Boston Child Health Survey regarding premature childbirth. Over 10% of parents/caregivers reported having a child born prematurely citywide (11.5%). Parents/caregivers residing in Roxbury (15.8%) and Mission Hill (15.1%) were more likely to report this birth outcome than those in Boston overall. This pattern was also seen among Black survey respondents (15.3%).

Table 7: Percent of Births Low Birth Weight and Preterm by Race/Ethnicity, 2010

	Boston	White	Black	Hispanic	Asian
% of babies born weighing <2,500 g	9.4%	7.9%	12.4%	8.7%	8.9%
% of babies born at <37 weeks gestation	9.4%	8.3%	11.8%	8.7%	9.1%

DATA SOURCE: Boston resident live births, Massachusetts Department of Public Health, as cited in BPHC Health of Boston 2012-2013

Figure 28: Percent Reported Child was Born Prematurely (more than 3 weeks before due date), 2012



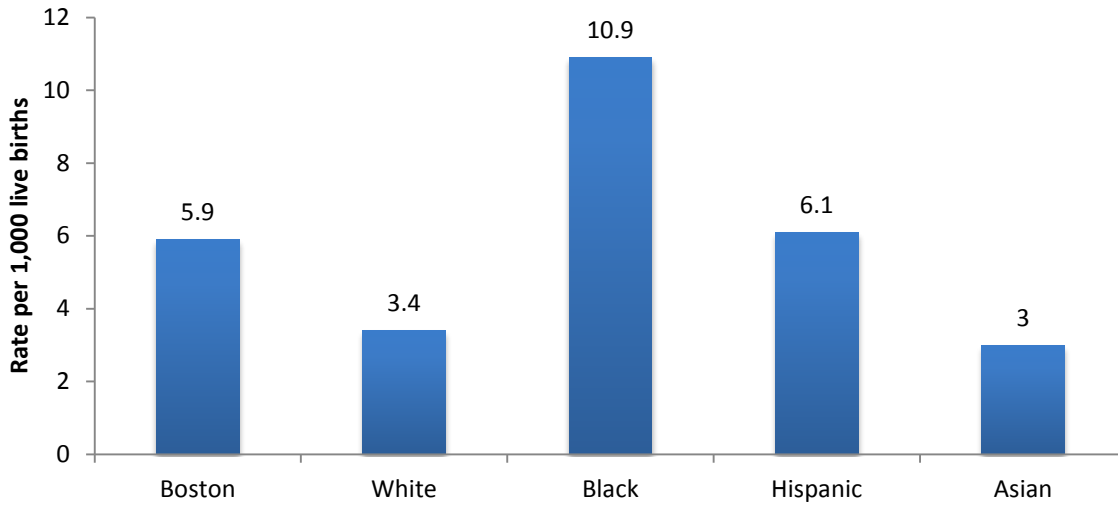
Note: all races reported are non-Hispanic

** Unstable measurement, coefficient of variation >30%

DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

As shown in Figure 29, Blacks also experience disproportionately higher rates of infant mortality. 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 race/ethnicity indicate that Blacks experienced the highest infant mortality rate (10.9 per 1,000 live births), at nearly twice the rate of Boston overall, followed by Hispanics (6.1 per 1,000).

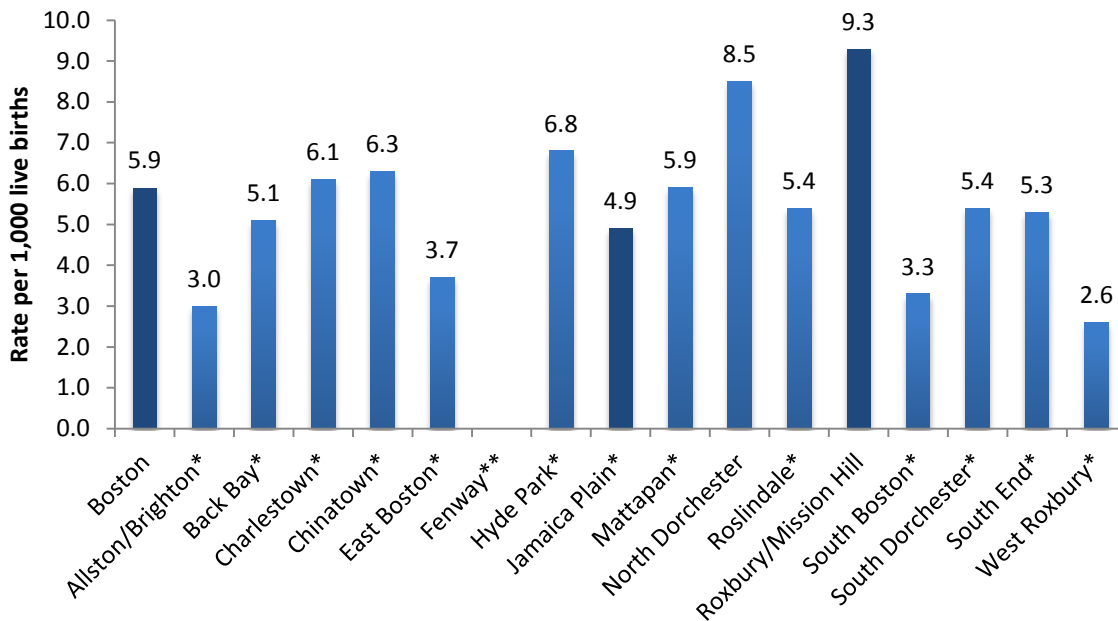
Figure 29: Infant Mortality Rate per 1,000 Live Births by Race/Ethnicity, 2006-2010



