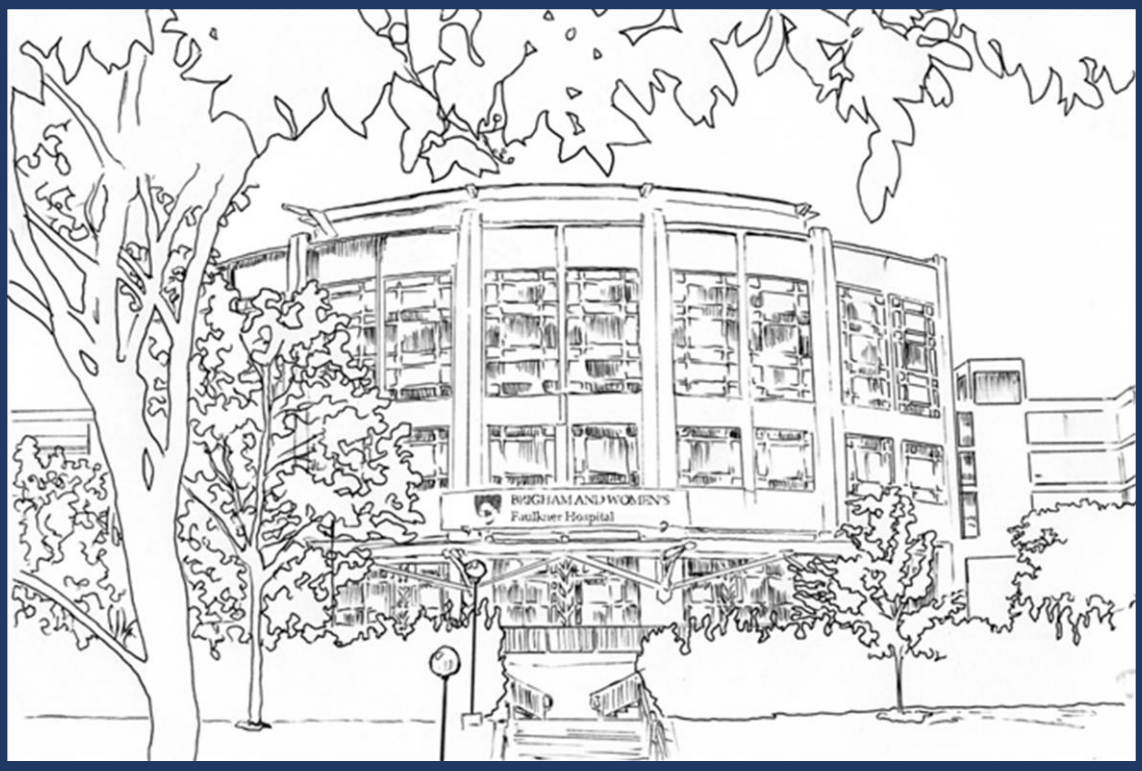
BRIGHAM HEALTH

BRIGHAM AND WOMEN'S
Faulkner Hospital

2019 COMMUNITY HEALTH NEEDS ASSESSMENT



Boston CHNA-CHIP Collaborative

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BACKGROUND

Overview of Boston CHNA-CHIP Collaborative
The Boston CHNA-CHIP Collaborative is an initiative created by several stakeholders—community organizations, health centers, hospitals and the Boston Public Health Commission—formed to undertake the first large-scale collaborative city-wide Community Health Needs Assessment (CHNA) and Community Health Improvement Plan (CHIP) with wide-ranging partnership. While community health assessment and planning work have been long-standing endeavors among individual organizations, the Boston CHNA-CHIP Collaborative aligns and coordinates resources between multi-sector stakeholders across Boston (Learn more about the Collaborative at www.bostonchna.org).

Prior to launching the first joint community health needs assessment and planning process, the Collaborative undertook an 8-month planning process to define its scope (mission, vision, values, etc.), identify needs for stakeholder representation to outreach to other collaborative partners, define roles and relationships among collaborative partners, establish a recommended governance structure, design an organizational structure and outline a budget and member contributions.

The Collaborative's **vision** is *a healthy Boston with strong communities, connected residents and organizations, coordinated initiatives and where every individual has an equitable opportunity to live a healthy life.* The Collaborative's **mission** is to achieve sustainable positive change in the health of Boston by collaborating with communities, sharing knowledge, aligning resources and addressing root causes of health inequities. The Collaborative's **goals** are to achieve this mission by engaging with the community to:

- Conduct a joint, participatory community health needs assessment (CHNA) for Boston every 3 years discussing the social, economic and health needs and assets in the community.
- Develop a collaborative community health improvement plan (CHIP) for Boston to address issues identified as top priority and identify opportunities for shared investment.
- Implement efforts together where aligned and track individual organizational activities related to those aligned efforts.
- Monitor and evaluate CHIP strategies for progress and impact to continuously inform implementation.
- Communicate about the process and results to organizational leadership, stakeholders and the public throughout the assessment, planning and implementation time period.

The work of the Collaborative is guided by the following **shared values:**

- **Equity**: Focus on inequities that affect health with an emphasis on race and ethnicity;
- **Inclusion**: Engage diverse communities and respect diverse viewpoints;
- **Data driven**: Be systematic in its process and employ evidence-informed strategies to maximize impact;
- **Innovative**: Implement approaches that embrace continuous improvement, creativity and change;
- **Integrity**: Carry out our work with transparency, responsibility and accountability;
- **Partnership**: Build trusting and collaborative relationships between communities and organizations to foster sustainable, community-centered change.

Brigham and Women's Faulkner Hospital Community Health and Wellness Mission Statement

In addition to the work of the Collaborative, Brigham and Women's Faulkner Hospital (BWFH), the Board of Directors, the Community Engagement and Advisory Committee, hospital administration and the larger hospital community are committed to BWFH's community health and wellness mission, which is:

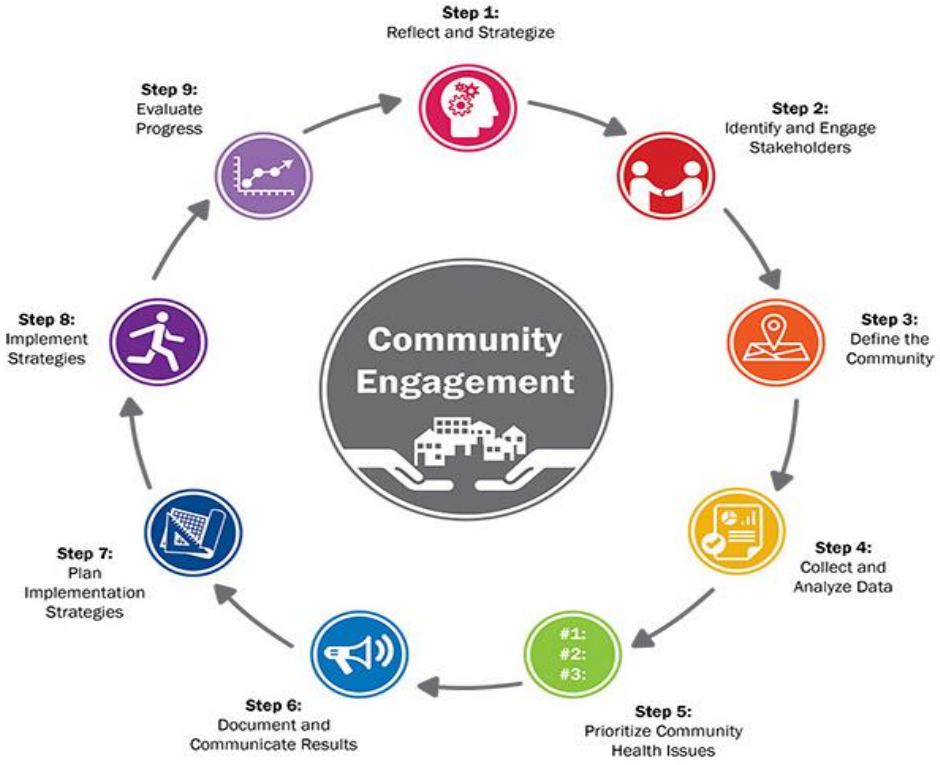
- To evaluate the health status of service area neighborhoods of West Roxbury, Roslindale, Hyde Park and Jamaica Plain and respond to identified needs.
- To pay particular attention to social determinates of health issues affecting children, the elderly, women and diverse populations who may experience health disparities, among others.
- To seek community participation in and feedback about our community health efforts, by involving community members in the hospital's planning, implementation and evaluation processes.
- To engage in meaningful, active collaboration with a broad range of community residents, schools, service organizations, businesses, government agencies and others to stay abreast of community needs, and to pool knowledge and resources in addressing those needs.

Community Health Needs Assessment and Community Health Improvement Plan

This report is from the Boston Collaborative Community Health Needs Assessment (CHNA), with supplementary data and information for the BWFH priority neighborhoods of Hyde Park, Jamaica Plain, Roslindale and West Roxbury. All qualitative and quantitative data collection was conducted between August 2018 and June 2019 and will inform discussions and priority areas for the upcoming CHIP. Figure 1 provides an overview of the CHNA-CHIP process.

In September 2019, along with BWFH Leadership, the CHNA Collaborative and the BWFH Community Engagement and Advisory Committee, BWFH's Community Health and Wellness Department will complete a CHIP to guide our efforts of improving the key health problems and social factors identified by the CHNA. The CHIP will be a 3-year plan to inform shared resources, support policy change and sponsor community-based programs to improve the health of our residents, especially those most in need. While this plan will contain BWFH's neighborhood-specific work, it will also be a shared effort that is driven by community partnership with the Collaborative.

Figure 1. Community Health Needs Assessment and Community Health Improvement Plan Process



SOURCE: Association for Community Health Improvement, 2017. Community Health Assessment Toolkit. Accessed at www.healthycommunities.org/assesstoolkit

Purpose and Scope of the 2019 Community Health Needs Assessment

In 2018, the Boston CHNA-CHIP Collaborative undertook a city-wide Community Health Needs Assessment to:

- Systematically identify the health-related needs, strengths and resources of a community to inform future planning.
- Understand the current health status of Boston overall and its sub-populations within their social context.
- Meet regulatory requirements for several institutions, organizations and agencies (e.g., IRS requirements for non-profit hospitals, PHAB for health departments).

Brigham and Women's Faulkner Hospital Patients

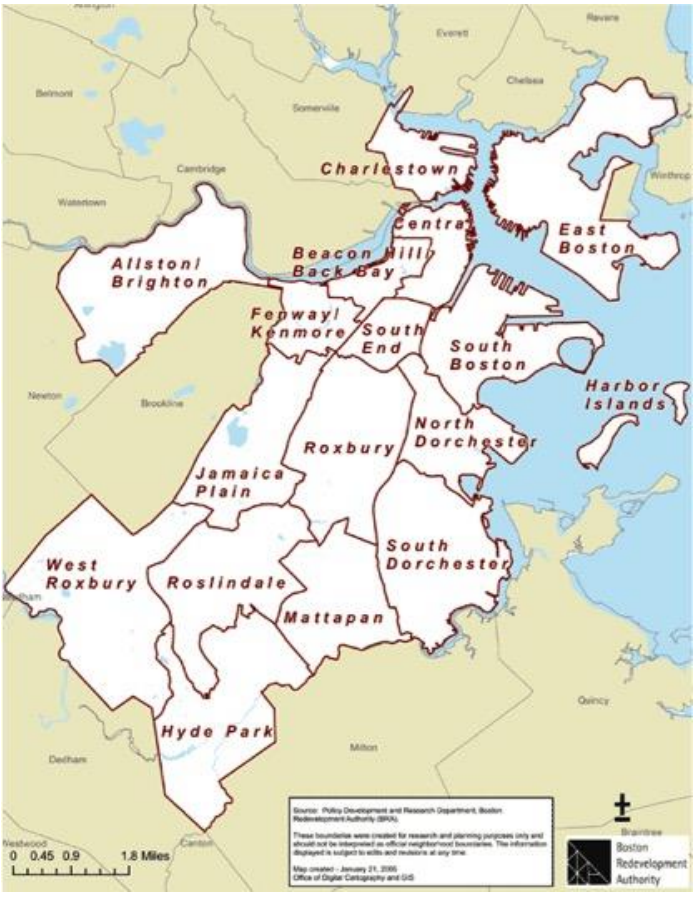
BWFH is located in the Jamaica Plain neighborhood of Boston. In FY 2018 BWFH served approximately 89,000 people, of which over 33,000 (37.1%) were residents of Boston. Of these residents 68.4% came from the following four neighborhoods, which BWFH defines as its priority neighborhoods:

- Hyde Park – 15.9%
- Jamaica Plain – 14.5%
- Roslindale – 19.4%
- West Roxbury – 18.5%

DATA SOURCE: Brigham and Women's Faulkner Hospital

The 2019 Boston CHNA focused on the geographic area of the City of Boston (Figure 2). Boston is a city of neighborhoods, and while the Collaborative CHNA is not driven by a neighborhood focus, BWFH highlighted the data for the priority neighborhoods of Jamaica Plain, Hyde Park, Roslindale and West Roxbury. Additionally, supplementary assessment that was done by BWFH was solely focused on those priority neighborhoods.

Figure 2. Map of Boston Neighborhoods



SOURCE: Boston Redevelopment Authority

KEY THEMES AND CONCLUSIONS

Through a review of the secondary data, a community survey and discussions with community residents and key informants, this assessment report provides a comprehensive overview of the social and economic environment, health conditions and behaviors that most affect residents and perceptions of strengths and gaps in the current environment across the city of Boston, with BWFH focusing on our priority neighborhoods of Hyde Park, Jamaica Plain, Roslindale and West Roxbury. Overarching themes that emerged from this synthesis that cut across multiple topic areas include the following:

While Boston is a young city, with about one-third of residents under the age of 24, concerns about the aging population and seniors were frequently identified by assessment participants**. With a current population of nearly 670,000 residents, Boston has experienced—and is expected to continue to experience—population growth across every neighborhood in the city.** Hyde Park is one experiencing double digit increases in population over the past 5 years. There is substantial variation in age profiles across neighborhoods however in our primary neighborhoods. Hyde Park and Roslindale are two that have the highest proportion of residents under age 18 while West Roxbury is one of two to have the highest proportion over age 65.

- **Boston is a richly diverse city in terms of racial, ethnic and linguistic population groups, though data show that diversity is not necessarily equally distributed across neighborhoods.** Boston has a large immigrant and non-English speaking community, and these groups were identified as facing unique challenges related to social and economic factors as well as navigating the health care system. The wide range of diversity of Boston residents presents challenges when delivering services and health care that aim to meet the multitude of needs across the city. BWFH's priority neighborhoods vary greatly in diversity. Black residents comprise a larger portion of the population in Hyde Park (42%) with Latino (27%) making up the next largest group in the neighborhood with over 43% of residents speaking a language other than English in the home; while West Roxbury is primarily (78%) white.
    - CHNA community survey results and conversations in focus groups indicated that subtle and overt discrimination is an issue in Boston, particularly for immigrants and non-English speakers, LGBTQ residents, older residents and youth, substance users and the homeless.

- **Although unemployment rates are low and there is economic opportunity for many residents across the city, there are substantial differences in financial security across neighborhoods and racial and ethnic groups.** Hyde Park's unemployment rate is higher than the Boston average (8.4%). The median household income in Boston is $62,021 but ranges greatly across neighborhoods. Financial insecurity was reported as a concern in the majority of focus groups and interviews, with participants indicating that it was one of the root causes of stress in their lives and reporting challenges meeting basic needs such as food, shelter and medical care. Risk-related behaviors and health outcomes generally continue to have inverse relationships with socioeconomic factors. Participants discussed the role poverty plays in exacerbating health challenges, particularly among vulnerable groups.

- **Housing affordability and its implications emerged as a key theme across secondary data, the community survey and focus groups and interviews**. In Hyde Park (58%), Jamaica Plain (69%) and Roslindale (59%)—housing quality or affordability emerged as the top health concern and in West Roxbury (35%) it was in the top five concerns (Boston CHNA Survey). A higher proportion of residents in rental units in Roslindale (62%), Jamaica Plain (58%) and West Roxbury (53%) are cost-burden, spending at least 30% of their income on housing costs, compared to Boston's overall average. Residents frequently discussed issues of gentrification, long wait lists for Section 8 housing, housing discrimination, overcrowding and poor housing quality as consequences of a tight and expensive housing market.

- **The impact of chronic diseases and their risk factors—especially diabetes and obesity—emerged as priority concern among residents.** Key informants and survey participants frequently discussed a number of social

determinants that presented challenges to the prevention and management of these chronic conditions. More than half of Boston adults and a third of Boston Public high school students report being obese. The percentage of overweight adults in Hyde Park, West Roxbury and Roslindale is more prevalent than the Boston average. Literacy was cited as a contributor, as well as lack of access to and affordability of fresh foods in this part of the city where transportation is sparse and grocery stores are often difficult to get to. Also discussed, specifically in Hyde Park and Roslindale was the concern that cultural diets may be a contributing factor in poorer health.

    - Hyde Park's data showed that diabetes continues to be higher than the Boston average. Hyde Park, Roslindale and West Roxbury all report higher than average rates of hypertension. Additionally, all of our neighborhoods have higher heart disease mortality rates, with Hyde Park being significantly higher for heart disease and stroke.

- **Behavioral health, specifically mental health and drug addiction among young people, is a growing concern among community residents**. Opioids and prescription medication remain a concern in our priority neighborhoods. In West Roxbury (59%) of survey respondents identified mental health as the top health concern. In focus groups and interviews, there was much focus on the impact of trauma and mental health, specifically with children and families. Additionally, Jamaica Plain's data showed higher suicide rates than Boston overall.

- **Violence and trauma were identified as important issues** that had significant impact on children's health trajectories and were risk factors for mental health and substance use disorders. Strengthening partnerships was a common theme among interview participants to address issues of community violence and trauma, and community connectedness. Locally, Jamaica Plain residents reported significantly higher rates of experienced violence in their lifetime than Boston overall.

- **Boston has many health care and social service assets that can be leveraged, but access to those services is a challenge for some residents who struggle accessing social services, health resources and public transportation.** Proximity of health care services and education institutions, diversity and multiculturalism and engaged residents were noted as key strengths among Bostonians that can be leveraged in future planning. Barriers to care were multifaceted and included underinsurance, language and immigration status, navigation and care coordination challenges, transportation and lack of culturally sensitive approaches to care.

METHODS

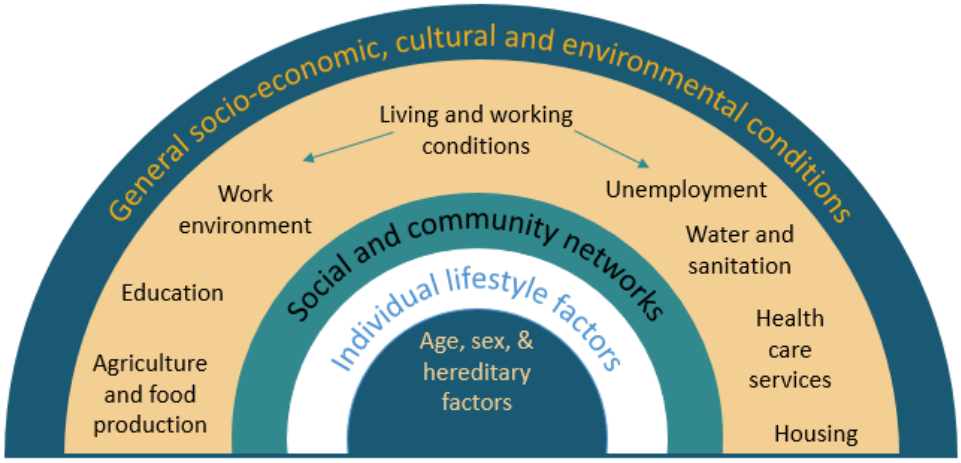
The following section details how data for the CHNA were compiled and analyzed, as well as the broader lens used to guide this process.

Social Determinants of Health Framework

Social Determinates of Health

Having a healthy population is about more than delivering quality health care to residents. Where a person lives, learns, works and plays all have an enormous impact on health. Health is not only affected by people's genes and lifestyle behaviors, but by factors such as employment status, quality of housing and economic policies. Figure 3 provides a visual representation of these relationships, demonstrating how individual lifestyle factors, which are closest to health outcomes, are influenced by more upstream factors such as employment status and educational opportunities.

Figure 3. Social Determinants of Health Framework



SOURCE: World Health Organization, Commission on Social Determinants of Health. (2005)

Health Equity Lens

The influences of race, ethnicity, income and geography on health patterns are often intertwined. In the United States, social, economic and political processes ascribe social status based on race and ethnicity, which may influence opportunities for educational and occupational advancement and housing options, two factors that profoundly affect health. Institutional racism, economic inequality, discriminatory policies and historical oppression of specific groups are a few of the factors that drive health inequities in the U.S.

In the present report, we describe health patterns for Boston overall and areas of need for particular population/neighborhood groups. Understanding factors that contribute to health patterns for these populations can facilitate the identification of data-informed and evidence-based strategies to provide all residents with the opportunity to live a healthy life.

Approach and Community Engagement Process

Collaborative and Work Group Structure

The CHNA aimed to engage agencies, organizations and residents in Boston through different avenues. The Collaborative's structure provided an engagement and decision-making framework for this work. It is comprised of the following:

- *Steering Committee* – comprised of 19 members representing hospitals, health centers, Boston Public Health Commission, public health organization focused on community, community development corporations and

community representatives. Its role is to provide strategic direction and oversight of the process (See the Appendix A for list of Steering Committee members).

- *Operations Committee* – comprised of Steering Committee Co-Chairs and the Collaborative's Coordinator. This committee resolves operational issues requiring immediate actions.
- *Work Groups* – comprised of general membership and open to anyone who is interested in being involved. The Work Groups provide input and assistance on implementing CHNA-CHIP activities. For the Boston CHNA, two work groups were formed:
    - *Secondary Data Work Group* – comprised of 32 members representing a range of organizations, including hospitals, health centers, local public health and community-based organizations, among others. The Work Group's charge is to provide guidance on secondary data approach and indicators and foster connections with key networks and groups to provide relevant data (See Appendix B for list of members).
    - *Community Engagement Work Group* – comprised of 54 members representing a range of organizations, including hospitals, health centers, local public health, education, community development, social services and community-based organizations, among others. The Work Group's charge is to provide guidance on the approach to community engagement, input on primary data collections methods and support with logistics for primary data collection (See Appendix B for list of members).
- *General Membership* – attends events, shares in formation and participates in Work Groups.

The Collaborative hired Health Resources in Action (HRiA), a non-profit public health organization, as a consultant partner to provide strategic guidance and facilitation of the process, collect and analyze data and develop the report deliverables.

Engagement and Outreach Strategy

As noted, two work groups—the Community Engagement Work Group and Secondary Data Work Group—provided input and support throughout the CHNA process. The Community Engagement group identified the goals of the community engagement process as 1) to ensure that diverse community voices are represented throughout the CHNA-CHIP process; and 2) to involve community members and stakeholders in the development and implementation of the CHNA-CHIP process to achieve shared ownership of the process and product.

