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# Boston Children's Hospital 2016 Community Health Needs Assessment

## Final Report

Submitted to:



**Boston Children's Hospital**  
Until every child is well™



**Health Resources in Action**  
*Advancing Public Health and Medical Research*

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## EXECUTIVE SUMMARY

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### Background

As one of the largest pediatric medical centers in the United States, Boston Children's offers a complete range of health care services for children from birth through 21 years of age. In 2016, Boston Children's engaged Health Resources in Action (HRiA), a non-profit public health organization in Boston, to conduct its triennial community health needs assessment (CHNA). Concurrently with the CHNA, Boston Children's undertook a community engagement process to inform the distribution of funding that Boston Children's will invest in the community under a requirement from the Massachusetts Department of Public Health's Determination of Need program.

In addition to fulfilling the requirement by the IRS Section H/Form 990 mandate, the Boston Children's CHNA process was conducted to:

- Update the 2013 assessment and provide a comprehensive portrait of current child and family health needs and strengths in Boston Children's priority neighborhoods (Dorchester, Fenway, Jamaica Plain, Mission Hill, and Roxbury)
  - Describe both overall trends and unique issues by sub-populations, using a social determinants of health framework
  - Delve deeper into current Boston Children's Priority Areas to advance and elevate existing initiatives
- Ultimately, through the CHNA and the Determination of Need community engagement process, Boston Children's aimed to identify existing needs, and strategic opportunities for the future.

### Methods

The CHNA used a participatory, collaborative approach and examined health in its broadest context. As part of the CHNA, Boston Children's sought input from its community advisory board members and engaged youth to design, collect, and analyze data on youth perceptions of needs and opportunities. The assessment process also included synthesizing existing data on social, economic, and health indicators in Boston. Eight interviews and two focus groups were also conducted to explore perceptions of the community, health and social challenges for children and families, and recommendations for how to address these concerns. Additionally, Boston Children's collaborated with other hospitals through the Conference of Boston Teaching Hospitals to gather information on community needs via four focus groups hosted by community coalitions. Boston Children's also gathered information on challenges faced by children with special needs and their families by attending a focus group listening session facilitated by Health Care for All. Lastly, the CHNA was informed by results from Boston Children's Determination of Need community engagement process. This process, which was guided by an Advisory Group that met in person six times, included conducting seven facilitated community engagement sessions across the city of Boston. Four targeted small group discussions were also held with communities that were under-represented in the larger community sessions.

### Findings

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

#### Community Social, Economic, and Physical Context

Boston's Children's priority neighborhoods exhibit great socioeconomic diversity and residents are disproportionately affected by social determinants of health.

- **Demographic Characteristics:** Racial and ethnic diversity was identified as a community asset; however, incidents of discrimination and racism were mentioned. Among Boston Children’s priority neighborhoods, Roxbury (53.7%) and Dorchester (43.6%) had the highest percent of residents who self-identified as Black or African American, which was above that of Boston overall (22.7%).
- **Income, Poverty, and Employment:** The prevalence of poverty was a common theme across discussions, and was perceived to be connected to poor health among residents. Roxbury had the highest proportion of residents who were living below the poverty level (34.5%) and the highest unemployment rate (16.8%). Assessment participants noted a lack of employment opportunities particularly for jobs that require lower levels of education and are available to those with a criminal record.

*“The number one challenge is **poverty** – that trumps everything.”*  
– Key informant interviewee
- **Education:** Several participants noted the connection between low education levels, poverty, and poor health. Quantitative data show that the percent of residents with a Bachelor’s degree or higher ranged across Boston Children’s priority neighborhoods from 20.3% of Roxbury residents to 73.3% of Fenway residents. Among Boston high school students, African American or Black and Hispanic/Latino students had lower graduation rates than students of other races and ethnicities.
- **Housing:** The rising cost of housing was identified by assessment participants as a pressing community concern and was noted in almost every discussion. Homelessness was also noted as a consequence of the rising housing costs. Quantitative data show that between December 2013 and February 2015, there was a 25% increase in the reported number of homeless families in Boston. Similar housing-related concerns were raised in the 2013 CHNA.

*“It’s tough to stay in your neighborhood but be living in **subsidized housing**... when [they’re] building a **Whole Foods** or **Starbucks** across the street, it doesn’t fit in your budget. [You think,] **why am I living here, when I can’t afford it?**”*  
– Key informant interviewee
- **Food Security:** Food security was another issue raised by some assessment participants. As families struggle with high rent and other expenses, assessment participants noted that families sometimes need to make trade-offs between basic necessities. Per the 2010-2014 American Community Survey, while 20% of all households in Boston received food stamps, about 37% of Boston households with children under 18 years old received food stamps. While food security did not emerge as a prominent theme in the 2013 CHNA, participants in the 2016 CHNA perceived it to be a pressing issue.
- **Crime and Neighborhood Safety:** As in the 2013 CHNA, community safety and violence concerns were discussed in many interviews and community sessions. Boston Police Department data show that the number of violent and property crimes in Boston decreased between 2013 and 2015. In 2013 and 2015, District B-2 (which covers Roxbury and Mission Hill) had the highest number of reported violent and property crime incidents.

*“Shootings make me feel **unsafe**...because **a bullet actually went through my window.**”*  
– Youth focus group participant

## Community Resources and Assets

Assessment participants pointed to the substantial assets that exist within Boston Children’s priority neighborhoods. These key assets included the residents themselves and relationships among community members, as well as medical services, community-based organizations, and recreation areas.

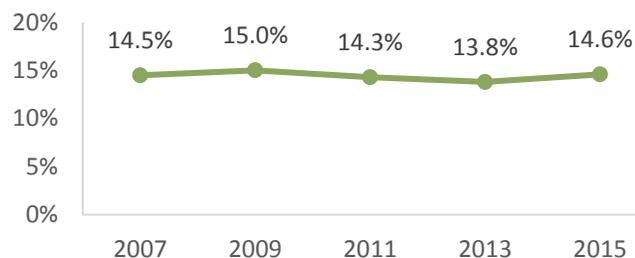
- Medical services such as hospitals, medical schools, and community health centers were described by assessment participants as valuable assets within Boston Children’s priority neighborhoods.
- Participants also mentioned the numerous programs and services provided by community-based organizations as important resources. It was also noted that many of these organizations do incredible work with limited funds, but may have reduced visibility due to lack of a budget for marketing and outreach.
- Youth highlighted the importance of the access to local parks and community centers for opportunities to be active. The Community Voices youth survey data show that over half of respondents indicated that it’s easy to go for a walk and to get to parks in their community.
- Diversity, community cohesion, and a strong faith tradition were also cited as community strengths.

## Community Health Issues

Assessment participants discussed the health issues and concerns that affect Boston children and families, namely, chronic disease (including obesity and asthma) and related risk factors (including healthy eating and physical activity); behavioral health (including mental health and substance use); violence and trauma; and early childhood and access to care.

- **Chronic Diseases and Related Risk Factors:** Chronic disease, including **childhood obesity** and **asthma**, were raised as concerns in interviews and focus groups. Participants also discussed barriers to **healthy eating and physical activity**, and noted the connection between diet, exercise, and chronic disease.
  - *Healthy Eating and Physical Activity:* In addition to food security concerns, assessment participants identified access to and affordability of healthy food as challenges for many community members. According to the Boston High School Youth Risk Behavior Survey, over 50% of students reported that they ate fruit at least once a day, with White students more likely to have eaten fruit at least once a day (65.2%). In regards to physical activity, some participants noted that options are limited for those with lower incomes and that for some, community violence and safety concerns discourage outdoor exercise. Quantitative data show 30% of Boston high school students reported getting recommended levels of physical activity in 2015.
  - *Obesity:* Obesity in children and youth, and the connection between obesity, diet, and exercise, was identified as a concern by some participants. In 2015, 14.6% of Boston high school students reported they were obese; this high school obesity rate has remained relatively stable between 2007 and 2015. Disparities in obesity rates exist; in 2015, a higher percentage of Black (17.1%) and Hispanic (15.9%) students reported being obese compared to White (9.7%) students.

**Percent Boston Public High School Students Reported to be Obese, 2007-2015**



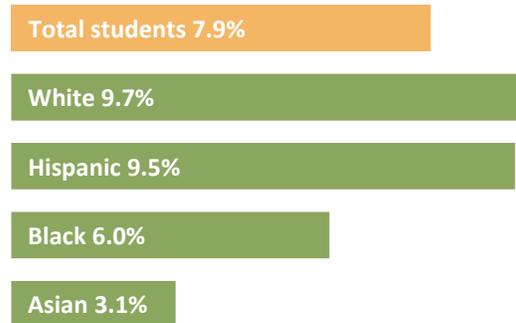
DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2007, 2009, 2011, 2013, and 2015

- *Asthma*: A number of participants identified asthma as a community health concern, particularly among residents of color. Interviewees stated that more needs to be done around pediatric asthma. Quantitative data show that asthma emergency department visits have decreased over time; however, disparities remain among Black and Latino children.

- **Behavioral Health**: Issues related to **mental health** and **substance abuse** were raised during many interviews, focus groups, and community meetings.

- *Mental Health*: As in the 2013 CHNA, assessment participants identified mental health and lack of access to mental health services as substantial concerns. Participants particularly noted the lack of mental health providers who serve lower-income populations and children and youth, and as a result, many residents with mental health concerns are undiagnosed or go untreated. The percent of Boston high school students who reported feeling sad or hopeless for two weeks increased from about 25% to 27% between 2011 and 2015; Hispanic high school students were most likely to report feeling sad or hopeless.

**Percent Boston Public High School Students Reporting to Have Ever Taken Prescription Drugs Without Doctor's Prescription, by Race/Ethnicity, 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2015  
 NOTE: Prescription drugs include Oxycontin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax; Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races

- *Substance Use and Abuse*: Assessment participants also reported rising rates of substance abuse in the communities served by Boston Children's; the prevalence of opioids was specifically noted. Youth participants shared that rates of drug use, smoking (both tobacco and marijuana), and drinking are high among their peers. The percent of Boston high school students who reported to be currently drinking alcohol decreased from 38.3% to 24.8% between 2011 and 2015. Percentages of White and Hispanic students who reported alcohol use (35.4% and 31.8%, respectively) were higher than that of all students (24.8%). Additionally, in 2015, almost 10% of White and Hispanic students reported ever having used prescription drugs without a doctor's prescription, compared to about 8% of high school students citywide.

- **Violence and Trauma**: A prominent theme across interviews and community conversations was the effect that community violence and trauma has on youth. Youth participants spoke about how violence and the death of loved ones due to violence has contributed to high levels of stress and depression among teens. Data from the Community Voices youth survey show about 33% of respondents rated community violence as a top health issue for their communities. In 2015, one in five Boston high school students reported to have been in a physical fight, which was lower than in 2011 (28.2%). Nearly one in four Hispanic students reported being in a physical fight, which was more often than students of other races and ethnicities.

- **Early Childhood and Access to Care:** Early childhood issues and care emerged as a theme in several discussions. Participants shared that many young children in the community have speech and language delays, and are not ready for education. Top barriers to accessing health care identified by Community Voices youth survey respondents included cost of care (34.2%), lack of transportation (24.3%), and insurance problems or lack of coverage (19.7%).
- **Special Needs Population:** Children and teens with special health care needs were identified as an underserved population in a few focus group discussions. Participants noted that students with special needs, such as autism and attention-deficit/hyperactivity disorder, often lack after school activities and opportunities for inclusion. According to the 2012 Boston Survey of Children’s Health, nearly one in five children in Boston had special health care needs; Black children were most likely to have special health care needs (34.6%), followed by Hispanic children (31.6%).
- **Sexual Health, Teen Pregnancy, and Birth Outcomes:** Only a couple of assessment participants noted high rates of teen pregnancy and sexually transmitted diseases among youth. About 30% of Boston high school students reported being sexually active in 2015, compared to over one third in 2011 (35.8%). In 2014, the rate of births to teenaged mothers among Hispanic females (29.1 births per 1,000 females) was nearly three times higher than that of Boston overall.

*“As we see more of the emotional impact that housing, and security have, we see as a direct result a rise in the diagnosis of special learning needs.... These are kids that don’t have the skills to cope.”*  
 – Focus group participant

### Community Suggestions for Future Programs, Services, and Initiatives

Participants shared several suggestions to improve the community issues they identified, including:

- **Recognize the influence of social determinants of health:** The importance of underlying community conditions that affect health and well-being, including housing, education, employment, and safety, was stressed by assessment participants.
- **Expand activities and opportunities for children and youth:** Programs and activities to keep youth safe from violence, address risky behaviors, and empower youth were seen as essential.
- **Provide more health education and information:** Enhanced education was mentioned as a key strategy to promote healthier behaviors and reduce the risk of chronic disease.
- **Enhance access to health care:** Some suggestions included expanding hours for health care services (including evenings and weekends), as well as locating more minute clinics in the city.
- **Increase behavioral health services and supports:** Assessment participants saw a need for more mental health providers and substance abuse programs, including detox beds and drop-in centers.
- **Engage in joint community planning:** Engagement of residents was seen as essential to developing trust with community members. Additionally, engagement of youth in community building efforts was also seen as crucial to address community health.
- **Improve collaboration across community institutions:** To avoid duplication of efforts and tackle community challenges, participants stressed the importance of collaboration and coordination across sectors such as health care providers and hospitals, police, teachers, and social workers.

## Key Themes and Conclusions

This assessment report describes the social and economic context of Boston Children’s priority neighborhoods, key health issues and concerns, and perceived assets and opportunities for addressing current needs and gaps. Several overarching themes and conclusions emerged:

- *Boston Children’s priority neighborhoods are diverse communities with strong organizations and institutions.* Assessment participants described the diversity of their communities, and noted the presence of active and engaged local organizations.
- *There is variation across Boston Children’s priority neighborhoods in access to social and economic resources, and a lack of affordable housing emerged as a particular challenge for children and families.* In almost all interview and focus group conversations, concerns were raised about housing affordability and stability, and the impact that housing-related stress has on children and families.
- *Chronic disease, including asthma and obesity, remain a concern for children and families.* While rates of asthma among Boston high school students have decreased slightly and rates of obesity have remained stable, participants noted that childhood chronic disease is still a key health issue.
- *Mental health, especially the effects of community violence and trauma, continue to be pressing issues for youth and families.* Participants described witnessing community violence at the local and national levels, and noted the impact that this trauma has on youth and families.
- *Greater investment in early childhood education and health services is critical.* A need for more screening services, expanded early intervention and early education services, and additional programs that support the parents of young children in identifying delays and promoting healthy child development were overarching themes.
- *Given these identified needs, recommendations offered included:* addressing social determinants of health; expanding health education programs and access to preventive health and behavioral health services; and engaging both residents and existing community institutions in continued planning.

## BACKGROUND

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### Overview of Boston Children's Hospital

Boston Children's Hospital is a 404-bed comprehensive center for pediatric health care and the primary pediatric teaching hospital of Harvard Medical School. As one of the largest pediatric medical centers in the United States, Boston Children's offers a complete range of health care services for children from birth through 21 years of age. Boston Children's has a long-standing commitment to community health, and its community mission is to improve the health and well-being of children and families in the local community. In service of this mission, the hospital leverages its resources with community partnerships to address health disparities, improve child health outcomes and enhance the quality of life for children and families. Ultimately, these efforts aim to:

1. Support community-based efforts;
2. Improve systems of care for children;
3. Build community capacity to tackle the contributors to disparities; and
4. Make care easier to access for families.

### Summary of Previous Community Health Needs Assessment

The 2013 Boston Children's Hospital Community Health Needs Assessment (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, as well as conducting eight focus groups and thirteen interviews with a range of diverse individuals to identify the perceived health needs of the community, challenges to addressing these needs, current strengths and assets, and opportunities for action. The 2013 assessment identified the following child health issues: obesity (physical activity and nutrition); early childhood / child development; asthma; access to medical and prevention services; mental and behavioral health; and violence and trauma. Previously collected information on these health issues, as well as community assets and resources, may be found in the 2013 assessment report available on Boston Children's website:

<http://www.childrenshospital.org/about-us/community-mission/community-needs-assessment>.

### Review of Initiatives

Based on the results of its 2013 CHNA process, Boston Children's developed a plan to address the identified health needs and issues through clinical care, programs and services, and in collaboration with community-based organizations, health centers, advocacy groups, and city agencies. The 2013 plan is available at [BostonChildrens.org/community](http://BostonChildrens.org/community). Since the 2013 CHNA, Boston Children's has provided a variety of services and programming to address the identified key needs and issues (see Appendix A).

Since the late 1990s, Boston Children's has supported and implemented programs and services to address the health needs of children identified through a needs assessment process. In recent years, Boston Children's has focused on certain health issues frequently raised by parents and community leaders as top concerns. Those health issues include obesity, asthma, mental and behavioral health, and early childhood/child development. In addition, Boston Children's has partnered with others and developed programs that address the impact of violence and trauma, support access to care for children and families, provide health education and youth engagement opportunities, as well as promote community-driven approaches.

Boston Children's included nine priority areas in its 2013 implementation plan to address the needs of children and families and the table in Appendix A reviews the impact of that work. It is organized by

priority area and includes a description of activities, services, and programs. The impact of these activities in 2013, 2014, and 2015 is demonstrated by the numbers of families served, services provided, and goals achieved.

### **Purpose and Scope of Assessment**

In 2016, Boston Children’s engaged Health Resources in Action (HRiA), a non-profit public health organization in Boston, to conduct its 2016 CHNA. This report describes the process and findings of this effort. Concurrently with the CHNA, Boston Children’s undertook a community engagement process to inform the distribution of funding that Boston Children’s will invest in the community under a requirement from the Massachusetts Department of Public Health’s Determination of Need program.

In addition to fulfilling the requirement by the IRS Section H/Form 990 mandate, the Boston Children’s CHNA process was conducted to achieve the following overarching goals:

- To update the 2013 assessment and provide a comprehensive portrait of current child and family health needs and strengths with Boston Children’s priority neighborhoods (Dorchester, Fenway, Jamaica Plain, Mission Hill, and Roxbury)
- To describe both overall trends and unique issues by sub-populations, using a social determinants of health framework
- To delve deeper into current Boston Children’s Priority Areas to advance and elevate existing initiatives

Ultimately, through the CHNA and the Determination of Need community engagement process, Boston Children’s aimed to identify existing needs, and strategic opportunities for the future.

### **Definition of the Community Served**

Boston Children’s undertook its 2016 CHNA to ensure that it is addressing the most pressing health concerns of children and families across Boston and its five priority communities—Dorchester, Fenway, Jamaica Plain, Mission Hill, and Roxbury.

## METHODS

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The following section describes how data for the CHNA 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., neighborhood safety or employment opportunities), to the physical environment (e.g., air quality).

### **Study Approach and Community Engagement Process**

The CHNA used a participatory approach, when possible, so that the process was informed by diverse perspectives. 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 and subsequent planning processes. To that end, as part of this assessment, Boston Children's sought input from its community advisory board members and engaged youth in the Community Voices Program to design, collect, and analyze data on youth perceptions of needs and opportunities (more information provided below). Lastly, the CHNA was also informed by results from Boston Children's Determination of Need community engagement process.

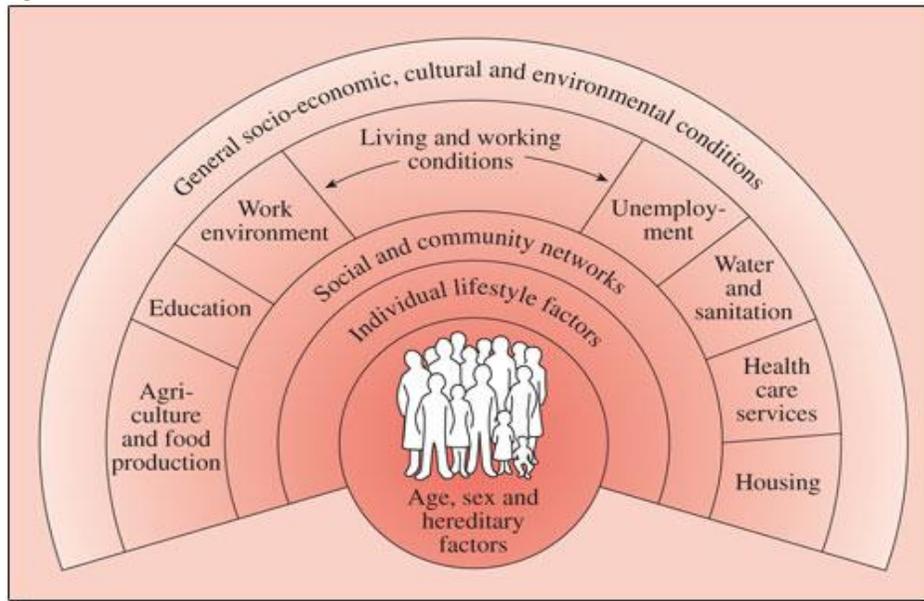
Boston Children's also recognizes that a number of CHNAs are occurring throughout the City of Boston, including those conducted by other hospitals. To facilitate collaboration and avoid duplication, Boston Children's worked with other hospitals through the Conference of Boston Teaching Hospitals to gather information on community health issues.

### **Social Determinants of Health Framework**

It is important to recognize that multiple factors affect health and there is a dynamic relationship between real people and their lived environments. Where we are born, grow, live, work, and age and the relationships 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. This social determinants of health framework helped guide the overarching CHNA process.

The following diagram provides a visual representation of this social determinants of health framework, 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, Commission on the Social Determinants of Health, Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health, 2005.

### Community Advisory Board Engagement

Boston Children’s Community Advisory Board members were engaged in three formal meetings to offer input on the CHNA. This Board 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 Board members can be found in Appendix B. First, in June 2016, the Board participated in a focus group discussion and provided feedback on community strengths, resources, needs, and opportunities. Then, on September 13, 2016, preliminary results from the CHNA were presented to the Board. The Board offered feedback on preliminary findings, including affirming perceptions of identified needs based on work within their individual agencies as well as offering suggestions for additional data sources and potential areas of need. Finally, on November 15, 2016, the Board participated in a facilitated conversation to discuss and prioritize identified needs.

### Youth Engagement

Boston Children’s engaged the Community Voices Program, which was established by the Center for Community Health Education Research and Service, Inc. in 2007 as a summer academic enrichment and employment program for high school students. The 2016 Community Voices team included 10 youth between the ages of 15 and 17 who lived within the Dorchester, Roxbury, and Mattapan neighborhoods, and were drawn from community development corporation housing as well as the Boston youth jobs program. The 2016 Community Voices team worked with HRiA to implement a youth-led health assessment that would complement and inform the CHNA that HRiA was conducting for the hospital. Youth recruited for the Community Voices team participated in two weeks of training during which they learned about community health, health equity, and the social determinants of health. In addition, youth explored community research methods with HRiA in order to prepare their assessment protocols. Once trained, youth took part in a series of guided conversations and selected an appropriate methodology for their assessment. Youth also collected and analyzed data for the assessment (data collection and analysis methods are described further below).

## Secondary Data

In an effort to develop a social, economic, and health portrait of Boston Children's priority communities, HRiA reviewed existing data drawn from the most up-to-date national, state, and local sources. Sources of data included the U.S. Census, Boston Police Department Crime Statistics, Youth Risk Behavior Surveillance System data, and reports from the Boston Child Health Study such as the 2013 Health of Boston's Children report (a collaborative effort of Boston Children's and the Boston Public Health Commission), 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 Youth Risk Behavior Surveillance System, as well as vital statistics. It should be noted that in these existing reports and datasets, data on race and ethnicity was gathered through self-report.

## Qualitative Data

### Key Informant Interviews

From August – September 2016, HRiA conducted eight interviews with community stakeholders to gauge their perceptions of the community, health concerns for youth and families, and what programming, services, or initiatives are most needed to address these concerns. Interviews were conducted by phone with eight individuals representing a range of sectors including local government, social services, and health care, among others (See Appendix C for a list of participating organizations). A semi-structured interview guide was used across all discussions to ensure consistency in the topics covered. Each interview was facilitated by a trained moderator, and detailed notes were taken during conversations. On average, interviews lasted approximately 30-45 minutes.

### Focus Groups

Boston Children's facilitated two focus groups with a total of 45 participants. One group was held with the Boston Children's Community Advisory Board (n=15), and another focus group was held during a Grand Rounds with Boston Children's Hospital staff (n=30). These focus groups were facilitated by a Boston Children's staff member; a trained HRiA staff member took notes at both focus groups. Similar to the key informant interviews, these two focus groups explored perceptions of the community, health and social challenges for children and families, recommendations for how Boston Children's can use its resources to partner and improve health, and ideas for resources and strengths to build upon.

Additionally, Boston Children's worked with other hospitals through the Conference of Boston Teaching Hospitals (COBTH) to gather information on community needs. To that end, a focus group script was drafted collaboratively by COBTH and was used to guide all conversations. The focus groups were led by a trained facilitator and were documented by a note-taker. Community coalitions hosted four focus groups (2 in Dorchester, 1 in Jamaica Plain, and 1 in Roxbury) with a total of 64 community residents.

Lastly, a Boston Children's staff member attended a focus group listening session with parents of children with complex needs and coalition leaders (n = 12). This listening session was conducted in September 2016 by Health Care for All, and gathered information on challenges faced by children with special needs and their families.

### Boston Children's Determination of Need Community Meetings

Boston Children's undertook a community engagement process to gather community input and ensure that future community health initiatives would reflect community-developed health priorities. This engagement will inform the distribution of funding that Boston Children's will invest in the community

under a requirement from the Massachusetts Department of Public Health's Determination of Need (DoN) program. Because Boston Children's plans to renovate their existing facilities, create a new 12-story Boston Children's Clinical Building, and develop Brookline Place, this Department of Public Health DoN program requires that, in addition to making these capital investments, Boston Children's also invests a portion of funds in the community. The investment will total more than \$50 million, and will fund health and non-health sector collaborations locally and statewide to address the most pressing needs of children and families most impacted by health inequities.

This DoN community engagement process – comprised of an Advisory Group, large community sessions, focus groups, and an evaluation – also informed the hospital's CHNA. As part of the community engagement process, guided by an Advisory Group that met in person six times, Boston Children's organized seven community engagement sessions led by expert facilitators during summer/fall 2016 (June – September) to set goals, strategies, and priorities for the investment of this DoN funding. Over 190 individuals participated in these sessions, which were held in Dorchester, Chinatown, East Boston, Mattapan, and Roxbury. Three of the sessions were held in Boston Children's priority neighborhoods (North Dorchester, South Dorchester, and Roxbury Crossing). Four additional targeted small group discussions were also held in Brookline, Chinatown, Mission Hill, and Roxbury with communities that were under-represented in the larger community sessions. During these meetings and discussions, community residents and stakeholders shared examples and experiences of healthy communities, as well as feedback on priority goals for community health funding. The information on community assets and opportunities gathered during these sessions has also been analyzed as a qualitative data source and incorporated into this CHNA report.

### Analyses

The qualitative data (notes from eight interviews, the two Boston Children's focus groups, the four COBTH focus groups, the listening session on children with special needs, and the DoN community meetings) were coded and analyzed thematically, where HRiA 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. Selected quotes – without personal identifying information – are presented in the narrative of this report to further illustrate points within topic areas.

### **Youth Data**

The Community Voices team conducted a youth-led assessment, including holding focus groups with youth and conducting a youth survey. The Community Voices team's methods are briefly described in this section. Findings from the Community Voices team's report have been integrated into this CHNA.

### Focus Groups

The Community Voices team conducted six focus groups with youth (n=42). Focus groups explored perceptions of a healthy community, perceptions of good health, and types of programs needed in their community. A convenience sampling strategy was used to identify youth ages 14-19, which drew on both youth and community networks. Recruitment occurred at three community sites (Madison Park Community Development Corporation, National Association from the Advancement of Colored People and the Mattapan Food and Fitness Coalition). Groups were held at community partner sites in the target neighborhoods and facilitated by Community Voices youth who began each group with an ice breaker. Groups lasted between 60-90 minutes and were audio recorded. Each participant received a \$25 gift card in recognition of their participation. Audio recordings were used to supplement hand

written notes taken during the groups. All group notes were reviewed by the Community Voices Program Assistants who identified key themes and illustrative quotes.

Community Voices Community Health Survey

In order to understand youth perceptions around key community health concerns as well as their primary priorities for services and programming, the Community Voices team developed and administered a brief Community Health Survey to youth. Surveys were administered by the Community Voices team in person in five pre-selected locations in Boston – Dudley Square MBTA Station, Ruggles MBTA Station, Northeastern University campus around Fenway, Orchard Park in Roxbury, and Mattapan Square. There were 162 responses to the survey. As shown in Table 1, over 80% of respondents were under 30 years old, about 50% had not completed high school (which is not surprising, given the age range), over half identified as African American or Black, and 11.2% had no health insurance. There was an approximately equal number of male and female respondents. About one third of respondents were residents of Dorchester.

Results from the Community Voices Community Health Survey are presented in four Figures throughout this report. To distinguish the unique data collection process and sample for this survey, the Community Voices logo is included next to each relevant figure in the report (the logo is from the Center for Community Health Education Research and Service, Inc., through which the Community Voices program is run).