DATA SOURCE: Boston Resident Live Births and Deaths, Massachusetts Department of Public Health, as reported by Health of Boston 2012-2013

Among Boston Children’s priority neighborhoods, Roxbury/Mission Hill experienced the highest infant mortality rate (9.3 deaths per 1,000 live births), which was nearly double that of Boston overall (Figure 30). The infant mortality rate in Jamaica Plain (4.9 deaths per 1,000 live births) was lower than the citywide rate and that of most neighborhoods.

Figure 30: Infant Mortality Rate per 1,000 Live Births by Neighborhood, 2006-2010



Note: 'Back Bay' includes Beacon Hill, Downtown, the North End, and the West End

Note: 'South End' includes Chinatown

* Rates based on counts less than 20 should be interpreted with caution

** No Data

DATA SOURCE: Boston Resident Live Births and Deaths, Massachusetts Department of Public Health, as reported by Health of Boston 2012-2013

Access to Medical Care and Prevention Services

- *“Reform is wonderful but cheap insurance policies are lousy when it comes to covering medication. You can’t afford five \$5 co-pays. Not having a pharmacy that can help with that and provide reasonable access is a barrier to patients.”* – Stakeholder focus group participant
- *“Although we have access to wonderful interpreters, we need more of them. We are often kept waiting for interpreter to arrive.”* - Stakeholder focus group participant
- *“There are so many services at our health centers, but going to those health centers is hard because you have to pay for the T, which is too damn expensive.”* – Community resident focus group participant

Accessing care emerged as a primary concern among stakeholders who frequently described the barriers residents face navigating the complex health care system. With health care reform enacted in 2006 in Massachusetts, the proportion of residents with health insurance has risen dramatically. Yet, stakeholders indicated that community residents still face several challenges in obtaining affordable and consistent health insurance coverage. The eligibility requirements and application process of Mass Health was noted as being particularly complicated and cumbersome. Stakeholders who serve undocumented clients identified immigration status as a primary barrier for accessing medical insurance and as well as other services. However, stakeholders shared that even among those do have health insurance coverage, the cost of co-pays for visits and prescription medications are prohibitively expensive.

Transportation was identified by several stakeholders as preventing residents from getting to appointments, particularly if they are referred to a provider outside of Boston for specialty care. Although, some service providers indicated that programs are providing transportation in order to address this barrier. They further emphasized the importance of coordinating care to streamline the provision of services and avoid patients having to travel to multiple locations to receive care. In addition to creating physical connections, bridging the communication gap between providers and patient was considered critical. This included sharing information about available services and providing case management, as well as, addressing healthy literacy and cultural sensitivity. Related to cultural sensitivity was the importance of reducing language barriers in order to serve the growing immigrant population.

While most community resident focus groups did not discuss access to care as a critical issue, it was a topic raised specifically among Somali focus group participants. They emphasized a preference for in-person interpreters over phone interpreters to reduce communication barriers, particularly for children and the elderly. In addition to language barriers, Somali focus group participants experienced difficulties with scheduling appointments and receiving care in a timely manner. As one participant stated, *“We always have problems getting an appointment...even community health centers are no longer responsive to our needs.”* They further indicated that the high turnover of primary care physicians prevents them from establishing a relationship with their provider. Lastly, Somali participants also shared concerns regarding the side effects of medications, including vaccines, for which they would like to receive more information.

Community Assets and Resources

Focus group and interview participants identified several community strengths and assets, including community cohesion, civic engagement, and availability of neighborhood resources; however, the reach of those services was considered limited by lack of awareness and funding, especially youth programming.