During the CHNA process, the Community Engagement Work Group was instrumental in developing the goals and methods for the primary data and the community engagement approach for the CHNA, identifying topics to explore for data collection and population groups that were highest priority, reaching out to community groups and residents for engagement, providing feedback on the survey instrument and focus group and interview guides, and pilot-testing the survey instrument. Members met seven times in a series of virtual and in-person meetings over eight months and were also engaged by email and telephone between meetings to provide feedback throughout the process.

In addition to providing guidance and input on methods, members played an integral role in data collection efforts. Work group members volunteered to conduct interviews, recruit for focus groups, facilitate focus groups, and administer surveys in-person and via social media and email. As part of this effort, orientation sessions were offered to work group member volunteers to provide an overview of data collection protocols, including logistics, roles, and best practices.

The Secondary Data Work Group members identified the goals of the secondary data as: 1) to examine inequities by population group: by race/ethnicity, gender, age, sexual orientation, socioeconomic status (SES), etc.; 2) to provide a baseline for community health level data to track over time; and 3) to present trends to identify emerging issues or whether there have been changes over time for issues of concern. The Secondary Data Work group approach to the secondary data focused on diving delve deeply into topic areas identified from previous assessments and frame the discussion around the social determinants of health.

The Secondary Data Work Group was instrumental in developing and providing feedback on list of data indicators, identifying potential data sources, and making connections to those sources. Members met six times in a series of virtual and in-person meetings over eight months and were also engaged by email and telephone between meetings to provide feedback throughout the process. The Secondary Data Work Group and Community Engagement Work Group met collaboratively in October 2018 to ensure alignment across methods, and again in late April 2019 for a large-group synthesis of preliminary data. This April 2019 three-hour "Data Day" meeting provided an opportunity to reflect on preliminary data by topic area and collaboratively interpret preliminary data in the form of data placements to inform the draft CHNA report.

Secondary Data: Review of Existing Secondary Data

Secondary data are data that have already been collected for another purpose. Examining secondary utilizes data that we already have to understand trends, provide a baseline, and identify differences by sub-groups. It also helps in guiding where primary data collection can dive deeper or fill in gaps. While the secondary data for this CHNA cover a wide range of issues, there is a particular focus to dive more deeply into areas already identified in previous assessments (e.g., housing, transportation, income, employment, education, mental health, substance, chronic conditions and their risk factors, violence and trauma, and access to services) as well as frame the discussion comprehensively around the social determinants of health.

Data Sources

Secondary data for this CHNA were from a variety of sources, including the Boston Behavioral Risk Factor Surveillance Survey (BBRFSS), Youth Risk Behavior Survey (YRBS), U.S. Census American Community Survey (ACS), vital records, Acute Hospital Case Mix Database from the Center for Health Information and Analysis, and a number of other agencies and organizations.

Analyses

For the most part, secondary data on birth and death records, BBRFS, YRBS, and Acute Hospital Case Mix were analyzed by the Research and Evaluation Office of the Boston Public Health Commission. Other data were analyzed by the organizations cited in the data source. Analyses are presented as frequencies (percentages) and rates throughout the report. Data from the ACS and surveillance systems, such as the BBRFSS and YRBS, are presented with confidence intervals (or error bars in the figures), where possible. When statistical significance testing was conducted, it is noted in figures or in text. Specifically, when the word "significantly" is used in the text it connotes statistical significance ($p<0.05$).

Limitations

Each data source for the secondary data has its own set of limitations. Overall, for the data in this report it should be noted that different data sources use different ways of measuring similar variables (e.g., different questions to identify race/ethnicity; different boundaries for neighborhoods). There may be a time lag for many data sources from the time of data collection to data availability. Some data are not available by specific population groups or at a more granular geographic level due to small sub-sample sizes. In some cases, data from multiple years may have been aggregated to allow for data estimates at a more granular level or among specific groups.

It should also be noted that for the datasets used, it is not possible to examine data in a more granular way. For example, data are examined by race/ethnicity and by neighborhood, but the sample sizes are not large enough to look at data by race/ethnicity within neighborhood. Additionally, while data are examined by major categories of races and ethnicities (e.g., White, Black, Latino, Asian), it is not possible for most of these data sources to examine data of sub-population groups within these categories (e.g., Chinese descent, Vietnamese descent).

Primary Data

Primary data are new data collected specifically for the purpose of the CHNA. Goals of the Boston CHNA primary data were: 1) to delve deeply into people's perceptions, lived experiences, challenges, and facilitators around certain issues; and 2) to fill in gaps on specific topic areas or population groups where limited data were available. Primary data were

collected using three different methods for the Boston CHNA: a community survey, focus groups, and key informant interviews.

Boston CHNA Community Survey

A community survey was developed and administered over six weeks in February–March 2019. The survey focused on a range issues related to the social determinants of health, community perceptions, and access to care and was developed with extensive input from the Community Engagement Work Group and guided by existing validated questions from the field or used in other studies. The survey was pilot-tested in late January 2019, and the final instrument was launched in February 1, 2019 with wider dissemination starting the following week. The survey was administered on-line and via hard copy in seven languages (English, Spanish, Portuguese, Haitian Creole, Chinese, Vietnamese, and Arabic). Extensive outreach was conducted by Collaborative members to disseminate the survey via social media, institutional e-newsletters, e-mails to large networks, waiting rooms, 13 Boston Public Library neighborhood branches, community events, and large apartment buildings. Additionally, Healthy Community Champions (an initiative of grassroots ambassadors) conducted targeted survey administration in specific neighborhoods.

The final sample of the CHNA Community Survey comprises 2,404 respondents who were Boston residents. Table 1 provides the breakdown of those respondents by self-identified neighborhood of residence and compares the percent distribution of that neighborhood in Boston.

Of our priority neighborhoods of Hyde Park, Jamaica Plain, Roslindale and West Roxbury, there were 558 respondents making up 23.1% of the total respondents.

Table 1. Boston CHNA Survey Respondents Distribution by Priority Neighborhood Compared to % of Population in Boston

Neighborhood	# of Survey Respondents (N=2,404)	% of Survey Respondents	% of Population in Boston†
Hyde Park	101	4.2%	5.0%
Jamaica Plain	203	8.4%	5.9%
Roslindale	157	6.5%	4.9%
West Roxbury	97	4.0%	4.3%

DATA SOURCE: Boston CHNA Survey, administered by HRiA Consulting

Focus Groups and Key Informant Interviews

Focus Groups

Thirteen focus groups were conducted with specific populations of interest: 12 focus groups conducted specifically for the collaborative CHNA and one additional focus group conducted by work group members who submitted notes for the CHNA. Focus groups were 90-minute semi-structured conversations with approximately 8-12 participants per group and aimed to delve deeply into community's needs, strengths, and opportunities for the future. Focus groups were conducted with the following populations:

- Female low-wage workers (e.g. housekeepers, child care workers, hotel service workers, etc.)
- Male low-wage workers (e.g. janitorial staff, construction, etc.)
- Seniors (ages 65+) with complex, challenging issues (e.g. homebound, medical complications)
- Residents who are housing insecure (no permanent address or close to eviction)
- Latino residents in East Boston (in Spanish)
- LGBTQ youth and young adults at risk of being homeless
- Immigrant parents of school age children (5-18 years)
- Survivors of violence; mothers who have been impacted by violence
- Parents who live in public housing in Dorchester
- Chinese residents living in Chinatown (in Chinese)

- Haitian residents living in Mattapan (in Haitian Creole)
- Residents in active substance use recovery
- Additional focus group with notes provided: Chinese residents living in Chinatown

A total of 104 community residents participated in focus groups, representing 13 neighborhoods across the city. Nearly half of focus group participants identified as Black or African American (45%), a third of participants identified as Hispanic or Latino (34%), and 10% identified as White. The majority of participants identified as female (57%), 36% identified as male, and 7% identified as transgender or genderqueer. Fifteen community and social service organizations located throughout Boston assisted with recruiting participants and/or hosting focus groups.

Key Informant Interviews
A total of 45 key informant interviews were completed, 6 of which were additional interviews submitted by Work Group volunteers. Additionally, 15 interview surveys were done by BWFH to gain more insight into and perspective on our priority communities of Hyde Park, Jamaica Plain, Roslindale and West Roxbury. Interviews were semi-structured discussions and surveys that engaged institutional, organizational and community leaders and front-line staff across sectors and for BWFH they were solicited from our Community Engagement and Advisory Committee. Discussions explored interviewees' experiences of addressing community needs and opportunities for future alignment, coordination and expansion of services, initiatives and policies. Sectors represented in these interviews included public health, health care, housing and homelessness, transportation, community development, faith, education, public safety, environmental justice, government, workforce development, social services, food insecurity and business organizational staff that work with specific population such as youth, seniors, disabled, LGBTQ, and immigrants.

Brigham and Women's Faulkner Hospital Community Engagement and Advisory Committee

Purpose Statement
BWFH's Community Health and Wellness Department has a long-standing commitment to the community to improve access to healthcare and address social determinants of health issues. A key aspect to the success of this work is developing and maintaining active, collaborative relationships with the community.
The Community Engagement and Advisory Committee (CEAC) provides an opportunity for community input and engagement and involvement in the CHNA/CHIP. It also offers a unique perspective on community needs, resources and connections to implement the Community Benefits Mission and Plan in the most efficient and effective manner. Membership includes those from a variety of local organizations, community partners and residents. A full membership list can be found in Appendix C.

Key Goals
- Provide active participation and input to better serve the community health needs assessment and plan
- Facilitate communication and sharing, developing collaborative initiatives and partnerships
- Assist in making community connections and fostering relationships in the community
- Represent and offer a unique perspective and feedback on what the community needs are and how best to meet them

DEMOGRAPHICS

Population Overview

Population Count and Characteristics

With a current population of nearly 670,000 residents (Table 2), Boston has experienced population growth of nearly 8% in the last several years. The city is expected to continue to experience growth. Growth rates across neighborhoods vary. Hyde Park is one neighborhood that has experienced double digit increases in population over the past five years.

Additionally, overall, the city is a young one, with about one third of residents under the age of 24. There is substantial variation in age profiles across neighborhoods. Our primary neighborhoods of West Roxbury, Hyde Park and Roslindale are neighborhoods that have some of the highest proportion of residents under age 18. West Roxbury also has the highest proportion of residents over age 65 (Table 2).

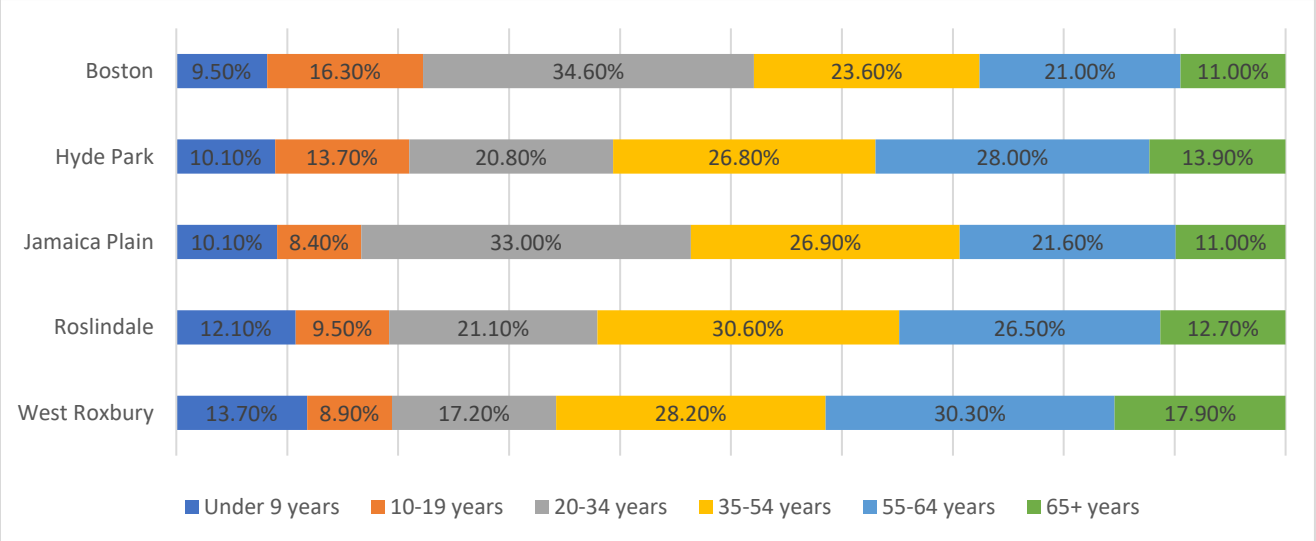
Table 2. Total Population, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2008–2012 and 2013–2017

	2008–2012	2013–2017	% Population Change 2012–2017
Boston	619,662	669,158	8.0%
Hyde Park	29,219	33,084	13.2%
Jamaica Plain	36,866	39,435	7.0%
Roslindale	30,370	32,819	8.1%
West Roxbury	27,163	28,505	4.9%

DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2008–2012 and 2013–2017

Further granular breakdowns of the under 9-year-old and 65+-year-old categories within each neighborhood (Figure 4) shows that West Roxbury is a neighborhood with both the largest percentage of children under 9 years old and of those 65+ years old.

Figure 4. Age Distribution, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017



DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017
NOTE: Neighborhoods as defined by Boston Public Health Commission

Racial, Ethnic, Cultural and Language Diversity

Boston is a diverse city with 23% of residents identifying as Black, 20% identifying as Latino and nearly 10% identifying as Asian. Boston has a large immigrant community, with over 28% of Boston residents born outside the United States, most having been born in the Caribbean or Asia. One third of residents speak a language other than English at home, the most prevalent language being Spanish. Diversity among younger residents is greater than among older residents. At the neighborhood level, diversity varies substantially. Black residents comprise a larger portion of the population in Hyde Park (42%), with Latino (27%) making up the next largest group in the neighborhood (Table 3). Between 2012 and 2017, Latinos experienced the largest population growth of all racial and ethnic groups.

Table 3. Racial and Ethnic Distribution, by Boston and Priority Neighborhood, 2013–2017

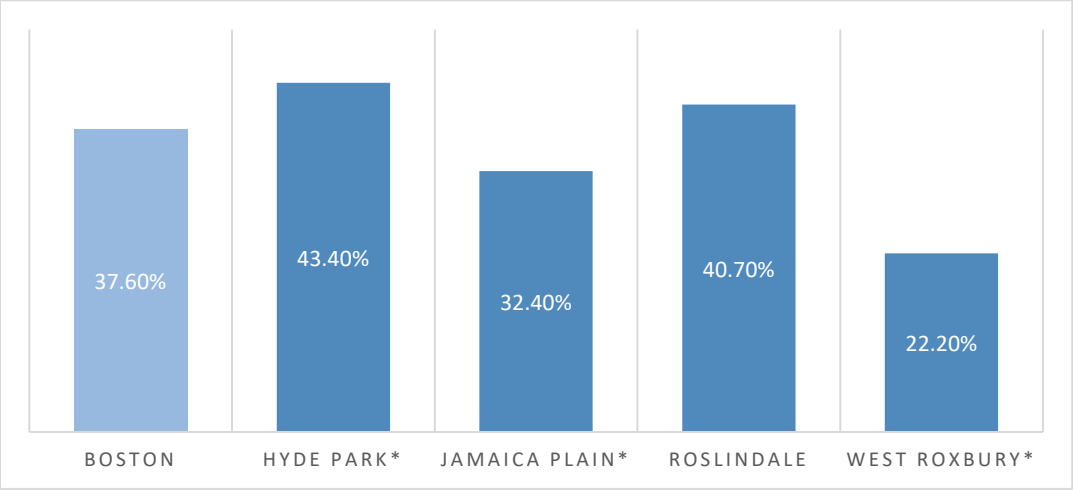
	Asian	Black	Latino	White	Other
Boston	9.4%	22.7%	19.4%	44.9%	3.6%
Hyde Park	2.1%	42.2%	27.1%	25.1%	3.4%
Jamaica Plain	6.7%	10.6%	21.8%	56.8%	4.0%
Roslindale	2.2%	21.4%	24.5%	48.9%	3.0%
West Roxbury	6.7%	5.6%	7.9%	77.8%	2.0%

DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017

Language Diversity

Boston is a city of many languages. Nearly 38% of residents speak a language other than English at home (Figure 5), and those numbers are significantly higher for several neighborhoods, including Hyde Park and Roslindale, compared to Boston overall. This language diversity was considered a major strength of the city, according to focus group participants, especially those who were non-English speakers. Spanish was the dominant language other than English, spoken by all of our priority neighborhoods (Table 4).

Figure 5. Percent Population 5 Years and Over Who Speak a Language Other Than English, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017



DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017
NOTE: Neighborhoods as defined by Boston Public Health Commission; Asterisk (*) denotes where the neighborhood estimate is significantly different compared to the Boston estimate ($p<0.05$)

Table 4. Most Common Language Other Than English Spoken and Percent Population 5 Years and Over Who Speak the Language, by Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017

	Most Common Language Spoken	Percent
Hyde Park	Spanish	22.6%
Jamaica Plain	Spanish	18.8%
Roslindale	Spanish	21.5%
Roxbury	Spanish	25.3%
West Roxbury	Spanish	5.4%

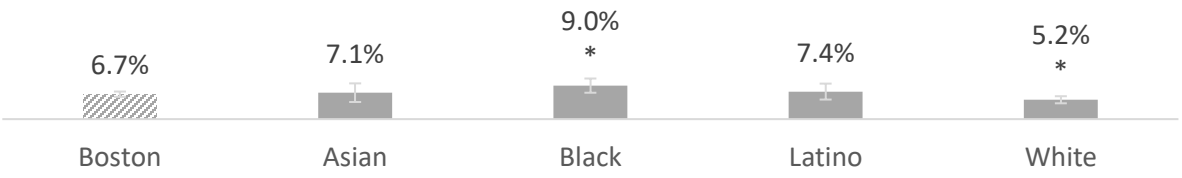
DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017

Employment and Workforce

Employment Rate and Industry

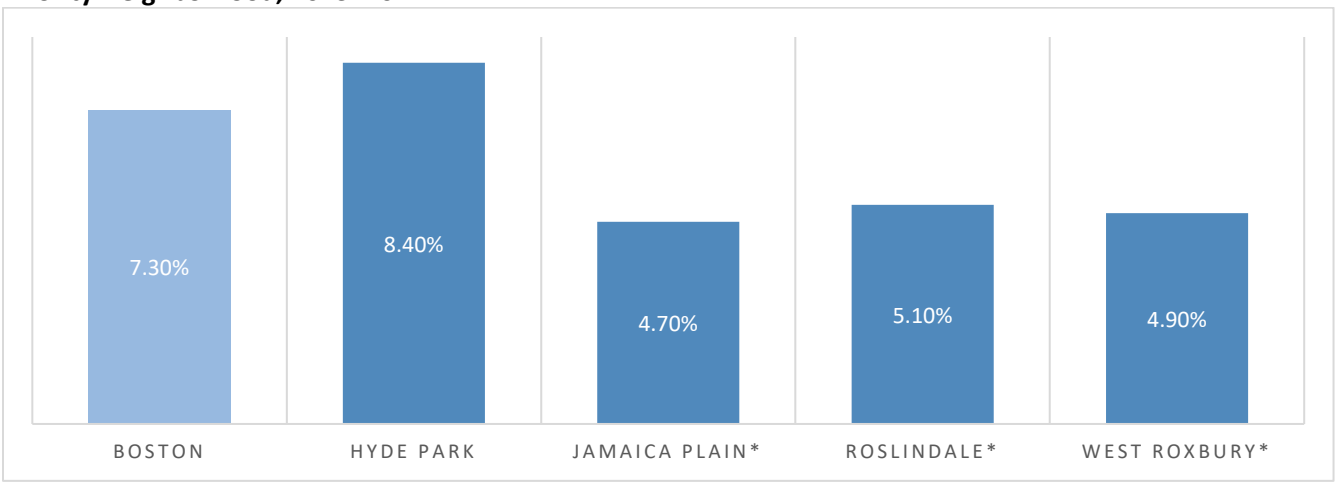
Boston, like much of the rest of the nation, has experienced an economic upturn in recent years. In 2018, Boston had an unemployment rate of 3%. Quantitative data indicate differences in the proportion of residents who are not employed. Boston's unemployment rate in 2017 was 6.7% overall; however, unemployment rates are far higher for Black residents at 9% (Figure 6) and in our primary service area of Hyde Park at 8.4% (Figure 7). Those with lower education or fewer skills (especially in technology), immigrants and those with a criminal record were also reported to experience employment challenges. Boston's largest employers are in the healthcare and education sectors; these sectors have experienced substantial employment gains over the past 15 years, while manufacturing and utilities have experienced decreases. Numerous Boston CHNA survey respondents reported feeling underemployed, wanting higher pay or desiring more job satisfaction. Focus group members and interviewees saw a need for more trade schools and job centers and more opportunities for young people to access employment opportunities.

Figure 6. Percent Population 16 Years and Over Unemployed, by Boston and Race/Ethnicity, 2017



DATA SOURCE: U.S. Census, American Community Survey 1-Year Estimates, 2017
NOTE: Asterisk (*) denotes race/ethnicity estimate was significantly different compared to the Boston estimate ($p < 0.05$); Error bars show 95% confidence interval

Figure 7. Percent Population 16 Years and Over Unemployed, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017

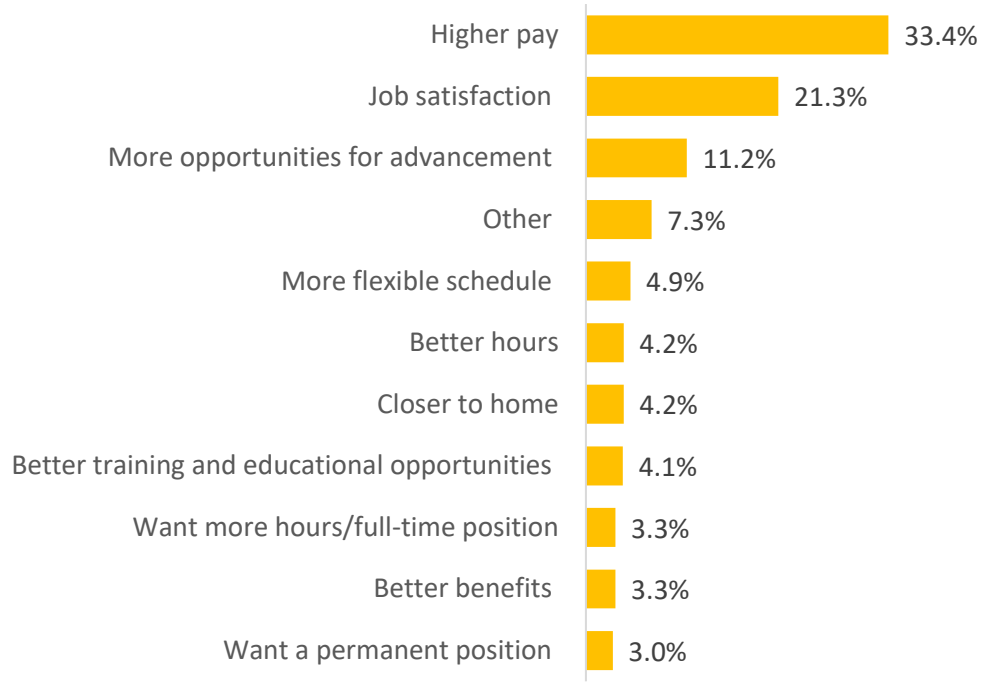


DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017

Employment Challenges and Satisfaction

Two main themes emerged from the data collection with Boston residents (Figure 8): employment satisfaction and challenges in securing a competitive job. Numerous Boston CHNA survey respondents reported feeling underemployed, wanting higher pay or desiring greater job satisfaction. Nearly 30% of Boston CHNA survey respondents indicated that they felt they had more training and experience than was required to perform their current job, and another 18% indicated this was possibly true (see Appendix I). Of the 978 CHNA survey respondents who answered that they were looking for a new job, the most commonly cited reason for looking was higher pay (33.4%) followed by job satisfaction (21.3%) and more opportunities for advancement (11.2%).