**Table 1. Demographics of Community Voices Community Health Survey Respondents (N=162), 2016**

	N	%
<b>Age* (N=159)</b>		
Under 18 years	91	57.2%
18-29 years	44	27.7%
30-39 years	16	10.1%
40-49 years	5	3.1%
50-64 years	2	1.3%
65+ years	1	0.6%
<b>Gender (N=161)</b>		
Male	77	47.8%
Female	78	48.4%
Transgender	3	1.9%
Gender Fluid	3	1.9%
Other	0	0.0%
<b>Race/Ethnicity (N=161)</b>		
Hispanic, any race	26	16.15%
African American/Black**	91	56.52%
American Indian/Native American**	3	1.86%
Asian/Pacific Islander**	14	8.70%
Caucasian/White**	19	11.80%
Two or more races**	8	4.97%
Other**	0	0.00%

	N	%
<b>Neighborhood (N=162)</b>		
Allston/Brighton	3	1.9%
Back Bay (Beacon Hill, Downtown, North End, West End)	2	1.2%
Charlestown	0	0.0%
Chinatown	1	0.6%
Dorchester	49	30.2%
East Boston	2	1.2%
Fenway	0	0.0%
Hyde Park	7	4.3%
Jamaica Plain	8	4.9%
Mattapan	18	11.1%
Mission Hill	4	2.5%
Roslindale	6	3.7%
Roxbury	24	14.8%
South Boston	0	0.0%
South End	6	3.7%
West Roxbury	1	0.6%
Other	31	19.1%
<b>Highest Level of Education (N=160)</b>		
Less than high school	80	50.0%
High school graduate or GED	23	14.4%
Some college	18	11.3%
Associate or technical degree/certification	8	5.0%
College graduate	18	11.3%
Graduate or professional degree	13	8.1%
<b>Insurance (N=154)</b>		
Insured***	137	89.0%
Uninsured	17	11.0%

DATA SOURCE: Center for Community Health Education Research and Service, Inc. (CCHERS), Community Voices, Community Health Needs Survey, 2016

\*Excluded "Other" responses; \*\*Non-Hispanic; \*\*\* Includes private insurance, Medicare, Medicaid, and other public insurance

## Limitations

### General Limitations of CHNA Research Methods

As with all research efforts, there are several limitations related to this CHNA'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. 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. Despite these limitations, most of the self-report surveys analyzed in this CHNA benefit from large sample sizes and repeated administrations, enabling comparison over time.

Additionally, while the focus groups and interviews conducted for this CHNA 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 Boston Children's, 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. 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.

#### Limitations of Community Voices Community Health Survey Data

It is also important to note some specific limitations of the Community Voices Community Health Survey. Data from this survey is considered self-reported data and therefore may be prone to selection bias – that is, individuals who had more positive or negative experiences may have been more likely than other individuals to complete the survey, so that survey respondents are not representative of the larger community. Additionally, the Community Voices Community Health Survey utilized a convenience sampling strategy. Therefore, the survey findings represent a sub-set of the community and may be limited in their generalizability.

## FINDINGS

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### Community Social and Economic Context

***Boston’s Children’s priority neighborhoods exhibit great socioeconomic diversity and residents are disproportionately affected by social determinants of health.***

The conditions in which community residents live, learn, work and play influence their health. Thus, the health of a community is associated with numerous factors including what resources are available (e.g., safe green space, access to healthy foods) and how those resources are distributed. Data on the social and economic context for children and families living in Boston Children’s priority neighborhoods is presented below.

### Demographic Characteristics

Interviewees and focus group participants described the communities served by Boston Children’s as diverse in terms of age, race and ethnicity, language, and socio-economic status. At the same time, however, several assessment participants expressed concern that economic changes and gentrification are changing the characteristics of some long-standing communities and creating challenges for residents.

Assessment participants described their neighborhoods as racially and ethnically diverse, and comprised of a large number of foreign-born residents. Overall, diversity in the community was seen as a substantial asset. However, incidents of discrimination and racism were also noted.

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***“Browner-skinned communities – they are labeled, face discrimination, are labeled terrorists, are pulled over.”***  
- Key Informant Interviewee

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According to the 2010-2014 U.S. Census, Boston had a population of just under 640,000 people. Among Boston Children’s five priority neighborhoods, Dorchester had the largest population (122,598), while Mission Hill had the smallest population (16,987) (Table 2).

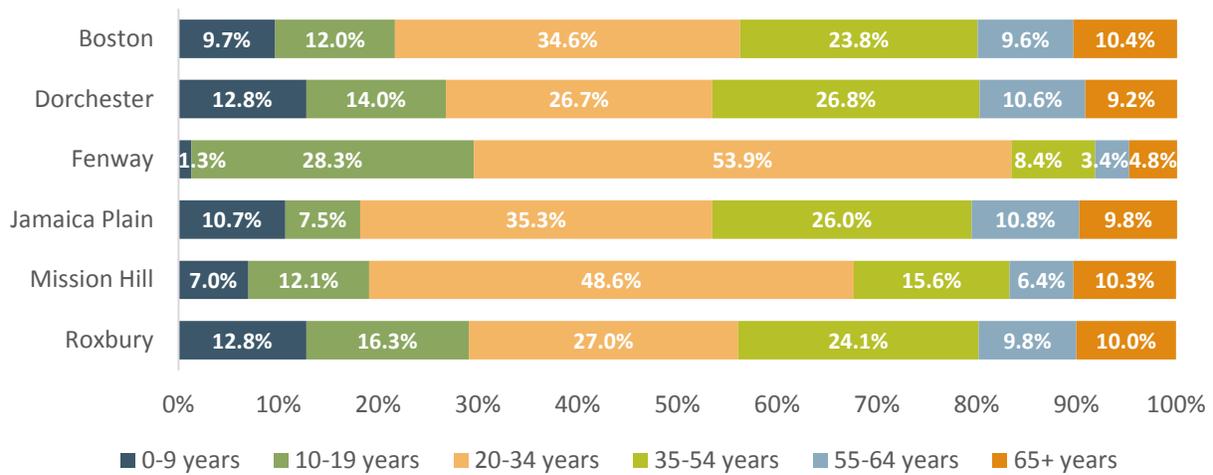
**Table 2. Total Population, Boston and Priority Neighborhood, 2010-2014**

Geography	Population
Boston	639,594
Dorchester	122,598
Fenway	32,399
Jamaica Plain	38,425
Mission Hill	16,987
Roxbury	49,028

DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

As shown in Figure 2, according to the 2010-2014 census, children and teenagers (those under 20) comprised around 22% of Boston’s population, and about 10% of Boston’s overall population was under 10 years old. Among Boston Children’s priority neighborhoods, Fenway and Roxbury had the highest proportions of “under 20 year olds” (29.6% and 29.1%, respectively), higher proportions than for Boston overall. Compared to Boston overall, the percent of children under 10 years old was largest in Dorchester and Roxbury, while Fenway had the smallest percent of children under 10 years old.

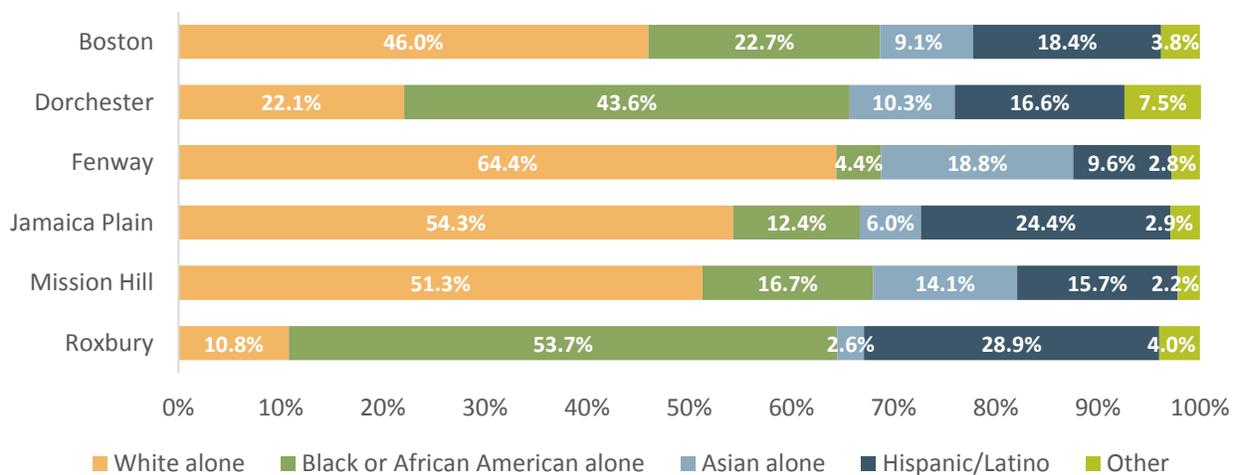
**Figure 2. Age Distribution, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

Among Boston Children’s priority neighborhoods, Roxbury and Dorchester had the highest percent of residents who self-identified as Black or African American (53.7% and 43.6%, respectively) – above that of Boston overall (22.7%) (Figure 3). Roxbury and Jamaica Plain had the largest proportion of Hispanic/Latino residents (28.9% and 24.4%, respectively).

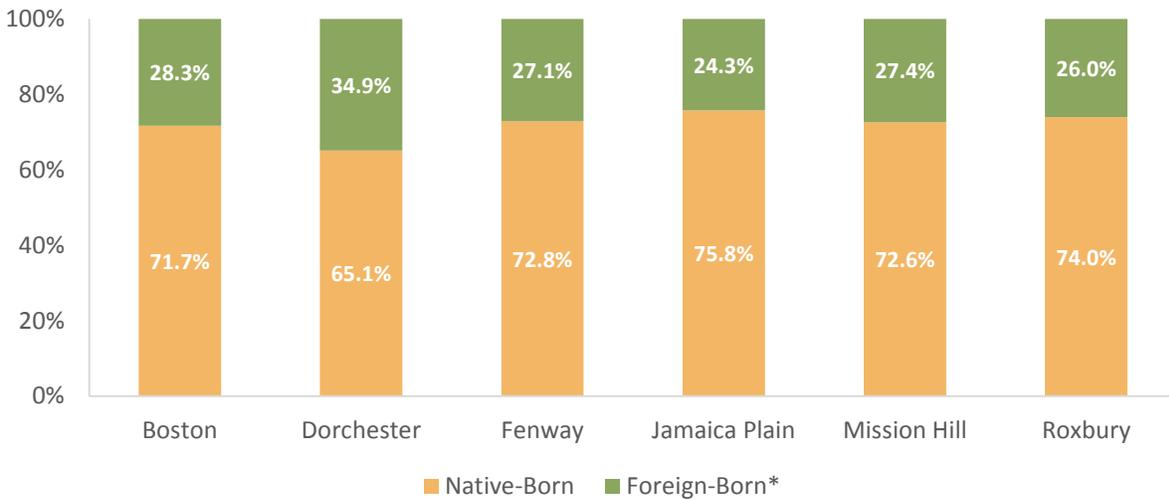
**Figure 3. Race and Ethnicity Distribution, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

As shown in Figure 4, across Boston Children’s priority neighborhoods and Boston overall, the majority of residents were native-born. Dorchester had the largest proportion of foreign-born residents (35.9%), which was above that of Boston overall, while Jamaica Plain had the lowest (24.3%).

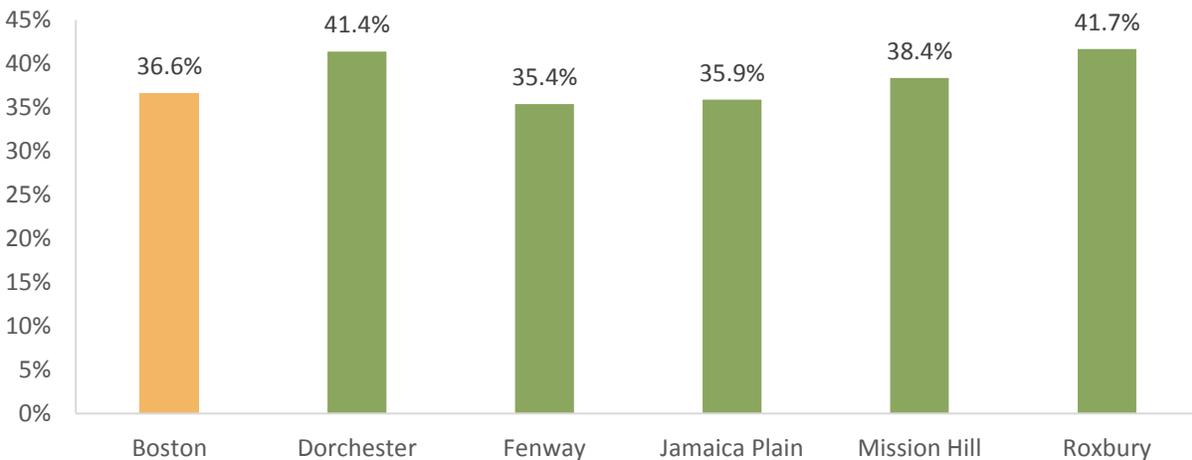
**Figure 4. Nativity, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016  
 \* Foreign-Born includes both U.S. citizens and non-U.S. citizens

Over a third of the population in Boston and across Boston Children’s priority neighborhoods spoke a language other than English at home (Figure 5). The percent of residents speaking a language other than English at home ranged from 35.4% in Fenway to 41.7% in Roxbury.

**Figure 5. Percent Population 5 Years and Over Who Speak a Language Other Than English at Home, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

## Income, Poverty, and Employment

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*“[People in lower income brackets] just have a hard time getting **jobs that pay a living wage, getting their family housed, having food, getting transportation...** all of the expenses that are coming with being a parent and having a family.”*

– Key informant interviewee

*“There’s a **hyper-segregation** in Mission Hill now between new, younger, **more affluent** [residents]... and **long-time Latinos**.”*

– Determination of Need community meeting participant

*“[In this] city of so many riches there are those **whose needs are not being met at all**.”*

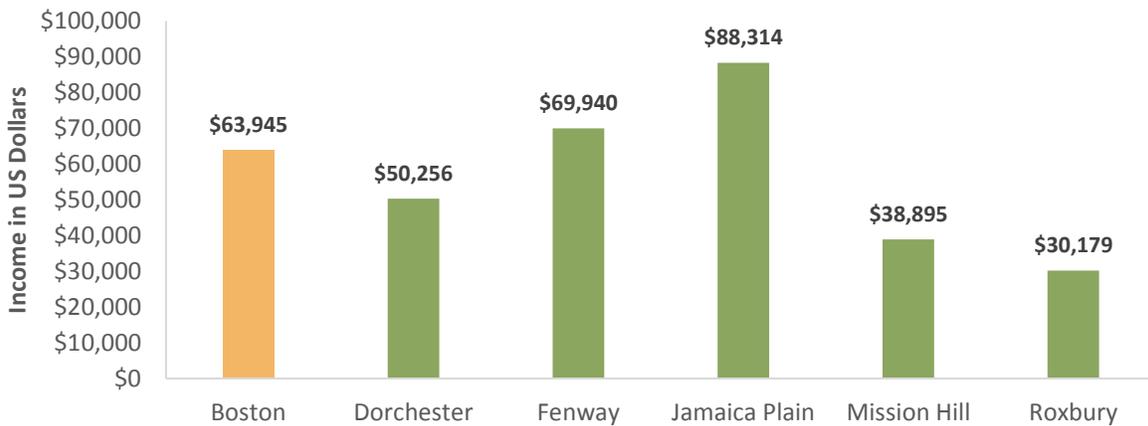
– Key informant interviewee

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The prevalence of poverty was a common theme across assessment discussions, and one that stakeholders directly connected to poor health among residents. As one interviewee stated, *“the number one challenge is poverty – that trumps everything.”* Assessment participants spoke about the high cost of living and stress that families face in meeting basic needs. Residents and stakeholders also pointed to rising income inequality in their neighborhoods, as more affluent individuals purchase housing and increasingly displace lower income residents who have lived in the neighborhoods for a very long time. As one interviewee stated, *“in the city with the best hospitals in the world, we have great disparities.”* Assessment participants stated that poverty is connected to poor health.

As shown in Figure 6, among Boston Children’s priority neighborhoods, Jamaica Plain had the highest median family income (\$88,314) – above that of Boston overall (\$63,945) – while Roxbury had the lowest median family income (\$30,179). It should be noted that despite the high median family income in Jamaica Plain, there was wide variation in median family income by census tract, ranging from \$25,781 to \$181,129. Assessment participants also noted the income variation that exists within this neighborhood.

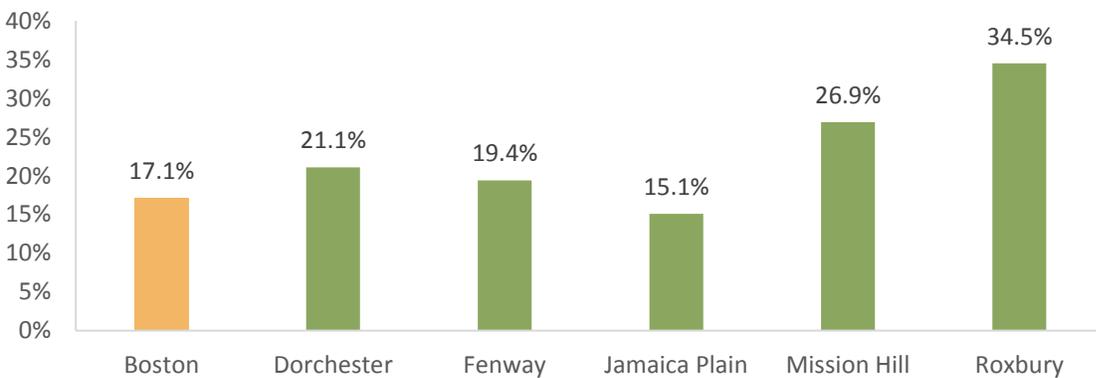
**Figure 6. Median Family Income, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016  
 NOTE: U.S. Census defines family as "two or more people (one of whom is the householder) related by birth, marriage, or adoption residing in the same housing unit."

Among Boston Children’s priority neighborhoods, Roxbury had the highest percent of families living below the poverty level (34.5%), while Jamaica Plain had the lowest percent (15.1%) (Figure 7). However, within Jamaica Plain, the percent of families living below the poverty level varied greatly by census tract, from 0% of families to 46% of families living below poverty.

**Figure 7. Percent Families Below Poverty Level, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

Some assessment participants also spoke specifically about employment. Participants noted a lack of employment opportunities, particularly for jobs that require lower levels of education and are available to those with a criminal record. A couple of participants pointed to challenges people of color and young black men face in finding employment. Assessment participants also noted the employment challenges faced by immigrants, including the need

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*“People of color have a harder time getting jobs that pay well and getting their foot in the door. It’s not always easy if you’re banking on your network to get your foot in the door.”*

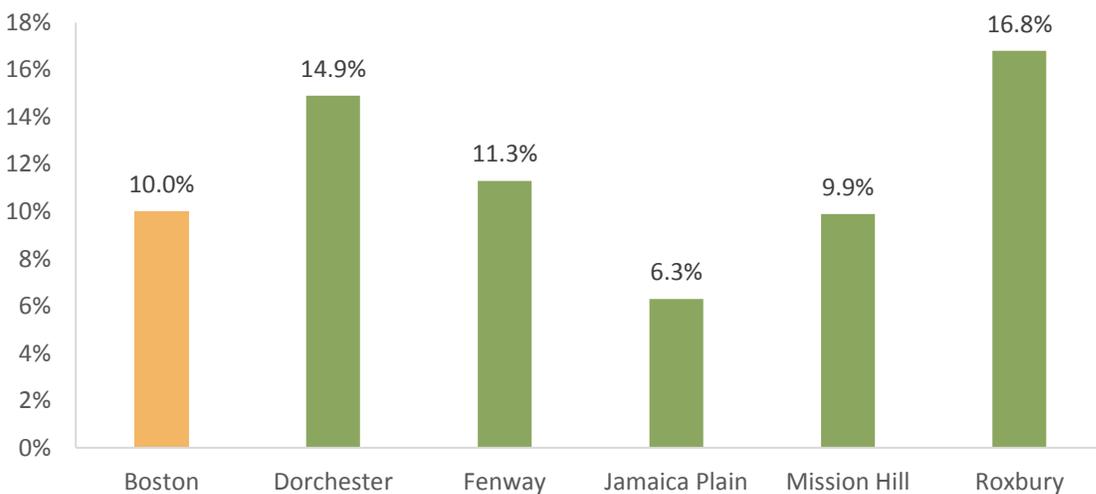
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-Key informant interviewee

to work multiple low-paying jobs, the exploitation of undocumented workers, and the underemployment of those who held professional positions in their home countries.

Quantitative data show that Roxbury reported the highest unemployment rate (16.8%) among Boston Children’s priority neighborhoods and Jamaica Plain reported the lowest unemployment rate (6.3%) (Figure 8). While the percent of unemployed residents was lower overall in Jamaica Plain compared to Boston and Boston Children’s other priority neighborhoods, again, within Jamaica Plain census tracts there was wide variation. The percent of unemployed residents ranged from 1% to 16% throughout census tracts in Jamaica Plain.

**Figure 8. Percent Population 16 Years and Over Unemployed, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

## Education

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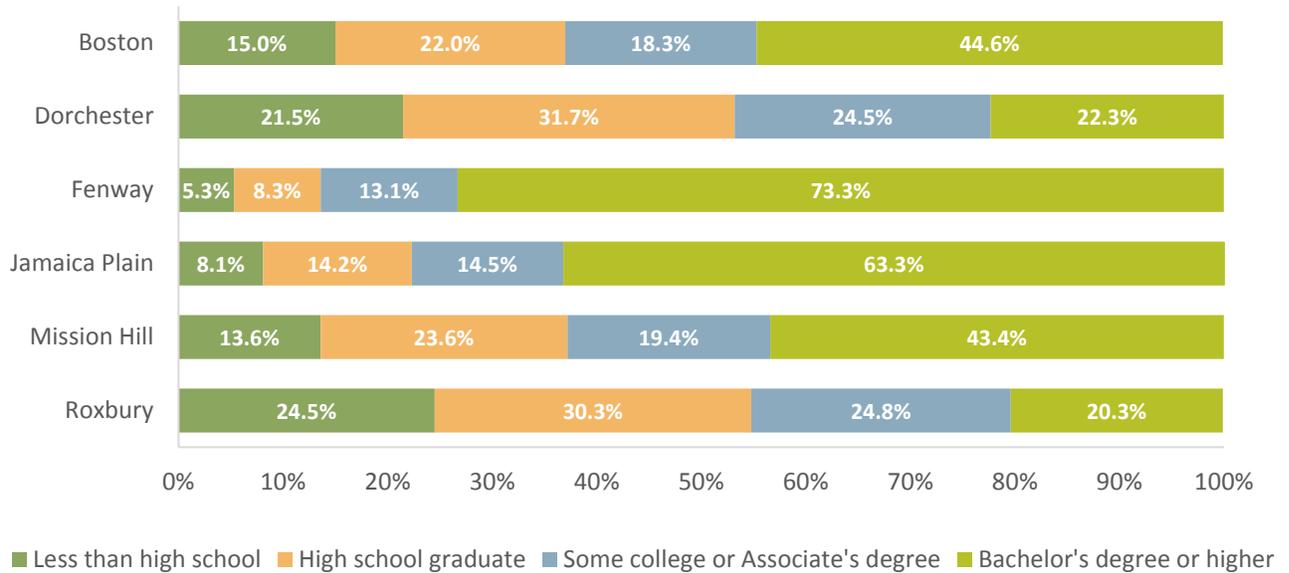
*“The community has no connection to the schools because the schools don’t belong to the community.”*  
– Key informant interviewee

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Although not extensively discussed in the assessment, the connection between low education levels, poverty, and poor health was noted by some participants. Additionally, a couple of interviewees pointed to the history of bussing in the city of Boston, which has created ongoing barriers to developing neighborhood-based, community-focused schools.

Among adult residents, Fenway and Jamaica Plain reported the highest levels of educational attainment (73.3% and 63.3% of residents had a Bachelor’s degree or higher, respectively) among Boston Children’s priority neighborhoods, while Roxbury and Dorchester reported the lowest levels (22.3% and 20.3% of residents had a Bachelor’s degree or higher, respectively) (Figure 9).

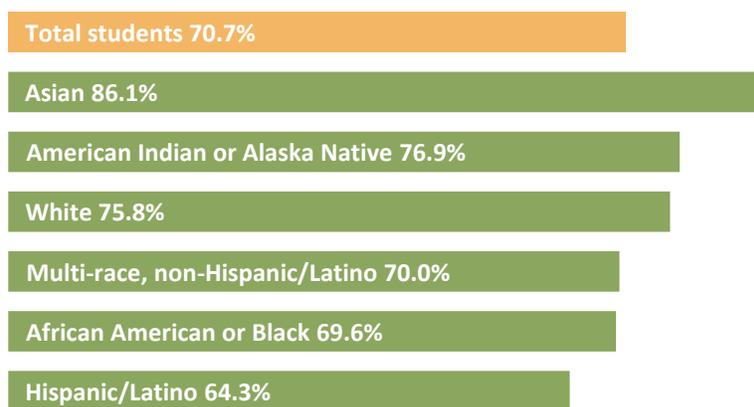
**Figure 9. Educational Attainment, Population 25 Years and Over, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

Overall, in 2015, approximately 70% of the students enrolled in Boston Public Schools graduated within four years (Figure 10). Asian students (86.1%) had the highest graduation rates, while African American or Black and Hispanic/Latino students had the lowest graduation rates (69.6% and 64.3%, respectively), which were slightly lower than the graduation rate for Boston Public Schools students overall.

**Figure 10. Percent Boston Public Schools Students who Graduate with Diploma within 4 Years, by Race/Ethnicity, 2015**

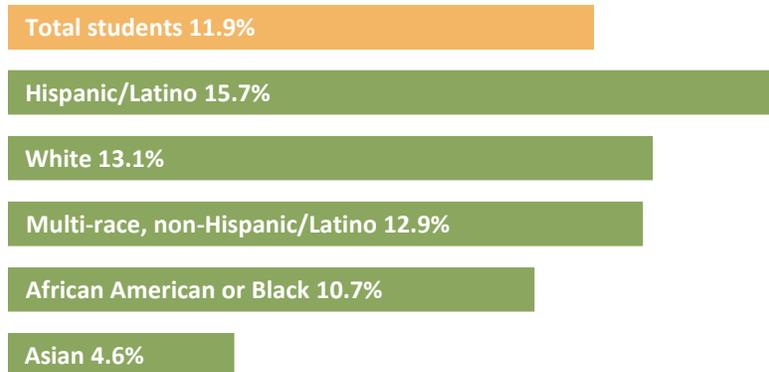


DATA SOURCE: Massachusetts Department of Elementary and Secondary Education, School and District Profiles, Cohort 2015 4-Year Graduation Rates for Boston, 2015

NOTE: Insufficient sample size to calculate percent for Native Hawaiian/Pacific Islander

In Boston public high schools, the dropout rate was highest among Hispanic/Latino students (15.7%) and lowest among Asian students (4.6%). Among Boston Public School students overall, the high school dropout rate was 11.9% (Figure 11).

**Figure 11. Boston Public Schools Dropout Rate, by Race/Ethnicity, 2015**



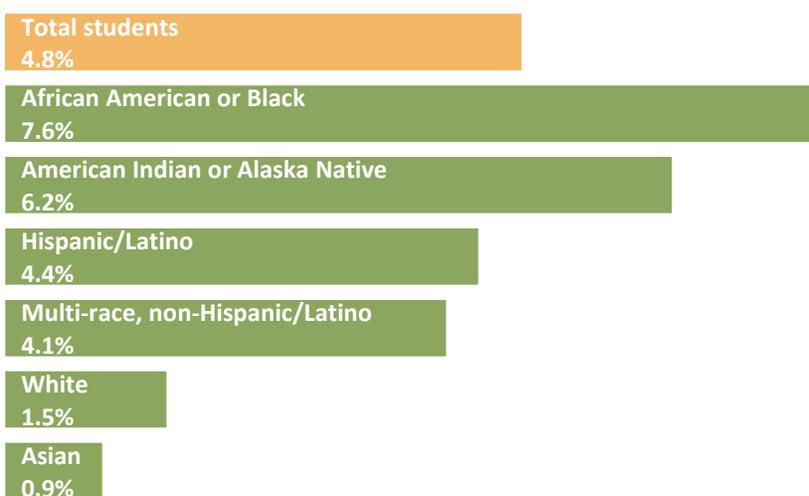
DATA SOURCE: Massachusetts Department of Elementary and Secondary Education, School and District Profiles, Cohort 2015 4-Year Graduation Rates for Boston, 2015

NOTE: Dropout is defined by students who leave school prior to graduation for reasons other than transfer to another school. Dropout rate is the percent of students in grades 9-12 who dropped out of school between July 1 and June 30 prior to the listed year and who did not return to school by the following October 1.

NOTE: Insufficient sample size to calculate percent for Native Hawaiian/Pacific Islander; 0% American Indian/Alaska Native dropped out

Among Boston Public Schools students, African American or Black students (7.6%) received suspensions more often than to students of other races and ethnicities, while Asian students (0.9%) were least likely to receive suspensions (Figure 12).