Participants discussed the strengths and assets in their community, particularly around organizations and services, as well as gaps in the provision of those services.

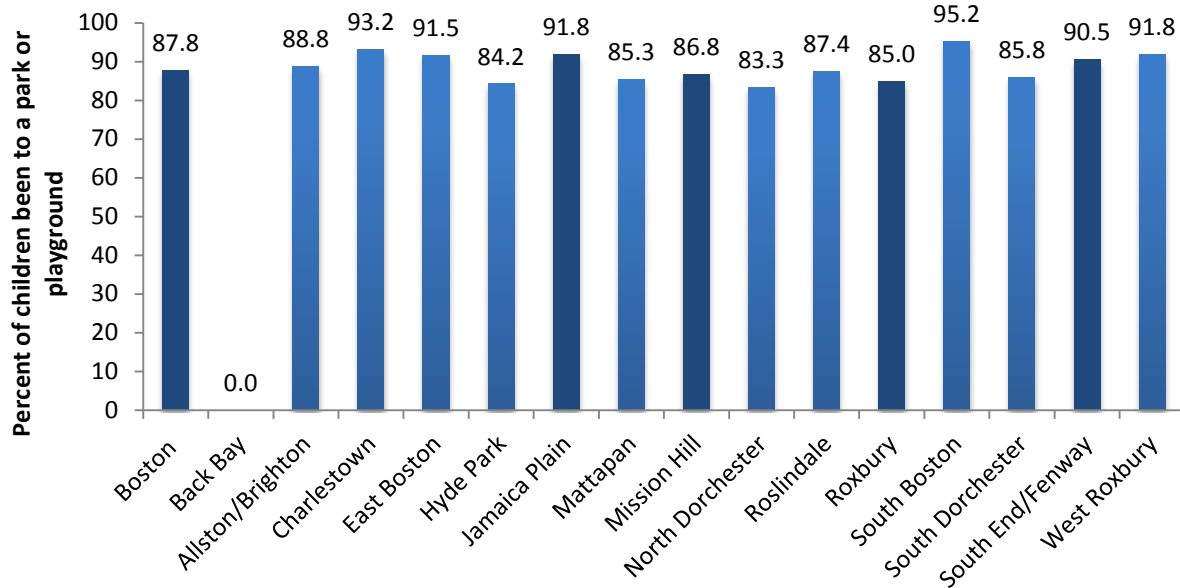
Current Assets and Strengths, including Existing Health Care Facilities, Community Health-Focused Resources, Programs, Organizations, and Services

- *“Our biggest strength is that our community is close and helps each other. We have community agencies that we can go to for help.”* – Community resident focus group participant
- *“It’s a diverse, vibrant community; residents are engaged and active.”* – Stakeholder interview participant
- *“The positive would be the mixture of business we have, we have a lot of businesses up and down Tremont; there is a variety of shops.”* – Community resident focus group participant

Despite the challenges noted previously, community residents and stakeholders identified several neighborhood assets. Boston was described as a vibrant city whose diversity of cultures was a strength. Some residents described their neighborhoods as quiet, safe, and convenient, noting the accessibility of transportation and stores. Others appreciated the events and activities offered in their neighborhood, such as parades, as well as the open spaces. The myriad of neighborhood resources available included playgrounds, parks, community centers, and libraries. The business community was also identified by several participants as an asset. For example, an interview participant shared, *“Businesses are very friendly; they make you feel like family.”*

Boston Child Health Survey results demonstrate park or playground use by children (Figure 31). When parents/caregivers were asked if *“in the last 12 months your child has been to a park or playground in your neighborhood,”* an overwhelming majority said yes (87.8%). Parents/caregivers in Boston Children’s priority neighborhoods responded similarly to those citywide.

Figure 31: Percent of Children Reported to Have Been to a Park or Playground by Neighborhood, 2012



DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

Focus group and interview participants also noted that Boston has a robust social service sector. They acknowledged the invaluable support and services provided by non-for profits and community-based organizations, such as the Refugee and Immigrant Assistance Center and Hyde Square Task Force. Some stakeholders and residents also mentioned the schools and colleges in the area as an asset, complimenting them on the programming they provided. As one interview participant stated, *“In every community there are schools doing wonderful things.”* A few also indicated that Boston has a strong health care sector and commented on the health centers and hospitals in the area.

Community cohesion and involvement emerged as key strengths among participants. Residents and stakeholders described a *“sense of community”* where neighbors were *“friendly.”* Similarly they spoke of the civic engagement of residents young and old, as well as organizations who work to improve the community through activism and advocacy.