Figure 8. Percent Boston CHNA Survey Respondents Reporting Primary Reason for Looking for a New Job (N=978), 2019



DATA SOURCE: Boston CHNA Community Survey, 2019
NOTES: Data arranged in descending order; Percentage calculations exclude respondents who selected "not looking for a new job"

Focus group participants, however, were more likely to discuss the challenges of securing a job rather than job satisfaction itself. These challenges included educational requirement, changing hiring processes, technology skills and having a criminal record. For example, many focus group participants discussed how formal educational requirements for a job are a significant initial barrier. Participants identified the need for more trade schools and job centers that can help residents access well-paying jobs that create pathways beyond entry-level positions. They also stressed that it is imperative that training opportunities are accessible to working parents, taking in to consideration issues like childcare, time and cost.

Focus group participants, especially parents, also discussed the importance of encouraging youth employment, both for young people to learn important skills and to focus their time on positive activities. While there are a number of youth workforce programs in the city, many youths find it challenging to get a job. Key informant interviewees explained that it is imperative that these opportunities include a focus on technology and "21st century skills" like computer programming, professional communication and critical thinking. Further, it was noted that transportation poses a

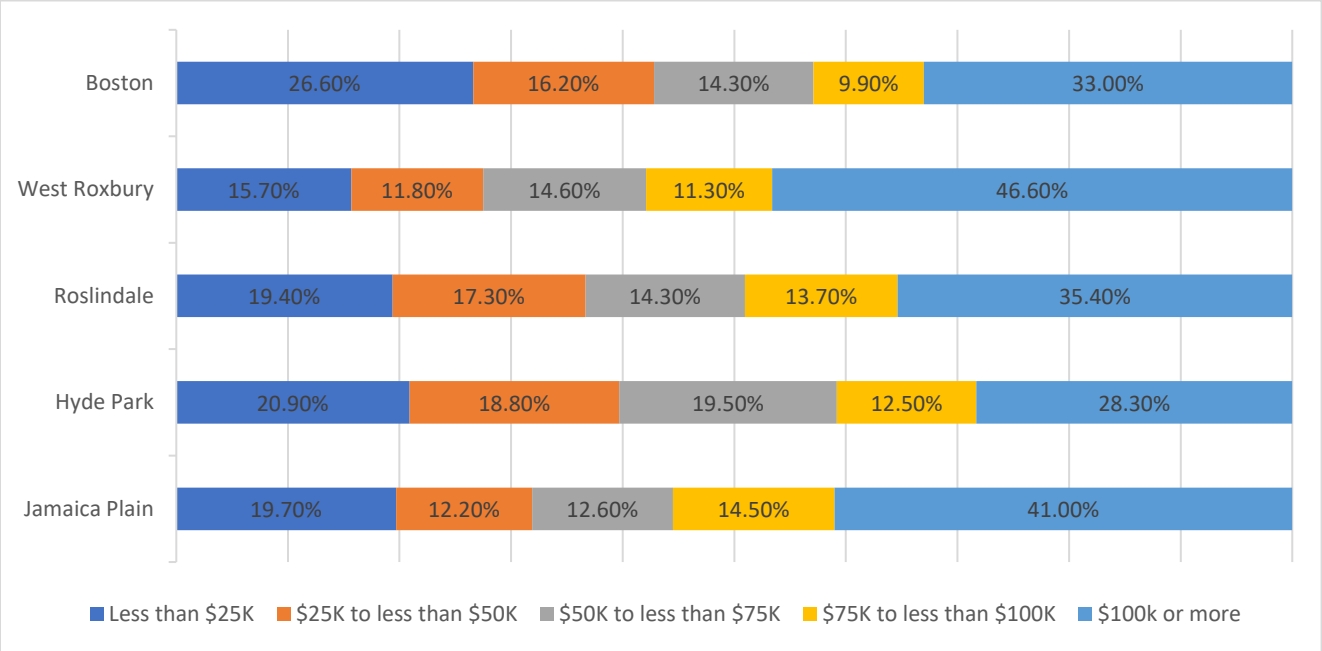
challenge for young people to access employment opportunities, so it is important that jobs are available within their communities or can offset transportation barriers.

Income and Financial Security

Household Income and Poverty

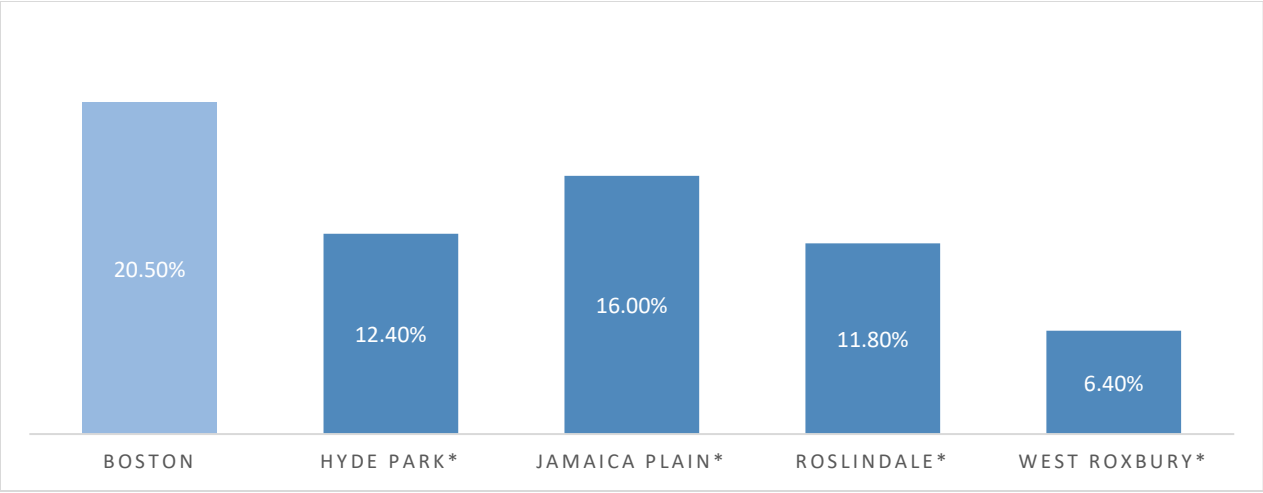
Financial insecurity was reported as a concern in the majority of focus groups and interviews, with participants indicating that it was one of the root causes of stress in their lives, and reporting challenges meeting basic needs such as food, shelter and medical care. Focus group participants across geographies often attributed these financial stressors to stagnant salaries, higher costs of living and difficulty balancing multiple low-wage jobs. Figure 9 and 10 show our priority neighborhoods in comparison to Boston overall for household income distribution and poverty levels.

Figure 9. Household Income Distribution, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017



DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017
NOTE: Neighborhoods as defined by Boston Public Health Commission

Figure 10. Percent Population Living Below Poverty Level, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017

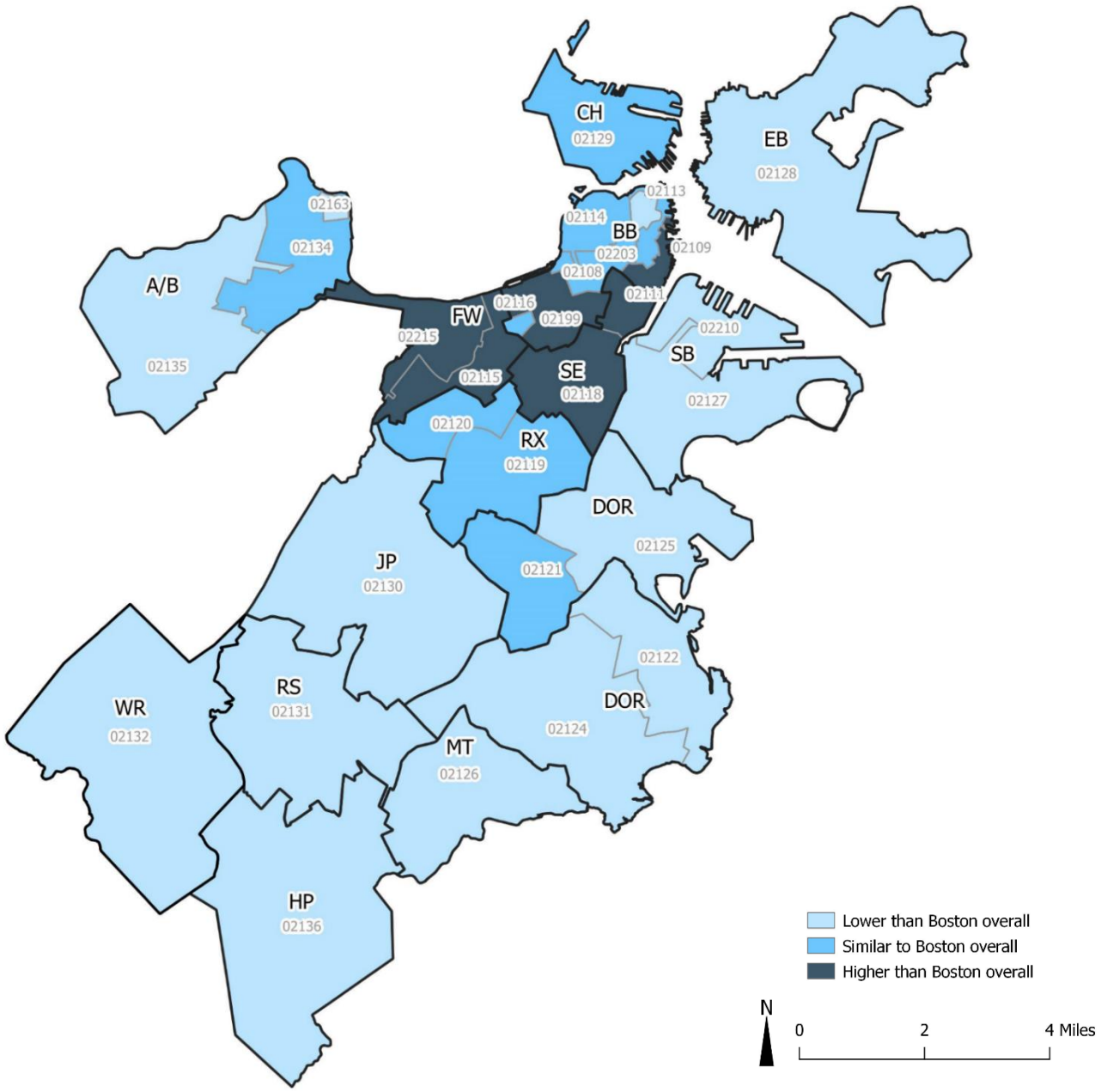


DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017
NOTE: Neighborhoods as defined by Boston Public Health Commission; Asterisk (*) denotes neighborhood estimate was significantly different compared to the Boston estimate ($p < 0.05$)

Income Inequality and the Wealth Gap

Income inequality of a community is expected to have direct effects on an individual's own income status, as well as indirect effects that can affect health, regardless of one's own income status. Studies have discussed that increases in income inequality could affect the availability of goods and services, the enforcement of laws banning unsafe consumer products, the benefits and costs of higher education, the social bonds among relatives and neighbors or the distribution of political influence.[1] The Gini Index is a common measure used to identify the level of income inequality in a given population, ranging from 0 (generally reflecting income equality) to 1 (generally indicating highest levels of income inequality). As shown on Figure 11, all four neighborhoods have a lower than Boston average (0.5425).

Figure 11. Gini Index, by Zip Code, 2013–2017



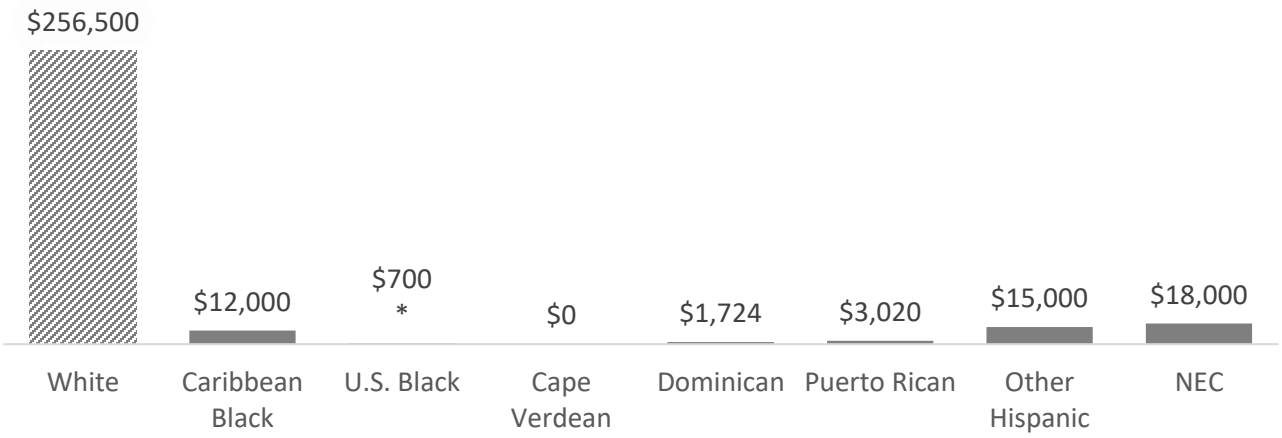
DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017

Numerous participants across focus groups perceived that there is growing economic inequality in communities of color compared to their White counterparts. People noted the gentrification of neighborhoods and rising cost of living was having a disproportionate impact on lower income families and communities of color.

> WHEN FAMILIES ARE STRUGGLING, THEY HAVE A HARD TIME GETTING THE SEEMINGLY LITTLE THINGS RIGHT, LIKE FOOD, EXERCISE AND ROUTINES. FAMILY SUPPORT IS ESSENTIAL.
>
> *BWFH Key Informant, Jamaica Plain*

Data on wealth were not available for the City of Boston, but studies have looked at the wealth of the Boston Metropolitan Statistical Area (MSA) which is comprised of the Massachusetts counties of Norfolk County, Plymouth County, Suffolk County, Middlesex County and Essex County and the New Hampshire counties of Rockingham Countyand Strafford County. In a Federal Reserve Bank of Boston 2015 report which focused on examining wealth disparities between residents who identify as White, U.S. born Black, Caribbean Black, Cape Verdean, Puerto Rican and Dominican, the median value of total assets for White residents in the Boston MSA was$256,500, far exceeding the assets reported for any racial/ethnic minority group in 2014 (Figure 12). Among residents of color, the highest household assets were reported among non-Caribbean Hispanic residents ($15,000), followed by residents who identified as Caribbean Black ($12,000). Of note, Cape Verdean ($0) and Black/African American residents ($700) had the lowest reported household assets in 2014. These patterns reflect themes in focus groups and interviews suggesting that residents of color across Boston are struggling to make ends meet, let alone get ahead financially.

Figure 12. Median Value of Total Assets Reported to Be Held by Households (in U.S. Dollars), by Boston Metropolitan Statistical Area, 2014



DATA SOURCE: Duke University, National Asset Scorecard for Communities of Color (NASCC), Boston NASCC survey, as analyzed and reported by Muñoz, A. P. et al, Federal Reserve Bank of Boston, The Color of Wealth in Boston (2015), 2014

Challenges of Financial Insecurity

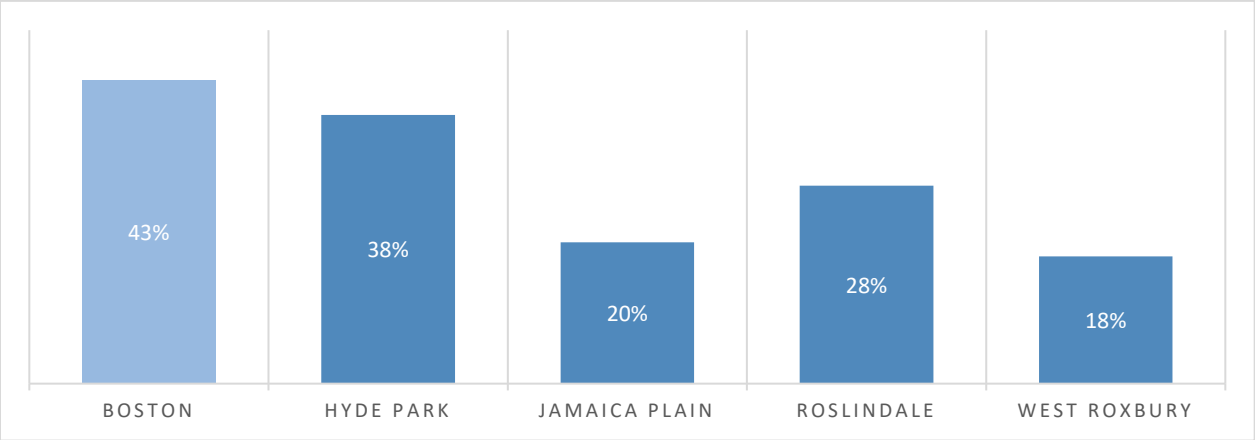
Financial insecurity was a major theme across many focus groups. Participants talked about the challenges of making ends meet. Across most groups, participants spoke of having to live paycheck to paycheck and being unable to save any additional income for emergencies.

According to key informants and non-English focus group participants, residents who were undocumented and new immigrants were especially vulnerable to financial instability between no documentation, limited power and the desire to support their families in their country of birth.

Multiple focus group participants also described what is known as “the cliff effect”—when a minor increase in income can cause a swift and total loss of benefits that are often more than the financial raise.

Figure 13 presents data by neighborhood on the percent of the population with subprime credit scores. The proportion of residents with subprime credit scores ranged from a low of 8% to a high of 51%. In BWFH's priority neighborhoods, Hyde Park was one of the highest at 38%.

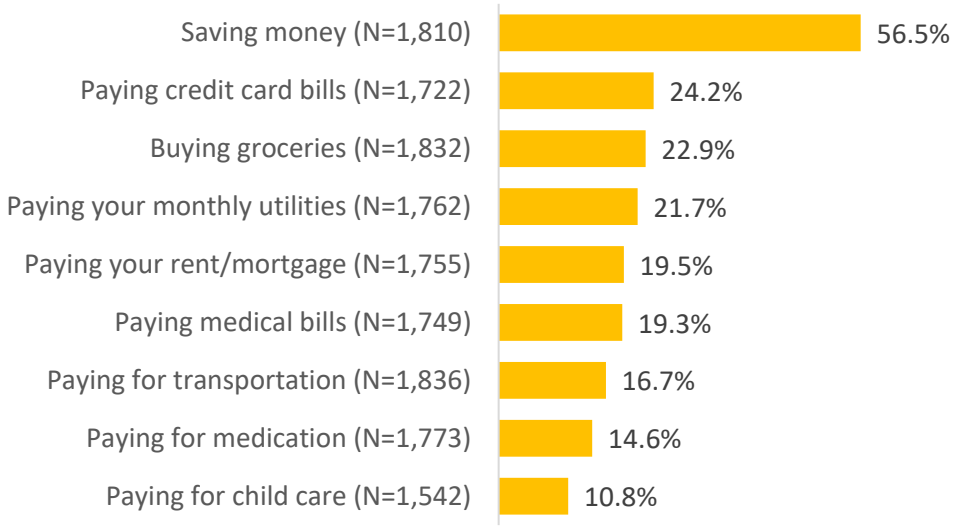
Figure 13. Percent Population with Subprime Credit Score (< 660), by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhoods, 2017



DATA SOURCE: Federal Reserve Bank of New York (FRBNY) Consumer Credit Panel/Equifax, as cited in Federal Reserve Bank of Boston, The Concentration of Financial Disadvantage: Debt Condition and Credit Report Data in Massachusetts Cities and Boston Neighborhoods (2018), 2017Q2
NOTE: Neighborhoods are defined per Boston Planning & Development Authority definitions (http://www.bostonplans.org/getattachment/d09af00c-2268-437b-9e40-fd06d0cd20a2)

Boston CHNA survey respondents were asked whether they had troubles financially in several different areas. The most common form of financial insecurity reported amongst Boston CHNA survey respondents was saving money (57%), as reported by half of participants. One quarter of respondents reported challenges in paying credit card bills (24%) or purchasing groceries (23%). One in five respondents indicated trouble paying utilities (22%), rent/mortgage (20%) and medical bills (19%). Nearly 11% of survey respondents noted that they had trouble paying for child care (Figure 14).

Figure 14. Percent Boston CHNA Survey Respondents Reporting Having Trouble with Finances, by Type of Finances, 2019



DATA SOURCE: Boston CHNA Community Survey, 2019
NOTES: Percentage calculations do not include respondents who selected "don't know/prefer not to answer"

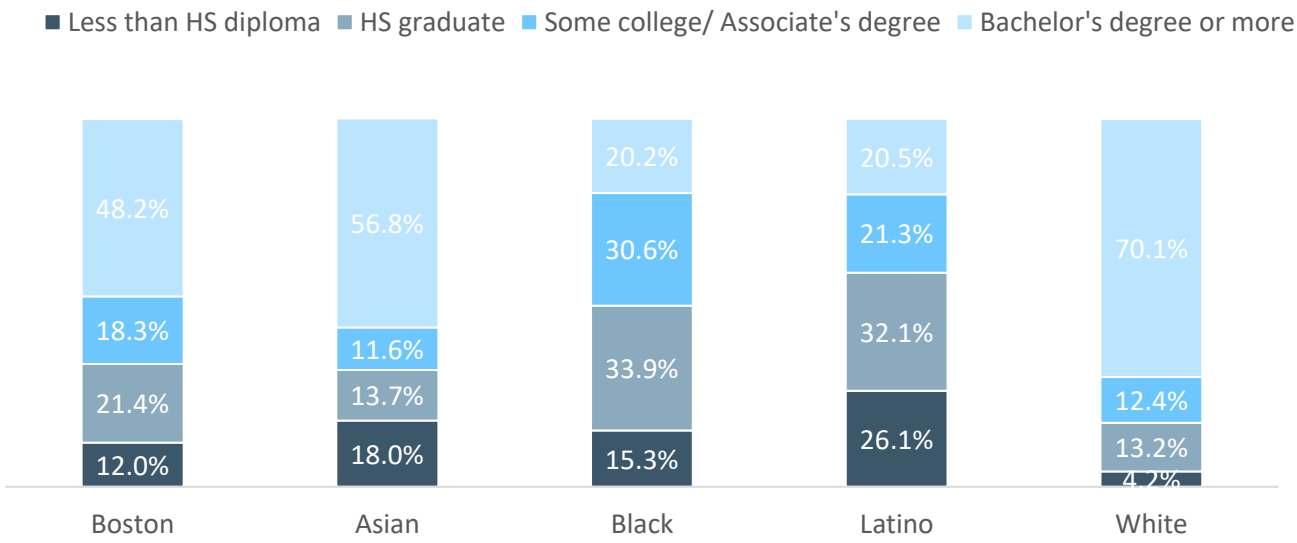
Education

Educational Attainment

Among residents engaged in CHNA data collection, education was an important factor. As discussed later in this report, when Boston CHNA survey respondents were asked what defines a "healthy community," education was the fifth most cited factor in a list of 20 provided, with 45% stating it was an important defining characteristic of their ideal healthy community. Similarly, focus group participants connected educational attainment with health outcomes in their communities and perceived that increasing opportunities for educational achievement ultimately leads to healthier communities. A few key informants described education in the city of Boston as a strength, mentioning a rich history of public education and increased efforts for structural commitments to support students' social-emotional needs.