**Figure 12. Percent of Boston Public Schools Students Who Received Out-of-School Suspensions for One Day or More, 2014-2015 School Year**



DATA SOURCE: Massachusetts Department of Elementary and Secondary Education, School and District Profiles, 2014-15 Student Discipline Data Report, All Offenses

NOTE: Insufficient sample size to calculate percent for Native Hawaiian/Pacific Islander

## Housing and Transportation

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*“It’s tough to stay in your neighborhood but be living in **subsidized housing**... when [they’re] building a **Whole Foods** or **Starbucks** across the street, it doesn’t fit in your budget. [You think,] **why am I living here, when I can’t afford it?**”*

– Key informant interviewee

*“It’s all about **family sustainability**. Without that, nothing else really matters...having a **roof over your head** is the most important thing.”*

– Determination of Need community meeting participant

*“If parents don’t have stable housing, **it’s a precursor to many bad things.**”*

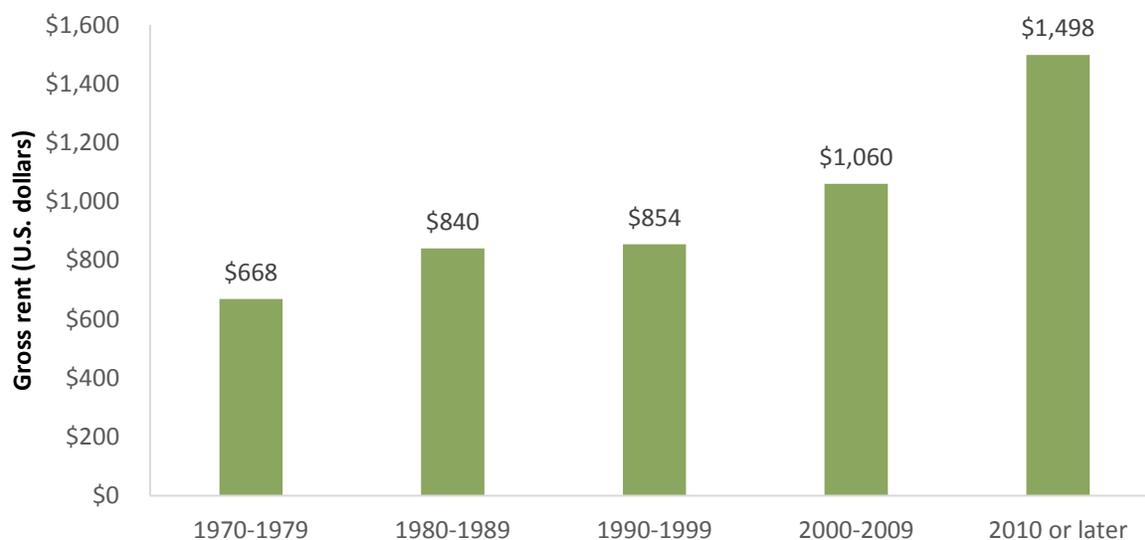
– Key informant interviewee

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As in the 2013 CHNA, the rising cost of housing in the neighborhoods served by Boston Children’s was identified by assessment participants as a pressing community concern. In 2016, interview, focus group, and community meeting participants raised this topic in almost every discussion. Interviewees and residents spoke about the negative impact that rising rent has had on families who are already struggling to make ends meet. Additionally, staff of community-based organizations shared that rising rent strain their already limited budgets.

Figure 13 below shows the rising cost of rent in Boston. In 2012, the median gross rent for a householder moving into a unit in 2010 or later was \$1,498; the median gross rent for a household moving into a unit during 1970-1979 was only \$668.

**Figure 13. Median Gross Rent, by Year Individual Moved into Housing Unit, 2012**



DATA SOURCE: U.S. Census Bureau, 1-Year 2012 American Community Survey, as reported by Boston Public Health Commission, Health of Boston 2014-2015 Report

NOTE: Gross rent includes average monthly utility costs

According to participants, gentrification of neighborhoods, including Chinatown, Jamaica Plain, and Roxbury, has led to higher housing costs. Consequently, participants noted that residents are being forced to move out of neighborhoods in which they have lived for generations, yet may have difficulty finding affordable housing in other areas of the city. As one focus group participant explained, “we’re losing families. Families are being priced out. Gentrification is happening.” Seniors, too, are affected. As one focus group participant noted, seniors increasingly have to weigh the option of taking out a reverse mortgage or move out of the neighborhood.

Assessment participants noted other challenges related to housing conditions and stability. Some mentioned that multiple families are increasingly “doubling up” and living in housing meant for one family, leading to challenges of overcrowding. Others expressed concerns about housing quality; for example, in Dorchester, participants noted that some older housing may be more affordable, but that lead paint is a concern. Participants shared that housing instability, including frequent moves, and poor housing quality can substantially affect family stress and health as well as children’s success.

As shown in Figure 14, across Boston and Boston Children’s priority neighborhoods, the majority of homes were renter-occupied. Compared to other Boston Children’s priority neighborhoods, Jamaica Plain had the highest percent of owner-occupied homes (45.8%), while Fenway had highest percent of renter-occupied homes (88.9%).

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*“The city is becoming more and more out of reach for families – people are being displaced, and if they need to move, they can’t afford to find something else in the city.”*

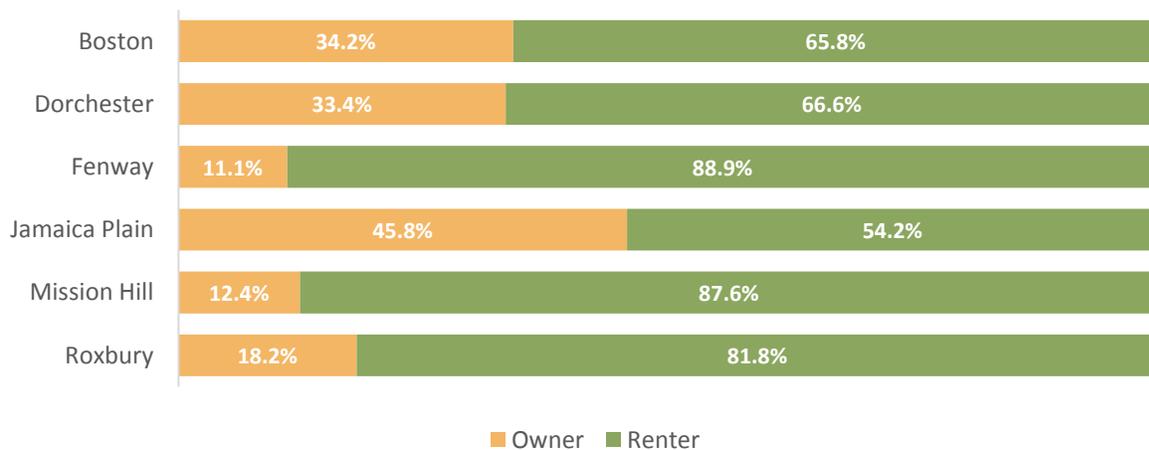
-Key informant interviewee

*“There are children who don’t have beds to sleep in – there are so many people crowded in apartment –the child is sleeping on a pallet and they have no regular bed time routine or clean pajamas. That’s going to impact whether they can be successful.”*

-Key informant interviewee

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**Figure 14. Percent Owner and Renter Occupied Housing Units, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016

Almost half of renters in Boston spent 30% or more of their income on rent (Figure 15); in Dorchester, Fenway, and Roxbury, the percent of renters spending 30% or more of their income on rent was even higher than for the city of Boston overall.

**Figure 15. Renter-Occupied Housing Units Where 30% or More Income Spent Towards Rent, 2008-2012**



DATA SOURCE: U.S. Census Bureau, 2008-2012 5-Year American Community Survey, as reported by Boston Public Health Commission, Health of Boston 2014-2015 Report

NOTE: Data not presented specifically for Mission Hill

According to assessment participants, homelessness has been another consequence of rising housing costs, as well as the decrease in the numbers of homeless shelters in recent years. Numerous participants reported that the number of homeless families, and homeless children, in the communities served by Boston Children’s are rising. This perception is supported by quantitative data on homelessness, as shown in Figure 16, Figure 17, and Table 3 below.

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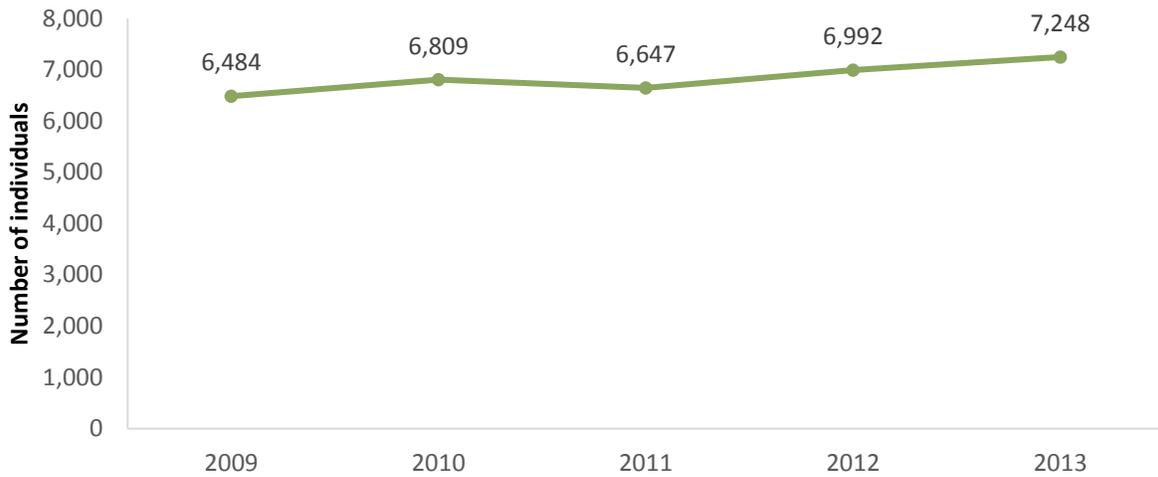
*“We have so many homeless children in the city – this is a crime.”*  
 -Key informant interviewee

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Figure 16 shows that overall, the number of homeless individuals in Boston has increased since 2009. During this same time period, the number of homeless male adults in Boston remained consistently higher than the number of homeless female adults (Figure 17). More recent data from Boston’s Annual Homeless Census<sup>1</sup> indicates that between December 2013 and February 2015, there was a 25% increase in number of homeless families reported in Boston (Table 3).

<sup>1</sup> The Annual Homeless Census is a one-night “Point in-Time” count of homeless persons living on the streets, in emergency shelters for individuals or families, in domestic violence programs, in residential mental health or substance abuse programs, transitional housing and in specialized programs serving homeless youth and homeless veterans. More information can be found here: <http://www.bphc.org/whatwedo/homelessness/emergency-shelter-commission/Pages/Annual-Homeless-Census.aspx>

**Figure 16. Trend in Boston Homeless Individuals Count, 2009-2013**



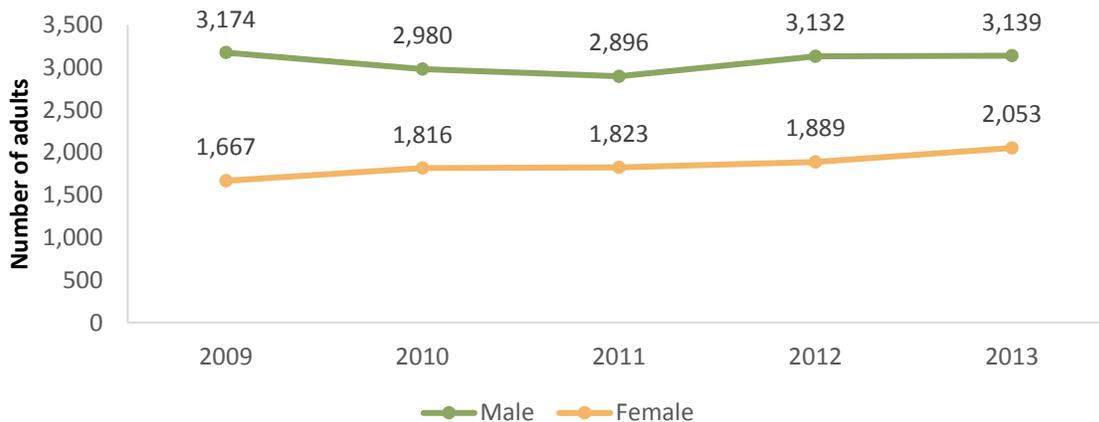
DATA SOURCE: Emergency Shelter Commission, Boston Public Health Commission, as cited in Health of Boston 2014-2015 Report

**Table 3. Percent Change in Number of Homeless Families, Boston, 2013 and 2015**

	December 2013	February 2015	% change
Number of families	1,234	1,543	25.0%

DATA SOURCE: City of Boston Annual Homeless Census - February 2015 compared to December 2013, Boston Public Health Commission, Emergency Shelter Commission, 2015

**Figure 17. Trend in Boston Homeless Adults Count, by Sex, 2009-2013**

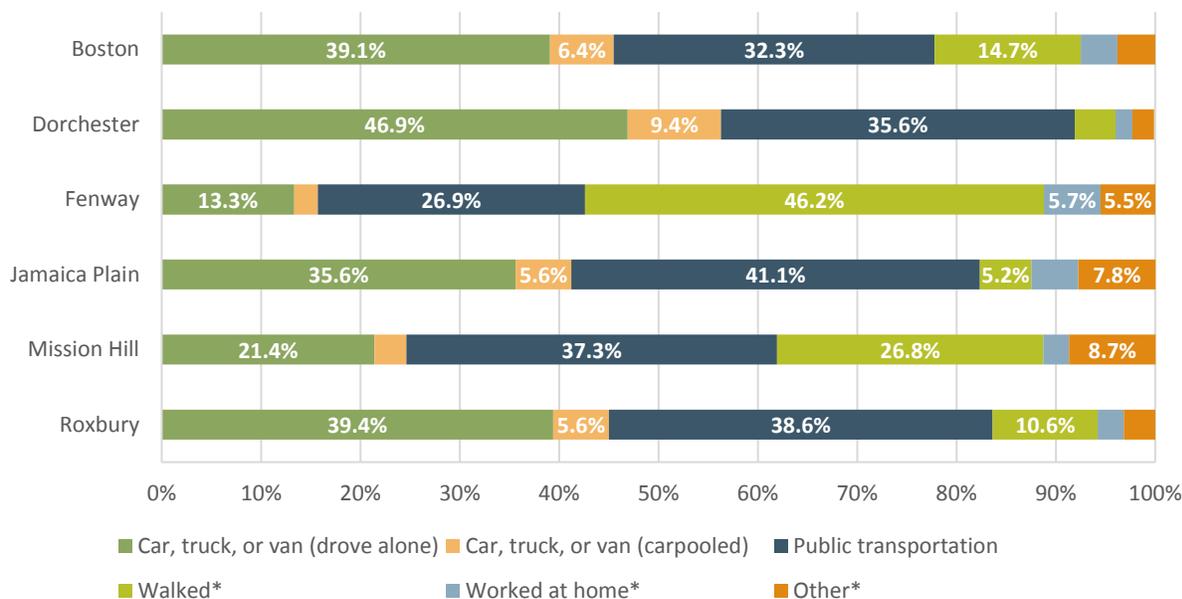


DATA SOURCE: Emergency Shelter Commission, Boston Public Health Commission, as cited in Health of Boston 2014-2015 Report

Although transportation was not mentioned by many participants, transportation challenges experienced by lower income families were identified, particularly the unreliability of using public transportation for health care visits. Participants also mentioned that transportation to school can be challenging for some Boston Public School students, and transportation for older adults was identified as a concern in the Jamaica Plain community discussion. For example, one focus group participant stated that *“it is horribly difficult to get where you need to go.”* Residents reported that transportation is

provided by some community programs and services, but not all; additionally, those that do provide transportation were reported to have rigid schedules creating further barriers for seniors. Across Boston Children’s priority neighborhoods, over one third of residents reported using public transportation to go to work, with the exception of Fenway, where residents were more likely to walk to work (46.2%) than use public transportation (26.9%) (Figure 18).

**Figure 18. Means of Transportation to Work, Population 16 Years and Over, Boston and Priority Neighborhood, 2010-2014**



DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey, as reported by Boston Redevelopment Authority, Boston in Context: Neighborhoods 2010-2014 American Community Survey, 2016  
 NOTE: Public transportation includes bus or trolley bus, subway or elevated, and railroad  
 \*Data labels for percentages less than 5% not shown

Food Security

*“Rather than focusing on childhood obesity and healthy eating, I really want to focus on **food security** as well – that has to do with rising rent. That has to do with rising bills...Kids are consistently living in households where there is consistently not enough food.”*

– Focus group participant

Food insecurity was another issue raised by some assessment participants. While food security did not emerge as a prominent theme in the 2013 CHNA, participants in the 2016 CHNA perceived it to be a pressing issue. As families struggle with high rent and other expenses, assessment participants noted that families sometimes need to make trade-offs between basic necessities, and that this can lead to children not having enough food to eat. As shown in Table 4, among all households in Boston, about one in five households received food stamps; among households with children under 18 years old, over one third received food stamps. According to the Boston Behavioral Risk Factor Survey, about 12% of Boston

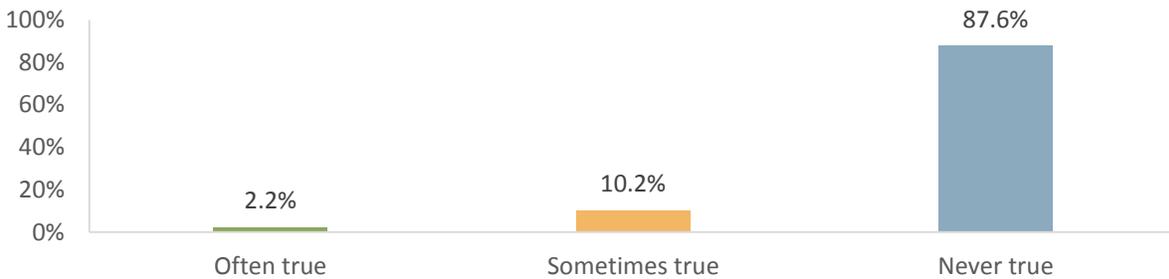
adults reported it was often true or sometimes true they did not eat when they were hungry because they could not afford food (Figure 19).

**Table 4. Percent Households Receiving Food Stamps by Select Characteristics, Boston, 2010-2014**

	Percent
Households in Boston	19.1%
Households with children under 18 years old	36.6%

DATA SOURCE: U.S. Census Bureau, 2010-2014 5-Year American Community Survey

**Figure 19. Percent Adults Reporting Hungry But Did Not Eat Because Could Not Afford Food, 2013**



DATA SOURCE: Boston Behavioral Risk Factor Survey, 2013, Boston Public Health Commission, as cited in Health of Boston 2014-2015 Report

Participants also noted that food pantries are incredibly important for bridging this gap and stated that other community-based groups, such as Community Servings, also play an important role in meeting the food needs of the city’s most vulnerable. According to Hunger in America (2014), one in twelve residents of eastern Massachusetts received food from the Greater Boston Food Bank and affiliated agencies per year; one in three of these residents was a child under 18 years old.<sup>i</sup> According to the Health of Boston’s Children: Child Health Assessment Mapping Project report (2015), Back Bay, the South End, and Fenway had the highest rates of farmers’ markets per 1,000 households with children, while East Boston, North Dorchester, Roslindale, and Hyde Park had the lowest rates.<sup>ii</sup>

## Crime and Neighborhood Safety

As in the 2013 CHNA, concerns about safety and violence in the community was a theme discussed in many interviews and community sessions. Residents mentioned a prevalence of street crime, including shootings and fights, which they attributed to guns, lack of activities for youth, and social media influences. Concerns about personal safety were expressed. For example, residents in the Jamaica Plain focus group shared that residents do not take their children outside certain times of the day and in certain areas of the community. Seniors, one participant shared, do not feel safe walking in their communities. Youth focus group participants also reported that they are frequently concerned about their personal safety. Youth noted that they feel particularly unsafe in the summer months, when school is out. Several participants also mentioned that, as in communities around the country, there is tension and distrust between law enforcement and community residents.

Table 5 shows that the number of violent and property crimes decreased between 2013 and 2015 in Boston overall, as well as in the Boston Police Department (BPD) Districts covering Boston Children’s priority neighborhoods. Despite this decrease, violent and priority crimes still occur and there is variation in the amount of crime across different neighborhoods. In both 2013 and 2015, District B-2 (which includes Roxbury and Mission Hill) had the highest number of reported violent and property crime incidents. In 2015 in District B-2, there were 962 reported violent crime incidents and 1,976 reported property crime incidents.

**Table 5. Number of Reported Violent and Property Crime Incidents, by Boston and BPD Districts, 2013 and 2015**

	Violent Crime		Property Crime	
	2013	2015	2013	2015
Boston	4,986	4,644	17,894	15,774
District B-2 (includes Roxbury and Mission Hill)	1,023	962	2,372	1,976
District C-11 (includes Dorchester)	869	669	1,908	1,528
District D-4 (includes Fenway)	509	205	3,925	1,145
District E-13 (includes Jamaica Plain)	257	243	1,131	911

DATA SOURCE: Boston Police Department, Boston Regional Intelligence Center, 2014 Year End Part One Crime& Firearm Overview; and Part One Crime Reported by the Boston Police Department 1/1/2014 -12/31/2014 vs. 1/1/2015-12/31/15

NOTE: Violent crime includes homicide, rape (and attempted), robbery (and attempted), and aggravated assault (domestic and non-domestic); Property crime includes burglary (commercial, residential, and other), larceny (from motor vehicle and other), and auto theft

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*“No young person should feel afraid when approached by a police offer. They also shouldn’t be afraid they’re going to be the next victim of a drive buy in front of the corner store. Kids are thinking something bad is going to happen to them when they walk to and from school; they feel they have to arm themselves or they’ll become the victims of crime.”*

– Key informant interviewee

*“Shootings make me feel unsafe...because a bullet actually went through my window.”*

– Youth focus group participant

*“Children are indoors because of concerns of trauma and violence.”*

– Key informant interviewee

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Perceptions of feeling unsafe and concerns about safety were raised during many qualitative conversations. Assessment participants described how safety concerns can affect physical and mental health. One interviewee noted that many adults in the community do not exercise outdoors due to concerns about personal safety. Many participants also connected community violence to rising rates of trauma and mental health issues experienced by community members, especially children and youth. This was of substantial concern to many participants, and is discussed in the Violence and Trauma section below.

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*“The **psychological impact** [of violence] on the families is a significant issue.”*

*- Focus group participant*

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In addition to concerns about street violence, participants noted rising rates of domestic violence, including child abuse and neglect. A couple of participants identified bullying among adolescents as a concern, in particular on-line bullying (quantitative data on bullying is included in the Violence and Trauma section below).

## Community Resources and Assets

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*“Diversity in the community is a great asset, although language accessibility can sometimes be an issue.”*

– Focus group participant

*“The closest park to where I live is a two-minute walk.”*

– Youth focus group participant

*“There is lots of good work already in the city, we can strengthen the capacity of CBOs and increase our reach rather than developing new programs.”*

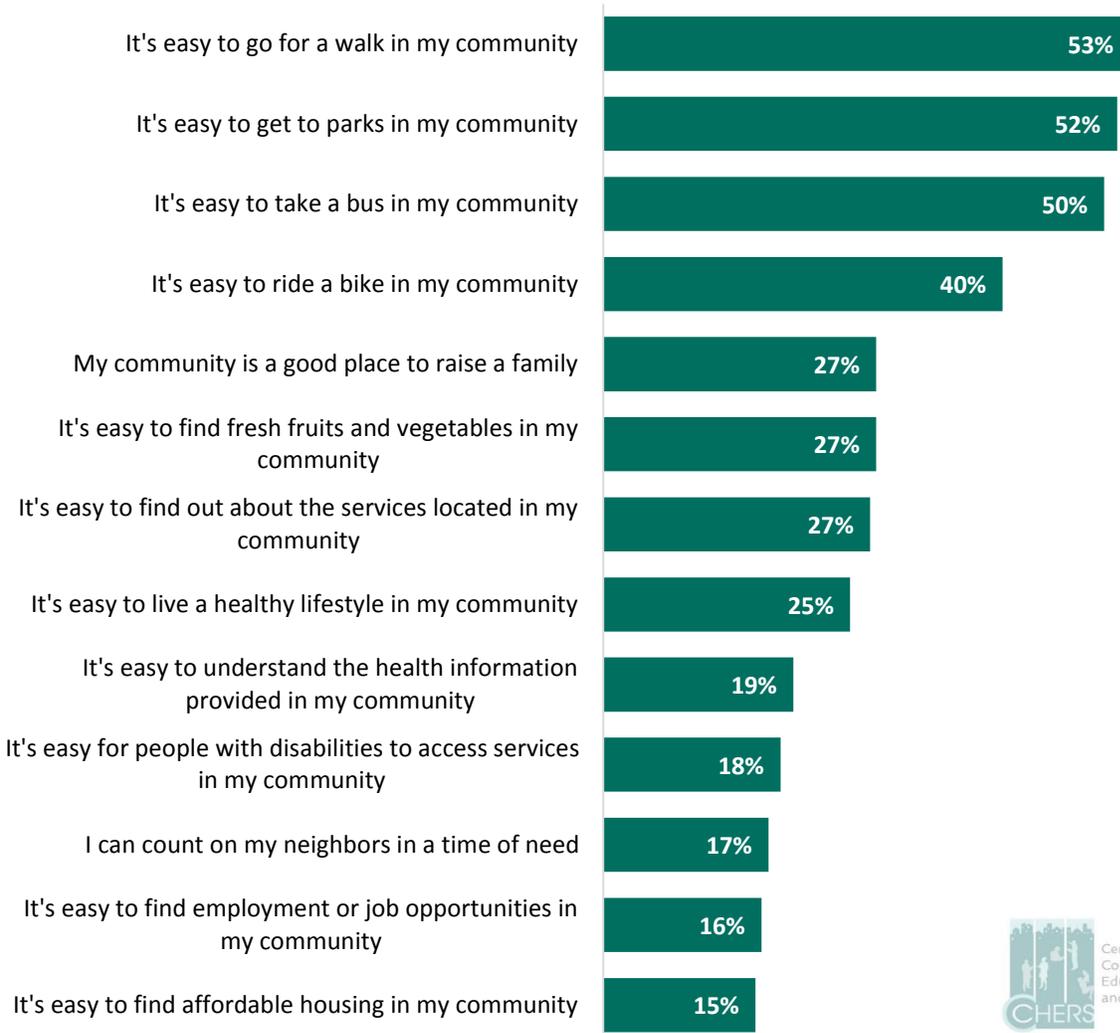
– Key informant interviewee

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**Interviewees and community residents pointed to the substantial assets that exist within Boston Children’s priority neighborhoods, including medical services, community-based organization, and recreation areas, as well as the residents themselves.** Assessment participants cited medical services such as hospitals, medical schools and community health centers. Youth, as well as other respondents, mentioned the importance of opportunities to be active, including local parks and Boys and Girls Clubs. Some residents pointed to community centers as a unique and helpful community resource. Participants also mentioned numerous programs and services provided by smaller, community-based organizations. These organizations, respondents reported, do incredible work with the limited resources they have; however, some reported that these organizations and their work are not as well known in the community as they could be, often due to the limited budget that community-based organizations have for outreach and marketing. Finally, diversity, community cohesion, and a strong faith tradition were also cited by some as community assets. As one interviewee explained, *“folks come together and lean on each other and look out for each other in the toughest time.”*

As shown in Figure 20, over half of respondents to the Community Voices youth survey indicated that it’s easy to go for a walk and get to parks in their community, and 50% of respondents indicated that it’s easy to take a bus in their community.