Gaps in Programs and Services

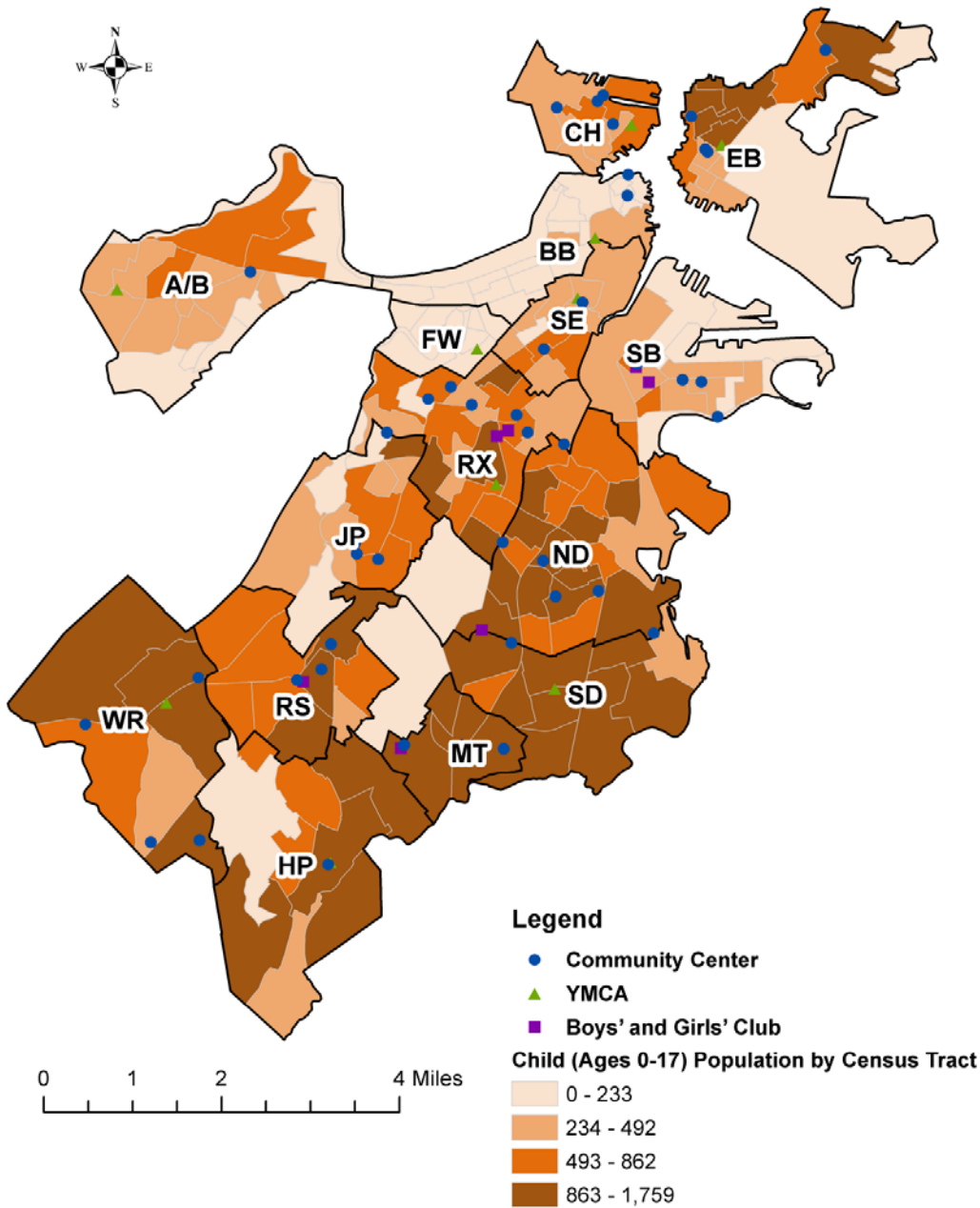
- *“I think one of the gaps is just knowing what is out there. What are other programs doing? What services are they offering?”* – Stakeholder focus group participant
- *“There are good programs out there but they are small; we need to be thinking about them on a larger scale.”* – Stakeholder interview participant
- *“After school programs are lacking everywhere... [Youth] don’t have safe environments to go to. Losing those programs is a real draw back.”* – Stakeholder interview participant

While Boston was considered to be a city rich in resources, participants identified a gap in the awareness of available services. In order to bridge this disconnect, case management for families was considered critical. Other stakeholders indicated that the reach of services is limited by either a lack of funding or siloed funding, which fosters competition rather than collaboration among organizations. Therefore, they recommended that effective programs, which are underfunded and at maximum capacity, be expanded. However, some participants noted many community-based organizations lack the capacity to evaluate their programming and demonstrate results.