Overall, Boston is a highly educated city (Figure 15) with nearly half of adults (48.2%) ages 25 years old or older holding a college degree or more. However, there are stark differences by race/ethnicity and by neighborhood. Nearly seven in ten White residents hold a college degree, while only two in ten Black and Latino residents do. Nearly six in ten Asian residents hold a college degree. With 26.1%, Latino adult residents are most likely to not have a high school diploma. Only 4% of White adult residents do not hold a high school diploma, while the figure is 18% among Asian adult residents and 15% among Black residents.

Figure 15. Educational Attainment for Population 25 Years and Over, by Boston and Race/Ethnicity, 2017



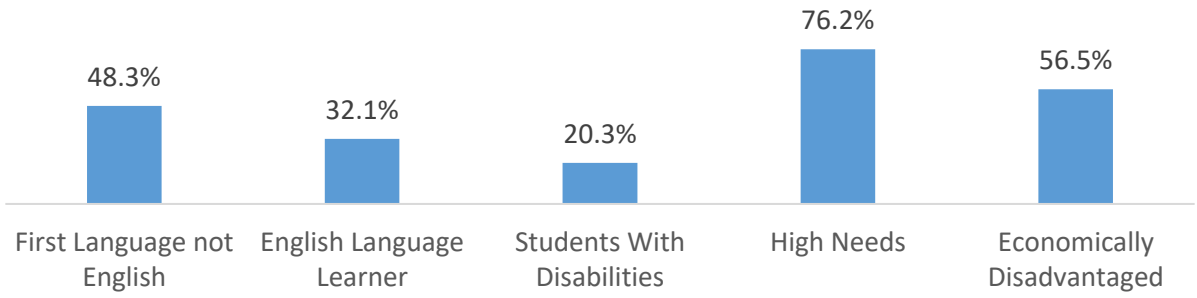
DATA SOURCE: U.S. Census, American Community Survey 1-Year Estimates, 2017

School-Age Students

Addressing the educational needs of specific population groups was an issue discussed in several focus groups and interviews. Children with special needs, undocumented students, and those who have experienced trauma were identified as groups that needed more support in and outside of the classroom.

As such, the student population in Boston Public Schools is diverse in their needs. Figure 16 shows that 32.1% of Boston Public School students are considered English Language Learners (defined as a student whose first language is a language other than English and who is unable to perform ordinary classroom work in English), 20.3% are students with disabilities and 56.5% are considered economically disadvantaged. Altogether, 76.2% of Boston Public School students are deemed high needs, as either being low income, economically disadvantaged, being a current or former English Language Learner or having a disability.

Figure 16. Percent Boston Public School Students Enrolled, by Selected Sub-Populations, 2019

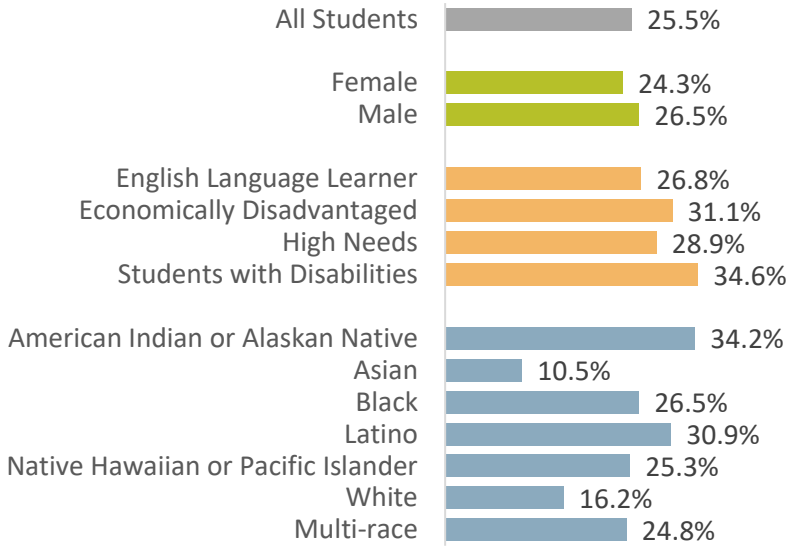


DATA SOURCE: Massachusetts Department of Elementary and Secondary Education, School and District Profiles, Selected Populations, 2019

Chronic absenteeism (defined as students who are absent 10% or more of their total number of student days of membership in a school) was a concern among parents and those in the educational field. Key informant interviewees in the field discussed how chronic absenteeism is of particular concern among children from families who are homeless or with parents who have substance use disorders or co-occurring mental health issues. Interviewees indicated that children who have experienced trauma are more likely to miss school or become disengaged when they are in school.

Figure 17 presents data from Boston Public Schools on students who are chronically absent. About one quarter (25.5%) of all Boston Public School students from 2014 to 2018 were identified as chronically absent. The proportion is over 30% for students who are economically disadvantaged, have a disability or who identify as Latino or American Indian.

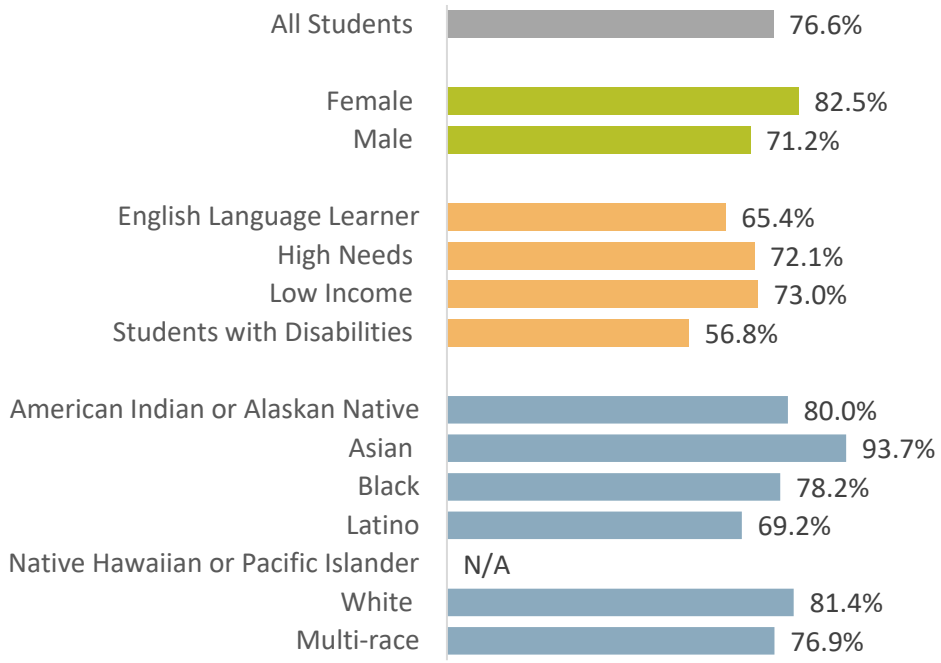
Figure 17. Percent Boston Public School Students Chronically Absent, 2018



DATA SOURCE: Massachusetts Department of Elementary and Secondary Education, School and District Profiles, Student Attendance, 2018

Approximately three quarters (76.6%) of students who started high school in 2013–2014 completed it in four years, graduating in 2018 (Figure 18). This graduation rate falls in the middle of other similarly sized cities.

Figure 18. Graduation Rate Among Boston Public High School Students, 2018



DATA SOURCE: Massachusetts Department of Elementary and Secondary Education, School and District Profiles, Cohort 2018 Graduation Rates, 2018

Key informant interviewees who work with families or who were in the educational field expressed the need for smaller class sizes, more social emotional supports, teachers that reflect the diversity of the community and more venues to discuss health and wellness.

Food Insecurity

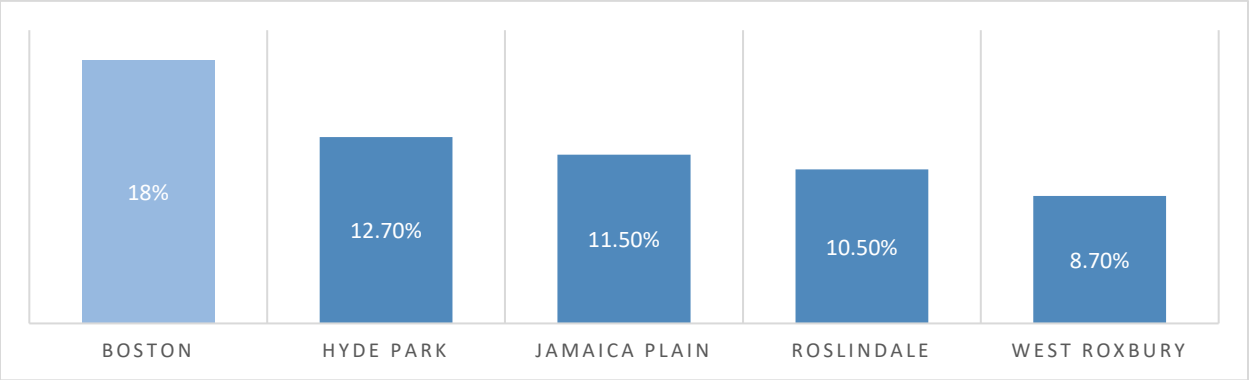
Experiences with Food Insecurity

Key informant interviews and low-income focus group participants across neighborhoods discussed the challenge of not having enough money to afford the food they and their families need. Focus group and interview participants identified seniors and children as being especially vulnerable to being food insecure. Key informants who worked with seniors described mobility and mental health issues that compounded challenges for them to access healthy food. It was also communicated that access, education and how to take advantage of services are issues. Quantitative data indicate that nearly one in five Boston residents reported being food insecure, in that it was sometimes or often true that the food they have purchased did not last and they did not have money to get more. In our priority neighborhoods, an average of 1 in 10 reported food insecurity per the Greater Boston Food Bank data (Figure 19), however, we know that number is much often higher but underreported due to shame or lack of access or knowledge to services. Experiences with food insecurity varied by population group (Figure 20). In aggregated 2013, 2015 and 2017 BRFSS data, Black (39.1%) and Latino (34.5%) residents were significantly more likely than White residents (10.7%) to report being food insecure as were foreign-born residents compared to U.S. born residents.

THE COST OF AFFORDABLE HEALTHY FOOD HAS GONE UP DRAMATICALLY. MOST PEOPLE CONCENTRATE ON KEEPING THEIR HOUSING AND WOULD RATHER GO WITHOUT ENOUGH FOOD OR OTHER NECESSITIES.

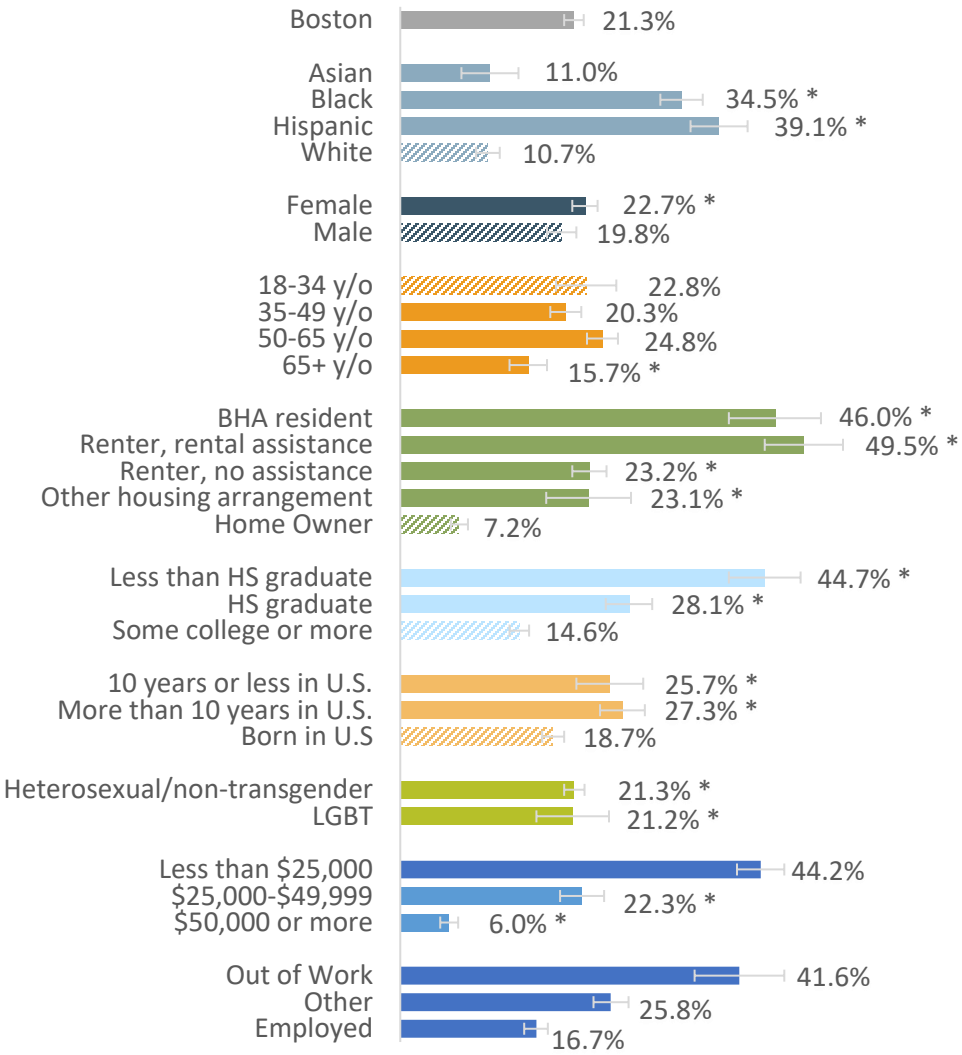
BWFH Key Informant, Hyde Park

Figure 19. Percent Population Food Insecure, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhoods, 2016



DATA SOURCE: Gundersen, C., A. Dewey, A. Crumbaugh, M. Kato & E. Engelhard. Map the Meal Gap 2018: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States in 2016, Feeding America, Courtesy of The Greater Boston Food Bank, 2016
NOTE: Neighborhoods are defined per Boston Planning & Development Authority definitions

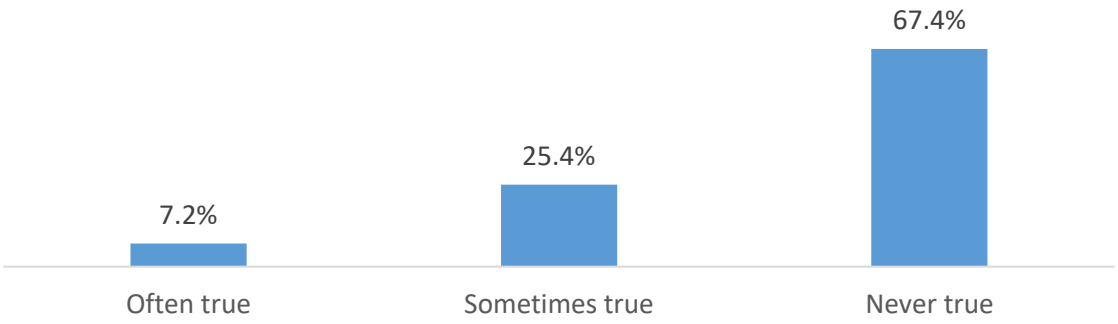
Figure 20. Percent Adults Reporting Food Purchased Did Not Last and Did Not Have Money to Get More, by Boston and Selected Indicators, 2013, 2015 and 2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined

The 2019 Boston CHNA survey asked a similar food insecurity question to Boston residents. Among this sample, one third of the sample indicated that in the past 12 months they felt it was sometimes or often true that they worried that their food would run out before they had money to buy more (Figure 21). Examining data by primary language spoken, nearly two thirds of the survey respondents (63.2%) who spoke Haitian Creole reported being food insecure, although it should be noted that the sub-sample only included 49 respondents. More than half of Spanish-speaking survey respondents (51.8%) reported feeling food insecure.

Figure 21. Percent Boston CHNA Survey Respondents Reporting That They Worried That Their Food Would Run Out Before They Got Money to Buy More in Past 12 Months (N=1,983), 2019



DATA SOURCE: Boston CHNA Community Survey, 2019
NOTES: Question was worded: "In the last 12 months, have you worried that your food would run out before you got money to buy more?" and respondents were asked to select one of the following response options: often true, sometimes true, never true and prefer not to answer; Percentage calculations do not include respondents who selected "prefer not to answer"

Being on Medicaid is another indicator of financial insecurity and another potential risk factor for food insecurity. Food insecurity questions are now being asked of MassHealth patients in the new Accountable Care Organizations (ACOs) in the city. Among MassHealth patients screened in primary care settings in the Partners HealthCare system and Boston Medical Center, 33% indicated that in the past 12 months they were worried they would run out of food before they had money to buy more as well as that the food they had bought did not last and they did not have money to buy more (Table 5 and Table 6).

Table 5. Boston MassHealth Patients from Partners HealthCare and Boston Medical Center Screened for Social Needs and Worried Their Food Would Run Out in the Past 12 Months

Total Screened	# Worried Food Would Run Out	% Worried Food Would Run Out
7,848	2,605	33%

DATA SOURCE: Social Needs Screening Data, Partners HealthCare and Boston Medical Center (BMC), 2018
NOTES: Analyses only among MassHealth ACO primary care patients and Boston residents; Positive screen for patients who indicated it was *often* or *sometimes true* that within the past 12 months, they worried whether food would run out before they had money to buy more

Table 6. Boston MassHealth Patients from Partners HealthCare and Boston Medical Center Screened for Social Needs Who Ran Out of Food in the Past 12 Months

Total Screened	# Ran Out of Food	% Ran Out of Food
7,863	2,616	33%

DATA SOURCE: Social Needs Screening Data, Partners HealthCare and Boston Medical Center (BMC), 2018
NOTES: Analyses only among MassHealth ACO primary care patients and Boston residents;Positive screen for patients who indicated it was *often* or *sometimes true* that within the past 12 months, the food they bought just didn't last and they didn't have money to get more

Among MassHealth patients screened in primary care settings at either Brigham and Women's Hospital or Brigham and Women's Faulkner Hospital, over 20% of those in our primary service area neighborhoods indicated that in the past 12

months they were worried they would run out of food before they had money to buy more as well as that the food they had bought did not last and they did not have money to buy more (Table 7).

Table 7. Brigham and Women's Hospital/Brigham and Women's Faulkner Hospital Social Determinates of Health Food Insecurity Screening Results

Neighborhood	SDOH Question	(+) Screens	Total Unique Screened	% Positive
Hyde Park	FOOD 01—WORRIED FOOD WOULD RUN OUT	72	270	26.7%
Hyde Park	FOOD 02—FOOD BOUGHT DIDN'T LAST	69	270	25.6%
Jamaica Plain	FOOD 01—WORRIED FOOD WOULD RUN OUT	68	269	25.3%
Jamaica Plain	FOOD 02—FOOD BOUGHT DIDN'T LAST	54	269	20.1%
Roslindale	FOOD 01—WORRIED FOOD WOULD RUN OUT	72	261	27.6%
Roslindale	FOOD 02—FOOD BOUGHT DIDN'T LAST	62	261	23.8%
West Roxbury	FOOD 01—WORRIED FOOD WOULD RUN OUT	22	93	23.7%
West Roxbury	FOOD 02—FOOD BOUGHT DIDN'T LAST	n <20	93	---

DATA SOURCE: Brigham and Women's Hospital and Brigham and Women's Faulkner Hospital

Use and Perceptions of Food Assistance and Access

Nearly 20% of Boston residents receive benefits from the Supplementation Nutrition Assistance Program (SNAP) (formerly food stamps).

SOCIAL AND PHYSICIAL ENVIRONMENT

Housing

Housing Burden and Affordability

Lack of affordable housing was a prominent theme that arose across all key informant interviews and focus groups. Participants across geographies consistently shared that the rising cost of living in Boston was a major day-to-day concern. Most reported a need for more affordable housing for low and moderate-income levels. Quantitative data also indicate that the proportion of affordable housing to market rate is decreasing, rather than increasing. Even with the growth in development, the proportion of affordable housing units in total production in Boston has been falling since 2003. In the period 1996–2003, more than 39%of all permits were for affordable units. In the following period, 2004–2010, the proportion was down to less than 26%. From 2011 to 2016, the proportion has fallen to about 18 percent.[2]

HOUSING IS UNAFFORDABLE FOR MANY—IT OFTEN DISPLACES LOWER INCOME, STRUGGLING FAMILIES AND ELDERLY. WE SEE A LOT OF FAMILIES DOUBLING UP TO STAY IN THEIR HOMES.

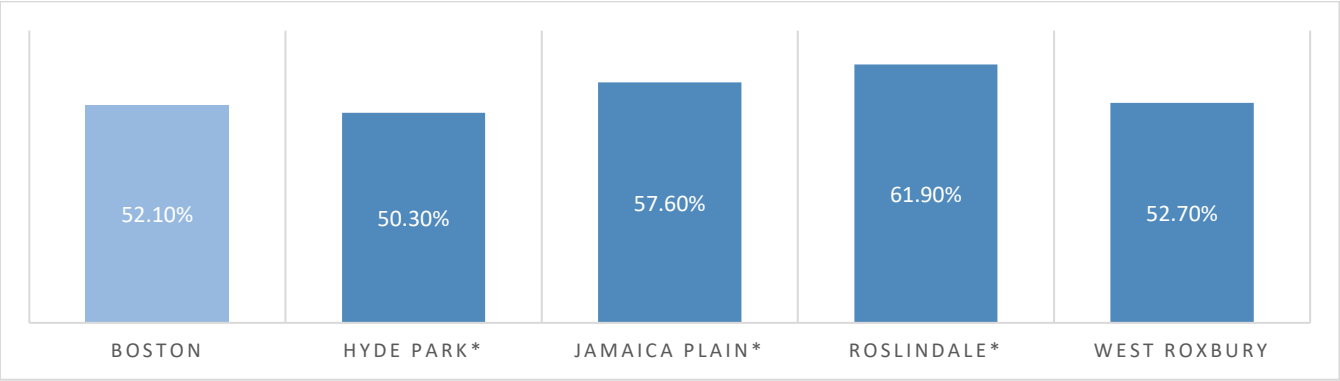
BWFH Key Informant, Hyde Park

Several focus group and interview participants noted that high housing costs were particularly difficult for people with low or fixed incomes, such as seniors and residents who work low-wage jobs. Many described the influx of housing developments being built across the city but perceived that the cost of these units was often inaccessible to the average resident.

Housing cost data aligns with resident and leader concerns cited during focus groups and interviews. Housing costs are a larger economic burden for renters in the city. According to the American Community Survey, more than half (52.1%) of renter-occupied units across Boston spent 30% or more of their income on housing costs (

Figure 22). For BWFH's priority neighborhoods, a higher proportion of residents in rental units in Roslindale (62%), Jamaica Plain (58%) and West Roxbury (53%) spent at least 30% of their income on housing costs, compared to the Boston overall average.