**Figure 20. Community Voices Survey: Perceptions of Community Conditions (N=157), 2016**

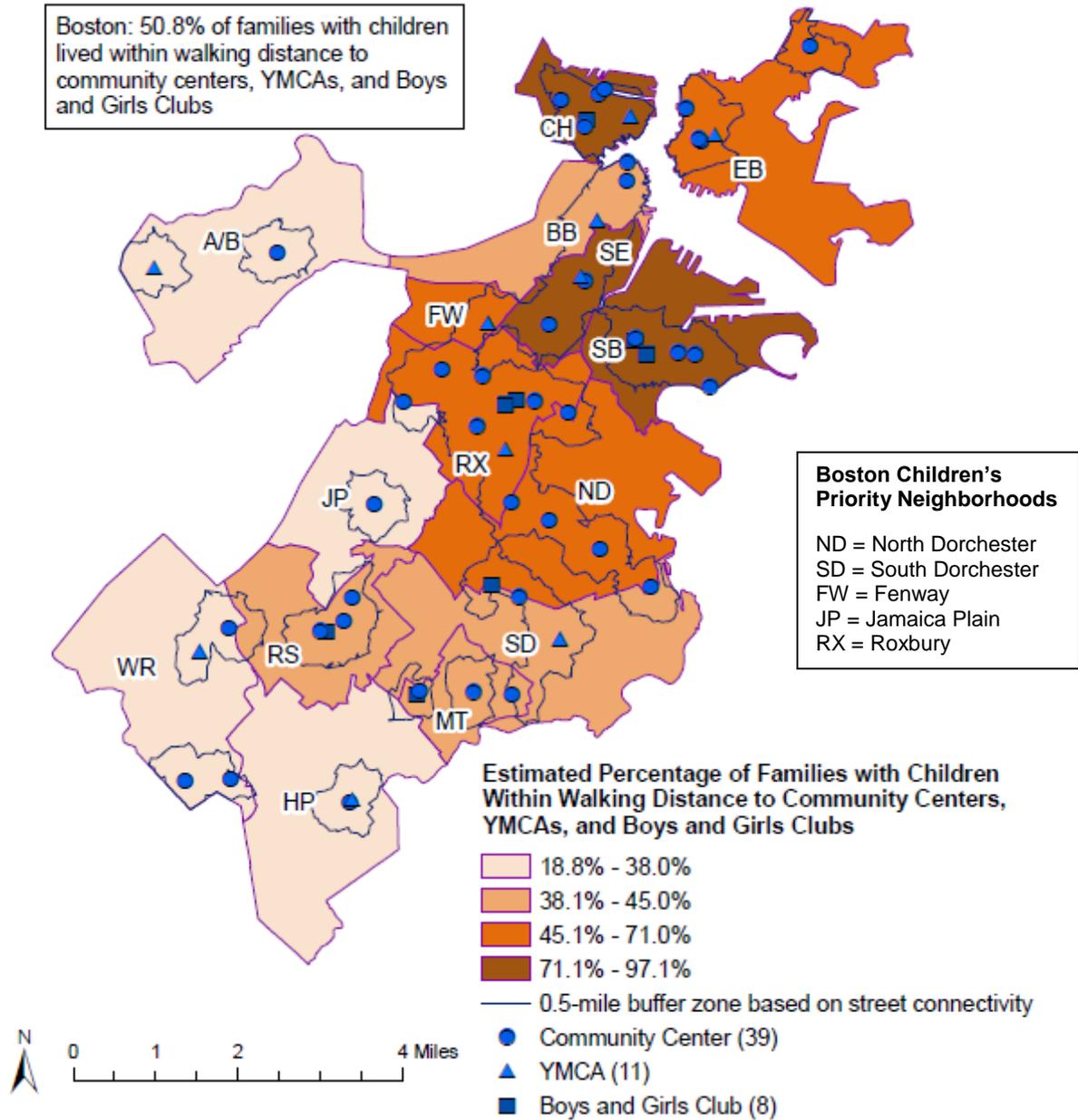


DATA SOURCE: Center for Community Health Education Research and Service, Inc. (CHERS), Community Voices, Community Health Needs Survey, 2016

NOTES: This survey question was phrased as: “4. Do you agree or disagree with the following statements about your community?” The assumption was made that by selecting a response, respondents were indicating they agreed with the statement; This question allowed for multiple responses (“check all that apply”); therefore the percentages may not sum up to 100%.

Figure 21 shows that the percent of children and families within walking distance (within 0.5 miles) of community centers, YMCAs, and Boys and Girls Clubs varies by neighborhood. Among Boston Children’s priority neighborhood, a higher percent of children and families in Fenway, North Dorchester, and Roxbury live within walking distance to these resources.

**Figure 21. Estimated Percent of Families with Children Within Walking Distance (0.5 Miles) to Community Centers, YMCAs, and Boys and Girls Clubs, Boston, 2012**



DATA SOURCES: Department of Innovation & Technology (DoIT), City of Boston, 2012; Decennial Census 2010, U.S. Census Bureau

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

MAP CREATED BY: Boston Public Health Commission Research and Evaluation Office

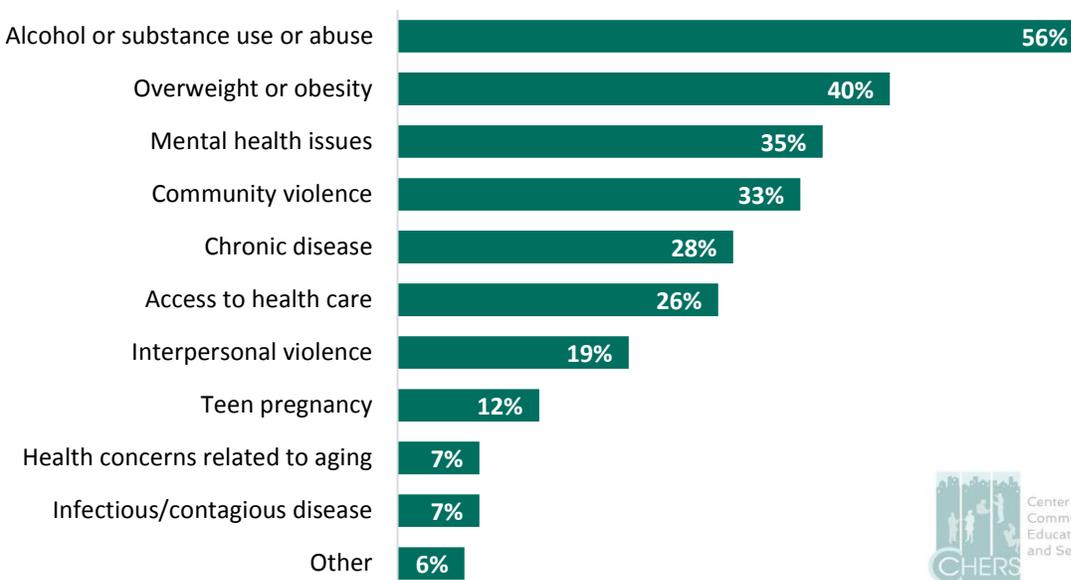
NOTES: Community centers are all centers administered through Boston Centers for Youth and Families. Estimates are based on the distribution of families with children at the block level in 2010 U.S. Census data. Families with children are assumed to be evenly distributed geographically within census blocks that intersect with the walking-distance-buffer zones. Street connectivity refers to the directness of links and the density of connections in a street network.

## Community Health Issues

*Respondents to the youth survey and participants in the discussions with key informants, community residents, and youth were asked to describe the most pressing health concerns for their communities. While participants noted that chronic disease prevention and management remains an area of need, they frequently raised concerns related to mental health issues, especially the effects of community violence and trauma, and stressed the need for early childhood services.* Overall, the following health issues and concerns, as described further in the section that follows, emerged in Boston Children’s CHNA process: chronic disease (including obesity and asthma) and related risk factors (including healthy eating and physical activity); behavioral health, including mental health and substance use; violence and trauma; early childhood and access to care; concerns for children with special needs; and sexual health, teen pregnancy, and birth outcomes.

Respondents to the Community Voices youth survey were asked to identify the top health issues having the biggest impact on their communities. Alcohol and substance use/abuse was most frequently identified as a top health issue, followed by overweight or obesity (Figure 22). At least one third of respondents identified mental health issues and community violence as top health issues.

**Figure 22. Community Voices Survey: Top Health Issues with the Biggest Impact on Community in which Respondents Live (N=162), 2016**



DATA SOURCE: Center for Community Health Education Research and Service, Inc. (CHERS), Community Voices, Community Health Needs Survey, 2016

NOTE: This question allowed for multiple responses (“check all that apply”); therefore the percentages may not sum up to 100%.

## Chronic Diseases and Related Risk Factors

Chronic disease, including childhood obesity and asthma, were raised as concerns in interviews and focus groups. Participants also discussed barriers to healthy eating and physical activity, and noted the connection between diet, exercise, and chronic disease. High rates of diabetes and high blood pressure, particularly within communities of color, were mentioned by some interviewees.

### **Healthy Eating and Physical Activity**

In addition to the concerns about food security described previously, assessment participants identified access to and affordability of healthy food as a challenge for many community members. Youth focus group participants reported that their neighborhoods have many fast food places and corner stores, which offer few healthy options, and Roxbury in particular was described as a “*food desert*”. Poverty also substantially affects food choices, according to participants who noted that less healthy food is generally cheaper. As one interviewee stated, “*families are going for sales and sales tend to not be on the healthy food.*” For families that may be struggling to meet basic needs, as one interviewee explained, “*it comes down to making choices...It’s that choice of ‘do we get evicted or do we miss a few meals?’*”

Participants also cited a need for education around making healthy food choices and preparing healthy food. For example, a few participants shared that marketing around healthy food can be confusing, noting that food labeled as “healthy” may not actually be nutritious. This marketing, in the words of one focus group participant, can lead people to “*purchase things they think are healthy because of labeling, but may not actually be healthy, such as some fruit juice.*” Interviewees and participants in community sessions also noted that there may be a need for more health education around nutrition and food preparation, to ensure that residents know how to purchase and prepare healthy meals.

Despite these challenges to accessing and affording healthy food, assessment participants also mentioned efforts in recent years that have helped to enhance the availability and affordability of healthy food options in the neighborhoods served by Boston Children’s. Interviewees noted that the number of community gardens has increased, farmer’s markets are booming, and food pantries have begun offering more produce. Several also mentioned the Boston Bounty Bucks program which makes fruits and vegetables more accessible to lower income residents.

According to the Boston High School Youth Risk Behavior Survey, across all Boston high school students, over 50% of students reported that they ate fruit at least once a day, with White students more likely to have eaten fruit at least once a day (65.2%) (Figure 23). Generally, students were less likely to report eating vegetables at least once a day when compared to eating fruit, with the exception of Asian students, almost 70% of whom reported that they ate vegetables at least once a day.

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*“Soda is on sale and sugary snacks are on sale, whereas organic food costs two to three times more than non-organic food.”*

–Key informant interviewee

*“Do folks know what to do with vegetables and fruits and being creative with cooking them? Do you know how to make broccoli in a diverse way or how to cook with a beet? **That piece is missing.**”*

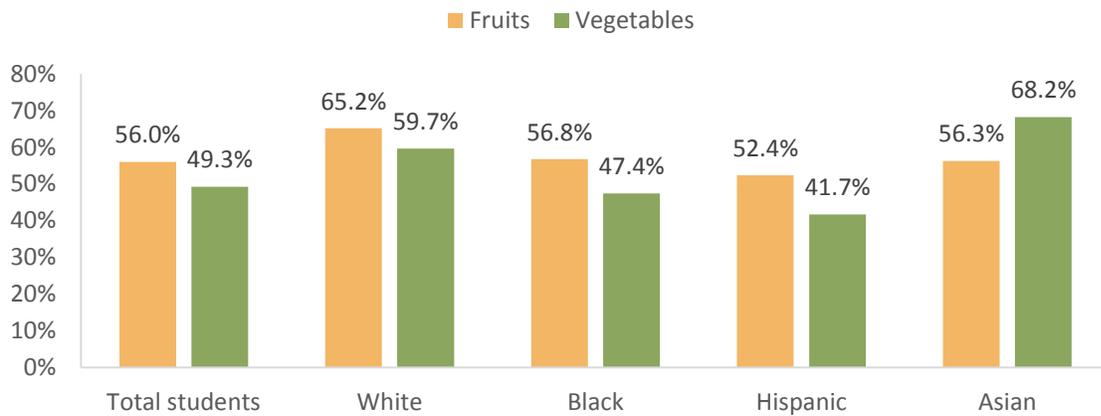
–Key informant interviewee

*“There’s also very **limited physical activity during school time** – I’m sure it’s due to requirements and limits of time. **But also after school** – I’m not sure if it’s **lack of knowledge of opportunities.**”*

–Key informant interviewee

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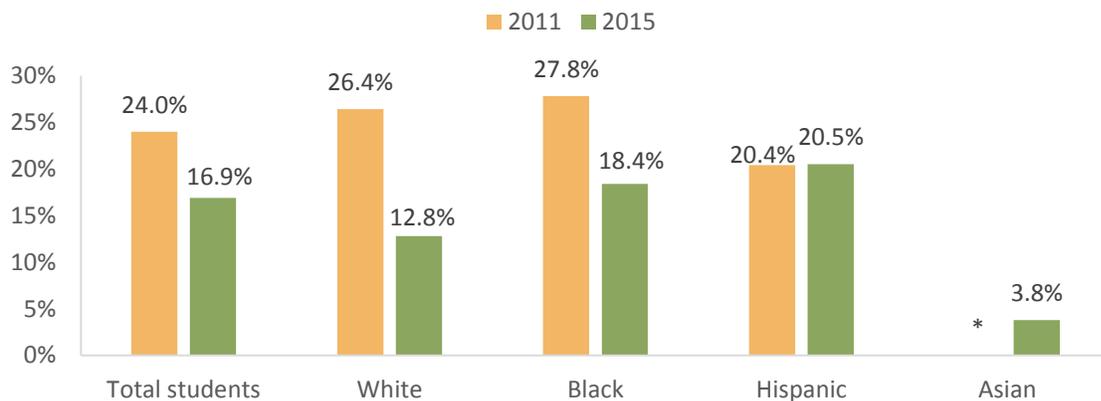
**Figure 23. Percent Boston Public High School Students Reporting Fruit/100% Fruit Juice and Vegetable Consumption One or More Times per Day in Past Seven Days, by Race/Ethnicity, 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2015  
 NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races

As shown in Figure 24, between 2011 and 2015 there was a decrease in reported soda consumption among students in Boston overall from 24.0% to 16.9%. Soda consumption was highest among Hispanic students and slightly more students reported soda consumption in 2015 (20.5%) than in 2011 (20.4%).

**Figure 24. Percent Boston Public High School Students Reporting Soda Consumption One or More Times per Day in Past Seven Days, by Race/Ethnicity, 2011 and 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

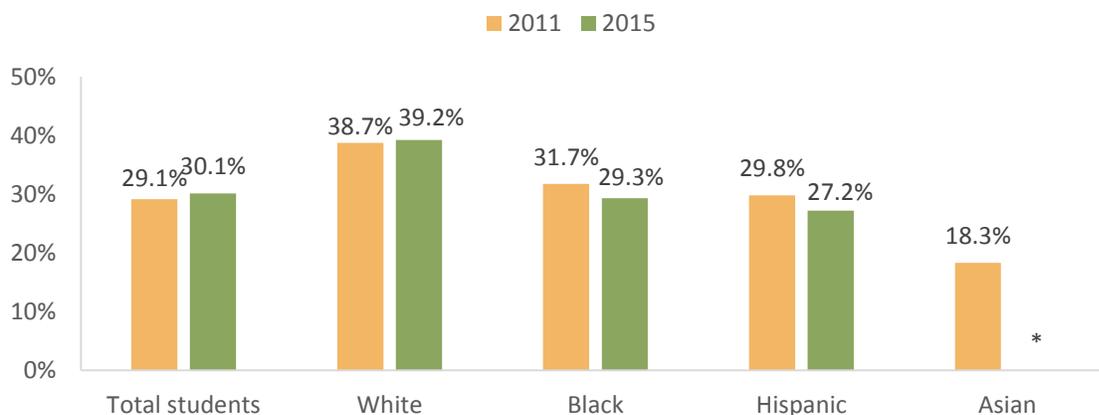
NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

When asked about opportunities for physical activity, some participants noted that options are limited for those with lower incomes. According to participants, community violence and concerns about safety discourage some from playing or exercising outdoors. Although some neighborhood YMCAs were reported to provide free and low cost programming, others were reported to be out of economic reach for many families, as are private gyms. Participants also shared that while community centers offer

recreational opportunities, those in some neighborhoods are under-utilized. The role of schools in promoting physical activity was reported by some participants to be limited, given that there is not much time during the school day for physical activity and not every school offers free afterschool sports programs. Participants, however, mentioned a couple of citywide youth sports programs that are free or low cost, including the swim program run by Boston Centers for Youth and Families.

The percent of students who reported getting recommended levels of physical activity was approximately 30% in 2015, which was slightly higher than it was in 2011 (Figure 25). Across race and ethnicity, Black and Hispanic students reported lower levels of physical activity compared to students of other races and ethnicities in 2015.

**Figure 25. Percent Boston Public High School Students Reporting At Least 60 Minutes of Physical Activity per Day on Five or More Days, by Race/Ethnicity, 2011 and 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2015 (denoted by asterisk)

## Obesity

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*“Obesity is still a huge challenge – we’re not making the headway I would have thought.”*

– Key informant interviewee

*“You have chronic disease [like] obesity and so far there’s been a lot of work legislatively, [for example around] vending machines... [and] making sure children are being physically active...”*

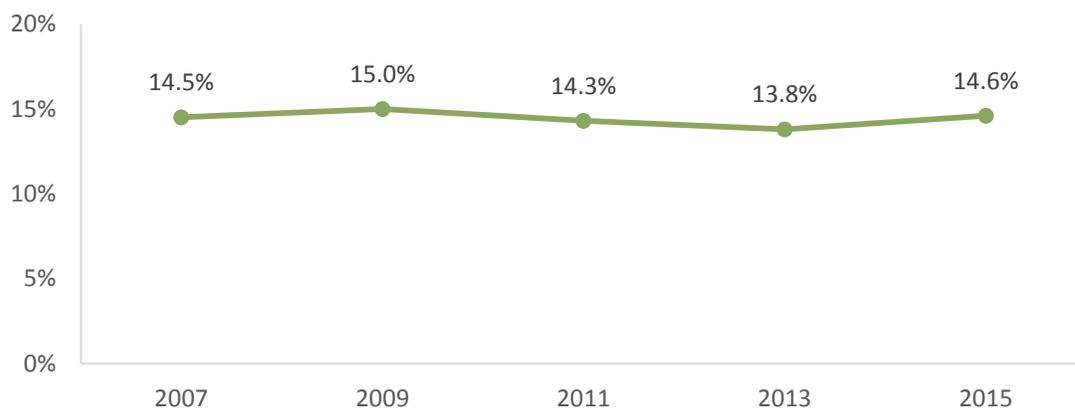
– Key informant interviewee

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The challenge of obesity, especially for children and youth, was identified as a concern in some interviews and community sessions. A few participants noted that addressing childhood obesity requires a long-term commitment, and that improvements may occur slowly; as one interviewee stated: “we have been working on the obesity issue for a while, but again it’s something that we have to keep at it”. Another interviewee noted that progress has been made to change policies that affect childhood obesity, such as vending machine regulations. Assessment participants connected childhood obesity to diet and exercise.

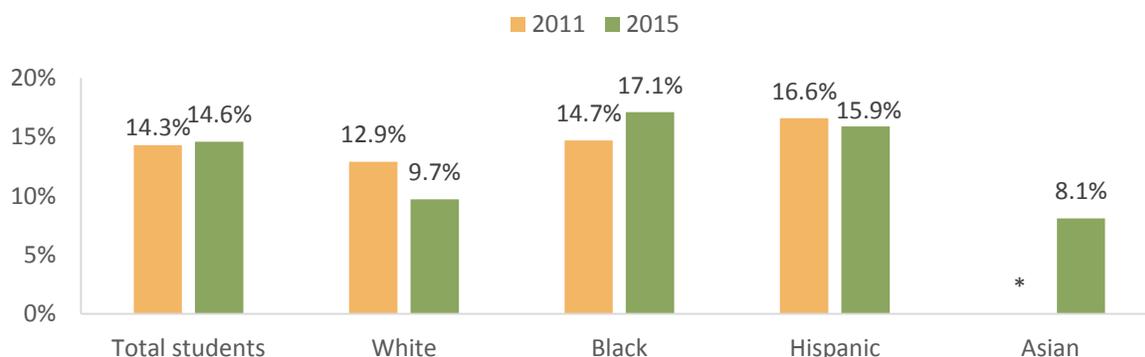
In 2015, the percent of Boston high school students who self-reported that they were obese was 14.6% (Figure 26). When obesity rates among Boston high school students are examined over time, it is evident that rates have remained fairly stable between 2007 and 2015 with some slight variation (Figure 26). However, it should be noted that racial/ethnic disparities in obesity rates exist. For example, between 2011 and 2015, the percent of obese students decreased by 3.2% among White students and increased by 2.4% among Black students, who were most likely to report being obese (Figure 27).

**Figure 26. Percent Boston Public High School Students Reported to be Obese, 2007-2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2007, 2009, 2011, 2013, and 2015

**Figure 27. Percent Boston Public High School Students Reported to be Obese, by Race/Ethnicity, 2011 and 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

## ***Asthma and Allergies***

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***Asthma leads to missed school, which affects parents having to miss work; it's the cycle of economic hardship."***

– Key informant interviewee

***"There are a lot of people who believe children can't do anything physical if they have asthma. Boston Children's brought together community health centers around this issue to eliminate this myth among Latino, Caribbean, and African American families."***

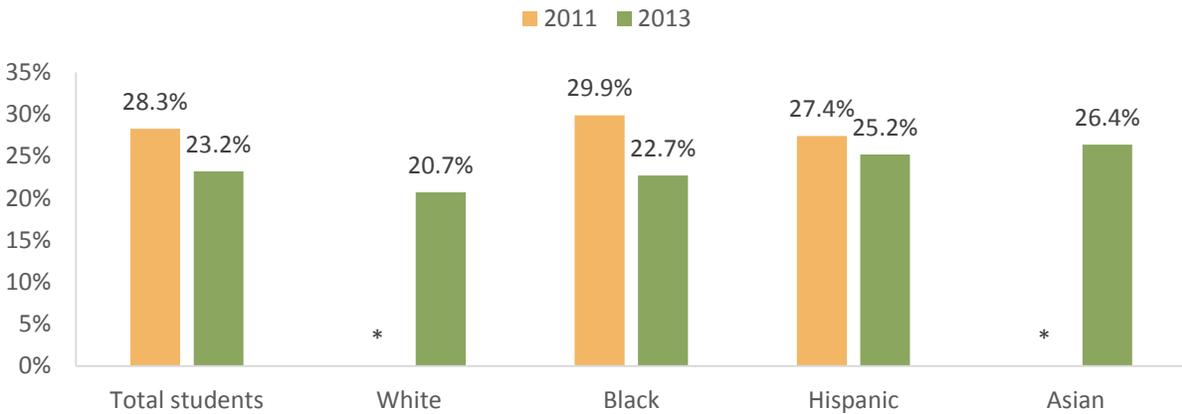
– Key informant interviewee

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As in the 2013 assessment, a number of interviewees and community members identified asthma as a community health concern, particularly among residents of color. The number of children with asthma was reported to be high, especially in Dorchester and Roxbury, and was linked to environmental exposures and substandard housing found in poorer neighborhoods. While childhood asthma was an ongoing concern, some assessment participants described the work that Boston Children's has done to encourage physical activity among children with asthma. However, interviewees noted that more needs to be done around pediatric asthma. Assessment participants cited some specific areas for additional work to address childhood asthma, including focusing on policy and regulations for healthy housing, improving access to asthma medication, conducting outreach to and engagement of parents, creating linkages between schools and primary care, and developing tobacco cessation programs. A couple of focus group participants also noted that the number of children and youth with life-threatening allergies seems to have increased, and stated that information and training on how to care for children with allergies is needed.

In 2013, less than one quarter (23.2%) of Boston public high school students reported having asthma, a decrease from 2011 when close to one third (28.3%) of students reported to have asthma (Figure 28). When looking across race and ethnicity in 2013, self-reported asthma diagnoses were highest among Asian students (26.4%).

**Figure 28. Percent Boston Public High School Students Reporting Asthma Diagnosis, by Race/Ethnicity, 2011 and 2013**

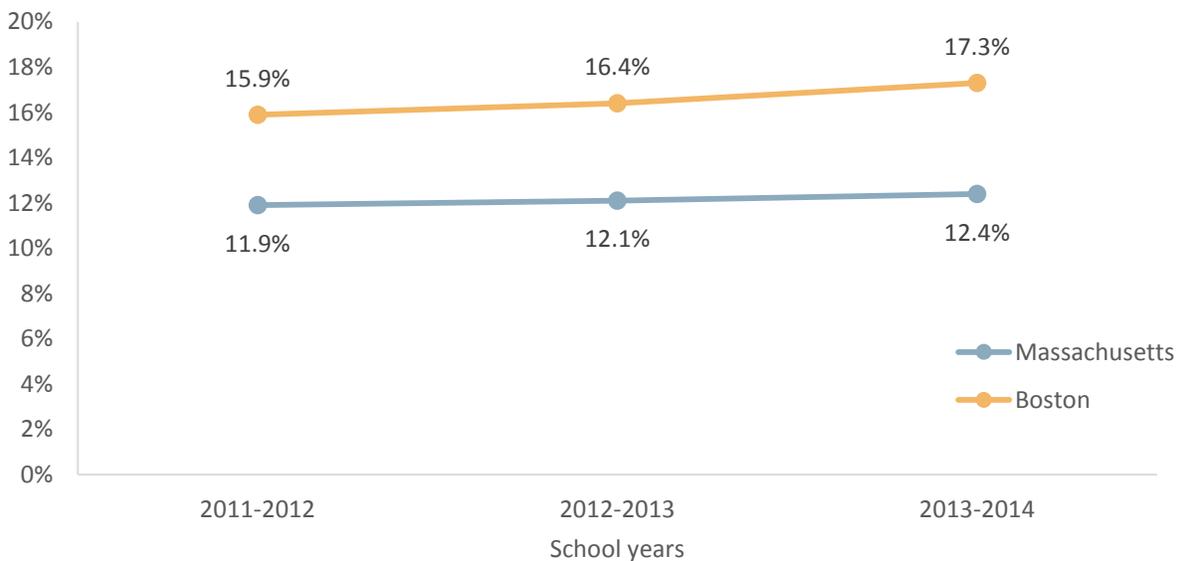


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2013

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; White and Asian for 2011 (denoted by asterisk)

Figure 29 compares statewide trends in pediatric asthma prevalence to trends in the city of Boston. Rates of pediatric asthma in Boston and in Massachusetts increased slightly between the 2011-2012 school year and the 2013-2014 school year. The rates remained higher in Boston than those in Massachusetts overall, and this disparity has grown between the school years.

**Figure 29. State and City Trends in Pediatric Asthma Prevalence Among Children and Youth (Ages 5-14), Massachusetts and Boston**



DATA SOURCE: Massachusetts Department of Public Health, Bureau of Environmental Health, Massachusetts Environmental Public Health Tracking

NOTE: Data includes public, charter, and private schools

In contrast, as reported in the 2014-2015 Health of Boston Report, between 2008 and 2012 asthma hospitalization rates significantly decreased for the 0-2 age group, and did not change significantly for the age groups 3-5 and 6-17.<sup>iii</sup> Additionally, asthma emergency department (ED) visits have decreased over time. The rate of asthma ED visits across younger age groups significantly decreased from 2008-2012; however, Black and Latino children experienced higher rates of asthma ED visits than White children.<sup>iv</sup> See Appendix D for relevant Figures from the 2014-2015 Health of Boston Report.

### Behavioral Health

Behavioral health issues, including mental health and substance abuse, were raised during many interviews, focus groups, and community meetings.

#### **Mental Health**

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*“Something we’ve seen that’s always existed is **mental health**, but this is an issue that we are seeing more acutely or it’s increasing... **Something traumatic is happening with youth**. And this is also something that’s starting **at earlier ages**.”*

– Key informant interviewee

*“We are seeing a lot **more infants and toddlers** showing signs of **stress and anxiety**. Perhaps it’s stemming from Mom’s mental health.”*

– Key informant interviewee

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Focus group participants and key informants identified mental health and lack of access to mental health services as substantial concerns in the neighborhoods served by Boston Children’s. Anxiety, depression, and trauma were identified as the most common mental health concerns in the community. Lack of employment options, poverty, community violence, and isolation all contribute to this, according to participants. Those working with children and youth reported a rise in mental health issues in these age groups. As one interviewee explained, *“even at the preschool level, we are seeing a lot of children who are dealing with a lot of stuff, whether that manifests itself in behaviors in the classroom or they need more support and help.”*

Interviewees and residents alike reported that the neighborhoods served by Boston Children’s lack enough mental health providers to address the need, especially those who serve lower-income populations and those who serve children and youth. As a result, according to participants, many residents with mental health concerns are undiagnosed or go untreated. The cost of mental health care and medications was also reported as a barrier to care for many lower income residents. This challenge is made worse, according to a couple of participants, because primary care providers are often not able to address these issues. As one member of a community discussion observed, *“behavioral health is so poorly taken care of on the health care side.”* Finally, participants shared that the stigma associated

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*“One hour spent with a patient to provide **mental health counseling is not reimbursable care**. So hospitals can’t [bill for] mental health services.”*

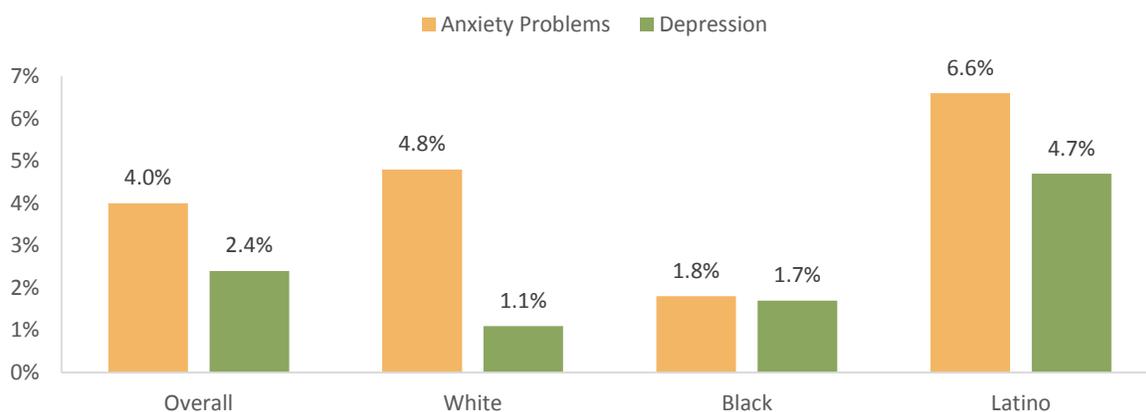
- Key informant interviewee

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with mental illness as well as a lack of trust in doctors among some residents, prevents the identification and treatment of mental health concerns. As one focus group participant summarized: *“people have been taught to keep things at home.”* A few participants mentioned a need for more behavioral health providers from communities of color and training and support to enhance cultural competency.