Residents and stakeholders frequently expressed concern regarding the lack of youth programming available in neighborhoods. They indicated that youth engagement was important to instill a sense of purpose and hope, which would prevent risky behaviors such as violence, substance use, and unsafe sex. Thus, it was critical to provide physical activity, social enrichment, and employment opportunities for disconnected youth. As one parent shared, *“My kids are getting older, and now they are getting bored, and I think they are getting depressed because there isn’t anything for them to do around here. My son is tempted to ride his bike to other far off neighborhoods looking for things to do.”* Young male focus group participants shared that their involvement with community-based organizations or sports teams motivated them to *“stay in school”* and *“off the street.”* Stakeholders identified youth residing in housing developments as a particularly vulnerable population in need of on-site programming.

Figure 32 demonstrates the availability of community centers, YMCA’s, and Boys’ and Girls’ Clubs in Boston’s neighborhoods overlaid with child population by census tract. While Roxbury has several community centers, there are census tracts with a high child population that lack a community center. Notably, there are no community centers located in Fenway, though there is a YMCA. Furthermore, among Boston Children’s priority neighborhoods, only Roxbury has Boys’ and Girls’ Clubs.

Figure 32: Community Centers, YMCA, Boys' and Girls' Club, and Child (0-17 years) Population by Census Tract



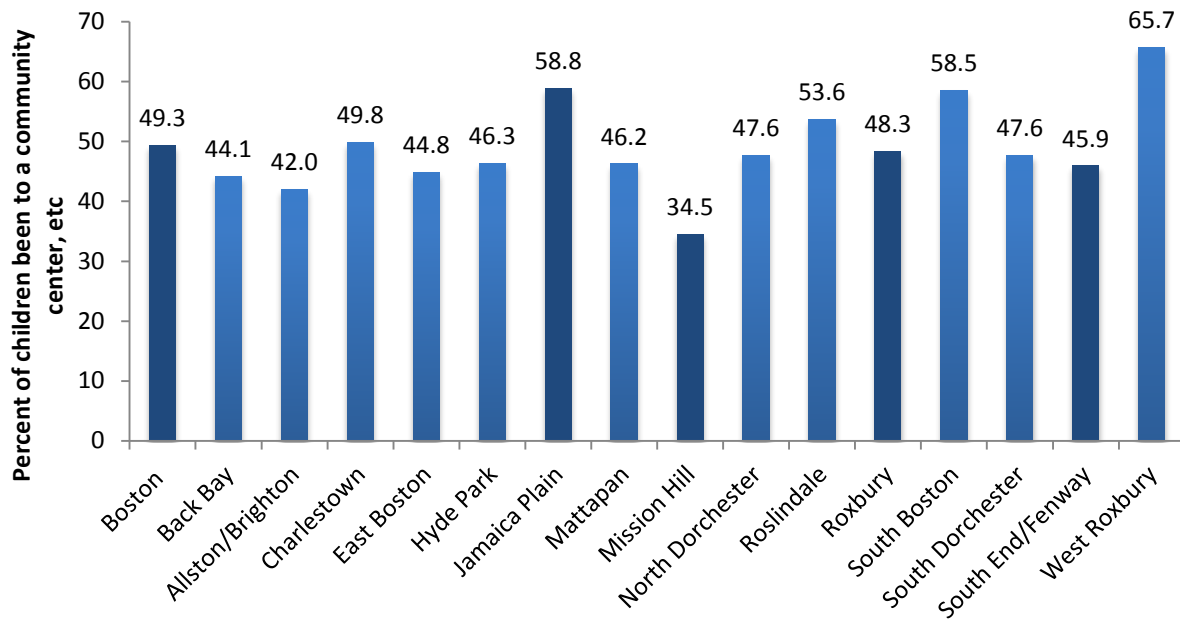
NOTES: The neighborhood definitions are based on census tracts. Data for community centers and YMCAs were updated by BPHC in March of 2012.

DATA SOURCES: Department of Innovation & Technology (DoIT), City of Boston, 2010; Census 2010, US Department of Commerce, Bureau of the Census, American FactFinder

DATA ANALYSIS AND MAP PROVIDED BY: Boston Public Health Commission Research and Evaluation Office

According to the Boston Child Health Survey, Mission Hill and South End/Fenway had the lowest proportions of parents/caregivers who have reported that their children had been to a community center (34.5% and 45.9%, respectively) compared to other neighborhoods (Figure 33). Nearly 60% of Jamaica Plain parents/caregivers surveyed reported that their children had been to a community center, which was above that of Boston (49.3%).