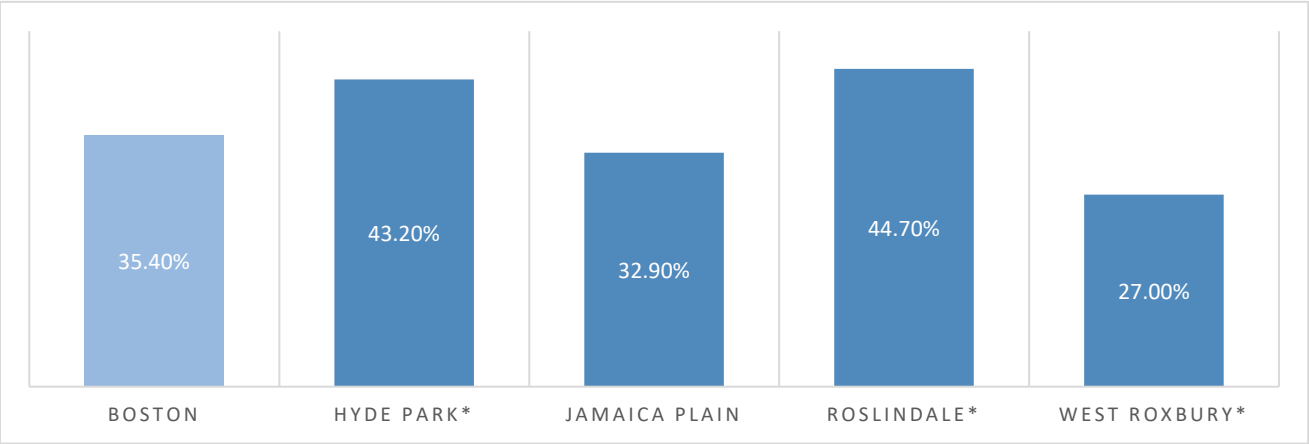
Figure 22. Percent Housing Units Where 30% or More of Income Spent on Monthly Housing Costs, by Renter, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017



DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017
NOTE: Neighborhoods as defined by Boston Public Health Commission; Asterisk (*) denotes neighborhood estimate was significantly different compared to the Boston estimate ($p < 0.05$)

As shown in Figure 23, on average one third (35%) of owner-occupied units in Boston spent at least 30% of their income on monthly housing costs, much smaller than the burden of housing costs for renters across the city in 2013–2017. Compared to Boston overall, a significantly higher proportion of residents of owner-occupied units in Roslindale (45%) and Hyde Park (43%) spent at least 30% of their income on housing.

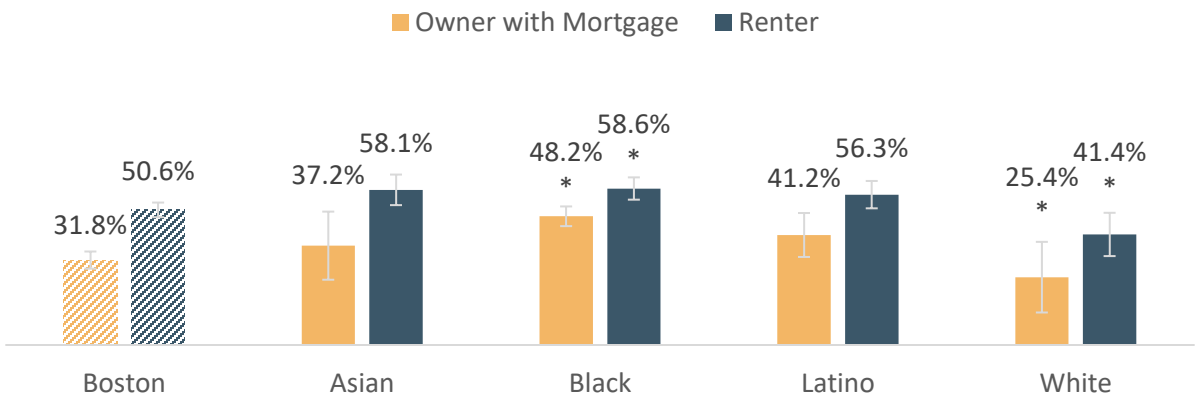
Figure 23. Percent Housing Units Where 30% or More of Income Spent on Monthly Housing Costs, by Owner with Mortgage, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013–2017



DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017
NOTE: Neighborhoods as defined by Boston Public Health Commission; Asterisk (*) denotes neighborhood estimate was significantly different compared to the Boston estimate ($p < 0.05$)

As discussed above, across Boston and each of the four largest racial/ethnic groups, a higher proportion of renter-occupied units spent at least 30% of their income on housing compared to home owners (Figure 24). In 2017, 48% of Black residents who own their homes and 59% of Black residents who rent their homes spent 30% or more of their income on housing, compared to the Boston average, a significant difference. In contrast, 25% of White residents who own their homes and 41% of White residents who rent their homes spent at least 30% of their income on housing, significantly less than the Boston average.

Figure 24. Percent Housing Units Where 30% or More of Income Spent on Monthly Housing Costs by Housing Tenure, by Boston and Race/Ethnicity, 2017



DATA SOURCE: U.S. Census, American Community Survey 1-Year Estimates, 2017
NOTE: Asterisk (*) denotes race/ethnicity estimate was significantly different compared to the Boston estimate ($p < 0.05$)

For Boston overall, residents spent an average of $1,445 per month on housing if they rent and $2,293 per month if they owned their housing unit with a mortgage (Table 8).

Table 8. Median Monthly Housing Costs, by Zip Code, by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2013-2017

	Neighborhood	Owner with Mortgage	Owner without Mortgage	Renter
Boston	Boston	$2,293	$776	$1,445
02136	Hyde Park	$2,097	$560	$1,178
02130	Jamaica Plain	$2,313	$879	$1,518
02131	Roslindale	$2,118	$644	$1,365
02132	West Roxbury	$2,273	$600	$1,539

DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2013–2017
NOTE: NA denotes where data are suppressed due to insufficient sample size; † indicates where the median estimate falls in the upper interval of an open-ended distribution

Given the concerns raised about housing affordability in focus groups and interviews, it is not surprising that housing costs have risen in the past several years. From 2011 to 2016, the median price for single-family homes in Boston increased by 48%, from $359,000 (2011) to $530,000 (2016) (Table 9). Home prices increased in each neighborhood over this period for which data were available.

Table 9. Median Single-Family Home Price (in U.S. Dollars), by Boston and Brigham and Women's Faulkner Hospital Priority Neighborhood, 2011, 2015 and 2016

	2011	2015	2016
Boston	$359,000	$475,000	$530,000
Hyde Park	$240,000	$359,000	$385,500
Jamaica Plain	$577,500	$820,000	$782,500
Roslindale	$338,000	$450,000	$500,500
West Roxbury	$385,000	$465,000	$525,000

DATA SOURCE: Massachusetts Association of Realtors and MLS Property Information Network, as cited by Boston Magazine, https://www.bostonmagazine.com/best-places-to-live-2017-single-family-homes/, 2011, 2015 and 2016
NOTES: Neighborhoods as defined by Boston Planning and Development Agency; NA denotes where data were not available

According to key informants and most focus group participants who identified as low-income, housing costs comprise a large part of spending for their households, leaving few resources for other needs such as healthcare, medicine or food.

Housing Assistance

Across many focus groups and in several key informant interviews, residents noted that the demand for Section 8 and other subsidy programs is much larger than what is available, resulting in very long wait lists. Section 8 refers to Section 8 of the Housing Act of 1937 and is a public program which authorizes payment rental housing assistance to private landlords on behalf of low-income households.

Those working with older adults expressed concern for seniors on fixed incomes who are not able to remain in their homes and then must face long wait lists for affordable senior housing. This was especially true in our key informant surveys for our priority neighborhoods. There was an expressed need to assist seniors to increase their ability to stay in place.

Gentrification and Housing Costs

Gentrification, generally used to describe the displacement of low-income communities by affluent outsiders, was mentioned across all focus groups and interviews and was directly correlated with unaffordable housing costs. Many focus group participants spoke of experiences being *"priced out"* of neighborhoods and perceived that there was an influx of more affluent, White, community residents across the city.

Overcrowding

The housing cost burden has cascading effects on residents' home and social environment. Overcrowding, housing instability and homelessness are only a few of the themes that emerged in discussions with focus group and interview

participants. For example, focus group participants who identified as low-wage workers explained that in order to make ends meet, it was often necessary to live in multigenerational households, with roommates or with multiple families.

Overcrowding is defined as more than one person per room living in a housing unit. The percent of residents reporting overcrowded housing was significantly higher than the city average in our priority neighborhoods of Hyde Park and Roslindale.

Homelessness

Homelessness was discussed as a concern across focus group and key informant geographies.

In 2018, there were an estimated 6,188 residents experiencing homelessness or housing instability in Boston. The majority or homeless residents stayed in emergency shelters (5,427 persons), followed by transitional shelters (598 persons) and unsheltered housing (163 persons). Among this homeless population, four in ten homeless residents identified as Black (45.1%), 36.1% as White and 17.0% as two or more races. More than 35% identified as Latino (any race).

In 2018, households without children (67%) comprised two thirds of the homeless population in Boston (Table 10). Three in ten homeless households included at least one adult and one child (31.8%). One percent of homeless households included only children (1%). Emergency shelter was the most common type of shelter for homeless households, followed by transitional housing.

Table 10. Total Number of Homeless Households Living in Boston, by Household Type and Shelter Type, 2018

	Sheltered Emergency Shelter	Transitional Housing	Unsheltered	Total	Percent of Total
Households without Children	1,806	407	163	**2,376**	**67.4%**
Households with at least one adult and one child	1,075	46	0	**1,121**	**31.8%**
Households with only children	28	2	0	**30**	**0.9%**
Total	**2,909**	**455**	**163**	**3,527**	

DATA SOURCE: U.S. Department of Housing and Urban Development, Continuums of Care, HUD 2018 Continuum of Care Homeless Assistance Programs Homeless Populations and Sub Populations, 2018
NOTE: Safe Haven programs are included in the Transitional Housing category

Among ACO MassHealth patients who were screened in Partners HealthCare and Boston Medical Center primary care settings, 17% were indicated that they were homeless or did not have a steady place to live (Table 11).

Table 11. Boston MassHealth Patients from Partners HealthCare and Boston Medical Center Screened for Social Needs and Are Homeless

Total Screened	# Homeless	% Homeless
7,886	1,320	17%

DATA SOURCE: Social Needs Screening Data, Partners HealthCare and Boston Medical Center (BMC), 2018
NOTES: Analyses only among MassHealth ACO primary care patients and Boston residents; Positive screen as homeless for patients who indicated that they do not have housing or do not have a steady place to live (e.g., temporarily staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, abandoned building, bus or train station or in a park)

Transportation

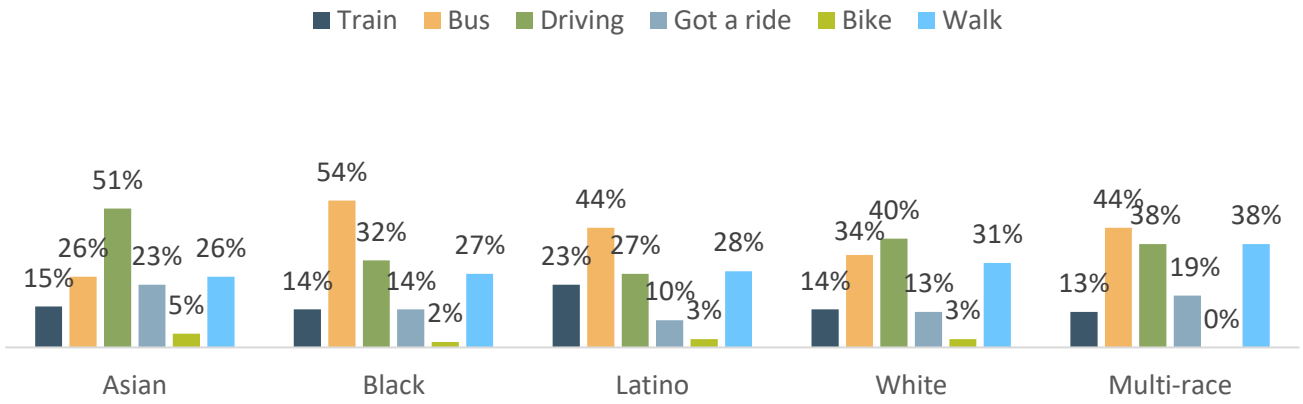
Means of Transportation and Transportation Costs

Across Boston, use of a personal vehicle (39%) was the most common form of transportation to work, followed by public transportation (34%), walking (15%) and carpooling (6%) in 2013–2017.

> PUBLIC TRANSPORTATION IS A CHALLENGE. IN HYDE PARK, THERE IS NO GREEN, ORANGE OR RED LINE. THE DOWNTOWN AREA IS REALLY ONLY ACCESSIBLE BY COMMUTER LINE OR ONE BUS.
>
> *BWFH Key Informant, Hyde Park*

In 2015, 1,056 patients of 14 community health centers across Boston were asked about their means of transit to the health center on the day of their health center visit (Figure 25). The bus was the most common form of transportation for patients who identified as Black (54%), Latino (44%), Multi-Racial (44%) or who did not report a racial/ethnic identity (43%), followed by driving (27%–38%). Among respondents who identified as Asian, half (51%) reported driving to the health center and one quarter (26%) used the bus to get to the health center. Among respondents who identified as White, driving (40%) was the most common form of transit to the health center, followed by taking the bus (34%) and walking (31%).

Figure 25. Percent Survey Respondents Reported Usual Form of Transit Taken to Health Center, by Race/Ethnicity, 2015



DATA SOURCE: Fair Public Transportation Report: Community Health Center Directors Roundtable, 2015

In 2014, data show that residents in the Boston MSA spent $9,997 on average on transportation costs, which includes costs relating to vehicles and public transit.[3] From FY2001 to FY2014 residents in the Boston MSA spent 11 to 13% of their household income on transportation. Transportation costs as a proportion of household income peaked in FY2001 and FY2005 at 13% and were lowest in FY2011 (11%).

Transportation Barriers

Across most focus groups, parking and traffic were mentioned as a day-to-day concern for many community residents. In our priority neighborhoods, in the southwest part of the city, there are very limited options due to the lack of subway lines. Many find the commuter rail cost-prohibitive, leaving the bus as the only option. The bus has issues for those with mobility challenges and does not conveniently reach some of the outer parts of the neighborhoods.

Several focus group and interview participants noted that seniors struggle with accessing transportation because of mobility issues or because assistance programs are not consistent or timely. Participants explained often being late or missing medical appointments because transportation assistance was unreliable. Others indicated that it was difficult to coordinate services because of having to book rides multiple days in advance or because the vehicles were inaccessible.

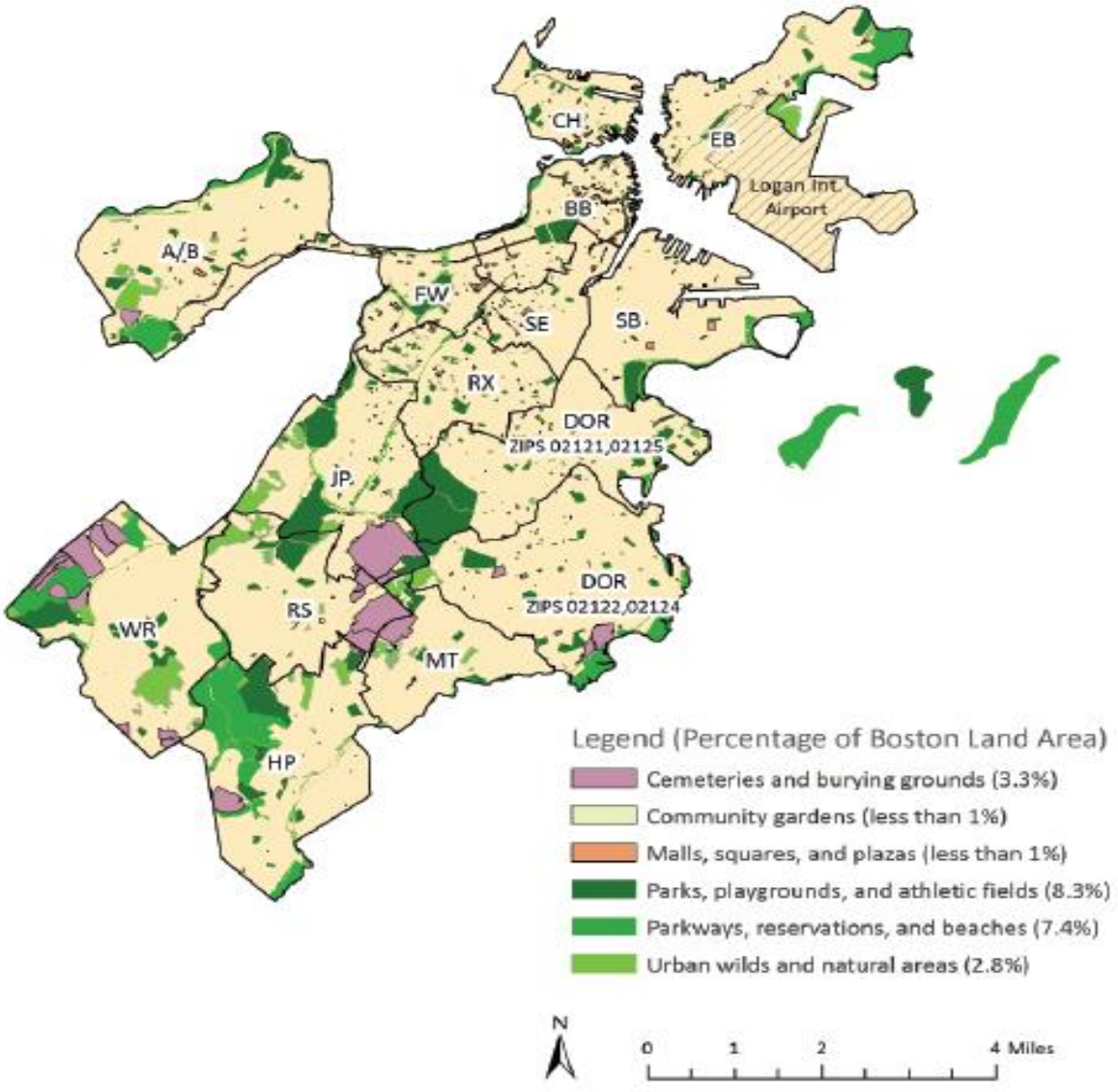
Transportation barriers were also identified by those with limited English proficiency, who reported difficulties navigating the transit system. A few focus group participants mentioned the recent increases to MBTA fares and the perception that these increases disproportionally impact seniors, low-wage workers and communities of color.

Built Environment

Green Space and Walkability

Having a safe, accessible green space is critical to health. Approximately 49% of Boston's 47 square miles (excluding the Harbor Islands) is zoned residential, while approximately 24% is zoned as business, institutional, industrial or mixed-use. The remaining 27% consists mostly of open space and miscellaneous. Figure 26 displays the green space and open space in Boston, where 8.3% of land is comprised of parks, playgrounds and athletic fields and 7.4% is parkways, reservations and beaches. As noted in the previous Health of Boston report, approximately 11 square miles of Boston's 48 square miles (including the Harbor Islands) is open space. Boston also comprises 29 miles of bicycle trails. One of the largest portions of bicycle trails are in Hyde Park (about 6 miles); however, there is less than one mile of bicycle trails in Roslindale.[4] Jamaica Plain was cited as having abundant green space and areas to walk with Jamaica Pond and the Arnold Arboretum.

Figure 26. General Open Space, by Type and Neighborhood, 2017

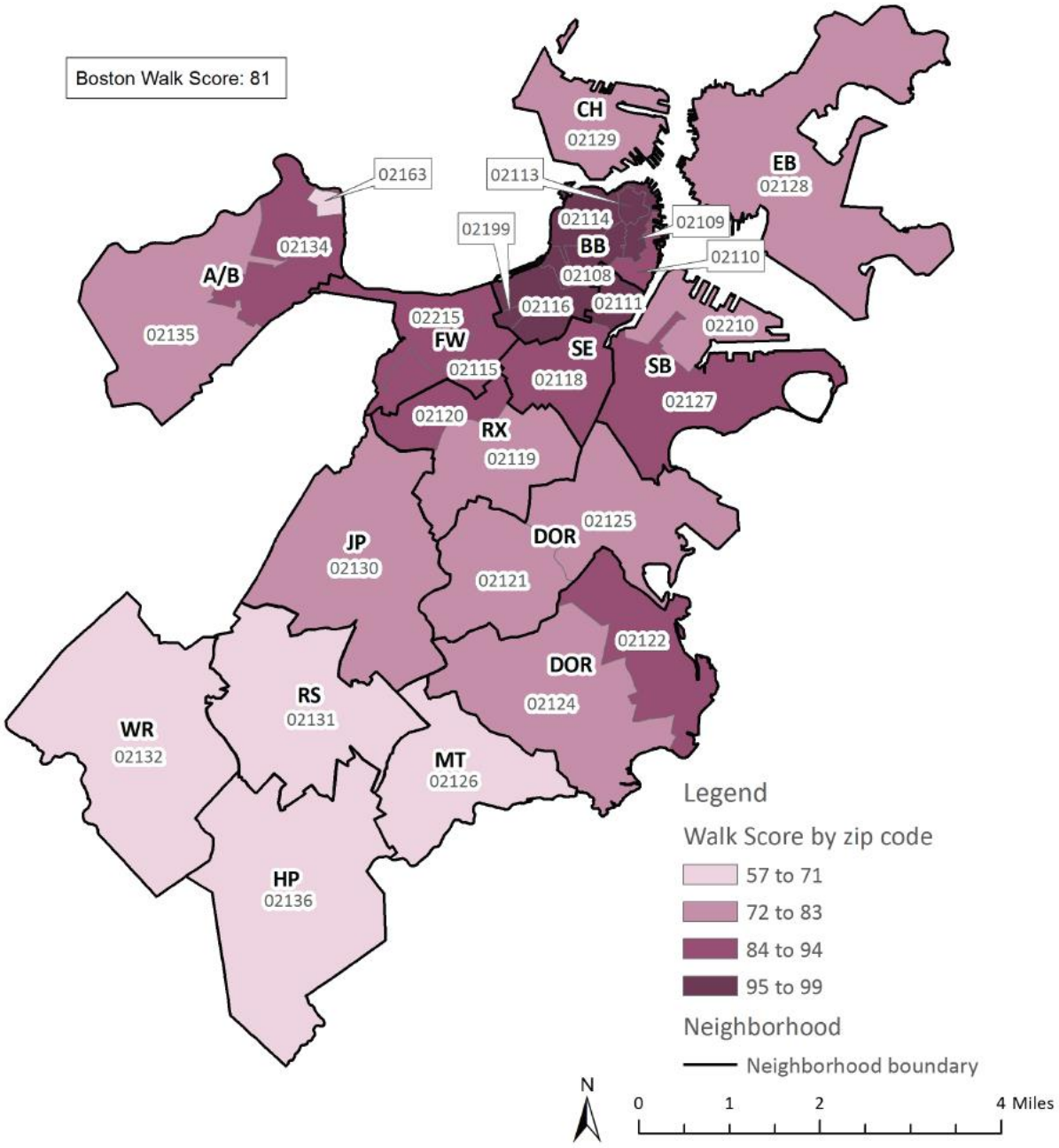


DATA SOURCE: City of Boston, Parks and Recreation Department, Boston Open Space, as reported and analyzed by Boston Public Health Commission, Research and Evaluation Office, Health of Boston Report 2016-2017, 2017

Walkability

Walkability in a neighborhood is important for facilitating physical activity as well as personal safety. The Walk Score walkability index, ranges from 0 to 100, based on walking routes to local destinations such as grocery stores, parks, schools and stores. Boston is the third most walkable large city with a Walk Score of 81. In 2017, the Walk Score varied widely by zip code in Boston from 57 to 99, with the low Walk Scores (57–71) being observed in three of our four priority neighborhoods—Hyde Park, West Roxbury and Roslindale (Figure 27).