According to the Boston Survey of Children’s Health, as shown in Figure 30, about 4% of Boston children had diagnoses related to anxiety and about 2% had been diagnosed with depression. Rates of anxiety and depression diagnoses were highest among Latino children.

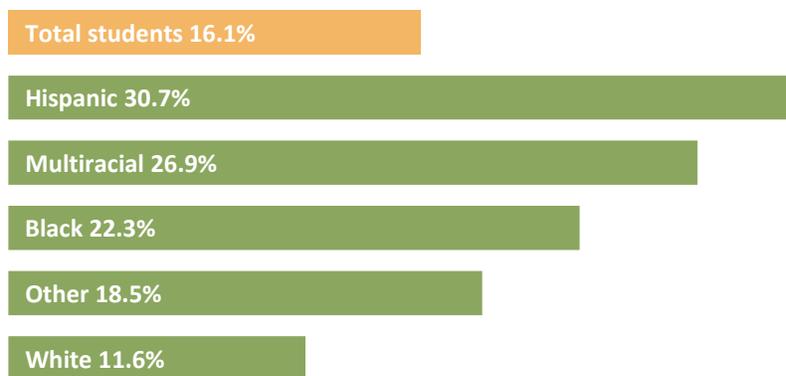
**Figure 30. Self-Reported Behavioral Health Diagnoses of Children and Youth (Ages 2-17), Boston, by Race/Ethnicity, 2012**



DATA SOURCE: Boston Survey of Children's Health, 2012, as reported in Health of Boston's Children Report  
 DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

According to the Massachusetts Youth Health Survey, about 16% of middle school students statewide reported feeling sad or hopeless almost every day for two weeks or more in a row during the past year, as shown in Figure 31. Hispanic and multiracial students reported they felt sad or hopeless more often than students of other races and ethnicities.

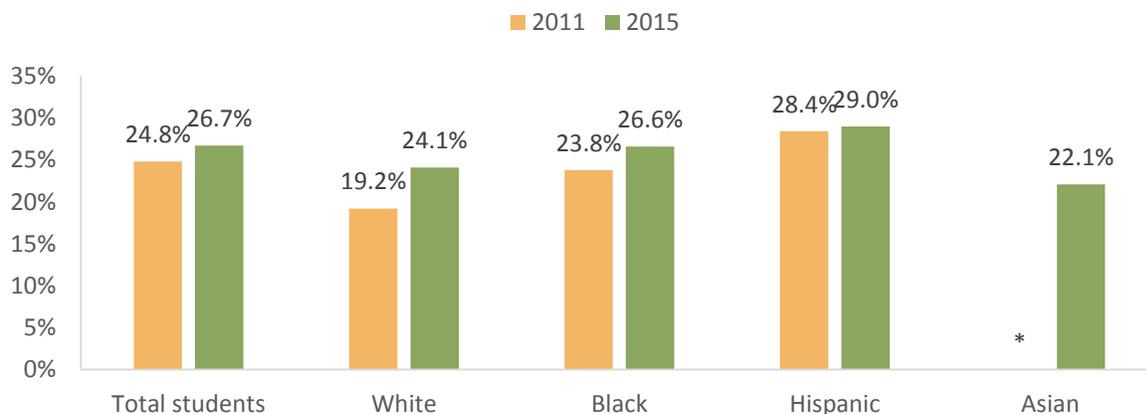
**Figure 31. Percent Massachusetts Middle School Students Reporting Feeling Sad or Hopeless for Two or More Weeks, by Race/Ethnicity, 2013**



DATA SOURCE: Massachusetts Department of Public Health, Massachusetts Youth Health Survey, 2013, as reported in A Profile of Health Among Massachusetts Middle and High School Students, 2013

The Boston High School Youth Risk Behavior Survey shows that the percent of high school students citywide who reported feeling sad or hopeless for two or more weeks increased from about 25% to about 27% between 2011 and 2015 (Figure 32); the largest increase occurred among White students. In both 2011 and 2015, Hispanic high school students were most likely to report feeling sad or hopeless (28.4% and 29.0%, respectively).

**Figure 32. Percent Boston Public High School Students Reporting Feeling Sad or Hopeless for Two Weeks, by Race/Ethnicity, 2011 and 2015**

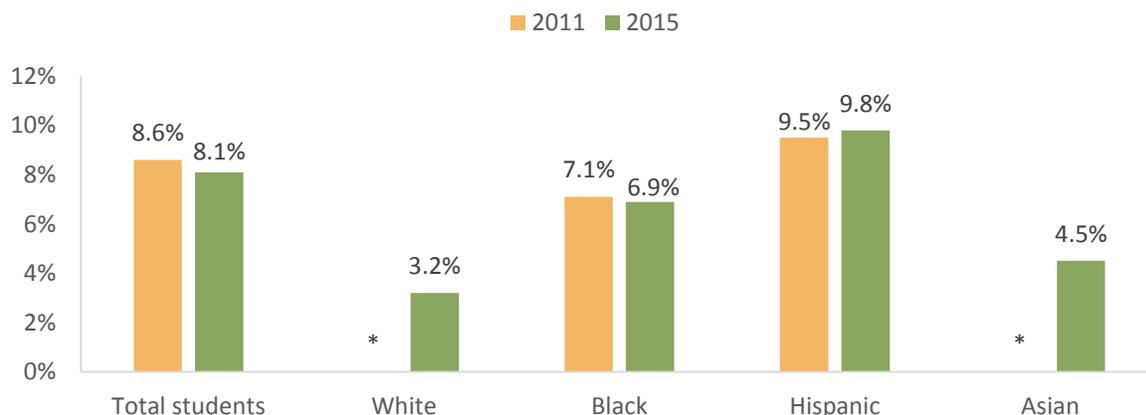


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

As shown in Figure 33, the percent of Boston high school students who reported to have attempted suicide decreased from 8.6% to 8.1% between 2011 and 2015; however, the percent of Hispanic students reporting attempted suicide increased slightly during this time period.

**Figure 33. Percent Boston Public High School Students Reporting Attempted Suicide, by Race/Ethnicity, 2011 and 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and White and Asian for 2011 (denoted by asterisks)

## Substance Use and Abuse

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*“There is a significant percentage of our families struggling with substance abuse – **those are children that are the highest need.**”*

– Key informant interviewee

*“There is some heroin but in teenagers it’s much less common than the young adults. We really see folks using **opioids, Valium, Ativan, drugs like that.**”*

– Key informant interviewee

*“For the parents of **substance-exposed infants**, we see opioids, but many parents also have a mental health disease – and so the infant is exposed to lots of psychoactive drugs as well.”*

– Key informant interviewee

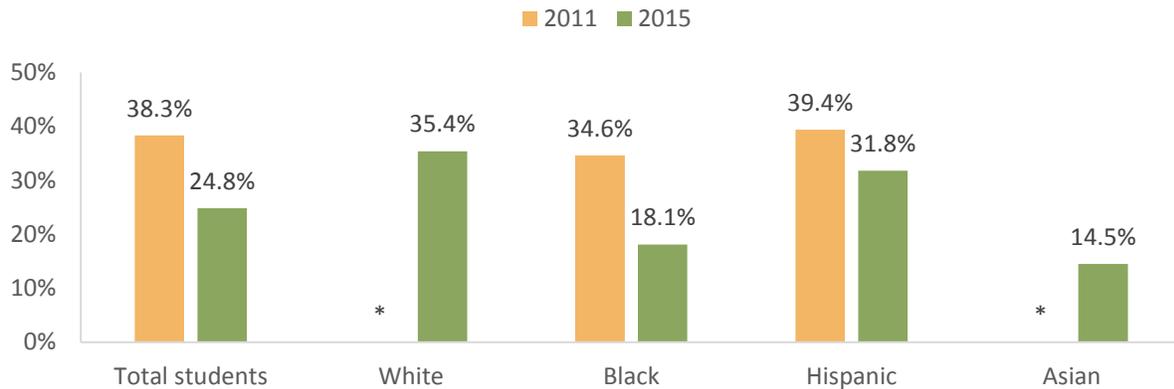
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Assessment participants also reported substantial concern about rising rates of substance abuse in the communities served by Boston Children’s, a challenge closely related to mental health. The prevalence of opioids was specifically noted. As with mental health, interviewees shared concern about increasing numbers of children and youth with substance use issues. For example, one interviewee mentioned an increase in use of opioids among youth in Dorchester. Some interviewees shared that a growing number of children are born exposed or addicted to substances. Participants also described the continued effect that parental substance abuse can have on children, and noted that substance abuse can lead to fragmentation of families. Youth focus group participants reported that rates of drug use, smoking (both tobacco and marijuana), and drinking are high among their peers.

As with mental health concerns, lack of providers and services was noted as a barrier to addressing substance use issues in the community. Residents of the Jamaica Plain focus group stated in their community session that a lot of substance abuse treatment programs in the neighborhood have closed. Participants from throughout the neighborhoods served by Boston Children’s identified a need for drop-in centers, more and earlier prevention programs, and programs to help youth transition from in-patient programs back to the community.

According to the Boston High School Youth Risk Behavior Survey, the percent of students who reported to be currently drinking alcohol decreased from 38.3% to 24.8% between 2011 and 2015 (Figure 34). In 2015, the percentages of White and Hispanic students who reported alcohol use (35.4% and 31.8%, respectively) were higher than that of all students (24.8%).

**Figure 34. Percent Boston Public High School Students Reporting Current Alcohol Use, by Race/Ethnicity, 2011 and 2015**

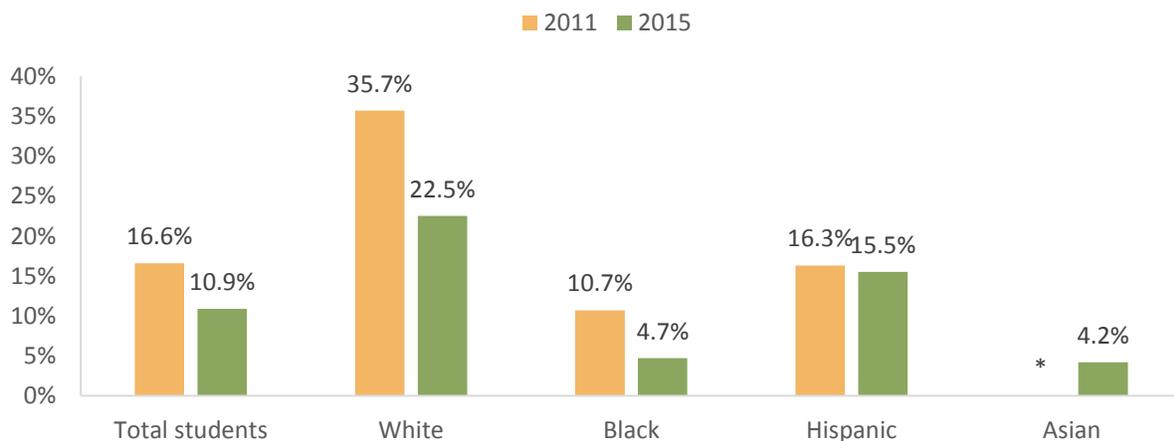


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and White and Asian for 2011 (denoted by asterisks)

Quantitative data also show that Boston high school students in 2015 were less likely to report binge drinking than in 2011 (Figure 35). Despite a decrease in the percent of students reporting binge drinking, White students remained the most likely to report binge drinking in 2015 (22.5% compared to 10.9% overall).

**Figure 35. Percent Boston Public High School Students Reporting Binge Drinking, by Race/Ethnicity, 2011 and 2015**

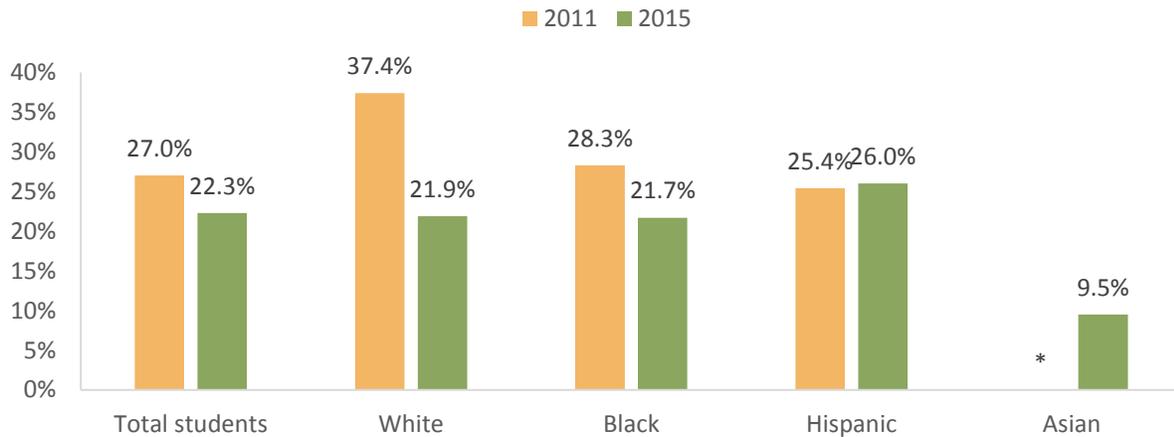


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

Between 2011 and 2015 the percent of Boston high school students who reported to currently use marijuana also decreased from 27.0% to 22.3%, as shown in Figure 36. However, the percent of Hispanic students who reported marijuana use increased slightly between 2011 and 2015 (25.4% and 26.0%, respectively).

**Figure 36. Percent Boston Public High School Students Reporting Current Marijuana Use, by Race/Ethnicity, 2011 and 2015**

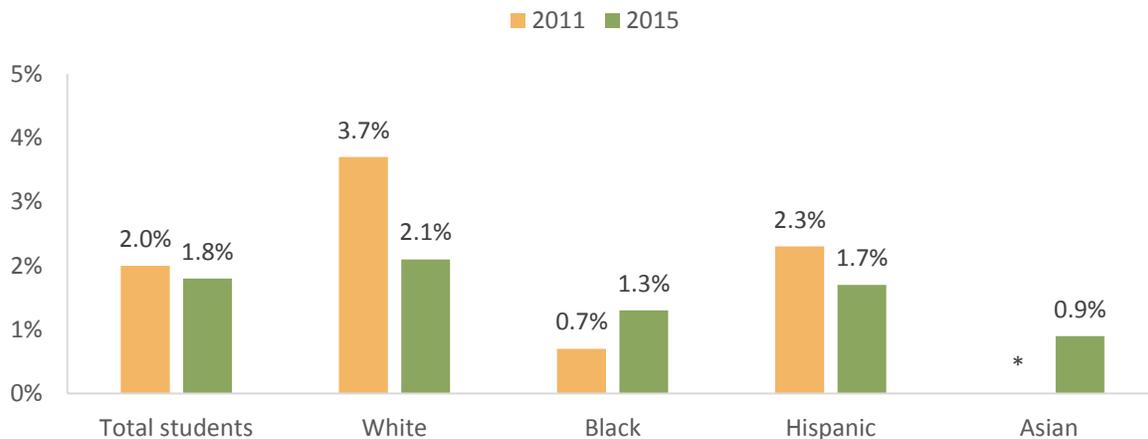


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

Figure 37 shows that the percent of Boston high school students who had ever used heroin decreased from 2.0% to 1.8% between 2011 and 2015; however this percentage increased among Black students during this time period. In 2015, compared to students of other races and ethnicities, a higher percentage of White students reported they had ever used heroin (2.1%).

**Figure 37. Percent Boston Public High School Students Reporting to Have Ever Used Heroin, by Race/Ethnicity, 2011 and 2015**

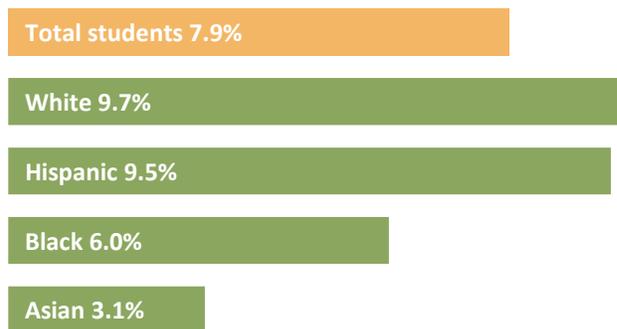


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

In 2015, almost 10% of White and Hispanic students reported ever having used prescription drugs without a doctor’s prescription, compared to about 8% of high school students citywide (Figure 38).

**Figure 38. Percent Boston Public High School Students Reporting to Have Ever Taken Prescription Drugs Without Doctor's Prescription, by Race/Ethnicity, 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2015

NOTE: Prescription drugs include Oxycontin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax; Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races

### Violence and Trauma

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*“It seems harder and harder for parents and caregivers to shield their children from the reality of their circumstance; **it’s harder for parents to raise children and have them just be children.**”*

– Key informant interviewee

*“[It] seems like [there are] a lot of mental people. **My friend was made fun of in school and feels bad.** It’s depressing not being able to help those with mental problems.”*

– Youth focus group participant

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A prominent theme across interviews and community conversations was the effect that community violence and trauma has on youth. While closely connected to mental health, community violence, and trauma were identified by assessment participants as unique and key concerns for children and youth. As noted previously, over one third (33.3%) of respondents to the Community Voices youth survey rated community violence as a top health issue for their communities (Figure 22). Youth focus group participants spoke about how violence and the death of loved ones due to violence has contributed to high levels of stress and depression among teens. Interviewees likewise identified high levels of trauma and PTSD among children and youth exposed to street violence, as well as those experiencing homelessness and extreme poverty. Participants also noted that national events and unrest can affect youth locally.

Assessment participants described a lack of activities for children and youth, including after school programs, and employment opportunities. Participants suggested that this lack of options for activities

contributes to community violence, as well as substance abuse and risky sexual behavior, among children and youth in the community. While participants stated that organizations such as YMCAs and Boys & Girls Clubs provide critical programming to children and youth, they reported that more is needed.

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*“Kids are getting in trouble because there is no place to go.”*  
 - Focus group participant

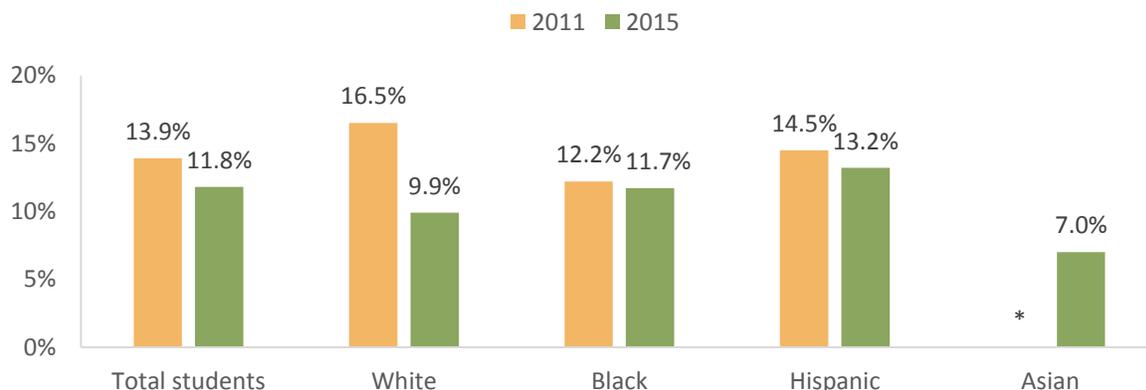
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Interviewees and community members reported that specialized services to address trauma after a violent event has occurred were especially needed. A few interviewees reported that some efforts are in place to begin to address trauma, including Boston Children’s work with schools on mental health issues and the Boston Public Health Commission’s partnership with community health centers to provide trauma response and trauma-informed care. Community-based programs such as the Hyde Square Task Force and the Talented and Gifted Latino Program were also mentioned by participants for their work with youth experiencing trauma. However, assessment participants described a need for more trauma-based partners that focus on addressing the effects of trauma.

Children and youth in protective care were identified as an underserved population in a couple of discussions. The number of children in protective care is rising, according to respondents, but the system is not prepared for them. Participants noted that there are fewer foster homes than needed and many children and youth have unaddressed trauma and developmental delays, or are disabled.

While data on community violence and youth trauma is limited, data on bullying, fights, and dating violence are available from the Boston High School Youth Risk Behavior Survey. As shown in Figure 39, the percent of high school students citywide who reported being bullied on school property decreased from 13.9% to 11.8% between 2011 and 2015. The largest decrease in percentage of students reporting bullying was among White students. Hispanic students most often reported bully victimization on school property in 2015 (13.2%). As shown in Figure 40, about 8% of high school students reported having been electronically bullied in 2015, a decrease from 10.8% in 2011. White students most often reported electronic bully victimization in 2015 (12.8%).

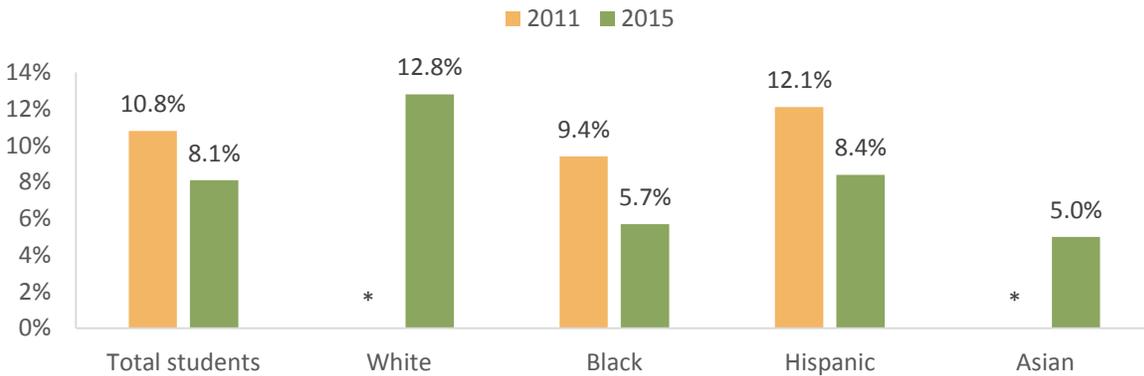
**Figure 39. Percent Boston Public High School Students Reporting Being Bullied on School Property in Past 12 Months, by Race/Ethnicity, 2011 and 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

**Figure 40. Percent Boston Public High School Students Reporting Being Electronically Bullied in Past 12 Months, by Race/Ethnicity, 2011 and 2015**

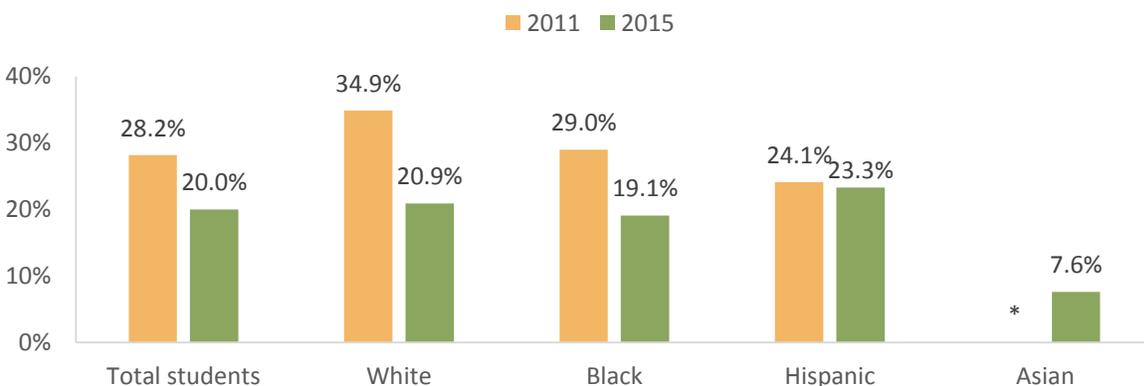


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and White and Asian for 2011 (denoted by asterisks)

In 2015, one in five high school students reported to have been in a physical fight, which was lower than in 2011 (28.2%) (Figure 41). Nearly one in four Hispanic students reported being in a physical fight, which was more often than students of other races and ethnicities. As shown in Figure 42, in 2015, slightly more students reported experiencing sexual dating violence (6.8%) than experiencing physical violence (6.4%). Hispanic students reported the highest rates of both sexual and physical dating violence (7.8% and 8.1%, respectively).

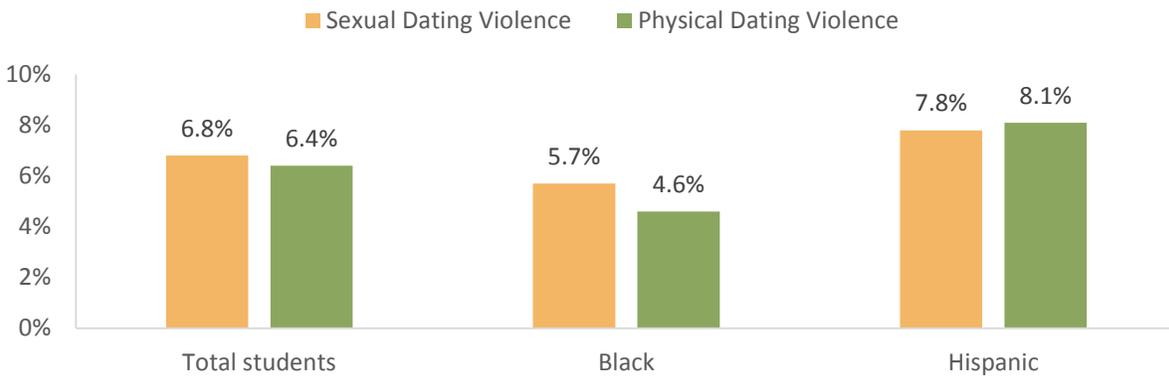
**Figure 41. Percent Boston Public High School Students Reporting Being in a Physical Fight in Past 12 Months, by Race/Ethnicity, 2011 and 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and Asian for 2011 (denoted by asterisk)

**Figure 42. Percent Boston Public High School Students Reporting Sexual and Physical Dating Violence, by Race/Ethnicity, 2015**



DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2015  
 NOTE: Insufficient sample sizes for American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, White, and Multiple races

### Early Childhood and Access to Care

*“We need to level the sandbox, make sure children are getting books, etc., that children in wealthy communities have.”*

– Key informant interviewee

*“We see significant speech and language delays – kids who are not ready for education because they lack access to early intervention services.”*

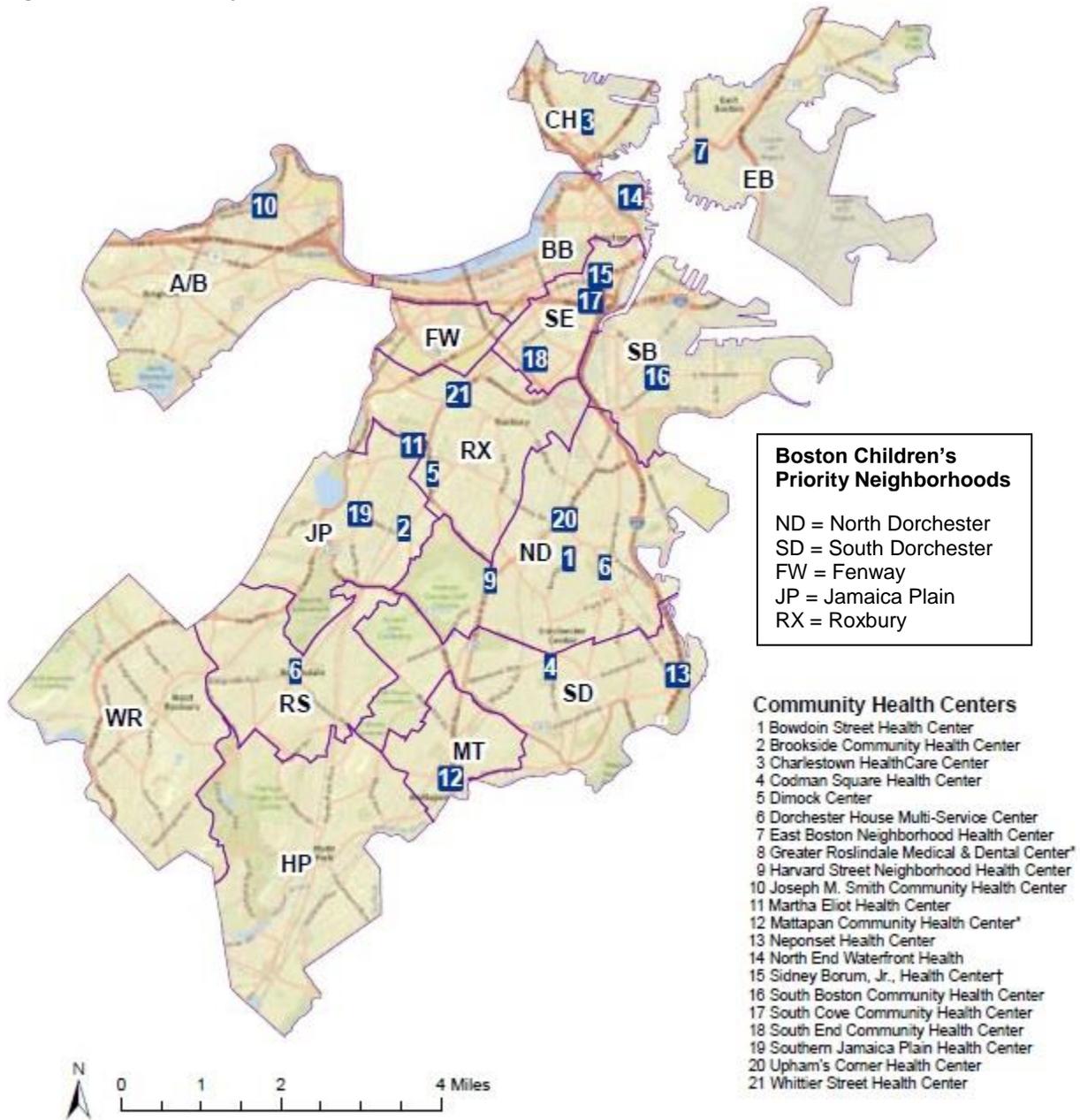
– Key informant interviewee

Early childhood issues and care emerged as a theme in several discussions. Participants shared that many young children in the community have speech and language delays, and are not ready for education. One interviewee indicated that children of color with developmental delays are often identified with these challenges later in their childhood than White children, and stated that education for parents about what to look for in terms of developmental milestones is needed. While some screening efforts are in place, including the citywide *Screen to Succeed* initiative funded in part by Boston Children’s, participants saw a need for more screening, expanded early intervention and early education services, and more programs that support parents and promote healthy child development.