Figure 33: Percent of Children Reported to Have Been to a Community Center, Creation Center, or Boys' and Girls' Club by Neighborhood, 2012



DATA SOURCE: Boston Child Health Survey, 2012, analysis by Boston Public Health Commission

Community Suggested Approaches to Address Needs

When participants were asked to suggest future programs and services, the overarching themes that emerged included offering health education and information, providing services in the community, strengthening youth engagement and development, increasing physical activity opportunities for families and children, and having a collaborative and community driven approach.

Focus group and interview participants were asked for their suggestions to address the community health issues they identified. Several overarching issues were discussed related to improving access to services and resources. These themes are discussed below.

Health Education and Information

Community residents and some stakeholders encouraged the provision of health education through workshops. Residents expressed the desire for more information, particularly with a prevention focus. For example, a focus group participant recommended that the hospital, *“teach parents with kids who have asthma, teach them preventative things so that if their kids get it, they can already be prepared and know what to do instead of running to the hospitals every time.”* Residents preferred that information be provided in the form of open-dialogues and skill-building workshops that facilitated hands-on, experiential learning. Specific topics of interest included stress (e.g., coping skills) and nutrition (e.g., healthy cooking classes for families). In a similar vein, some residents and stakeholders suggested making information on available services readily available through a family resource guide or a database. As one stakeholder stated, *“I think a database of all the programming out there would be helpful. One place to go where you can find as much as possible.”*

Services in the Community

In order to improve access to services, many participants encouraged the provision of services in the community. A key aspect of this approach was increasing the staff available to provide support and connect families with wrap around services locally, especially to address mental health. Types of providers who were considered critical to were social workers, case managers, community health workers, patient navigators and advocates. For example, a stakeholder expressed the need for “A case manager, whose responsibility is to make sure all dots are connected and work with the parent.” Having a physical space in neighborhoods for community members to convene and receive services (e.g., community center) was also recommended. As one community resident illustrated, “I think we also need a place to go... A lot of these services are given over at places we have to travel to. They need to come into our communities.” Similarly, schools were identified as an ideal setting for increasing access to services.

Young Engagement and Development

Adult and youth participants noted that there is a high demand for youth-specific or youth-friendly programming. Youth and adult participants would also like to see the expansion of employment opportunities and training for high school students, such as summer job, internship, and volunteer programs, to support career exploration. Along similar lines, providing after school activities for children of all ages through music, sports, and academic programs (e.g., tutoring) was also recommended, particularly in the affordable housing environment. For example, a stakeholder stated, “I want there to be a place for kids to get together, and teenagers can interact with each other and learn from each other.”

Physical Activity Opportunities for Families and Children

With regard to specific health issues, increasing opportunities for physical activity was a common suggestion made by focus group participants. Parents were interested in family-oriented fitness options. Parents and youth encouraged the provision of affordable and accessible recreational facilities, such as indoor basketball courts and community centers. As one youth participant observed, “I am playing for this soccer team and they pay for certain things. If there was more opportunities like that, maybe youth would join.”

Collaborative and Community Driven Approach

Stakeholders indicated that greater partnership and collaboration among community-based organizations, area hospitals, and government agencies (e.g., BPHC) was warranted to facilitate a coordinated approach that addresses the complexity of community health needs, rather than functioning in silos or in competition with one another. Stakeholders suggested convening providers to exchange best practices and building an infrastructure to promote coordination and collaboration across sectors. Additionally, engaging the community as a partner in program and policy development was considered key to ensure programs and services meet their needs.

KEY THEMES AND CONCLUSION

Through a review of the secondary social, economic, and epidemiological data in Boston and Boston Children's priority neighborhoods, as well as, discussions with community residents and stakeholders, this assessment report provides an overview of the social and economic environment of the community, and the health conditions and behaviors that most affect children and families. Severity and magnitude of epidemiological data was triangulated with level of concern among community members to identify potential priority areas. Several overarching themes emerged from this synthesis, which are presented below in no particular order:

Key Themes and Potential Priority Areas

- ❖ *The social, economic, and physical context of Boston Children's priority neighborhoods has a substantial impact on families and the health of the community.* Issues related to poverty and violence permeates resident's lives. Increases in the cost of living place a strain on residents who described struggling to meet basic needs, especially affordable housing. Despite significant economic challenges, neighborhoods possess several strengths. Community cohesion was considered a significant asset, as well as, the activism and civic engagement of residents. Existing organizations and resources were also seen as strengths in these neighborhoods.
- ❖ *Mental health emerged as a pressing health issue for children and families, for which there is a growing unmet need.* Residents and stakeholders were particularly concerned with the stress and trauma resulting from witnessing violence as well as economic instability. Residents who live in areas with high crime rates were described as living in fear of gun, drug, and gang violence. Children and youth were viewed as especially vulnerable to emotional and behavioral issues due to their exposure to violence. The stigma associated with mental health coupled with a lack of services was identified as a barrier for residents.
- ❖ *Early childhood was identified as an important time period for intervention.* Stakeholders indicated that intervening at a young age and engaging parents were vital for children to be successful later on in life. Increasing access to early childhood education was considered important as well as supporting a range of providers in multiple settings – such as school teachers, day care staff, and pediatricians – to identify issues as early as possible.
- ❖ *Asthma disproportionately affects minority and low-income residents residing in Boston Children's priority neighborhoods.* Poor air quality and the unsuitable housing environments in these neighborhoods were identified as reasons for an increase in asthma rates. Reducing the environmental triggers associated with asthma and addressing healthy housing, such as tobacco smoke and mold, were viewed as critical for improving community health.
- ❖ *Childhood obesity and related behaviors of physical activity and healthy eating were also viewed as important community health issues.* Improving access to healthy food and physical activity in Boston Children's priority neighborhoods were identified as key steps to reducing childhood obesity. These neighborhoods were characterized by food deserts and limited recreational opportunities for youth and families.
- ❖ *While healthcare coverage has improved, barriers to accessing care remain.* Despite the expansion of healthcare coverage, financial, transportation, and linguistic barriers prevent residents from receiving care in a timely and consistent manner. Providing coordinated care that is culturally sensitive was considered important for residents to be able to successfully navigate the complex health care system.

Conclusion

This report integrates the findings from the community health needs assessment process to present a comprehensive portrait of Boston Children's priority neighborhoods and provide potential priority areas for the hospital to consider in its future efforts. Epidemiological data identifies prevalent diseases and risk factors in Boston Children's priority neighborhoods, while qualitative data shed light on the lived experience of community residents, how they perceive the health issues in their community, and their successes and challenges to accessing programs and services.

The relationship between violence and mental health, environmental triggers and asthma, and limited physical activity, nutrition, and obesity were seen as significant concerns that affect many residents. Yet, the distribution of these behaviors and health outcomes consistently follow social and economic patterns. Furthermore, barriers to accessing care prevent current programs and initiatives from reaching the populations most in need. These challenges present important opportunities for the future. As Boston Children's moves forward, it can leverage the multitude of community assets to improve the health of residents in Boston and Boston Children's priority neighborhoods.

APPENDIX A. List of Boston Children’s Hospital Community Advisory Board Members

Name	Title	Organization
Alexandra Oliver Davila	Executive Director	Sociedad Latina
Andrea Swain	Executive Director	Yawkey Club of Roxbury
Dorys Alcarcon	Manager of Interpreter Services	Boston Children’s Hospital
Jill Carter	Executive Director	Health and Wellness Department, Boston Public Schools
Kris Anderson	Senior Employment Specialist	Fenway Community Development Corporation
Lauren Dewey-Platt	Executive Director	Scholars in Clinical Science Program, Harvard Medical School
Laurie Sherman	Policy Advisor	Mayor’s Office, City of Boston
Margaret M. Noce	Coordinator	Jamaica Plain Coalition: Tree of Life/Arbol de vida
May Vaughn- Ebanks	Executive Director	Roxbury YMCA
Patricia Flaherty	Senior Project Manager	Mission Hill Neighborhood Housing Services
Yi Chin Chen	Deputy Director	Hyde Square Task Force

APPENDIX B. List of Stakeholder Interviewees

Name	Title	Organization
Abigail Ortiz	Director of Community Health Programs; Coordinator	Southern Jamaica Plain Health Center; Jamaica Plain Health Equity Collaborative
Araceli Gutierrez	Fellow	Harvard School of Public Health
Carol Miranda	Bromley-Health Coordinator	Smart from the Start
David Aronstein	Director	Boston Alliance for Community Health
Dr. Deborah Frank	Failure to Thrive Program	Boston Medical Center
Jeffrey Sánchez	State Representative - Jamaica Plain, Mission Hill	MA House of Representatives
Joan Whitaker	Director of Health Services	Action for Boston Community Development
Liz Malia	State Representative - Jamaica Plain	MA House of Representatives
Matt O'Malley	City Councilor - Jamaica Plain	Boston City Council
Maureen Starck	Interim Assistant Director, Medical Services	Boston Public Schools - Nursing
Peg Sprague	Senior Vice President for Community Impact	United Way Massachusetts Bay and the Merrimack Valley
Rob Restuccia	Executive Director	Community Catalyst
Sharon Scott-Chandler	Executive Vice President	Action for Boston Community Development
Tito Jackson	City Councilor - Roxbury	Boston City Council
William Morales	Executive Director	YMCA of Greater Boston at Egleston Square
Yvette Rodriguez	Director of Head Start	Action for Boston Community Development