Figure 27: Walk Score, by Zip Code, 2017

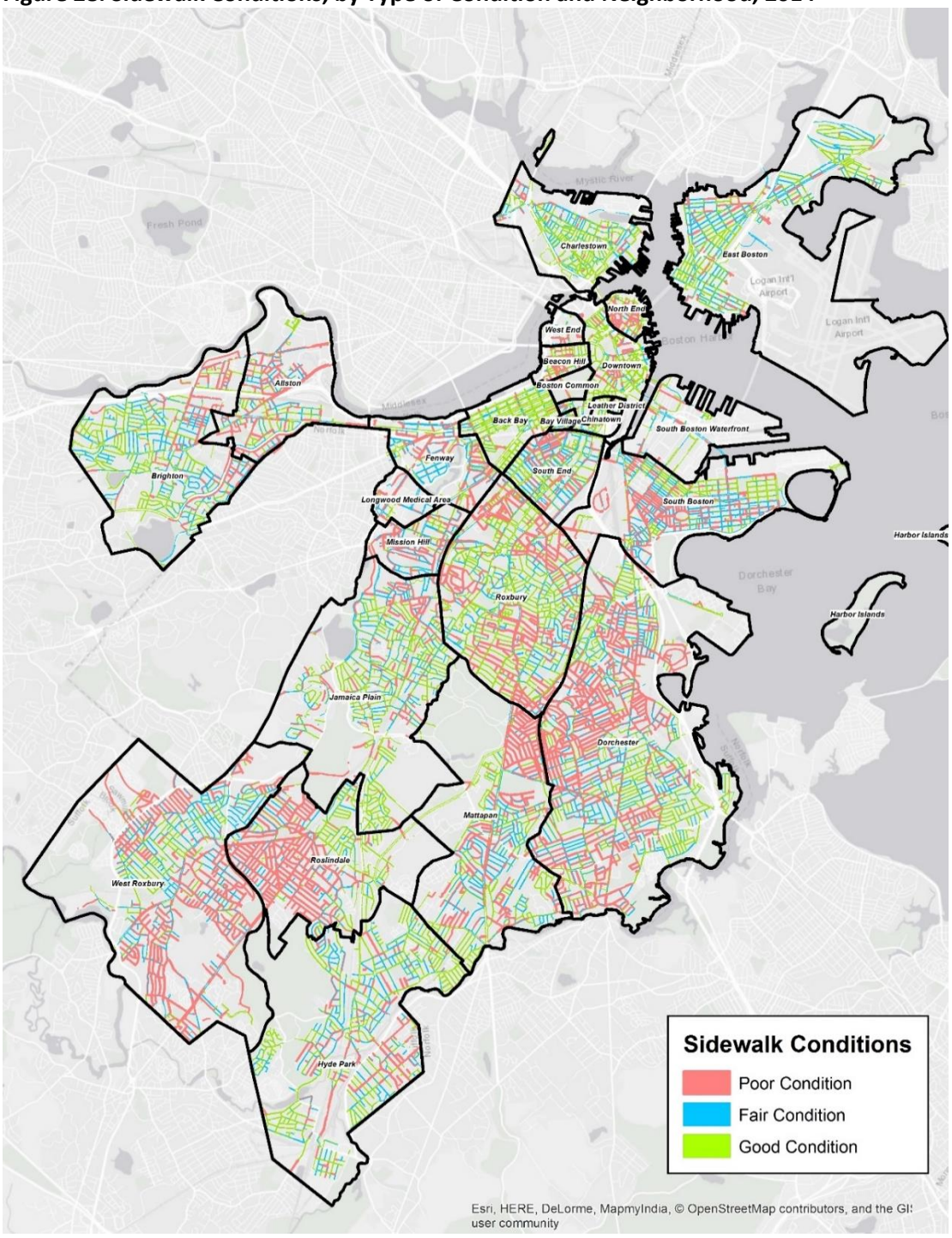


DATA SOURCE: Walk Score, www.walkscore.com, as reported and analyzed by Boston Public Health Commission, Research and Evaluation Office, Health of Boston Report 2016–2017, 2017

NOTES: "BB" includes the Back Bay, Beacon Hill, Downtown, North End and West End; "SE" includes South End and Chinatown; Walk Score is an index of pedestrian-friendliness that ranges from 0 to 100; Data for the portion of zip code 02467 in Boston were unavailable; Map does not include the Harbor Islands

Figure 28 provides a map of the city and where sidewalks are considered to be in good, fair or poor condition. Roslindale and West Roxbury are two neighborhoods in our priority area that appear to have the largest concentrations of poor condition sidewalks in the city.

Figure 28. Sidewalk Conditions, by Type of Condition and Neighborhood, 2014



DATA SOURCE: Courtesy of City of Boston, Public Works Department, 2014

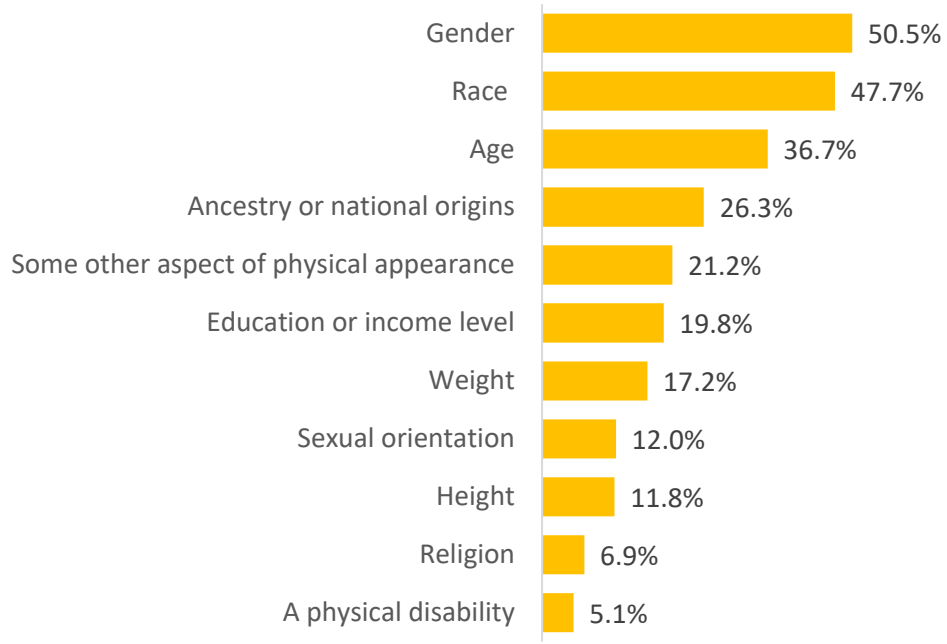
Discrimination

Discrimination was mentioned in several focus groups across the city, particularly with immigrants and non-English speakers, LGBTQ residents, substance users and the homeless population. These experiences were described as both subtle and overt acts felt on a regular basis ranging from verbal altercations to more systemic issues, such as minorities

being passed up for job promotions despite appropriate qualifications. All of these issues were compounded when residents belonged to multiple oppressed identities, for example, queer people of color or non-English speaking residents in recovery.

Approximately half of respondents attributed their experience of discrimination to their gender (51%) or race (48%). More than one third reported age-based discrimination (37%) and one quarter linked their experience of discrimination with their ancestry or national origins (26%). Approximately one in five respondents reported discrimination based on some other aspect of their physical appearance (21%) or their education or income level (20%) (Figure 29).

Figure 29. Percent Boston CHNA Survey Respondents Reporting Their Own Perceived Reasons for Their Experiences of Discrimination If They Reported Experiencing Discrimination a Few Times a Year or More (N=915), 2019



DATA SOURCE: Boston CHNA Community Survey, 2019
NOTES: Data organized in descending order; Respondents were allowed to select multiple responses, so percentages may not sum up to 100%; Percentage calculations include respondents who selected "almost every day," "at least once a week," "a few times a month" and "a few times a year" to the previous question on experiences of discrimination; Percentage calculations do not include respondents who selected "prefer not to answer/don't know"

Community Assets

Perceptions of Community Strengths and Assets

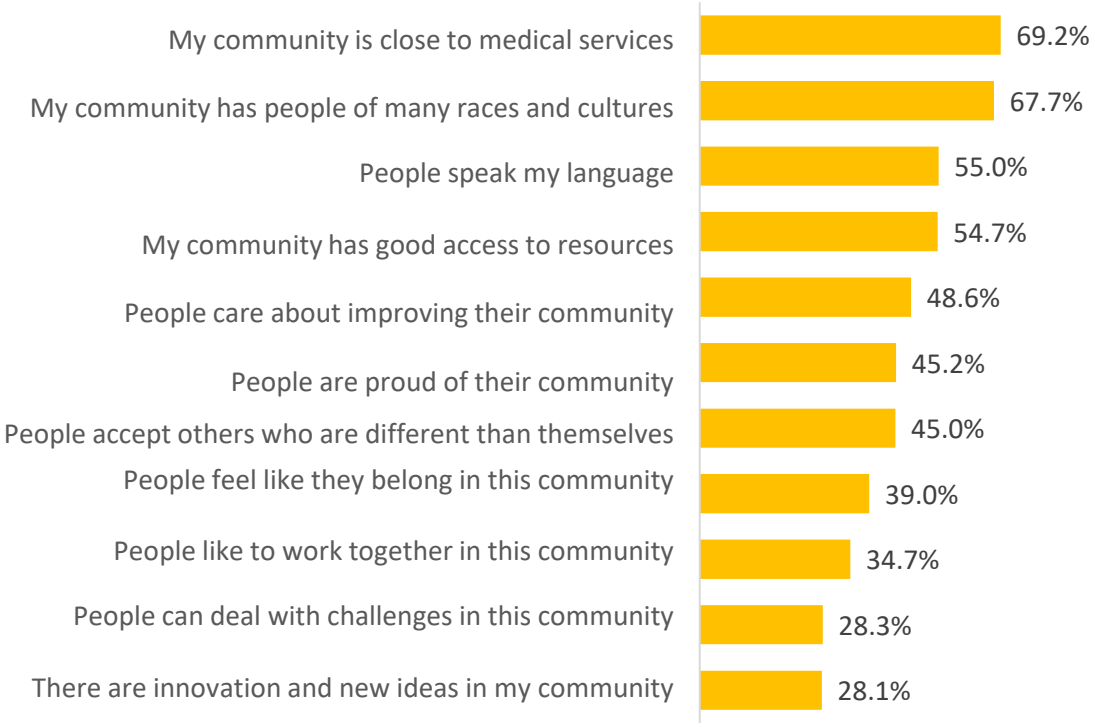
Boston communities have numerous strengths according to focus group members, interviewees and community survey respondents. Neighborhoods were described as being "tight-knit" with substantial cultural diversity and strong faith communities.

> PEOPLE IN MY NEIGHBORHOOD ARE WILLING TO HELP THEIR COMMUNITY AND NEIGHBORS WHEN THEY ARE IN NEED.
> *BWFH Key Informant, West Roxbury*

Sixty-eight percent of community survey respondents identified racial and cultural diversity as a top strength of their community. Activism and resiliency are other notable characteristics of Bostonians. The city's colleges and universities are world class. Proximity and abundance of healthcare is also a key strength. Across the city, there are 17 hospitals, 33 health center access sites and 26 facilities providing mental health and related services. Seventy percent of community survey respondents identified proximity to medical services as the top strength of their communities (Figure 30).

Other assets include services and support for students at Boston Public Schools and positive strides in the city for LGBTQ residents, including within the school system. Finally, the social services network in Boston was perceived to be large, strong and collaborative, although some suggested more could be done to enhance cooperation across institutions and reduce duplication.

Figure 30. Percent Boston CHNA Survey Respondents Reporting Strengths of Their Community or Neighborhood (N=2,078), 2019



DATA SOURCE: Boston CHNA Community Survey, 2019
NOTES: Percentage calculations do not include respondents who selected "none of the above"

In BWFH's priority neighborhoods, race and culture was seen as the top strength for both Hyde Park and Jamaica Plain. In Roslindale, resilience to change was cited as the top strength and in West Roxbury, it was being close to medical services.
Three of the four communities, Hyde Park, Jamaica Plain and West Roxbury, cited people care about improving the community in the top five. Hyde Park, Jamaica Plain and West Roxbury all identified that people are proud of their community. Hyde Park, Roslindale and West Roxbury all named people speaking my language in the top as well (Table 12).

Table 12. Percent Boston CHNA Survey Respondents Reporting Strengths of Their Community or Neighborhood, by Selected Neighborhoods, 2019

	Hyde Park (N=85)	Jamaica Plain (N=176)	Roslindale (N=128)	West Roxbury (N=77)
1	My community has people of many races and cultures	My community has people of many races and cultures	People can deal with challenges in this community	My community is close to medical services
2	My community has good access to resources	People accept others who are different than themselves	There are innovation and new ideas in my community	My community has good access to resources
3	People care about improving their community	People care about improving their community	People like to work together in this community	People care about improving their community
4	People are proud of their community	My community is close to medical services	People feel like they belong in this community	People are proud of their community
5	People speak my language	People are proud of their community	People speak my language	People speak my language

SOURCE: Boston Collaborative CHNA Survey 2019

As noted, focus group participants who identified as LGBTQ indicated that Boston is making positive strides related to care for LGTBQ residents. Specifically, Boston Public Schools has made many inroads in this area for LGBTQ students. In the 2017–2018 school year, there were 33 Boston Public Schools (with grades 6–12) that had Gay Straight Alliances (GSA) in the schools.[5]

Additionally, Boston Public Schools offers many services and supports for different sub-populations. As shown in Table 13, more than three quarters of Boston Public Schools offer additional support for students experiencing trauma, students experiencing homelessness and English Language Learners.

Table 13. Number of and Percent of Boston Public Schools Offering Additional Supports for Sub-Populations, by Sub-Population, 2018

	Number	Percent
Expectant and parenting students	30	24.0%
Refugee, asylee, documented and undocumented immigrant students	63	50.4%
LGBTQ students	69	55.2%
Court-involved students	75	60.0%
ELL students and ELL students with disabilities	99	79.2%
Students experiencing homelessness	105	84.0%
Students experiencing trauma	110	88.0%

DATA SOURCE: DATA SOURCE: Boston Public Schools, Health and Wellness Department, 2018

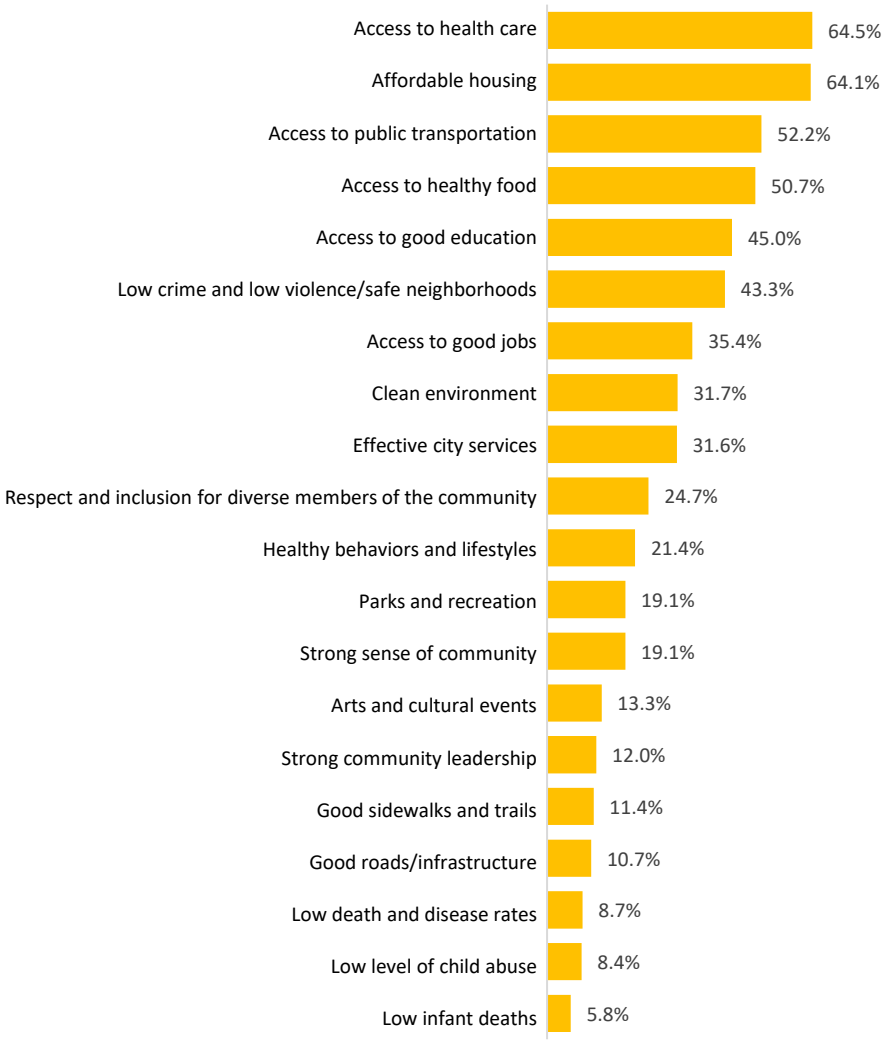
COMMUNITY HEALTH ISSUES

Perceptions of a Healthy Community

Understanding residents' perceptions of health is a critical step in the CHNA process, providing insights into lived experiences, including key health concerns and facilitators and barriers to addressing health conditions. Access to healthcare (65%) and affordable housing (64%) were the first and second leading factors, respectively, that Boston CHNA survey respondents identified as important for a healthy community (Figure 31). Access to public transportation (52%) and access to healthy food (51%) emerged as the third and fourth leading factors that respondents characterized as important for a healthy community.

As discussed in previous sections, key informants described a need for more emphasis on prevention to address these issues. The lack of providers and services—especially that meet the needs of diverse population groups—was noted as a barrier to addressing some of these issues which contribute to extensive wait lists according to participants.

Figure 31. Percent Boston CHNA Survey Respondents Reporting the Five Most Important Factors That Define a "Healthy Community" (N=2,052), 2019



DATA SOURCE: Boston CHNA Community Survey, 2019

As shown in Table 14, nearly three quarters of Hyde Park respondents (73%) cited access to public transportation as important. Respondents in Jamaica Plain (73%) and Roslindale (62%) cited affordable housing as an area of importance. More than half of respondents in Hyde Park cited low death and disease rate (53%) and low crime and violence as important (53%) and parks and recreation (61%) as most important. In Jamaica Plain and Roslindale, more than half of respondents identified access to healthcare, healthy food and public transportation as most important with Jamaica Plain also naming access to good education (50%) as important.

Table 14. Percent Boston CHNA Survey Respondents Reporting the Five Most Important Factors That Define a "Healthy Community," by Selected Neighborhoods, 2019

	Hyde Park (N=85)	Jamaica Plain (N=179)	Roslindale (N=131)	West Roxbury (N=79)
Access to health care	41.9%	58.1%	55.0%	60.8%
Access to healthy food	47.7%	57.0%	49.6%	49.4%
Access to public transportation	73.3%	54.8%	55.0%	50.6%

Access to good jobs	44.2%	33.0%	33.6%	39.2%
Affordable housing	38.4%	72.6%	62.6%	49.4%
Access to good education	47.7%	50.3%	45.8%	44.3%
Arts and cultural events	47.7%	7.8%	13.7%	7.6%
Clean environment	37.2%	24.6%	34.4%	34.2%
Effective city services	30.2%	25.7%	37.4%	50.6%
Good roads/ infrastructure	29.1%	7.3%	8.4%	13.9%
Good sidewalks and trails	23.3%	8.4%	8.4%	13.9%
Healthy behaviors and lifestyles	1.2%	16.8%	21.4%	25.3%
Low death and disease rates	52.9%	8.9%	8.4%	10.1%
Low crime and low violence/safe neighborhoods	52.9%	43.6%	43.5%	53.2%
Low infant deaths	47.1%	5.6%	3.8%	7.6%
Low level of child abuse	30.6%	8.9%	6.1%	11.4%
Parks and recreation	61.2%	17.9%	23.7%	17.7%
Respect and inclusion for diverse members of the community	48.2%	33.5%	30.5%	38.0%
Strong community leadership	11.8%	5.0%	6.9%	12.7%
Strong sense of community	41.2%	19.6%	13.7%	26.6

DATA SOURCE: Boston CHNA Community Survey, 2019

Priority Community Health Concerns

When asked to identify the top most important concerns in their community or neighborhood that shape their community's health, housing quality or affordability (51%) and alcohol, drug abuse, addiction and overdose (49%) were the top priorities, followed by mental health (42%) and community violence (31%) (

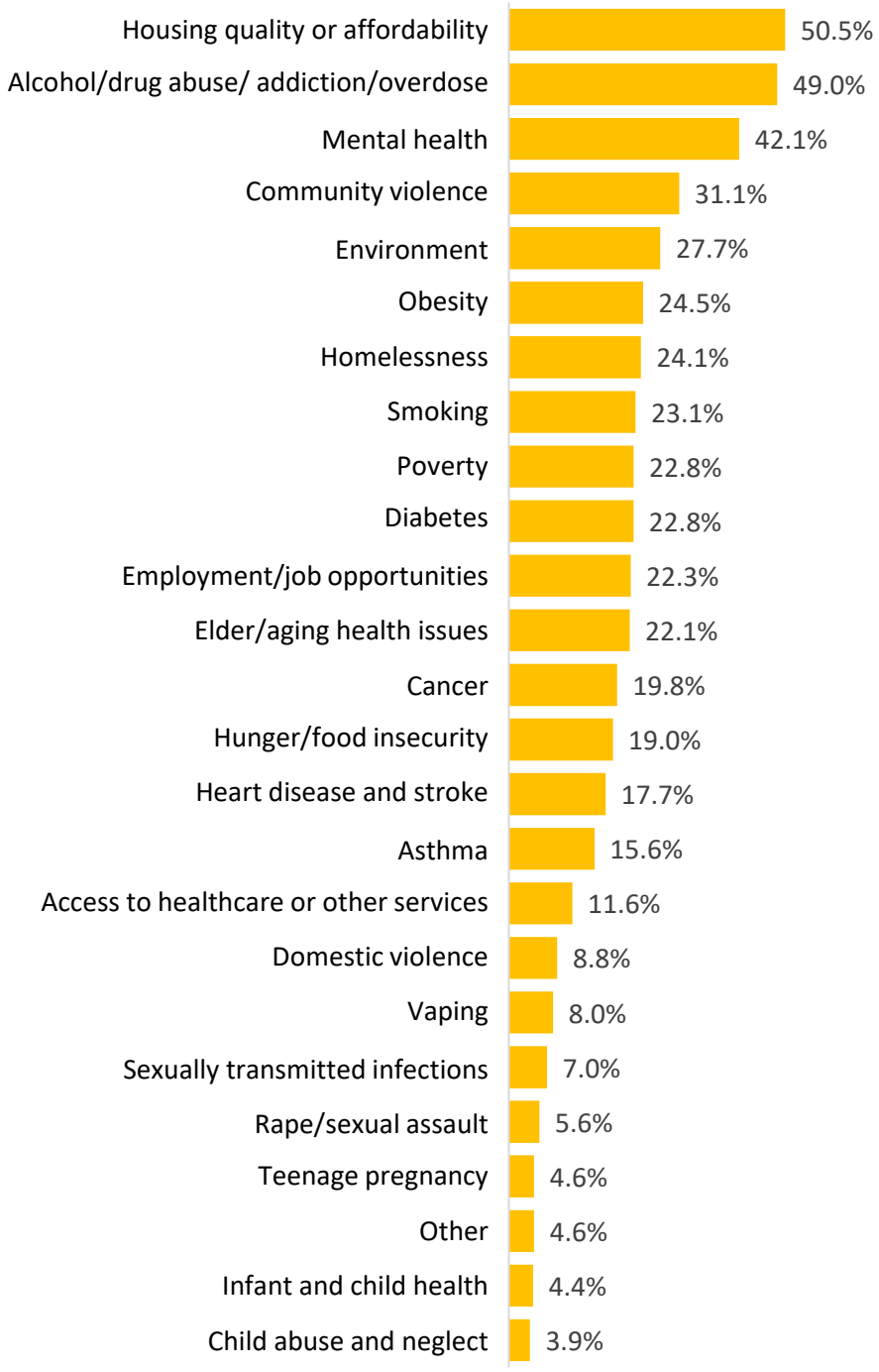
Figure 32).