Several respondents noted that immigrants and refugees face substantial barriers to accessing health care in general including language barriers, low levels of education, lack of knowledge about how to navigate the healthcare system, and, for some, undocumented status.

Figure 43 shows a map of community health centers in Boston that provide pediatric care. While the community health centers reached a majority of Boston neighborhoods, proximity to pediatric primary care varied across and within neighborhoods. For example, a cluster of pediatric care centers are located near the border of Jamaica Plain and Roxbury, but there are no pediatric centers along the border of North Dorchester and Roxbury.

**Figure 43. Community Health Centers that Provide Pediatric Care, Boston, 2014**



DATA SOURCE: Boston Public Health Commission Research and Evaluation Office, October 2014

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

MAP CREATED BY: Boston Public Health Commission Research and Evaluation Office

\* Does not provide pediatric behavioral health care services

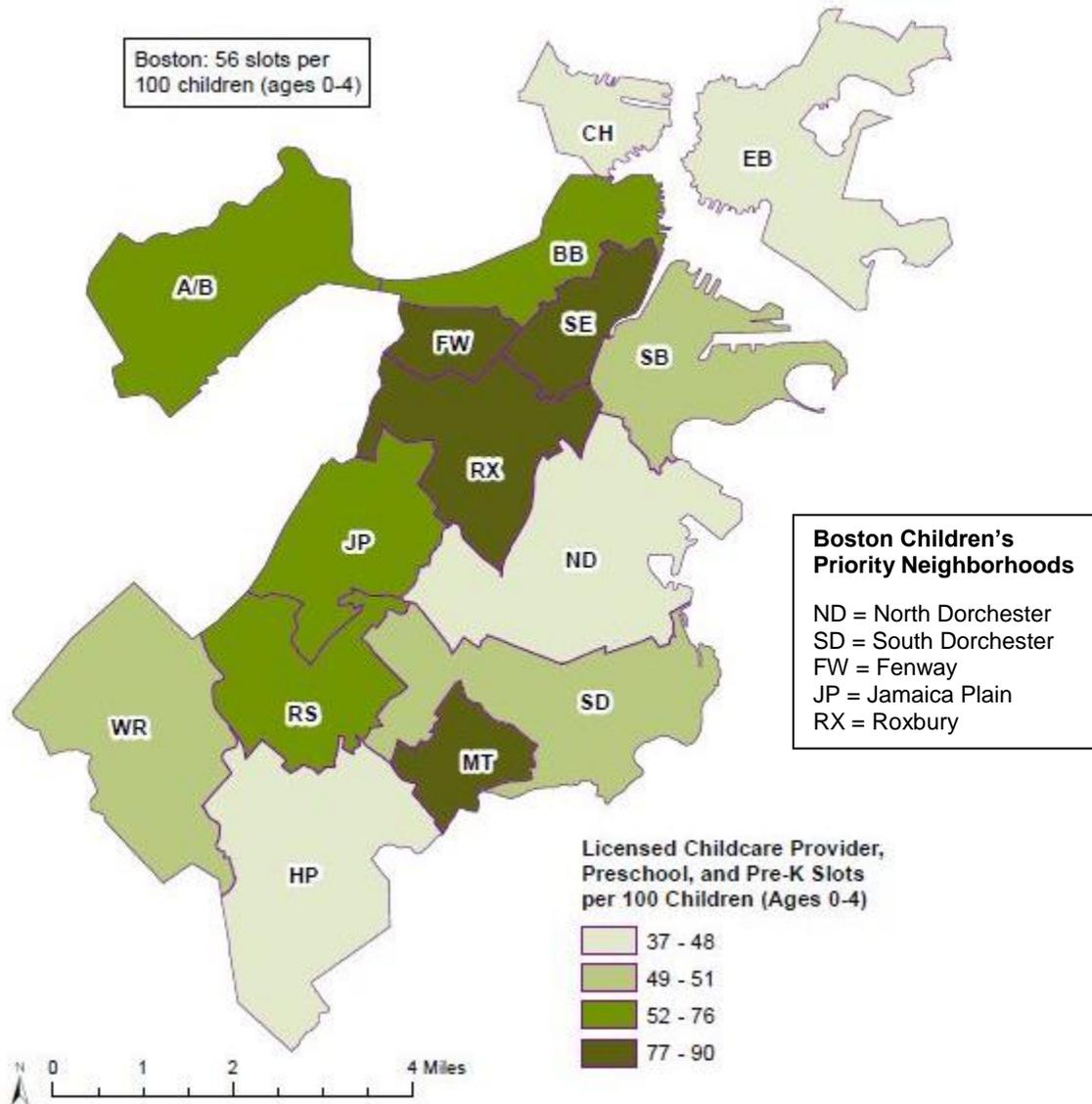
† Provides care only to adolescents ages 12-18 and young adults

NOTE: Community health centers include Federally Qualified Health Centers (FQHCs), "Look-Alikes" (sites that meet all of the eligibility requirements to be a FQHC but do not receive the same federal grant funding), and hospital-affiliated sites.

NOTE: Fenway Health is not included in this map, as it began offering pediatric care services after the map was created in 2014.

Figure 44 shows the rates of licensed childcare providers for children four years old or younger throughout the neighborhoods in Boston. The highest rates of licensed childcare providers per 100 children were in Fenway, South End, Roxbury, and Mattapan.

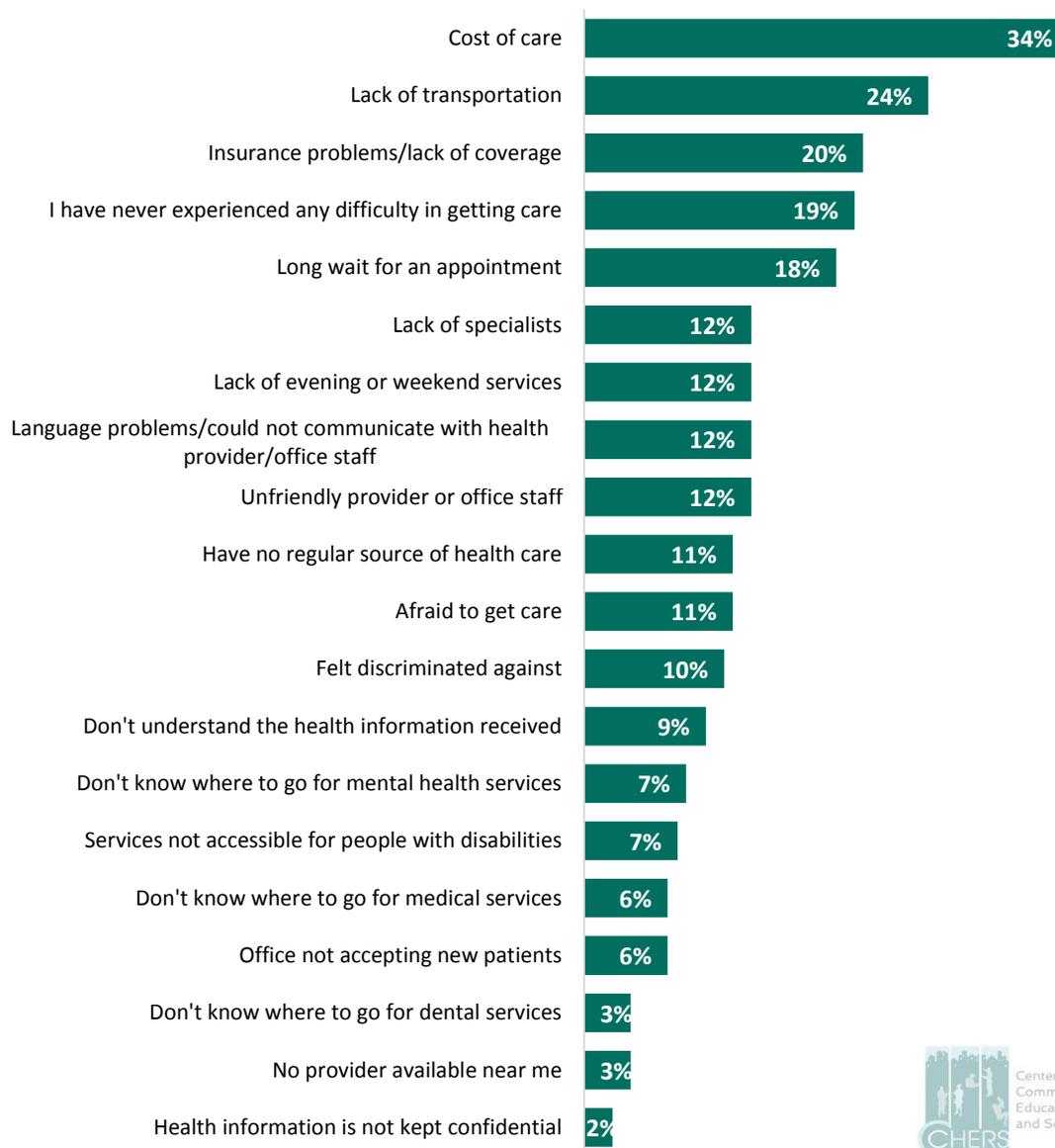
**Figure 44. Licensed Childcare Provider, Preschool, and Pre-K Capacity (Ages 0-4) by Neighborhood, Boston, 2014**



DATA SOURCES: Decennial Census 2010, U.S. Census Bureau, American FactFinder; Massachusetts Department of Early Education and Care, March 2014; Archdiocese of Boston, April 2014; Association of Independent Schools in New England, April 2014; New England Association of Schools and Colleges, April 2014; Boston Public Schools, December 2014; DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office  
 MAP CREATED BY: Boston Public Health Commission Research and Evaluation Office  
 NOTES: Sites that are only available to children of employees of a particular industry or employer, sites that primarily or solely serve children with special health care needs, and sites that provide afterschool care are included. The capacity data for family childcare providers may include children up to age 13 (without special needs) or age 16 (with special needs). Also, the capacity data for some center-based childcare providers and some preschools may include kindergarten-age and school-age children.

Access to general preventive health care services was not raised frequently during the qualitative discussions, although a few respondents noted the lack of options for after-hours care and described a lack of health insurance coverage for certain services like behavioral health services. Respondents to the Community Voices youth survey were asked whether certain issues had made it difficult for them or a member of their families to get needed health services within the last two years. The top barriers to accessing care identified were the cost of care (34.2%), a lack of transportation (24.3%), and insurance problems or lack of coverage (19.7%) (Figure 45).

**Figure 45. Community Voices Survey: Barriers to Accessing Health Services within Last Two Years, Respondent or Family Member (N=152), 2016**



DATA SOURCE: Center for Community Health Education Research and Service, Inc. (CHERS), Community Voices, Community Health Needs Survey, 2016

NOTE: This question allowed for multiple responses (“check all that apply”); therefore the percentages may not sum up to 100%.

## Special Needs Population

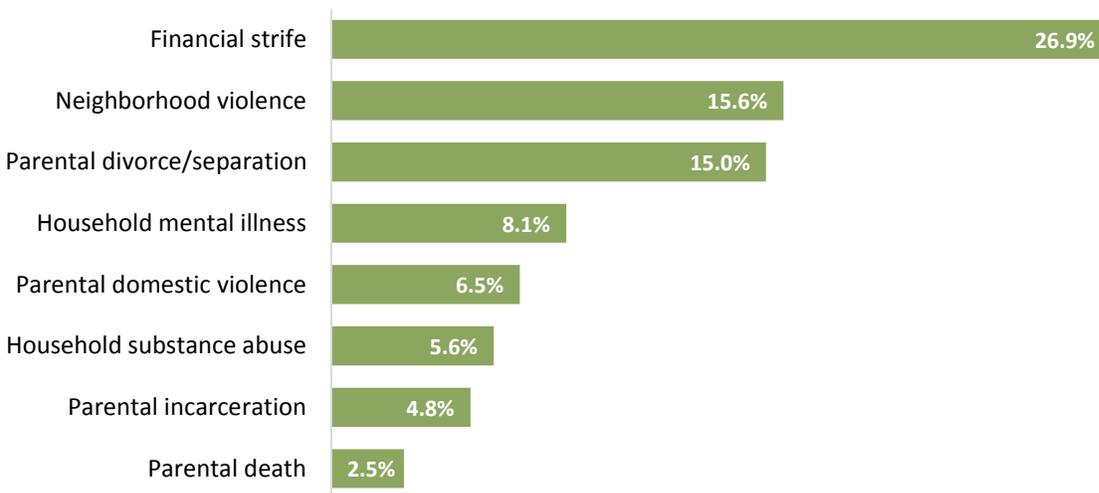
*“As we see more of the **emotional impact** that **housing, and security** have, we see as a direct result a **rise in the diagnosis of special learning needs.... These are kids that don’t have the skills to cope.**”*

– Focus group participant

Children and teens with special health care needs were identified as an underserved population in a couple of focus group discussions. Participants connected special needs to adverse childhood experiences. Participants also noted that the number of students with special needs, including autism and attention-deficit/hyperactivity disorder, is growing and stated that these children often lack after school activities and opportunities for inclusion. Additionally, according to focus group participants, existing systems do not have the staff or capacity to serve these children, and parents, especially those of lower income, do not understand special needs or know how to advocate for their children. Parents of children with special needs shared challenges related to accessing services (including mental health, dentistry, optometry, and therapy such as Applied Behavior Analysis), navigating the system (particularly for non-English-speaking populations), insurance coverage, a lack of skilled nursing staff, and transitioning to adulthood.

According to the 2012 Boston Survey of Children’s Health, almost half of children ages 0 – 17 have encountered adverse childhood experiences, the most common of which was financial strife (Figure 46).

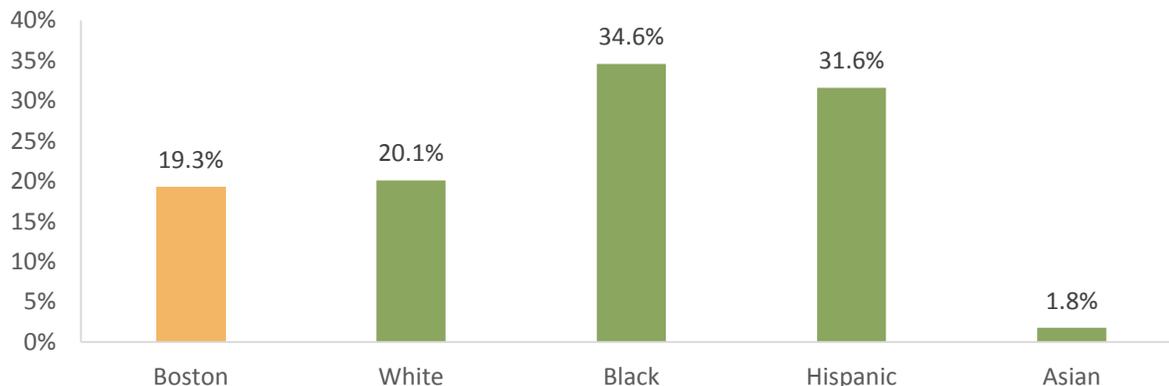
**Figure 46. Self-Reported Adverse Childhood Experiences, Children and Youth (Ages 0-17), Boston, 2012**



DATA SOURCE: Boston Survey of Children's Health, 2012, as reported in Health of Boston's Children Report  
DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

In 2012, almost 20% of children in Boston had special health care needs (Figure 47). Black children were most likely to have special health care needs (34.6%), followed by Hispanic children (31.6%).

**Figure 47. Percent Children and Youth (Ages 0-17) with Special Health Care Needs in Boston, by Race/Ethnicity, 2012**



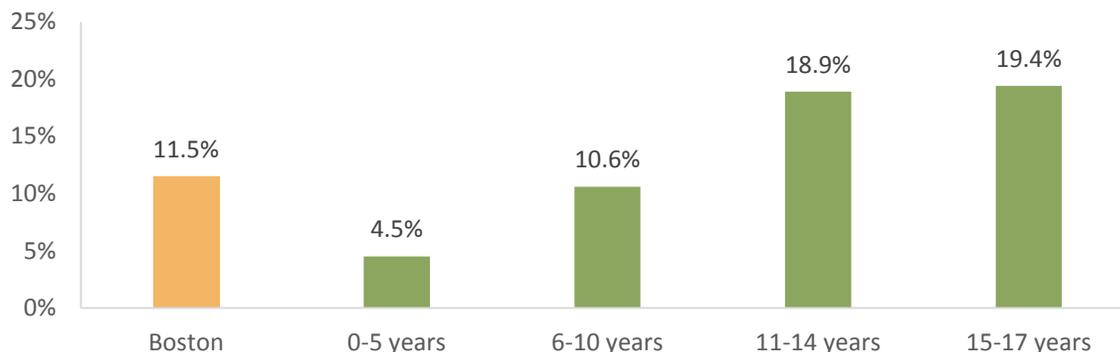
DATA SOURCE: Boston Survey of Children's Health, 2012, as reported in Health of Boston's Children Report

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

NOTE: Data for multiracial/other race are not shown.

Figure 48 shows that in 2012, 11.5% of Boston children were reported to have an Individualized Family Services Plan (IFSP) or Individualized Education Program (IEP). Higher percentages of 11-14 year olds and 15-17 year olds had an IFSP or IEP compared to children in younger age groups; less than 5% of 0-5 year olds had an IFSP or IEP.

**Figure 48. Percent Children and Youth (Ages 0-17) with Developmental Delays Requiring Individualized Family Services Plan (IFSP) or Individualized Education Program (IEP) in Boston, by Age, 2012**



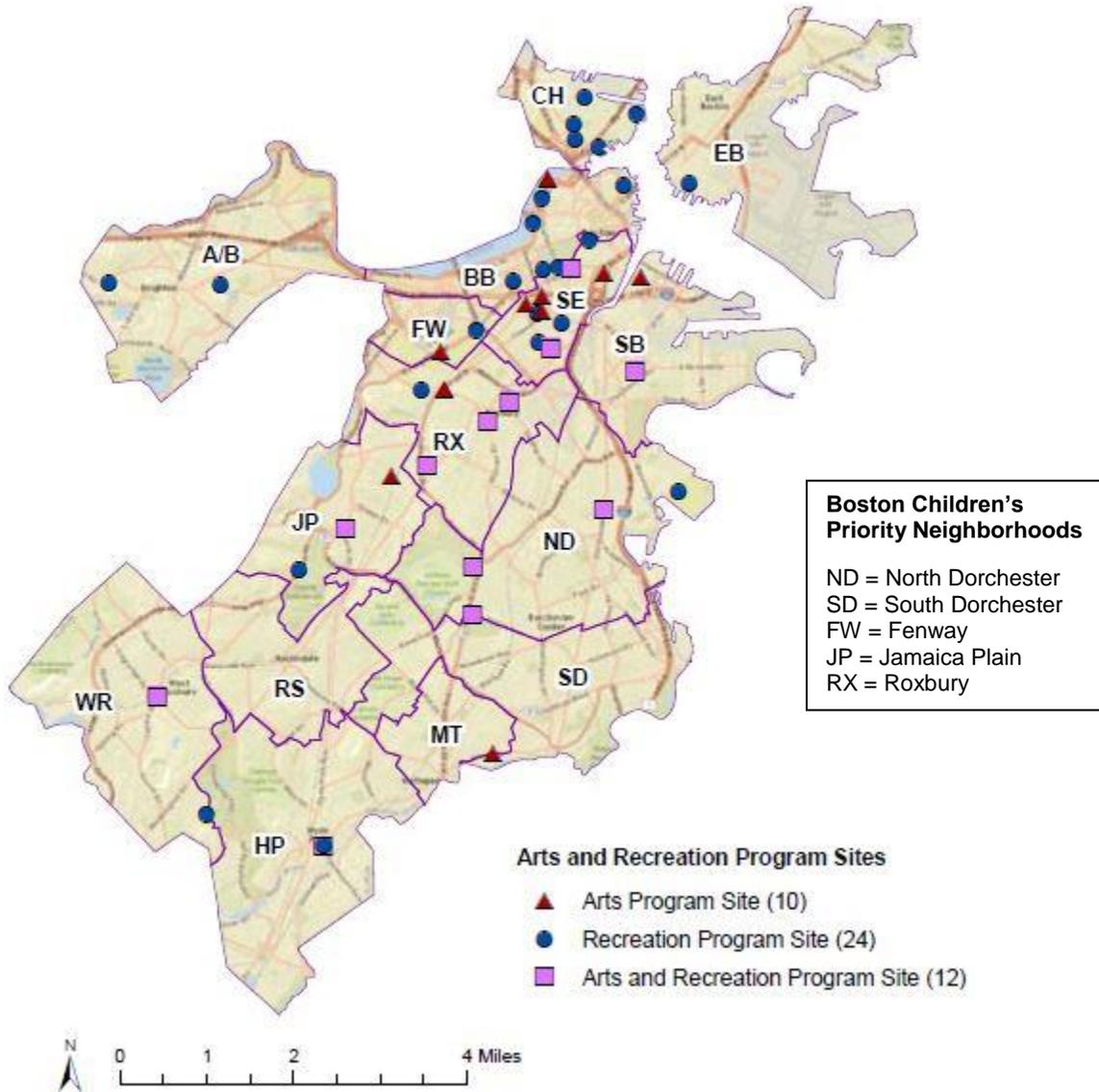
DATA SOURCE: Boston Survey of Children's Health, 2012, as reported in Health of Boston's Children Report

DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office

NOTE: These data are a percent of all Boston children, rather than children with special health care needs only.

Figure 49 shows a map of the distribution of arts and recreation programs for children with special health care needs throughout the neighborhoods of Boston. A majority of arts-specific and recreation-specific program sites were located in Back Bay, Fenway, and South End. Proximity to program sites varied across neighborhoods.

**Figure 49. Arts and Recreation Resources for Children with Special Health Care Needs, Boston, 2014**



DATA SOURCES: Arts and recreation programs from "Directory of Resources for Families of Children and Youth with Special Needs", Family TIES of Massachusetts, April 2014; Eunice Kennedy Shriver Center, University of Massachusetts Medical School, April 2014; Boston After School & Beyond, April 2014  
 DATA ANALYSIS: Boston Public Health Commission Research and Evaluation Office  
 MAP CREATED BY: Boston Public Health Commission Research and Evaluation Office

## Sexual Health, Teen Pregnancy, and Birth Outcomes

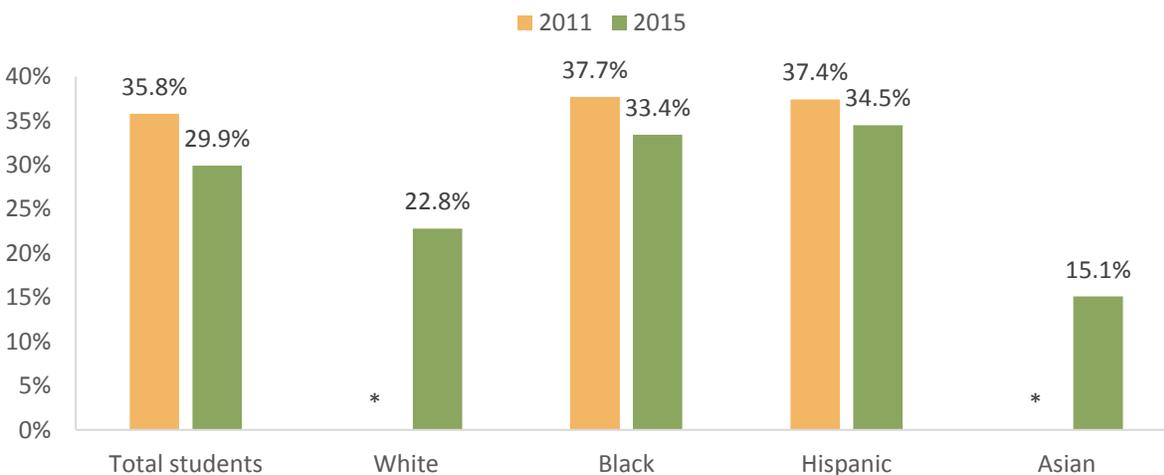
*“If [teenagers] are getting pregnant, it must mean they are **not using protection and are therefore at risk of STDs.**”*

– Focus group participant

While substance use and mental health concerns among teens were of substantial concern to interviewees and community residents, as in the 2013 assessment, other teen health concerns were discussed less often. Only a couple of assessment participants noted high rates of teen pregnancy and sexually transmitted diseases among youth. Among respondents to the Community Voices youth survey, 11.7% identified teen pregnancy as a top health issue for their communities (Figure 22).

According to data from the Boston High School Youth Risk Behavior Survey, less than a third of Boston high school students reported being sexually active in 2015 (29.9%) compared to over a third in 2011 (35.8%) (Figure 50). Black and Hispanic students were more likely to report being sexually active (33.4% and 34.5%, respectively) than students citywide.

**Figure 50. Percent Boston Public High School Students Reporting Being Currently Sexually Active, by Race/Ethnicity, 2011 and 2015**

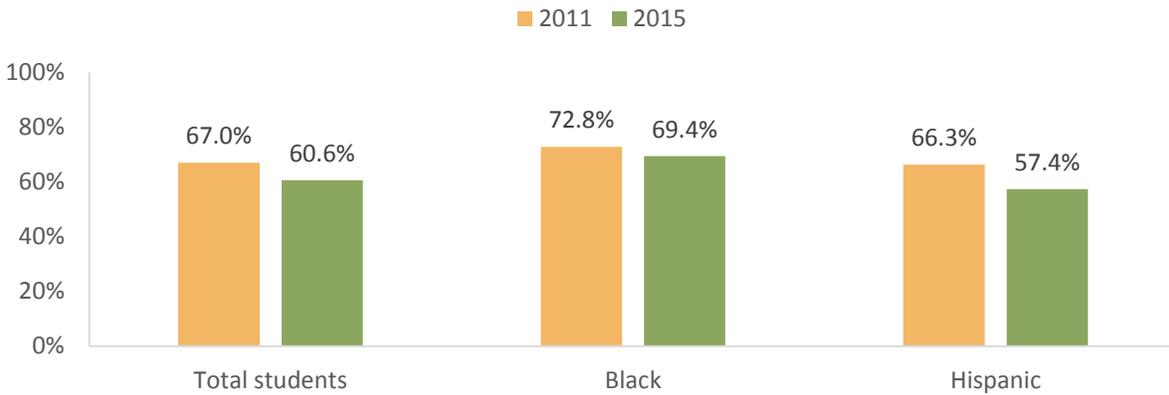


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Multiple races; and White and Asian for 2011 (denoted by asterisks)

In 2015, about 60% of students reported using condoms during sex, which was slightly lower than in 2011 (Figure 51). Black students were more likely to report condom use (69.4%) while Hispanic students were less likely to report condom use (57.4%), compared to students citywide.