APPENDIX C. List of Stakeholder Focus Group Participants

Boston Children's Hospital Internal Staff Participants

Name	Boston Children's Hospital Department
Aaron Pikcilingis	The Online Advocate
Barbara DiGirolamo	Trauma/Injury Prevention
Beth Holleran	Child Protection
Beth Klements	Nursing (MPS)
Brooke Corder	Social Work
Casey Shaffer	Center for Families
Cathy Samples	Adolescent Medicine
Christine Healey	New Balance Foundation Obesity Prevention Center
David Mooney	Trauma
Deb Dickerson	Office of Child Advocacy
Elizabeth Woods	Adolescent Medicine, Community Asthma Initiative
Erin Horan	Cardiology
Glenn Marmen	The Online Advocate
Heidi Almodovar	Trauma
Jennifer Fine	Office of Child Advocacy
Jennifer Masdea	Psychiatry (Children's Hospital Neighborhood Partnerships)
Jessica Clement	Office of Child Advocacy
Julie Polvinen	Adolescent Medicine
Lauren Rubenzahl	Adolescent Medicine
Lois Lee	Emergency Medicine
Marcia Gutsche	Network Relations
Maria McMahan	Trauma
Marie Nolan	Emergency Department Case Management
Maryanne Quinn	Endocrinology
Peter Warrington	Emergency Medicine
Regina Galea	Trust
Shari Nethersole	Office of Child Advocacy
Stacy Leavens	Office of Child Advocacy/Children's Hospital Primary Care Center
Stephanie Petruzzi	Social Work
Tara Brown	Trauma, PNP Student
Wendy Lekan	Trust

Fitness in the City Participants

Name	Organization
Alicia Castro	Joseph M. Smith Community Health Center
Alyssa Green	Whittier Street Health Center
Anne Hyers	Brookside Community Health Center
Ariadna Burgos	South End Community Health Center
Brad Gregory	Upham's Corner Health Center
Burak Alsan	Upham's Corner Health Center
Clement Bottino	Boston Children's Hospital
Dennis Anderson-Villaluz	Waltham WIC
Ematchana Mecagni	Joseph M. Smith Community Health Center
Erin Kelly	Martha Elliot Health Center
Francisca Guevara	Joseph M. Smith Community Health Center
Fuad Conteh	Whittier Street Health Center
Jen French	Bowdoin Street Health Center
Julianne Walsh	Whittier Street Health Center
Katherine Cook	Bowdoin Street Health Center
Lauren Berard	Martha Elliot Health Center
Melanie Beach	Dimock Community Health Center
Rena Oudan	Joseph M. Smith Community Health Center
Roland Tang	South Cove Community Health Center
Sari Kalin	South End Community Health Center
Shari Nethersole	Boston Children's Hospital
Stacy Leavens	Boston Children's Hospital

Martha Elliot Health Center Board Member Participants

Adita Vazquez
 Curdina Hill
 Juan Lopez
 Julia Martin
 Leroy Tinlin
 Mildred Hailey
 Nader Acevedo
 Rose Wigham
 Sileshi Mersha

APPENDIX D. List of Community Resident Focus Group Participants

1. Alex Quinones
2. Alphonzo Wesley
3. Amina Osman
4. Anthony Santana
5. Antoinette Lasseur
6. Brian Williams
7. Cristian Rangel
8. Diane Phillips
9. Diane Williams
10. Emanuel Pena
11. Fadoumo Moow
12. Faduma Osman
13. Fartun Bare
14. Fatuma Ali Muse
15. Gloria Murray
16. Halima Ahmed
17. Hawo Abdi
18. Jacqueline Evans
19. Jacquie Boston
20. Javier Suarez
21. Jeury Pimentel
22. Johoro Ali
23. Jon Cameron
24. LaToya Wilkerson
25. Milagros Diaz
26. Rahma Farah
27. Rev. Valerie Seabrook
28. Roberto Martinez
29. Sahra Elmi
30. Shaccera Jones
31. Shauna James
32. Tarrell Lymon
33. Tracey L. Hunt
34. Veronica Nunez
35. Vladimir Pena
36. Yolanda Tirado

APPENDIX E. List of Organizations Involved in Focus Group Recruitment

1. Hyde Square Task Force
2. Fenway Community Development Corporation
3. Mission Hill Health Movement
4. Refugee and Immigrant Assistance Center
5. StreetSafe Boston