Approximately one quarter of respondents cited the environment (28%), obesity (25%), homelessness (24%), smoking (23%), poverty (23%), diabetes (23%), employment/job opportunities (22%) and elder/aging health issues (22%) as among the leading concerns.

Shown in Table 15, BWFH's priority community health concerns were similar across our neighborhoods. In Hyde Park (58%), Jamaica Plain (69%) and Roslindale (59%)—housing quality or affordability emerged as the top leading health concern. In West Roxbury (35%) it was in the top five concerns. Mental health was the top concern in West Roxbury (59.0%) and alcohol, drug abuse, addiction and overdose was among the top five concerns for respondents in all neighborhoods. In Hyde Park and West Roxbury, the health of elders and aging-related concerns was among the top five concerns. In Hyde Park and Jamaica Plain, community violence also topped the list.

Hunger and food insecurity were a noteworthy mention in Hyde Park (22%), Jamaica Plain (24%) and Roslindale (30%).

Figure 32. Percent Boston CHNA Survey Respondents Reporting Top Most Important Concerns In Their Community or Neighborhood That Affect Their Community's Health (N=2,053), 2019



DATA SOURCE: Boston CHNA Community Survey, 2019

Table 15. Percent Boston CHNA Survey Respondents Reporting Top Most Important Concerns in Their Community or Neighborhood That Affect Their Community's Health, by Selected Neighborhoods, 2019

	Hyde Park (N=85)	Jamaica Plain (N=177)	Roslindale (N=125)	West Roxbury (N=78)
Heart disease and stroke	15.3%	9.6%	12.0%	24.4%
Cancer	12.9%	7.9%	21.6%	32.1%
Asthma	16.5%	10.7%	16.8%	9.0%
Diabetes	21.2%	12.4%	14.4%	12.8%
Obesity	23.5%	20.9%	25.6%	26.9%
Hunger/food insecurity	22.4%	24.3%	30.4%	11.5%
Elder/aging health issues	31.8%	17.5%	23.2%	47.4%
Infant and child health	8.2%	4.0%	3.2%	5.1%
Mental health	43.5%	51.4%	44.0%	59.0%
Alcohol/drug abuse/ addiction/overdose	41.2%	45.8%	36.8%	38.5%
Smoking	16.5%	7.9%	16.0%	28.2%
Vaping	8.2%	5.7%	7.2%	24.4%
Sexually transmitted infections	5.9%	2.8%	1.6%	1.3%
Teenage pregnancy	5.9%	4.5%	2.4%	2.6%
Environment	22.4%	33.9%	36.8%	30.8%
Community violence	27.1%	43.5%	20.8%	11.5%
Domestic violence	9.4%	6.2%	6.4%	1.3%
Child abuse and neglect	7.1%	2.8%	2.4%	2.6%
Rape/sexual assault	5.9%	2.8%	2.4%	1.3%
Homelessness	18.8%	24.9%	10.4%	9.0%
Housing quality or affordability	57.7%	69.5%	59.2%	34.6%
Poverty	20.0%	35.0%	21.6%	11.5%
Employment/job opportunities	25.9%	26.0%	32.0%	29.5%
Access to healthcare or other services	16.5%	9.6%	16.8%	18.0%

DATA SOURCE: Boston CHNA Community Survey, 2019

Overall Morbidity and Mortality

Leading Causes of Death and Premature Death

Cancer and heart disease are the leading causes of death in Boston and have remained so for the last six years (Table 16). In the most recent years, accidents, which include drug overdoses, has been the third leading cause of death. In 2016, unintentional opioid overdoses accounted for 55.3% of all deaths due to accidents. Other leading causes of death in the top five are cerebrovascular diseases, which includes stroke, and chronic lower respiratory diseases, which includes conditions such as chronic obstructive pulmonary disease (COPD) and emphysema.

Table 16. Leading Causes of Mortality in Boston, Age-Adjusted Rate per 100,000 Residents, 2011–2016

	2011	2012	2013	2014	2015	2016
1	Cancer 171.7	Cancer 187.3	Cancer 175.9	Cancer 153.3	Cancer 163.4	Cancer 163.6
2	Heart Disease 130.4	Heart Disease 132.3	Heart Disease 133.7	Heart Disease 125.7	Heart Disease 136.8	Heart Disease 126.0
3	Accidents 28.9	Cerebrovascular Diseases 34.4	Accidents 32.1	Accidents 34.8	Accidents 44.8	Accidents 54.6
4	Chronic Lower Respiratory Diseases 28.8	Accidents 29.4	Chronic Lower Respiratory Diseases 30.4	Cerebrovascular Diseases 29.8	Cerebrovascular Diseases 29.3	Cerebrovascular Diseases 26.7
5	Cerebrovascular Diseases 26.1	Chronic Lower Respiratory Diseases 23.5	Cerebrovascular Diseases 26.6	Chronic Lower Respiratory Diseases 25.6	Chronic Lower Respiratory Diseases 27.9	Chronic Lower Respiratory Diseases 25.3

DATA SOURCE: Massachusetts Department of Public Health, Massachusetts Death Files, 2011–2016
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

While cancer and heart disease are the leading cause of death for residents of all races/ethnicities, the leading causes of death for after these two conditions varies for different groups (Table 17). For Asian residents, cerebrovascular diseases, Alzheimer's Disease and hypertension/renal disease round out the top five leading causes of death. For Black, Latino and White residents, accidents are the third leading cause of death, with unintentional opioid overdoses account for a large part of these deaths (40.9% of all deaths due to accidents for Black residents, 66.7% for Latino residents and 57.2% for White residents). For Black and Latino residents, diabetes was one of the top five leading causes of death.

Table 17. Leading Causes of Mortality in Boston, by Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2014–2016 Combined

	Asian	Black	Latino	White
1	Cancer 127.0	Cancer 175.3	Cancer 109.4	Cancer 173.1
2	Heart Disease 64.6	Heart Disease 133.9	Heart Disease 87.8	Heart Disease 149.3
3	Cerebrovascular Diseases 21.5	Accidents 38.3	Accidents 41.6	Accidents 56.5
4	Alzheimer's Disease 18.1	Cerebrovascular Diseases 39.9	Diabetes 25.1	Chronic Lower Respiratory Diseases 32.7
5	Hypertension/ Renal Disease 16.1	Diabetes 38.6	Cerebrovascular Diseases 20.2	Cerebrovascular Diseases 26.6

DATA SOURCE: Massachusetts Department of Public Health, Massachusetts Death Files, 2014–2016 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

Table 18 presents the leading causes of premature death for men and women in Boston, 2014–2016. For men, the death rate by accidents, their leading cause of premature death, was two and a half times that for women. However, for both sexes, unintentional opioid overdoses accounted for approximately 70% of the deaths due to accidents. Heart disease was the third leading cause of premature death for both men and women. However, for men, homicide and suicide

were the fourth and fifth leading causes of premature death, while for women it was chronic lower respiratory diseases and cerebrovascular diseases.

Table 18. Leading Causes of Premature Mortality in Boston, by Sex, Age-Adjusted Rate per 100,000 Residents, 2014–2016 Combined

	Female	Male
1	**Cancer** 41.5	**Accidents** 55.9
2	**Accidents** 19.6	**Cancer** 52.0
3	**Heart Disease** 15.0	**Heart Disease** 37.8
4	**Chronic Lower Respiratory Diseases** 3.9	**Homicide** 10.7
5	**Cerebrovascular Diseases** 3.6	**Suicide** 9.5

DATA SOURCE: Massachusetts Department of Public Health, Massachusetts Death Files, 2014–2016 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

Obesity, Nutrition and Physical Activity

Obesity and Overweight

More than half of Boston adults and a third of Boston Public high school students reported being overweight or obese. Black and Latino adults and high school students were more likely to be overweight or obese than White residents or students. The prevalence of obesity and overweight also follows a socioeconomic gradient—residents who are renters, have lower levels of education and lower income were more likely to be obese or overweight compared to their counterparts. At our priority neighborhood level, the percent of adults in Hyde Park, West Roxbury and Roslindale who were obese or overweight was significantly higher than the prevalence of obesity across Boston.

Concerns related to obesity were frequently discussed among focus group and interview participants. Focus group participants described healthy eating and physical activity as ways to prevent obesity but cited a lack of health literacy and affordable recreational programming in their communities. Community residents indicated the need for more affordable gym and healthy food options, particularly in the winter time and especially for young people during school breaks. It was cited that for the elderly, being active helped to keep them in their homes longer and provided a social engagement component.

PATIENTS NEEDS TO UNDERSTAND THEIR HEALTH, HEALTHCARE AND OPTIONS TO ACHIEVE HEALTHCARE GOALS AS WELL AS AVENUES TO ADVOCATE FOR THEMSELVES AND OTHERS.

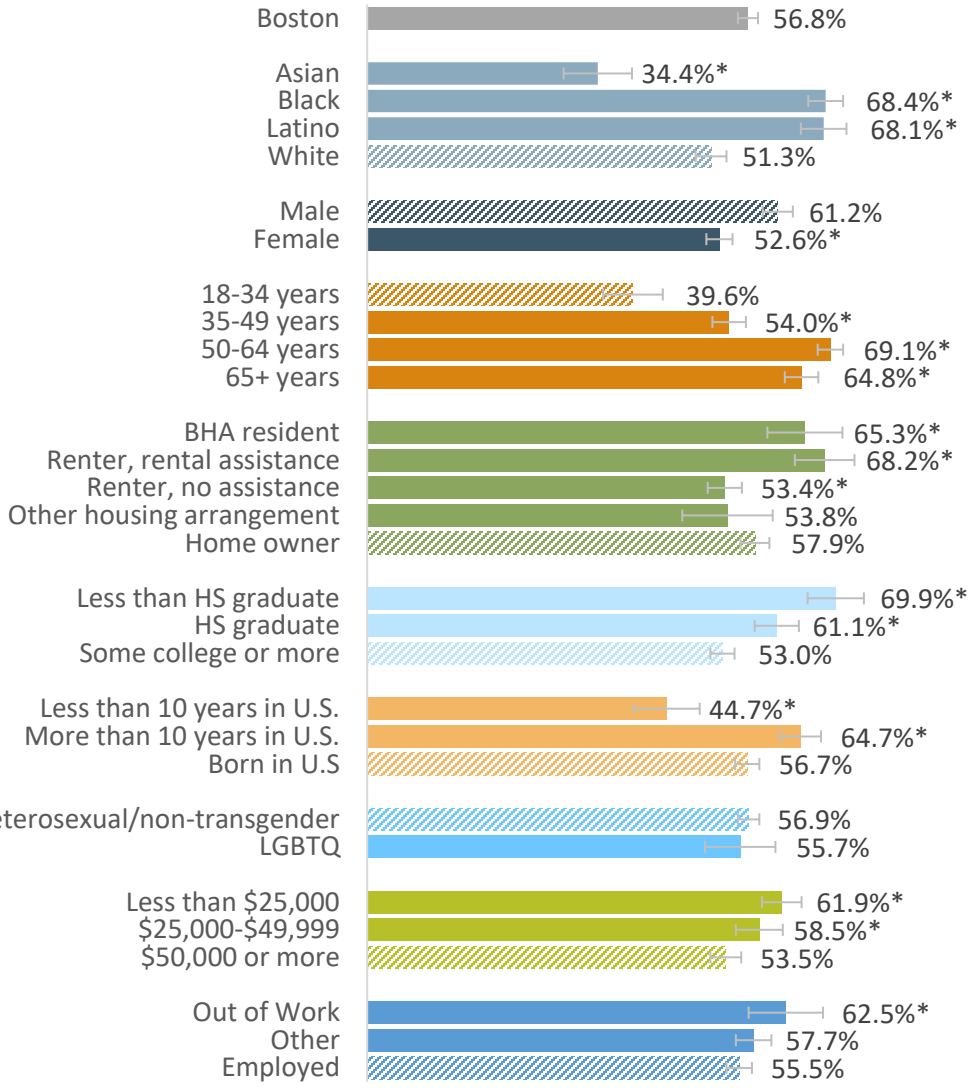
BWFH Key Informant, Hyde Park

In Hyde Park and Roslindale, key informants discussed the concern that cultural diets have a great effect on health. A lack of knowledge and resources negatively impact choices. Additionally, childhood obesity was a common theme that emerged among focus group and interview discussion participants, who linked challenges related to healthy eating with education, time constraints and economic challenges that create barriers for them to provide healthy opportunities for their children.

As shown in Figure 33, more than half (57%) of adults across Boston reported being classified as obese or overweight in 2013–2017. However, rates are different by various population groups. Nearly seven in ten Black (68%) and Latino (68%) adults reported being obese or overweight, compared with five in ten White (51%) adults across Boston—a difference

that was statistically significant. One third of Asian adults (34%) reported being obese or overweight, significantly lower than the prevalence for White adults (51%). Older adults were significantly more likely than young adults to be classified as overweight or obese. For example, 40% of adults 18–34 years of age were overweight or obese in 2013–2017, while approximately two thirds of adults 50–65 years of age (69%) and 65 years of age or older (65%) were overweight or obese. The prevalence of obesity and overweight also follows a socioeconomic gradient, with a significantly higher percent of renters (53–68%), residents with lower levels of educational attainment (61–70%) and residents with lower income (59–62%) being obese or overweight compared to their counterparts (53–58%).

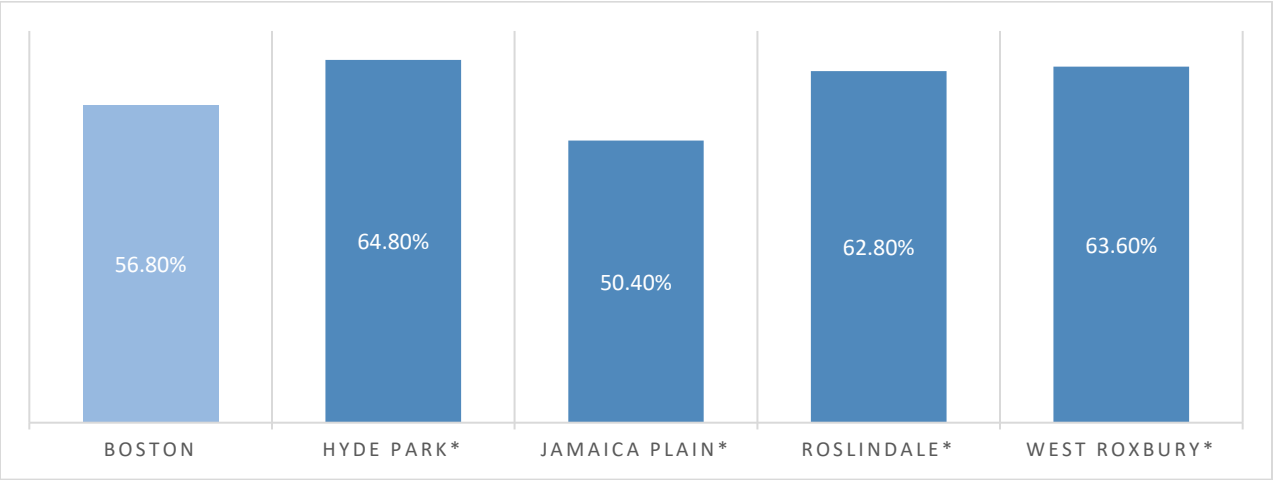
Figure 33. Percent Adults Reporting Obesity or Overweight, by Boston and Selected Indicators, 2013, 2015 and 2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

At the priority neighborhood level, the percent of adults in Hyde Park (65%), West Roxbury (64%) and Roslindale (63%) who were obese or overweight was significantly higher than the prevalence of obesity across Boston (57%) (Figure 34). In contrast, compared to the average across Boston (57%), a significantly lower proportion of adults in Jamaica Plain (50%) were obese or overweight.

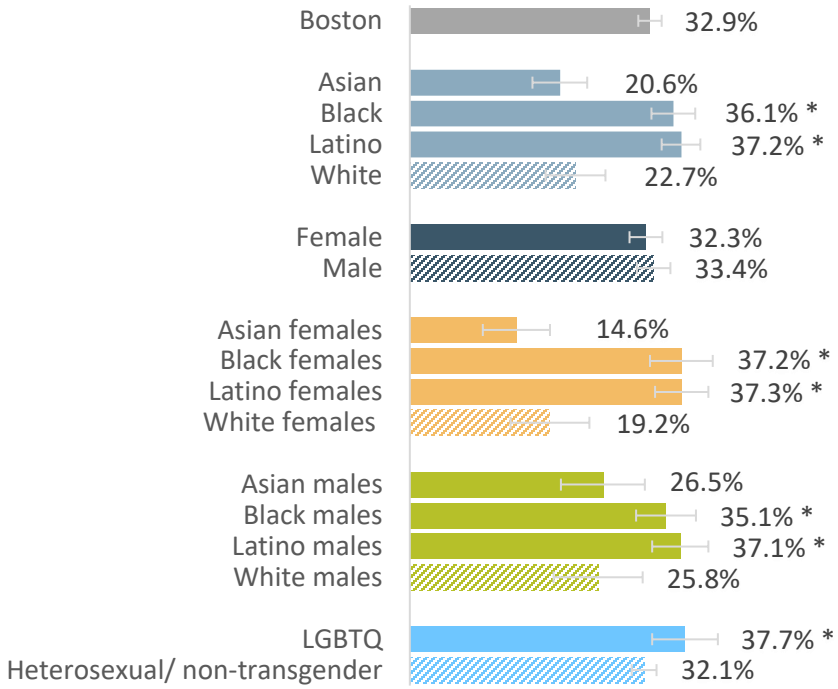
Figure 34. Percent Adults Reporting Obesity or Overweight, by Boston and Priority Neighborhood, 2013, 2015 and 2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

One third of Boston high school students (33%) reported being obese or overweight in 2013–2017. Similar to patterns for adults, a significantly higher proportion of Hispanic (37%) and Black (36%) high school students reported being obese or overweight than White high school students (23%). Racial/ethnic differences in the prevalence of obesity or overweight were similar for males and females. More than one third of LGBTQ (38%) students reported being obese or overweight, a proportion that was significantly higher than that for heterosexual or non-transgender students (32%).

Figure 35. Percent Boston Public High School Students Reporting Obesity or Overweight, by Boston and Selected Indicators, 2013, 2015 and 2017 Combined



DATA SOURCE: Centers for Disease Control and Prevention and Boston Public Schools, Youth Risk Behavior Survey, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category ($p < 0.05$); Error bars show 95% confidence interval

Physical Activity

Limited access to affordable opportunities for physical activity was a common theme in discussions with residents. Seniors also expressed challenges affording these resources.

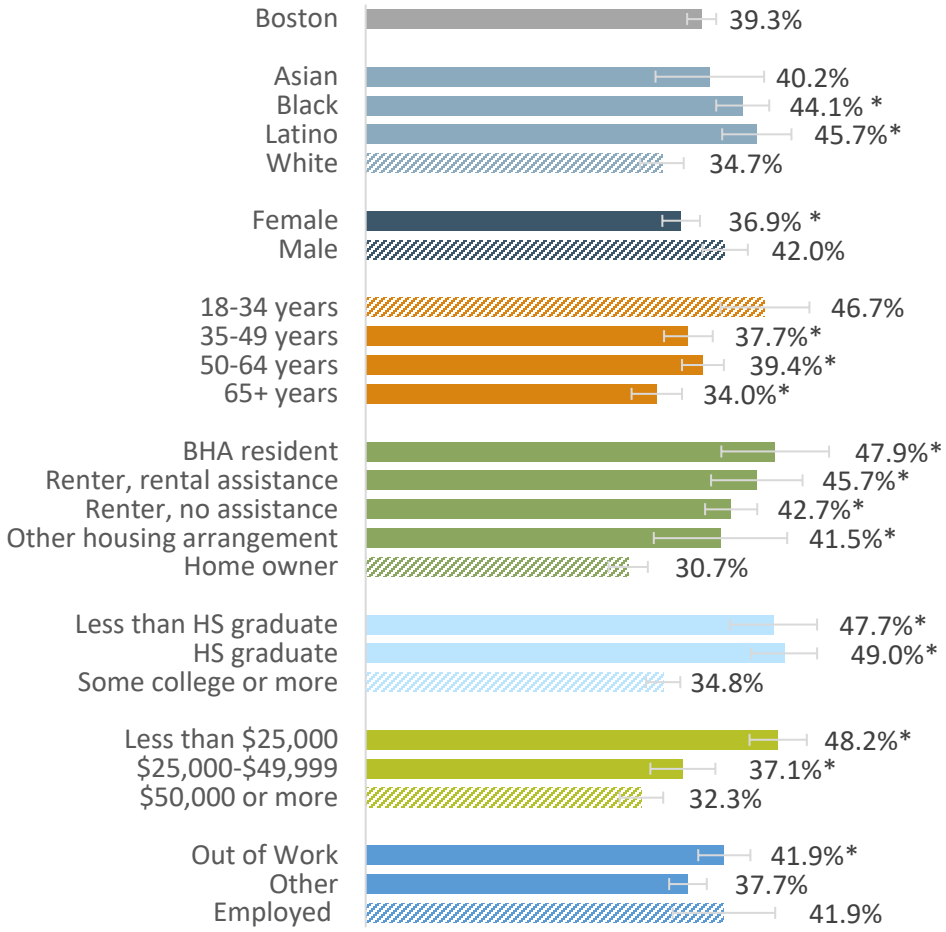
Reflecting residents' concerns, a low percent of youth across Boston reported regular exercise. Three in ten (30%) Boston high school students reported engaging in regular physical activity in 2013–2017, as reported by the Boston Public Schools Youth Risk Behavior Survey.