**Figure 51. Percent Boston Public High School Students Reporting Condom Use, by Race/Ethnicity, 2011 and 2015**

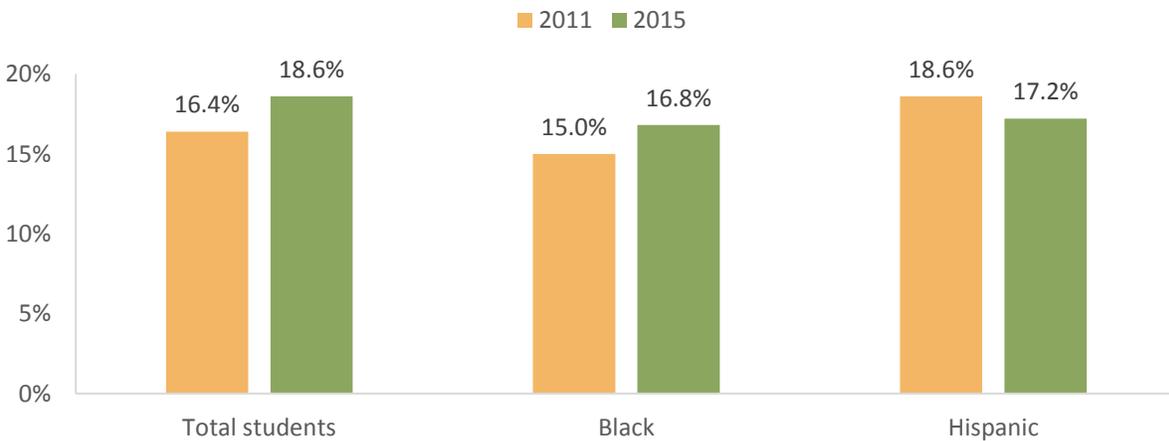


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, White, and Multiple races

Almost 20% of students reported use of birth control pills in 2015, which was slightly higher than in 2011 (Figure 52).

**Figure 52. Percent Boston Public High School Students Reporting Birth Control Pills Use, by Race/Ethnicity, 2011 and 2015**

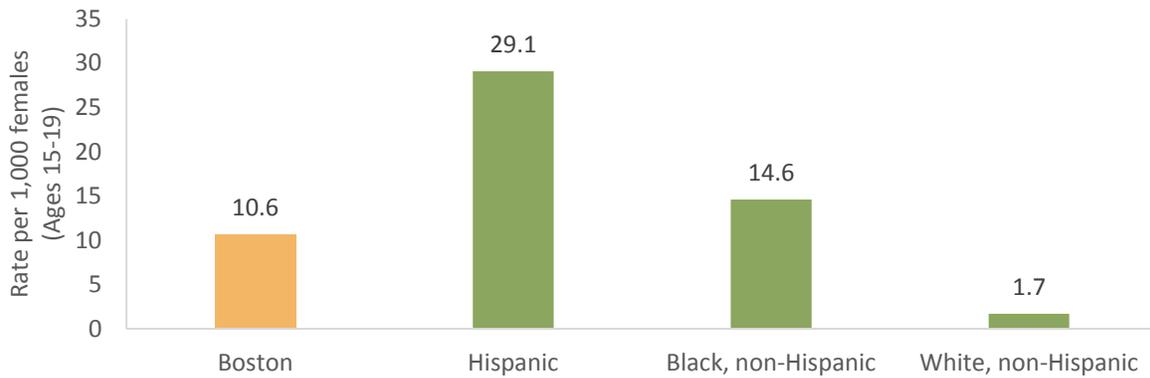


DATA SOURCE: Centers for Disease Control and Prevention, Boston High School Youth Risk Behavior Survey, 2011 and 2015

NOTE: Insufficient sample sizes for American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, White, and Multiple races

The teen birth rate is an indicator of teenage pregnancy. While the Massachusetts Births 2014 Report shows that the teen birth rate in Massachusetts has steadily decreased from 2009 to 2014, disparities persist<sup>v</sup>. In 2014, the rate of births to teenage mothers among Hispanic females living in Boston (29.1 births per 1,000 females) was nearly three times higher than that of Boston females overall (Figure 53).

**Figure 53. Teen Birth Rate per 1,000 Females (Ages 15-19), Boston, by Race/Ethnicity, 2014**

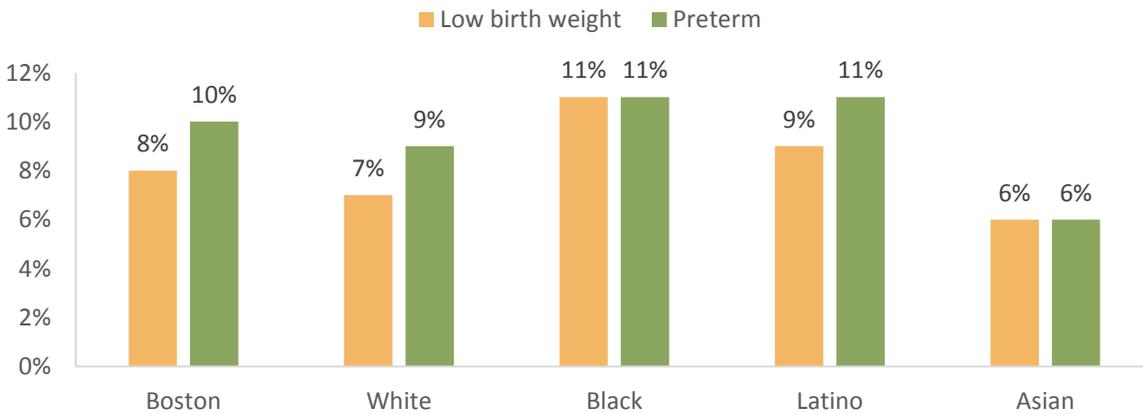


DATA SOURCE: Massachusetts Department of Public Health, Office of Data Management and Outcomes Assessment, Massachusetts Births 2014 Report, 2015

NOTE: Rates for other races/ethnicities were not reported

Figure 54 shows the percent of low birth weight and preterm births in Boston, according to data from the Massachusetts Department of Public Health. In 2012, the highest percentages of low birth weight and preterm births were among Black and Latino women compared to women of other races and ethnicities.

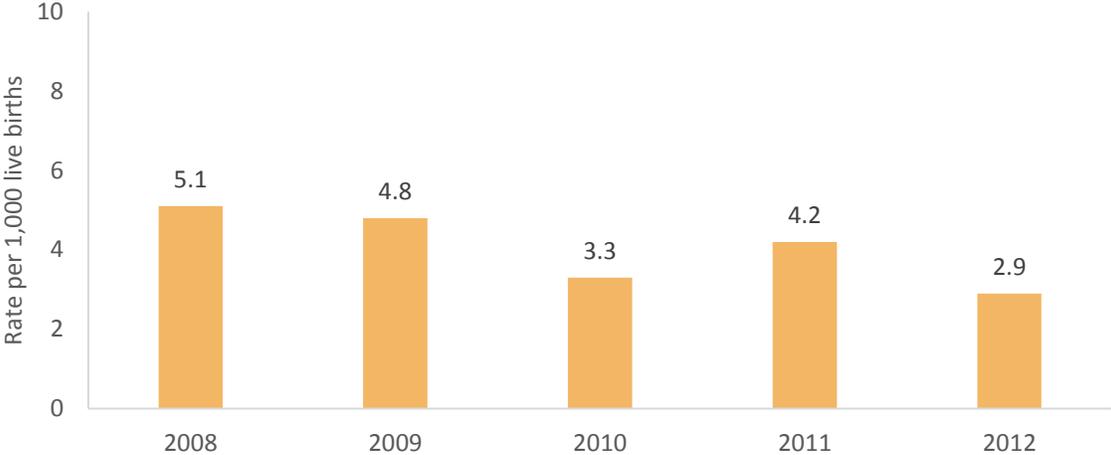
**Figure 54. Percent Low Birth Weight and Preterm Births, Boston, by Race/Ethnicity, 2012**



DATA SOURCE: Boston resident live births and deaths, Massachusetts Department of Public Health, as cited by Boston Public Health Commission, in Health of Boston Report 2014-2015

The rate of neonatal mortality for Boston declined from 2008 to 2012, with the exception of a slight increase from 2010 to 2011 (Figure 55). In 2012, the most recent year for which data is available, the rate of neonatal mortality in Boston was 2.9 per 1,000 live births.

**Figure 55. Trends in Neonatal Mortality Rates per 1,000 Live Births, Boston, 2008-2012**



DATA SOURCE: Boston resident live births and deaths, Massachusetts Department of Public Health, as cited by Boston Public Health Commission, in Health of Boston Report 2014-2015

NOTE: Neonatal death is defined as deaths within the first 28 days

## Community Suggestions for Future Programs, Services, and Initiatives

**Participants in the discussions with key informants, community residents, and youth and respondents to the youth survey were asked for their suggestions to address the community issues they identified. Several themes emerged including attention to the social determinants of health, enhanced opportunities for children and youth, more prevention education, expanded access to healthcare, increased behavioral health services and supports, joint community planning, and improvement of collaboration across community organizations and institutions.** This section summarizes and presents these recommendations for future initiatives.

The following themes emerged in discussions with interviewees, focus group participants, and community meeting attendees regarding their suggestions to address the community issues they identified.

### Recognize the Influence of Social Determinants of Health

Interviewees and residents stressed the importance of underlying community conditions that affect health and well-being, including housing, education, employment, and safety. Many participants believed that more attention needs to be paid to these social determinants of health. For example, several focus group and meeting participants noted the need for more affordable housing, including shelters for young people.

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*“Economic disparities turn into health disparities...we see the zip code of someone overwriting their genetic code.”*

- Key informant interviewee

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Addressing violence in the community was also seen as an important need, yet challenging to accomplish. Assessment participants reported that increasing mental health and substance use services could begin to address this challenge, as can increasing programs and opportunities for children and youth. Additional suggestions to prevent community violence included: strengthening community ties through community events; engagement of residents in community problem solving; and increasing trust between residents and the police such as encouraging a bigger police presence on foot and bicycles, rather than vehicles.

### Expand Activities and Opportunities for Children and Youth

The need for more activities for children and youth was a prominent theme in interviews and resident discussions. Such programming was seen as essential to keep youth safe from violence, address risky behaviors, and empower youth to be advocates for their communities. Participants provided numerous suggestions for enhanced youth programming including more affordable high-quality afterschool programs, free or low-cost recreational opportunities, and organized social activities. More affordable options for summer programming as well as teen leadership programs were also mentioned. Youth focus group participants suggested organizing more community events specifically oriented to teens, including more athletic programming.

Interviewees and residents also saw a need for more employment and internship opportunities for youth. Participants suggested expansion of existing programs, such as those offered through STRIVE. Youth focus group participants suggested developing internships in hospitals, and potential partnerships with local institutions such as Madison Park Development Corporation or the Nation Association for the Advancement of Colored People.

### Provide More Health Education and Information

Enhanced education was a theme discussed in many interviews and community conversations as a key strategy to promote healthier behaviors and reduce the risk of chronic disease. Participants identified a need for more community member education about health and wellness, mental health, and chronic disease prevention, and noted that education should be offered in the community and in multiple languages. A couple of participants suggested parent workshops that include both child development and nutrition and mental health. Youth focus group participants suggested that youth need more education about the nutritional value of typical fast food options.

Strategic and consistent outreach, specifically to places where residents are most comfortable and in their primary languages, was seen as essential to reaching people with health education. This means, as one respondent explained, that hospitals and health care providers need to be more present in the community, and work closely with community-based organizations that have the closest relationships to community residents. Community health workers were also seen as a critical resource for this type of community connection. Outreach to males, especially men of color, was seen as critical because they are least likely to access health services and engage in prevention such as screening.

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*“[Health education] “needs to be part of people’s everyday lives – whether it’s their health care provider or their school or some other place where they are all the time.”*

*- Key informant interviewee*

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### Enhance Access to Healthcare

Interviewees and residents also saw a need for enhanced health services. They suggested expanding hours for health care services, including evenings and weekends, as well as locating more minute clinics in the city itself (e.g., not just in the suburbs). Others suggested more reach into communities with health services, including expansion of mobile health programs and programs in churches that provide prevention, health care, and mental health services. As in 2013, schools were identified by participants as an ideal setting for health and other services. Enhancing workforce diversity was also seen as important. As one interviewee stated, there is a need to “see people who work in a facility who look like and understand the realities of what folks are dealing with.”

### Increase Behavioral Health Services and Supports

Relative to behavioral health, several suggestions were provided. Interviewees and community residents saw a need for more mental health providers and more substance abuse programs, including detox beds, day treatment programs, and drop-in centers. Community-based transition programs for those with substance use issues were seen as critical. As one interviewee described, “all too often, we see kids who enter detox, but then don’t have access to community services. Then they have the relapses.” Some interviewees reported that schools have been strong partners in addressing mental health concerns among children and youth, and suggested that these efforts be expanded. Others saw a need for greater engagement by primary care providers and pediatricians in identifying behavioral health issues in patients, especially children.

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*“There’s so much trauma in the community and it affects everyone—we need more outreach workers working with families.”*

*- Focus group participant*

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Interviewees and residents also saw a need for more education and outreach to community residents about substance use and mental health issues, to identify and prevent these issues as well as help overcome stigma. Community-based organizations were considered critical to these efforts, and respondents suggested that these organizations be engaged and supported for their work directly in the community.

### Engage in Joint Community Planning

As in 2013, participants stated that engagement of community residents as partners in program decisions was important. Residents involved in the Determination of Need process, for example, welcomed the opportunity to provide feedback and many shared they wanted to be informed and involved in an on-going way. Engagement of residents was also seen as essential to developing trust with community members and addressing what several participants saw as decreasing community cohesion. As one resident in Roxbury observed, *“in the past, people in the neighborhood looked out for one another and children. This is happening less and less.”* Some participants suggested investment in community leadership development, which was also suggested in 2013.

Engagement of youth in community building efforts was also viewed as crucial to address community health. As one focus group participant stated, *“youth need to come out and be involved.”* Youth focus group participants agreed and offered a specific suggestion related to this, the formation of a Teen Health Committee at Boston Children’s. Youth proposed that such a committee could oversee a small grant program administered through a youth-led process and focused exclusively to youth-related programming. Funding, they suggested, could be used to address healthy eating, mental health, and community violence.

### Improve Collaboration across Community Institutions

Interviewees and residents stressed the importance of collaboration and coordination as key to avoiding duplication and tackling the challenges facing the community. Coordination across sectors, including health care providers and hospitals, police, teachers, and social workers was also seen as critical. Participants also emphasized the importance of funding existing community programs that do good work and have deep reach in communities, rather than developing new ones. Lastly, interviewees and community members also suggested that information about existing services be more available to community residents and in multiple languages; for example, one participant suggested the development of an app that maps local community resources.

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*“There is lots of good work already in the city; we can strengthen the capacity of CBOs to increase our reach rather than developing new programs.”*

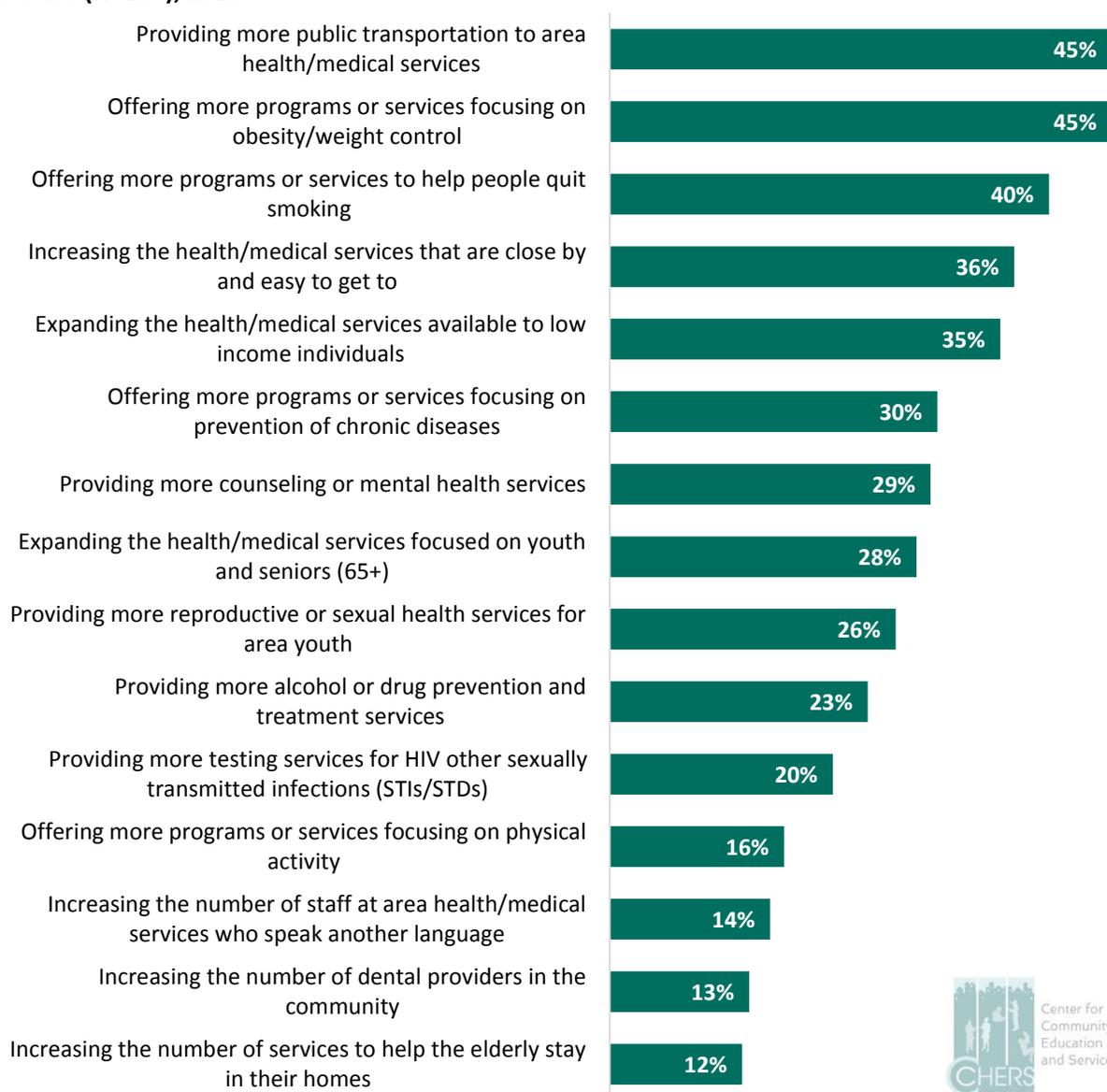
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- Key informant interviewee

### Additional Data on Future Program, Services, and Initiatives: Community Voices Survey

Respondents to the Community Voices youth survey were asked to select top priority areas in their communities that should be addressed in the future. Many of the top priority areas selected align with the community suggestions of enhancing access to healthcare, providing more health education and information, and increasing behavioral health services and supports. The priority areas that were selected most frequently by Community Voices survey respondents were: providing more public transportation to health services (45%) and offering more programs focusing on obesity and weight control (45%) (Figure 56).

**Figure 56. Community Voices Survey: Top Priority Areas in the Community to be Addressed in the Future (N=159), 2016**



DATA SOURCE: Center for Community Health Education Research and Service, Inc. (CHERS), Community Voices, Community Health Needs Survey, 2016

NOTE: This question allowed for multiple responses (“check all that apply”); therefore the percentages may not sum up to 100%.

## KEY THEMES AND CONCLUSIONS

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Through a review of secondary data, a youth survey, and discussions with key informants, community residents, and youth, this assessment report describes the social and economic context of Boston Children's priority neighborhoods, key health issues and concerns, and perceptions of assets and opportunities for addressing current needs and gaps. Specifically, Boston Children's current priority areas – obesity, asthma, mental health, early childhood and access to care – remained key areas based on severity and magnitude from the quantitative data, as well as issues of greatest concern and opportunity among interview, focus group, community meeting, and survey participants. Additional areas of need were also identified including food security and house affordability; substance use and abuse; and violence and trauma.

Several overarching themes and conclusions emerged from this synthesis:

- ***Boston Children's priority neighborhoods are diverse communities with strong organizations and institutions.*** Assessment participants described the diversity of their communities, and noted the presence of active and engaged local organizations including community health centers, community-based organizations (particularly those serving youth), and faith institutions.
- ***There is variation across Boston Children's priority neighborhoods in access to social and economic resources, and a lack of affordable housing emerged as a particular challenge for children and families.*** Income, employment, and education levels vary across Boston Children's neighborhoods; additionally, while certain neighborhoods (e.g., Jamaica Plain) have high levels of income and education overall, pockets of need exist within these neighborhoods. In almost all interview and focus group conversations, concerns were raised about housing affordability and stability, and the impact that housing-related stress has on children and families.
- ***Chronic disease, including asthma and obesity, remain a concern for children and families.*** While rates of asthma among Boston high school students have decreased slightly and rates of obesity have increased slightly, assessment participants noted that chronic disease is still a key health issue for children. Participants frequently noted the impact that nutrition and exercise-related health behaviors have on weight, and described a need for programs and services at multiple levels, from providing health education to addressing safety concerns that may be a barrier to physical activity.
- ***Mental health, especially the effects of community violence and trauma, continue to be pressing issues for youth and families.*** Respondents to the youth survey and youth focus group participants, as well as other assessment participants, described witnessing community violence at the local and national levels, and noted the impact that this trauma has on youth and families. Social service and health care providers described seeing stress and anxiety in youth at younger and younger ages. A need for expanded mental health services as well as broader trauma-informed programs for youth was identified.
- ***Greater investment in early childhood education and health services is critical.*** A need for more screening services, expanded early intervention and early education services, and additional programs that support the parents of young children in identifying delays and promoting healthy child development were overarching themes. Assessment participants noted that the earlier children are connected with appropriate services, the greater their chances of success.

- ***Given these identified needs, various recommendations were offered*** including addressing social determinants of health (for example, through youth employment programming), expanding health education programs and access to both preventive health and behavioral health services, and engaging both residents and existing community institutions in continued planning.

## PRIORITY HEALTH NEEDS OF THE COMMUNITY

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Boston Children’s Office of Community Health staff cross-walked the needs identified through the CHNA with (1) the issues identified during the Determination of Need community meetings and discussions; and (2) input on community needs and strengths that Boston Children’s Community Advisory Board (CAB) had provided in previous years and during the 2016 CHNA focus group.

In November 2016, members of the CAB participated in a facilitated conversation to discuss and prioritize needs. First, informed by the crosswalk exercise, Boston Children’s Office of Community Health staff presented current identified needs as well as the list of issues and needs included in Boston Children’s FY14 – FY16 Community Health and Benefits Plan. Following this presentation, the CAB participated in a facilitated brainstorm to update, refine, and augment the list of issues and needs from the FY14 – FY16 Community Health and Benefits Plan. Next, the CAB used a multi-voting technique to prioritize the list of needs generated through the facilitated brainstorm. The CAB considered the magnitude and severity of issues, the impact of these issues on the most vulnerable populations, and the feasibility of addressing these issues within the next 3 years.

Using the list of prioritized needs from the CAB, Boston Children’s Office of Community Health refined and categorized the list into the following final set of priority areas – presented in alphabetical order – which are included in Boston Children’s 2017 – 2019 Strategic Implementation Plan:

- Access to care
- Access to healthy food
- Affordable housing
- Asthma
- Community driven approaches
- Early childhood/Child development
- Health education
- Legal assistance
- Mental and behavioral health
- Obesity
- Trauma response and prevention
- Youth workforce development and engagement

CAB members also strongly recommended that addressing socioeconomic and racial/ethnic disparities be included as cross-cutting strategies for each of the priorities. Boston Children’s will make extra efforts to consider strategies that address these disparities across all priority categories. All needs identified in the CHNA will be addressed in the Strategic Implementation Plan.

## APPENDIX A – BOSTON CHILDREN’S HOSPITAL 2016 REVIEW OF INITIATIVES

Based on the results of the 2013 Community Health Needs Assessment, Boston Children’s developed an implementation strategy to address identified key health needs and issues through clinical care, programs and services. The plan was developed and implemented in collaboration with a variety of community-based organizations, health centers and advocacy groups, as well as civic and city agencies.

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
<b>Priority Area: Obesity</b>				
Fitness in the City (FIC)	A community-based approach to address obesity. FIC supports 11 Boston community health centers (CHCs) to provide pediatric patients with case-management support as well as nutrition education and physical activity programs.	-887 Children received case management services through FIC’s 11 CHCs. -63% of patients decreased or maintained their body mass index (BMI)	-968 children received case management services through FIC’s 11 CHCs -62% of children decreased or maintained their BMI -Participants reported watching less TV on weekends, consuming less soda or juice and increasing exercise after 12 weeks in the program.	-FIC surpassed targets, 1003 completed intakes (target >950), 491 completed 3-month follow-up visits (target >428). -60% of children decreased or maintained their BMI - Continued reporting of less TV, reduced soda/juice consumption, and increases in exercise
Kohl’s Healthy Family Fun Program	A public awareness campaign and program in Boston Public Schools (BPS) to engage and encourage families to participate in physical activities as well as learn more about healthful eating.	-22 schools engaged and led Healthy Family Fun events. -The Healthy Family Fun website was created to provide education and resources to families through social media.	- 30 schools selected as Healthy Family Fun sites and hosted 43 events - KohlsHealthyFamilyFun.org and Facebook page continued development. Health and Wellness Guide created for families and the community.	-30 schools selected as Healthy Family Fun sites and held 47 events reaching over 6,960 children and 2,350 families. -Ongoing development of website and Facebook page to increase resources available to families
The New Balance Foundation Optimal Weight for Life on the Road Program	A multidisciplinary approach to the evaluation and management of children who are overweight or obese. The program serves four local CHCs caring for patients ages 2 through 21.	Provided 43 weight-management sessions in the community, and nearly 200 individual sessions delivered by Medicine, Behavioral Health, and Nutrition Providers	- 111 weight management visits completed -Provided free education and expertise on obesity related medical and behavioral issues to health center practitioners and community population	-24 families enrolled in the Program. -Continued education on obesity related medical and behavioral issues. -Assessed the service delivery model and made modifications to improve care.

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
Healthy Kids, Healthy Futures (HKHF)	HKHF is a partnership between Boston Children's and Northeastern University. It is a community-based, early childhood initiative that works to alter the preschool and community environments to make it easier for children, families and early childcare staff to eat more healthful foods and be physically active.	-86 Head Start parents/caregivers & 65 staff participated in HKHF programming. -151 families participated in Family Gym and a new site was opened.	- Increased awareness about healthier eating habits in the classroom and the importance of physical activity through Head Start teacher training. -Over 150 families participated in Family Gym	-538 children and caregivers participated in Family Gym -Continued Head Start teacher training on healthy habits -46 families participated in a study on the impact of Farm to Family program on children's fruit and vegetable consumption.
<b>Priority Area: Asthma</b>				
Community Asthma Initiative (CAI)	CAI is a program providing support services such as case-management, home visits and advocacy efforts to children and families with high-risk or uncontrolled asthma.	-Provided services to 170 high-risk children with asthma and their families -Reduced the percentage of patients who have had any asthma-related hospitalizations by 80%.	-Provided services to 215 high-risk children with asthma and their families -Delivered 356 home visits -Reduced percent of patients with any emergency department visits by 57%	-Provided services to 176 high-risk children with asthma and their families - 105 new family home visits, 273 total home visits - Continued trend of reductions in hospitalization and ED utilization
<b>Priority Area: Mental and Behavioral Health</b>				
Children's Hospital Neighborhood Partnerships Program (CHNP)	CHNP places clinicians in Boston area schools and CHCs to provide an array of mental health services.  CHNP also is partnering on the design and implementation of a district-wide behavioral health plan for Boston Public Schools.	-1,932 students received school-based services and 202 youth received services in CHCs. -Provided 1500 hours of training and consultation to 250 educators and parents. -97% of parents reported services helped their child with emotions. 94% of teachers reported services helped students do well in the classroom.	-Partnered with BPS to pilot a Comprehensive Behavioral Health Model in 23 schools -Provided 750 hours of consultation services to partnering schools -Clinicians handled 146 crisis situations -Provided depression awareness curriculum to over 6300 youth and trained 250 MA schools in the curriculum	-Continued Comprehensive Behavioral Health Model in 30 BPS schools -Provided over 700 hours of training and consultation to school staff and families. Reached 257 people in 8 workshops -Clinicians intervened in 199 crisis situations with an average wait time of 6 minutes - Provided depression awareness curriculum to 6200 youth and trained 393 professionals in MA

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
Department of Psychiatry	Psychiatry is provided in five areas: collaborative care, community, consultation-liaison, inpatient, and outpatient services.	The Department of Psychiatry consistently provided access to mental health services for our target neighborhoods from 2013-2016. The following is data from 2013 of the department's progress: -Achieved access goals - 266 inpatient medical-boarder discharges (1,642 bed-days) provided to youth awaiting placement in intensive psychiatric services. -Psychiatry, Medicine, Nursing and Social Work developed practice standards to address the growing number of psychiatric boarders. Staff was trained. Policy was revised. DMH and hospital convened to improve communication and expedite discharge.		
Department of Social Work	The Social Work Department supports patients and families at high risk for psychosocial difficulties and helps them to access services and resources	Social work participation is on-going in integrated behavioral health research projects and program development in primary care settings throughout Boston Children's and its satellite clinics.		
<b>Priority Area: Violence and trauma</b>				
<p>Child Protection Program/Services:</p> <ul style="list-style-type: none"> <li>• AWAKE- Advocacy for Women &amp; Kids in Emergencies</li> <li>• Child Protection Team (CPT)</li> <li>• Foster Care Clinic</li> </ul>	<p>AWAKE is a domestic violence advocacy program that provides free, community-based services to individuals and families living with intimate partner violence.</p> <p>The CPT is a multidisciplinary team providing expert consultation and training on issues of child maltreatment.</p> <p>The Foster Care Clinic offers developmental and behavioral screening, medical assessment, dental screening, psychosocial assessment and referrals to children newly entering foster care</p>	<p>- AWAKE served 207 new clients and 88 clients from previous years.</p> <p>-CPT received an estimated 1,800 consultation requests. - The Crisis Response Clinic provides multi-disciplinary triage, consultation and evaluation to children who are suspected to have been maltreated physically or sexually. This year 125 children were referred.</p> <p>-Foster Care Clinic served 99 new children and families.</p>	<p>-37 referrals made to AWAKE with 27 new intakes and 38 consultations completed. 89 clients continued to receiving AWAKE services</p> <p>-CPT served approximately 1,700 cases -24 children received follow up skeletal surveys post discharge from the hospital. Triage provided to 74 new cases of possible sexual and/or physical abuse</p>	<p>- 86 referrals made to AWAKE and 38 new clients served.</p> <p>-CPT serves approximately 1,500 cases annually -33 children received follow up skeletal surveys post discharge from the hospital. Triage of 68 new cases of possible sexual and/or physical abuse was provided in FY15.</p> <p>-70 new Foster Care Clinic intakes were complete during this time period.</p>

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
<b>Priority Area: Early childhood / Child development</b>				
Advocating Success for Kids (ASK)	ASK provides services for families with children experiencing school-functioning problems and learning delays. Services are focused on diverse, urban populations in community-based pediatric practices—Children’s Hospital Primary Care and 2 Boston CHCs.	- 332 children were seen in the ASK Program - 148 independent evaluations were conducted	-354 children were seen in the ASK program. 57 within two community health centers -ASK attended 79 school meetings and observed 10 patient classrooms to support schools and patients	-355 children were seen in the ASK program. 33 within two community health centers. -Attended 74 school meetings and observed 4 patient classrooms to support schools and patients.
Project LAUNCH at Boston Children’s at Martha Eliot	Project LAUNCH provides direct service to families with children age birth to six with social-emotional concerns, and engages in systems improvement to increase knowledge of early childhood social-emotional development among providers and families.	In 2015 the social worker and family partner/patient navigator dyad continued to successfully integrate their services in primary care at Martha Eliot. 104 referrals were made to program, 75 social work encounters billed and completed. Additional phone contacts outreach meetings, and brief visits were provided in follow up. 25 community events were held and 916 participants attended in total.		
<b>Priority Area: Access to care</b>				
10 Boston community health centers (CHCs)	Boston Children’s supports Boston CHCs to: 1) build capacity to provide a full range of services providing an effective medical home for children; 2) provide pediatric services that address the most pressing health issues; and 3) demonstrate their value through effective assessment and reporting of quality outcomes.	-Increased focus on pediatric quality trends with executive leadership at CHCs. Reviewed each CHC’s QI measures in asthma, immunization, obesity, behavioral health screening. -Increased Boston Children’s awareness of each CHC’s emerging issues, upcoming projects, and resource needs.	-Increased participation of CHCs in Boston Children’s Learning Community modules -Increased CHCs use of Boston Children’s provider portal to access patient records and improve communication between providers -Increased participation of health center staff in Visiting Specialist Rounds	-Increased capacity of CHCs to offer family-centered nutrition and physical activity resources. -Added CHCs into Boston Children’s Practice Liaison Program, coordinating scheduling for the different departments through one contact -Began collaboration to improve asthma population health management.

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
Boston Children's at Adolescent Medicine <ul style="list-style-type: none"> <li>Boston HAPPENS</li> </ul>	The Adolescent Medicine Practice provides comprehensive primary and subspecialty medical care to adolescent patients from diverse backgrounds. The practice includes programs for chronic illness and issues such as obesity, eating disorders, and reproductive health concerns. Subspecialty programs include the Reproductive Endocrinology Program, Boston HAPPENS, Eating Disorders Program, and an obesity program.	-Boston Happens provided free and confidential HIV, STD and Viral Hepatitis screening, risk reduction counseling, and supported referrals for related health care needs to more than 970 adolescents and young adults - Started a group for pregnant and parenting teens. This monthly group met three times and discussed the topic of healthy relationships.	<b>Boston Happens</b> provided case management for approximately 40 HIV-positive youth -Updated website. Increased reach and visibility of social media marketing efforts. Developing a web survey for client feedback on testing sessions. - Created a united 2-site program with Project Protection, at Martha Eliot Health Center	<b>Boston Happens</b> continued work to ensure prompt treatment and expanded partner treatment for STIs. Collaborated with youth-serving community partners. -Conducted outreach in schools and community spaces of high risk and homeless youth. -Provided LGBTQ specific safer sex products and educational materials.
Children's Hospital Primary Care Center (CHPCC) <ul style="list-style-type: none"> <li>Young Parents Program (YPP)</li> </ul>	CHPCC provides pediatric primary care to children 0-21 years old. Services include well child care, counseling, immunizations, care coordination, and treatment of disease & acute illnesses. Its innovative multidisciplinary teams address prevalent problems including teen pregnancy, asthma, obesity, learning disabilities and mental health.  YPP provides comprehensive medical care, mental health services and advocacy to high risk, inner city teen parents and their young children through a teen-tot model. YPP is linked to home-based nurse visiting services.	90% of children receive on time well care. 95% of children are fully immunized at age 2 years, well above state and national benchmarks. In last 36 months, asthma admissions and/or ED visits have decreased by 60%.  YPP- 13.8% of mothers engaged in the program became pregnant in the year following their child's birth. In the last year, we had only a 5% rate of RRP of those moms	-87% of children received all recommended immunizations by 24 months of age. An updated tracking system ensures well-child checks are completed.  - YPP- 9.2 % of mothers engaged in the program became pregnant in the year following their child's birth.  - Social Work Tracking System implemented which assigns priorities to families based upon level of risk and need	- 89% of children received all recommended immunizations by 24 months of age. Continued use of tracking system to ensure well-child checks are completed  -YPP- 13.8 % of mothers engaged in the program became pregnant in the year following their child's birth. - Partnering with community organizations to establish referral and follow through to improve LARC(long-acting reversible contraception) rates for teen mothers
Inner City Sports Medicine Initiative	The Department of Orthopedic Surgery and the Division of Sports Medicine offer on-site sports medicine coverage at high school football games played at all BPS sports venue. This initiative enhances the quality of health care for inner city athletes from the 17 Boston Public High Schools (BPS).	The Inner City Sports Medicine Initiative consistently provided access to care for our target neighborhoods. The following is data from 2013 of the initiative's progress: -Offered on-site coverage at <u>all</u> high school varsity football games played at BPS sports venues. -Provided pro bono pre-season pre-participation physical evaluations -Provided coaching education sessions at seasonal coaching meetings- Education provided in concussion recognition and management), sudden cardiac death (SCD) in sports, heat stroke and the development of an emergency action plan (EAP)		

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
Community Early Intervention Program	The Program offers therapeutic, developmental services to children 0-3 years old. Services include home visits, developmental playgroups, parent groups, and developmental evaluations.	The Community Early Intervention Program consistently provided access to care for our target neighborhoods. The following is data from 2013 of the program's progress: -Provided evaluation, assessment and initial Individual Family Service Plan to 100% of children referred to the program within 45 days of the referral. - Collaboration with local Public School systems continues to strengthen.		
Department of Dentistry	The Dentistry clinic provides both primary pediatric dental care and specialty care. 70% of patients seen have a significant medically compromising condition, a developmental disability or an inability to cooperate in clinic.	The Dentistry clinic consistently provided access to dental care for our target neighborhoods. The following is data from 2013 of the clinic's progress: -Increased access with 28,000 outpatient visits, 2,000 up from 2012. -The OR wait time has been decreased from 4-5 months to 1-3 months. -Increased access by increasing dental clinic visits by 6% from the preceding year, which saw a 13% increase from year prior.		
<b>Priority Area: Health education</b>				
Advocating Success for Kids (ASK)	ASK works to enhance providers' knowledge in order to identify and treat developmental concerns that present in a primary care center	451 providers were trained	-Training provided to 971 medical providers, 447 parents, 40 volunteers, and 155 graduate students	-Training was provided to 1,162 participants including medical providers, parents, volunteers and graduate student
Community Asthma Initiative (CAI)	In addition to direct care delivery CAI also educates caregivers and providers, distributes asthma control supplies and connects families to local resources.	CAI staff conducted 85 community meetings with 969 participants, 2 community events with 500 participants, 46 trainings/talks with 1,414 participants, and 14 insurance/policy related meetings with 269 participants.	CAI staff conducted 57 community meetings with 547 participants; and 35 trainings/talks with 1,660 participants	CAI staff conducted 70 community meetings with 666 participants, 5 community events with 48 participants, 47 trainings/talks with 1,674 participants, and 49 insurance/policy related meetings with 829 participants.
Martha Eliot Health Education Activities	Developed community engagement and program strategy particularly within their immediate neighborhood of the Mildred C. Hailey Apartments.(was Bromley Heath in 2013-15)	-Held annual Martha Eliot Health and Safety Fair 3 years in a row. 300 families participated in 2015 - Developed The Adolescent and Young Adult Resources Center and had more than 500 visits in 2015 Provided health education workshops to over 100 youth in 2015 -Implemented new collaboration with Fair Foods, increased engagement with neighbors		

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
<b>Priority Area: Youth engagement</b>				
COACH Summer Jobs Program	Provides summer employment opportunities to enable youth to explore health careers and have a safe and meaningful summer. Builds pipeline of diverse, health professionals for the healthcare field.	-Each intern had a peer leader role regarding college plans and COACH experiences. - Employees from different areas of the hospital presented to interns about career path and planning.	- Shadow opportunities offered to students with industry-specific interests to increase exposure to healthcare career options - Financial aid workshop was added to the college fair	-Continued providing peer leader and shadowing opportunities -On-site college fair is offered annually including financial aid and public speaking workshops - 67 youth were hired for summer jobs.
Center for Young Women's Health (CYWH)	CYWH provides health educational materials to young women 9-22, their parents, educators, and health care providers. The Youth Advisory Program employs 2-3 youth from local high schools who complete leadership training and provide free health presentations to their peers.	- CYWH website reached more than 500,000 unique visitors each month and provided more than 350 health guides.	- Website reached more than 1 million unique visitors/month -3 high school students received leadership training -Updated health guides, and created new educational materials for school nurses and educators.	-Website reached more than 1.8 million unique visitors each month -4 medical chats held each month for teens/parents with endometriosis, PCOS, and MRKH. Hosted 2 conferences for teens and their families with international attendance
Student Career Opportunity Outreach Program (SCOOP)  -Program not listed in 2013 plan	SCOOP was created in 2003 to reach out to high school students about career opportunities in the field of nursing. SCOOP is composed of a three-pronged approach: hosting monthly field trips in our hospital, visits to local schools, and our internship programs.	- 105 Boston area students attended the nursing panels and hospital tours - 4 Boston students participated in the summer internship program.	- 60 Boston area students attended the nursing panels and hospital tours - 3 Boston students participated in the summer internship program.	12 students participated in the summer internship program.
<b>Priority Area: Community driven approaches</b>				
Community Partnership Fund (CPF)	CPF supports community-based programs that improve the health of children and families in our priority neighborhoods.	7 mini-grants were awarded to organizations within targeted communities	7 mini-grants were awarded to organizations within targeted communities	8 mini-grants were awarded to organizations within targeted communities

Programs listed in Implementation Strategy	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, goals achieved etc.		
		FY 2013	FY 2014	FY 2015
Campus of Care	A community-based collaboration to create integrated systems of care for children from birth to middle school	N/A Program started in FY14	-Increased awareness of services provided by core partners in collaborative -Created formal process to share information between partners -Created community calendar -Developed parent survey to assess engagement and health needs	-Outreached to Bromley-Heath families about all services and events at the four participating organizations -Began cross-referral process for core partners in collaborative -Co-sponsored events: School Registration Fair, Movie Nights
Help Steps -Program not listed in 2013 plan	A free web-based portal that connects individuals to health and human services in MA. Tools are designed to cater to users' needs by location, language, services, nearest bus routes and more.	Began collection data for community benefit reporting in 2014  Database includes information on over 1,700 in-state agencies.	-Changed the database structure to allow for more flexible development -Partnered with Healthier Roxbury coalition and included agencies that help people with diabetes.	-Began development of a mobile platform for individual and professional use -Continued adapting HelpSteps database structure to allow for more flexible development
Medical Legal Partnership (MLP) -Program not listed in 2013 plan	MLP   Boston trains providers and staff on best practices for detecting and referring health-harming legal problems. MLP   Boston provides on-call "legal triage" consultations and some on-site consults to conduct a legal intake interview and facilitate ongoing legal representation.	MLP attorney spent one day/week on-site for in-person drop-in consults. Primary care stakeholders contacted attorney directly throughout the work week.	-Primary care staff consulted with MLP   Boston on behalf of 118 unique patient-families, 105 of those consults were resolved.	-Primary Care-Longwood and Martha Eliot staff consulted with MLP   Boston on behalf of 201 unique patient-families during FY15

## **APPENDX B – LIST OF COMMUNITY ADVISORY BOARD MEMBERS**

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### **Boston Children’s Hospital Community Advisory Board Members**

**Kris Anderson, Chair of the Community Advisory Board**, Fenway Community Development Corporation  
Dorys Alarcon, Boston Children's Interpreter Services  
Philomena Asante, MD, MPH, Boston Public Health Commission  
Jill Carter, EdM, MA, Boston Public Schools  
Yi Chin Chen, Friends of the Children-Boston  
Cherie Craft, Smart from the Start  
Lauren Dewey - Platt, Fenway Resident  
Patricia Flaherty, Mission Hill Resident  
Juan Lopez, Jamaica Plain Resident  
Lazaro Lopez, Jamaica Plain Resident  
Shari Nethersole, MD, Boston Children's Executive Director for Community Health  
Margaret M. Noce, Jamaica Plain Coalition: Tree of Life/Arbol de Vida  
Alexandra Oliver-Dávila, Sociedad Latina  
Ramon Soto, Mayor's Office, City of Boston  
Andrea Swain, Yawkey Club of Roxbury  
May Vaughn-Ebanks, Roxbury Resident  
Catherine Vuky, South Cove Community Health Center

## APPENDIX C – LIST OF STAKEHOLDER ORGANIZATIONS

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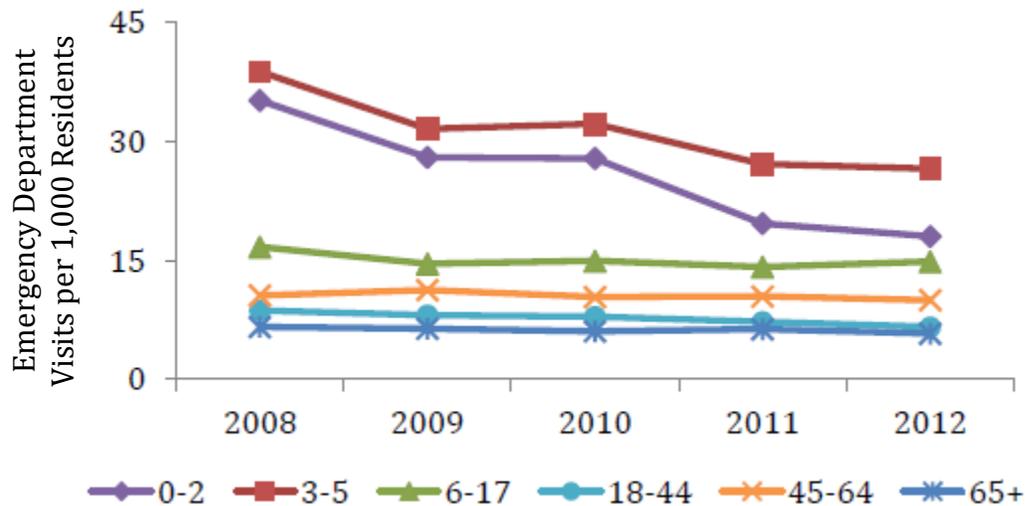
Key stakeholders from the following organizations were interviewed as part of Boston Children’s 2016 Community Health Needs Assessment:

1. Action for Boston Community Development
2. Boston Centers for Youth and Families
3. Boston Children’s Museum
4. Boston City Council
5. Boston Medical Center Department of Pediatrics
6. Boston Public Schools Health Services
7. City of Boston, Mayor’s Office of Health and Human Services
8. The Dimock Center

## APPENDIX D - HEALTH OF BOSTON 2014-2015 REPORT: ASTHMA FIGURES

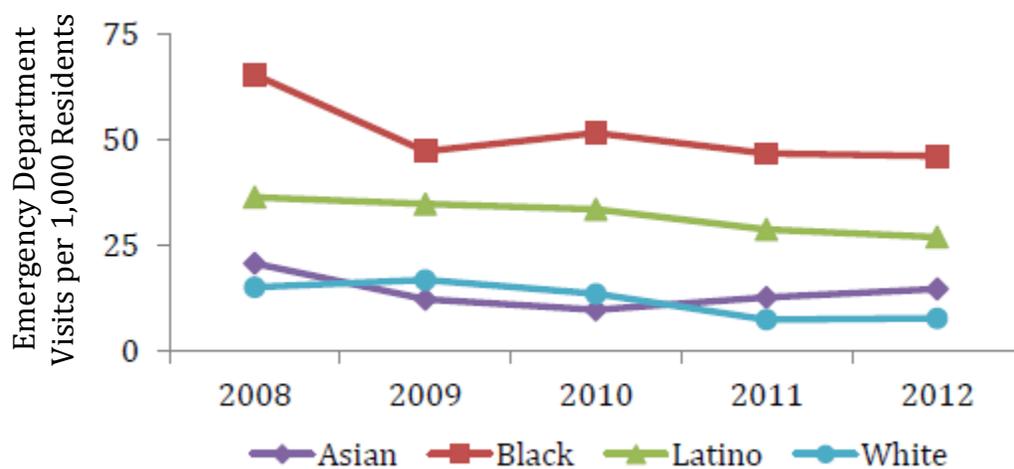
The Figures below, which were created by the Boston Public Health Commission and are included in their 2014-2015 Health of Boston Report<sup>2</sup>, provide trend data on asthma emergency department visits and asthma hospitalizations.

### Asthma Emergency Department Visits by Age and Year



DATA SOURCE: Acute Hospital Case Mix Databases, Massachusetts Center for Health Information and Analysis, as reported by Boston Public Health Commission, Health of Boston 2014-2015 Report, 2015.

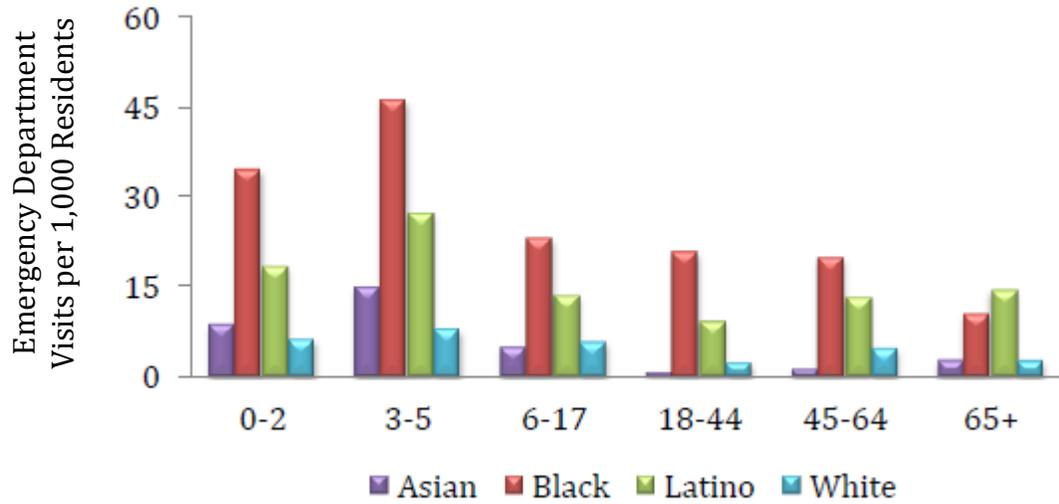
### Asthma Emergency Department Visits Among 3-5 Year Olds by Race/Ethnicity and Year



DATA SOURCE: Acute Hospital Case Mix Databases, Massachusetts Center for Health Information and Analysis, as reported by Boston Public Health Commission, Health of Boston 2014-2015 Report, 2015.

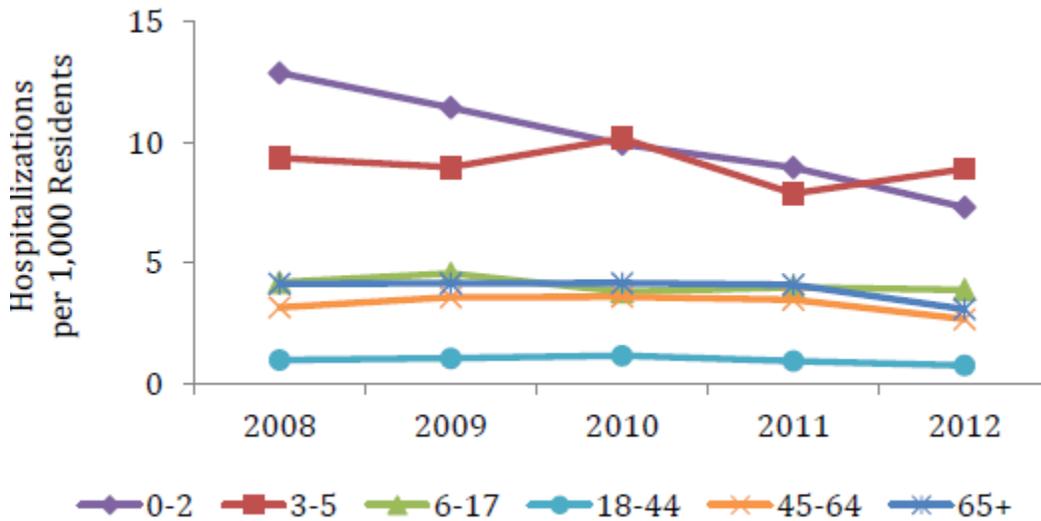
<sup>2</sup> Boston Public Health Commission, Research and Evaluation Office. Health of Boston 2014-2015. 2015. Accessed 11/21/16 at: [http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport\\_HOB\\_2014-2015-MSPDFforWeb.pdf](http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport_HOB_2014-2015-MSPDFforWeb.pdf)

### Asthma Emergency Department Visits by Age and Race/Ethnicity, 2012



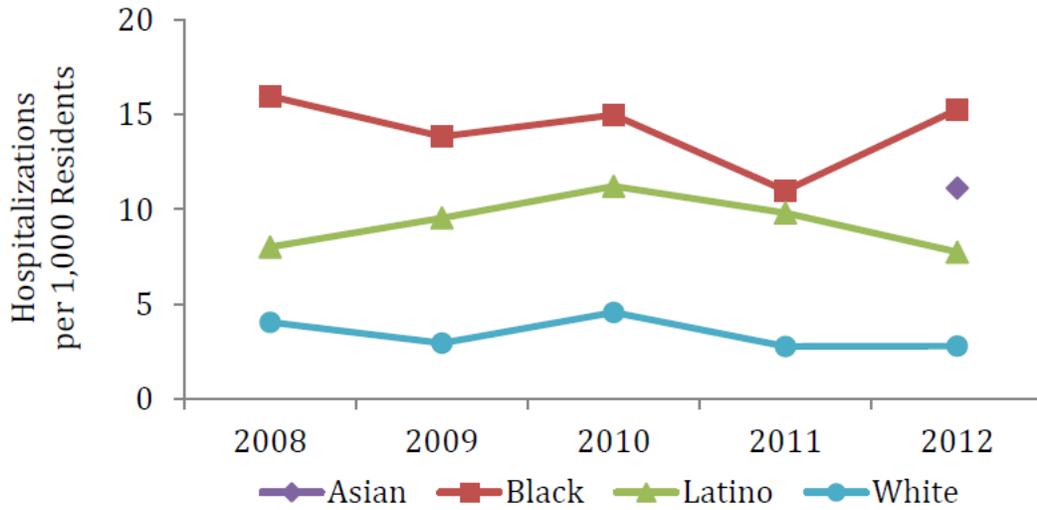
DATA SOURCE: Acute Hospital Case Mix Databases, Massachusetts Center for Health Information and Analysis, as reported by Boston Public Health Commission, Health of Boston 2014-2015 Report, 2015.

### Asthma Hospitalizations by Age and Year



DATA SOURCE: Inpatient Hospital Discharge Database, Massachusetts Center for Health Information and Analysis, as reported by Boston Public Health Commission, Health of Boston 2014-2015 Report, 2015.

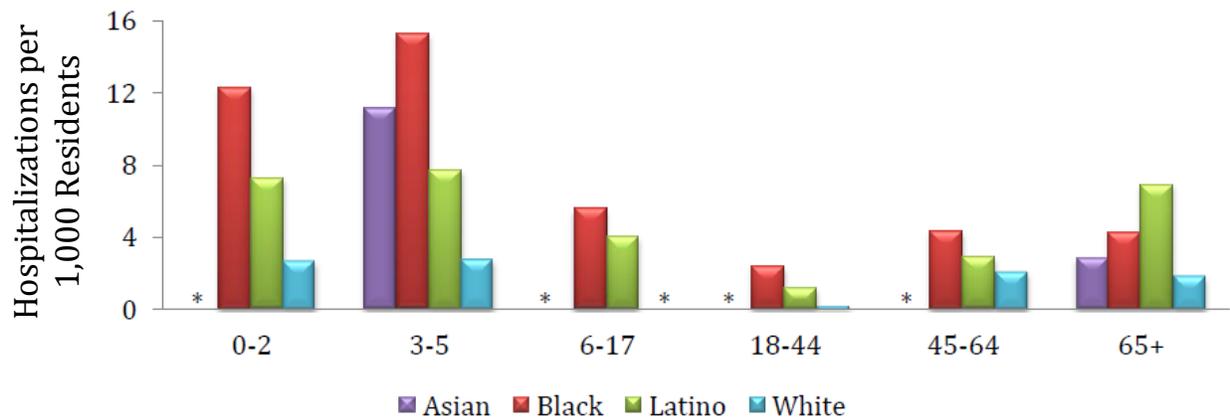
### Asthma Hospitalizations Among 3-5 Year Olds by Race/Ethnicity and Year



NOTE: Rates are not presented for Asian residents from 2008-2011 due to the small number of cases.

DATA SOURCE: Inpatient Hospital Discharge Database, Massachusetts Center for Health Information and Analysis

### Asthma Hospitalizations by Age and Race/Ethnicity, 2012



\*Rates are not presented for Asian residents ages 0-2, 6-17, 18-44, and 45-64 and White residents ages 6-17 due to the small number of cases.

DATA SOURCE: Inpatient Hospital Discharge Database, Massachusetts Center for Health Information and Analysis

## References

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<sup>i</sup> The Greater Boston Food Bank. Hunger in Eastern Massachusetts 2014: Executive Summary. Accessed 9/20/16 at: <http://www.gbfb.org/2014/10/01/hunger-in-america-2014-eastern-massachusetts/>.

<sup>ii</sup> Boston Public Health Commission, Research and Evaluation Office. Health of Boston's Children: Child Health Assessment Mapping Project. Boston, Massachusetts, 2015. Accessed 11/22/16 at: [http://www.bphc.org/whatwedo/childrens-health/boston-child-health-study/Documents/CHAMP\\_web\\_final\\_2015.pdf](http://www.bphc.org/whatwedo/childrens-health/boston-child-health-study/Documents/CHAMP_web_final_2015.pdf).

<sup>iii</sup> Boston Public Health Commission, Research and Evaluation Office. Health of Boston 2014-2015. 2015. Accessed 11/21/16 at: [http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport\\_HOB\\_2014-2015-MSPDFforWeb.pdf](http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport_HOB_2014-2015-MSPDFforWeb.pdf).

<sup>iv</sup> Boston Public Health Commission, Research and Evaluation Office. Health of Boston 2014-2015. 2015. Accessed 11/21/16 at: [http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport\\_HOB\\_2014-2015-MSPDFforWeb.pdf](http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport_HOB_2014-2015-MSPDFforWeb.pdf).

<sup>v</sup> The Commonwealth of Massachusetts, Executive Office of Health and Human Services, Massachusetts Department of Public Health. Massachusetts Births 2014. September 2014. Accessed 10/31/16 at: <http://www.mass.gov/eohhs/docs/dph/research-epi/birth-report-2014.pdf>.