Healthy Eating

In 2013–2015, four in ten (39%) Boston adults reported consuming less than one fruit per day (

Figure 36). A significantly higher proportion of adults who were Black (44%), Latino (46%) male (42%), renters (42–48%) and younger (18–34 years of age; 47%) reported not consuming fruit on a daily basis compared to their counterparts. As with patterns for obesity and overweight, adults with lower socioeconomic status were more likely report fruit consumption on a less than daily basis: renters (43–48%), residents in other housing arrangements (42%), residents with less than a college education (48–49%), adults with incomes <$50,000 (37–48%), and residents who were out of work (42%) were significantly more likely than their counterparts (31–42%) to not consume fruit daily.

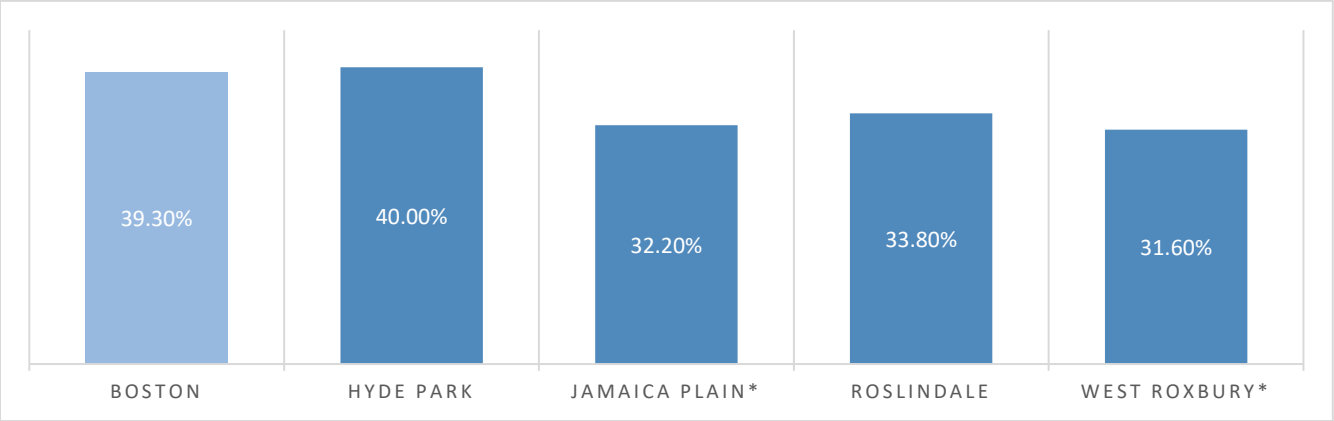
Figure 36. Percent Adults Reporting Fruit Consumption of Less Than Once per Day, by Boston and Selected Indicators, 2013 and 2015 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013 and 2015 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

In our priority neighborhoods, shown in Figure 37, West Roxbury (32%), Jamaica Plain (32%) and Roslindale (34%) residents reporting less than daily fruit intake was lower than the average across Boston (39%).

Figure 37. Percent Adults Reporting Fruit Consumption of Less Than Once per Day, by Boston and Priority Neighborhood, 2013 and 2015 Combined

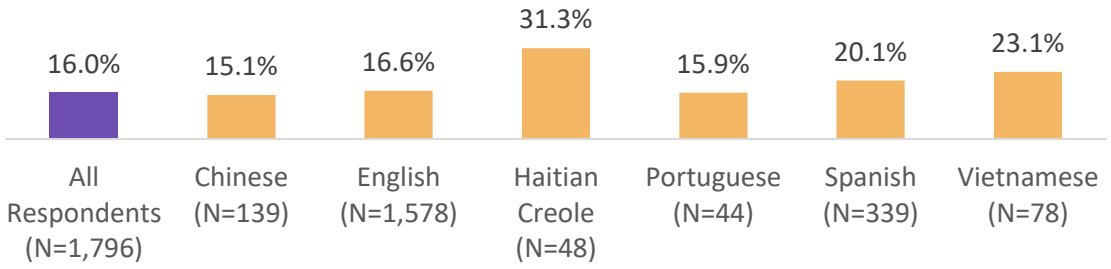


DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013 and 2015 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

More than four in ten (45%) Boston public high school students reported consuming fruit on a less than daily basis in 2013–2017. Four in ten Boston public high school students (40%) reported drinking at least one sugar sweetened beverage in 2015–2017. As reported by the Boston Public Schools Youth Risk Behavior Survey.

Key informants and focus group participants—particularly those in non-English languages—mentioned concerns related to obesity in immigrant communities. Interviewees perceived an increase in obesity among immigrants and attributed the concerns to American diets, citing easy access to fast food restaurants and processed foods. Approximately one in seven Boston CHNA survey respondents reported sometimes choosing fast food because it was cheaper (16.1%). As shown in Figure 38, the percent of residents who indicated that they chose fast food because it was cheaper appeared to vary by language. Three in ten (31%) respondents who primarily spoke Haitian Creole reported selecting fast food on a weekly basis because it was cheaper, followed by two in ten residents who spoke primarily Vietnamese (23%) and Spanish (20%).

Figure 38. Percent Boston CHNA Survey Respondents Reporting They Chose Fast Food Because It Was Cheaper Than Other Options At Least Once Per Week in Past Month, by All Respondents and Primary Language Spoken, 2019



DATA SOURCE: Boston CHNA Community Survey, 2019
NOTES: Question was worded: "In the past month, how often did you choose fast food (such as McDonalds, KFC or Wendy's) because it was cheaper than other options?"; response options: never/rarely, 1–3 times per month (less than once a week), 1–2 times per week, 3–4 times per week, 5–6 times per week, 1+ times per day and prefer not to answer; Percentage calculations do not include respondents who selected "prefer not to answer"

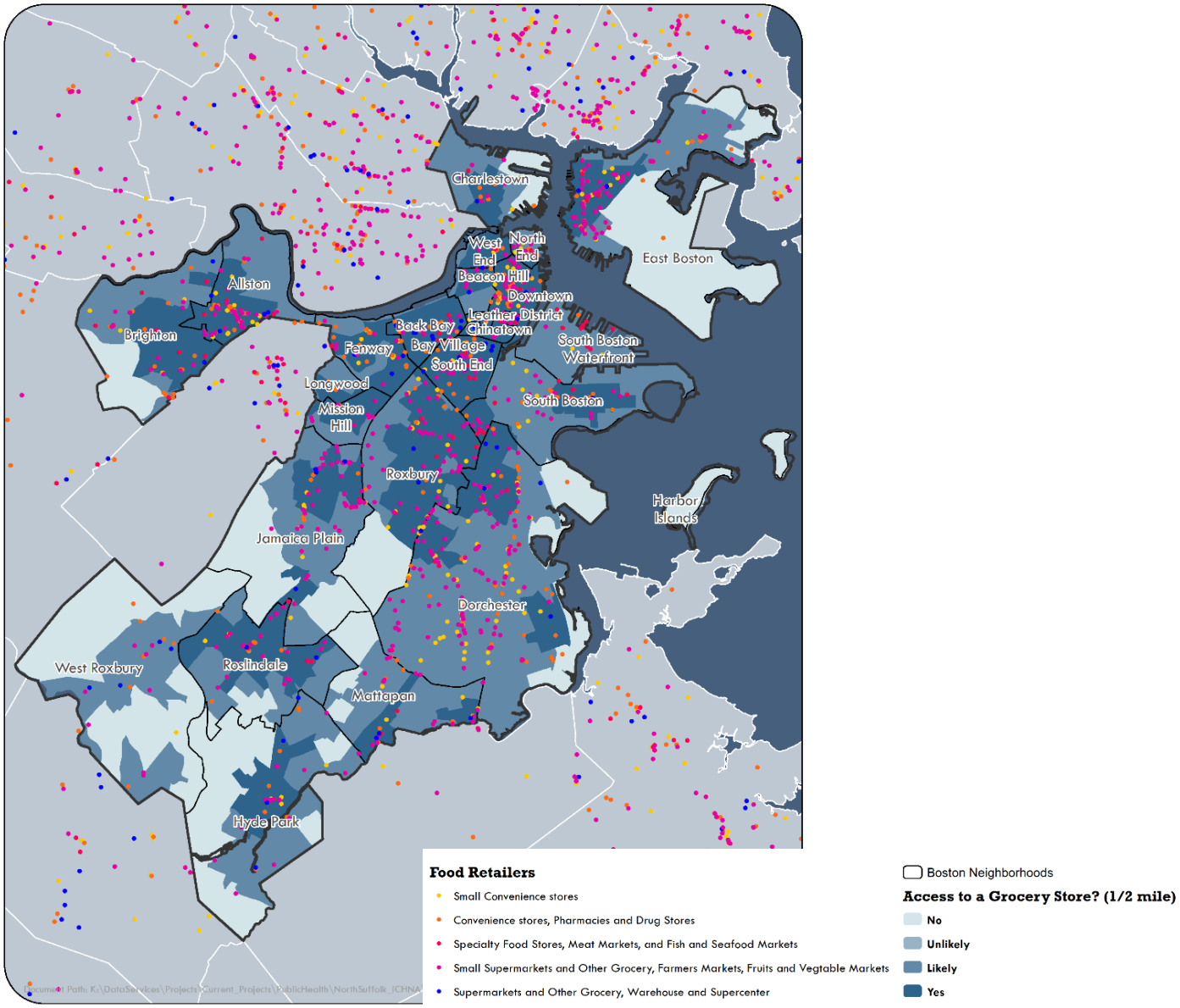
Food and Physical Activity Access

Focus group and interview participants expressed concern about limited healthy food options in lower income neighborhoods across the city. The higher cost of fresh produce and lack of time for healthy food preparation were identified as barriers to healthy eating.

Some residents in focus groups described a prevalence of convenient stores and fast food restaurants in low-income communities, which many linked to the rise of obesity and diabetes.

As shown in Figure 39, the neighborhoods of Jamaica Plain, West Roxbury and Hyde Park are characterized by sizable geographic areas with limited access to grocery stores.

Figure 39. Access to Food Retailers, by Type and Neighborhood, 2019



DATA SOURCE: Courtesy of Metropolitan Area Planning Council, 2019

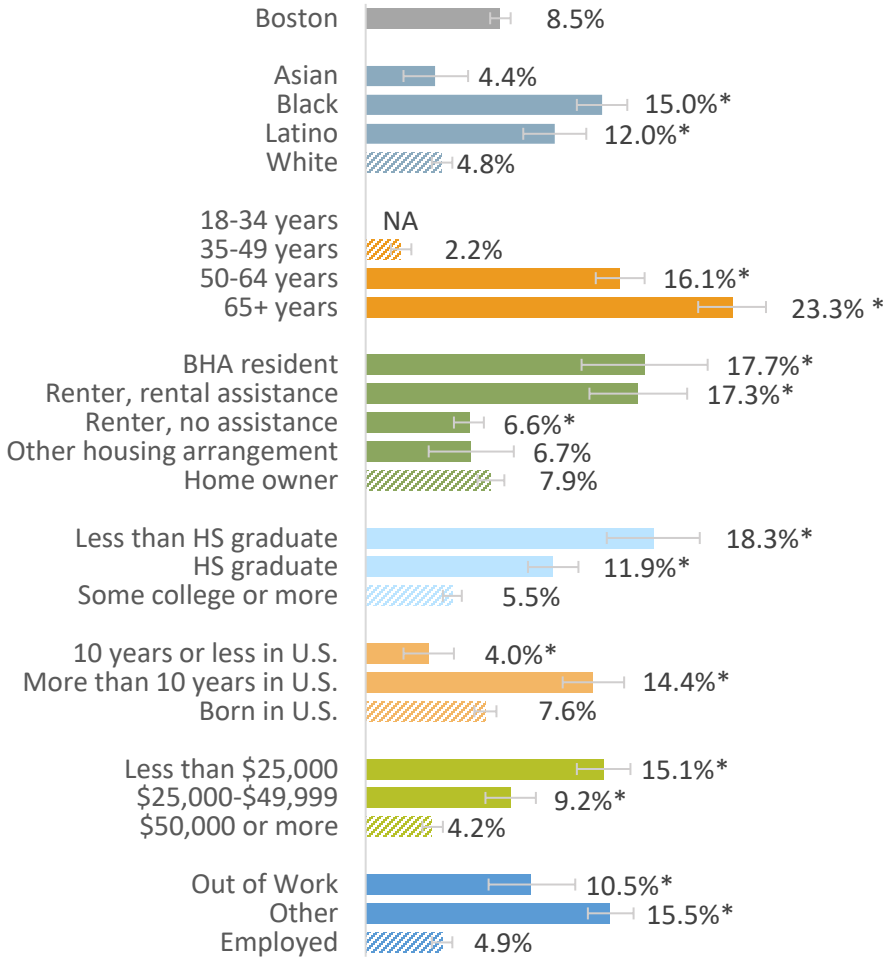
Chronic Disease

Diabetes

Diabetes was frequently mentioned as a community concern that had an impact on both adults and children. Many focus group and interview participants discuss diabetes in connection with obesity. Further, key informants perceived the rise in type 2 diabetes symptoms among young children—particularly among Black and Latino children.

While the prevalence of reported diabetes across Boston was 9% in 2013–2017, there were significant differences in the distribution of diabetes across the population. Compared to their counterparts, a significantly higher proportion of adults who identified as Black (15%), Latino (12%), older (≥50 years; 16–23%), Boston Housing Authority residents (18%), renters receiving rental assistance (17%), adults with a high school education or less (12–18%) and immigrants who have resided in the U.S. for more than 10 years (14%) reported a diabetes diagnosis (Figure 40).

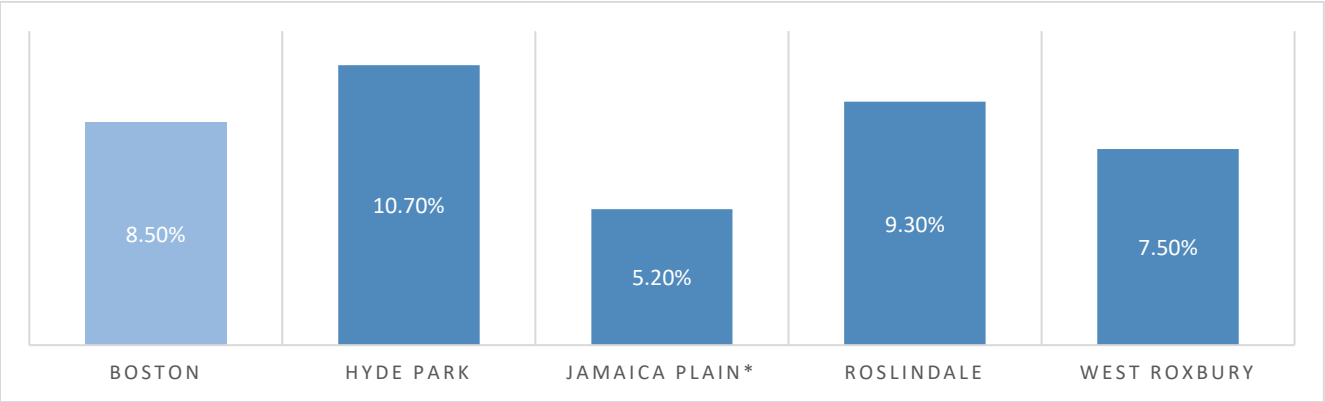
Figure 40. Percent Adults Reporting Diabetes Diagnosis, by Boston and Selected Indicators, 2013, 2015 and 2017



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

Additionally, two of the BWFH priority neighborhoods, Hyde Park (10.7%) and Roslindale (9.3%), were higher than the Boston overall rate of 8.5% (Figure 41).

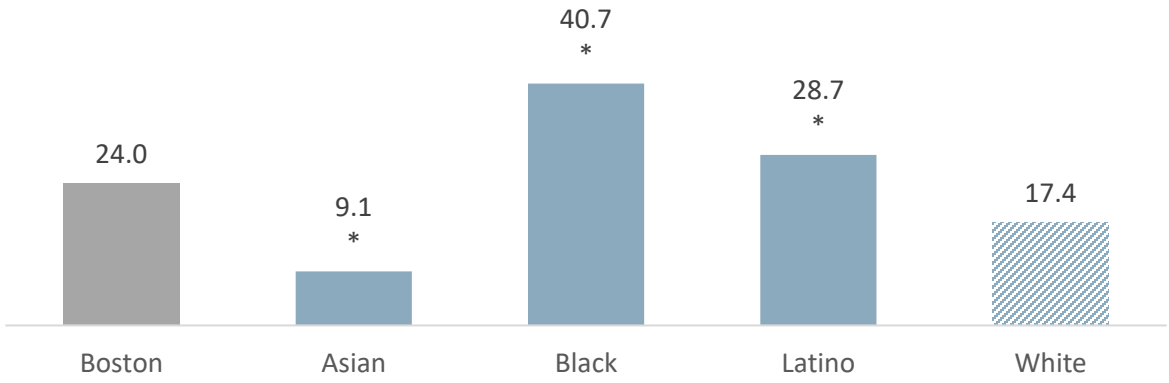
Figure 41. Percent Adults Reporting Diabetes Diagnosis, by Boston and Priority Neighborhood, 2013, 2015 and 2017



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

Similar to patterns for diabetes diagnoses and hospitalizations, the diabetes mortality rate for Black (41 deaths per 10,000 residents) and Latino residents (29 deaths per 10,000 residents) residents was significantly higher than that for White residents (17 deaths per 10,000 residents) in 2016–2017 (Figure 42). The diabetes mortality rate among Asian residents (9 deaths per 10,000 residents) was nearly half of that for White residents (17 deaths per 10,00 residents) during the same period.

Figure 42. Diabetes Mortality Rate, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2016–2017 Combined

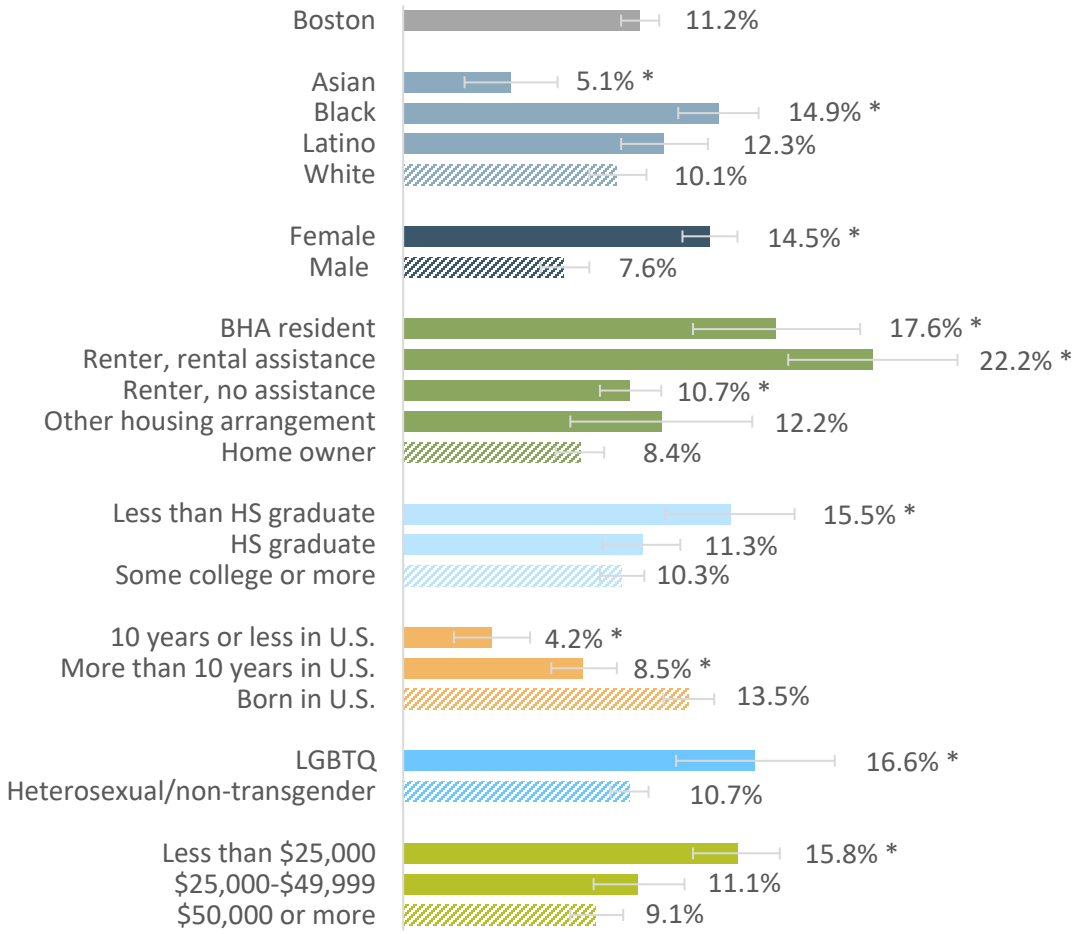


DATA SOURCE: Boston Public Health Commission, Boston resident deaths, 2016–2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category ($p < 0.05$)

Asthma

In 2013–2017, across Boston, 11% of adults reported a diagnosis of asthma. The prevalence of asthma was significantly higher for adults who identified as Black (15%), female (15%), residents of Boston Housing Authority units (18%), renters receiving rental assistance (22%), renters not receiving assistance (11%), adults with less than a high school education (16%), LGBT (17%) and less than $25,000 income (16%) compared with their counterparts. Of note, a significantly lower proportion of Asian adults (5%) and immigrants living in the U.S. for less than 10 years (4%) or 10 years or more (9%) reported an asthma diagnosis (Figure 43).

Figure 43. Percent Adults Reporting Having Asthma, by Boston and Selected Indicators, 2013, 2015 and 2017 Combined

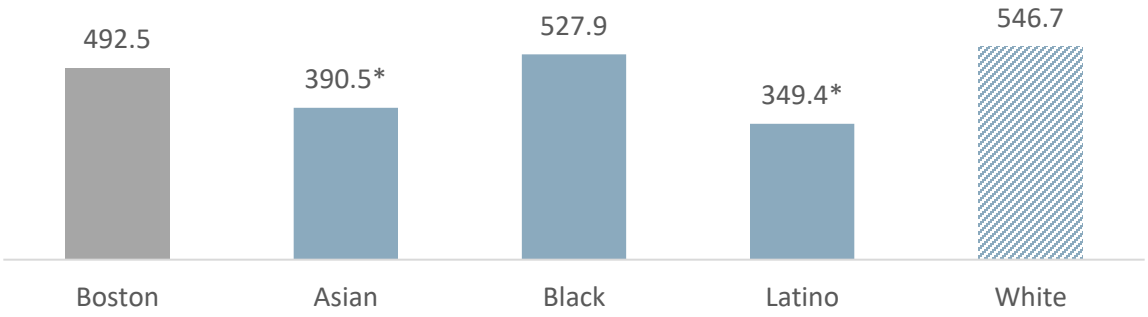


DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

Cancer

According to the Massachusetts Department of Public Health, in 2015, cancer incidence rates for Asian (390.5 per 100,000 population) and Latino residents (349.4 per 100,000 population) in Boston were significantly lower than for White residents (546.7 per 100,000 population) (Figure 44).

Figure 44. Overall Invasive Cancer Incidence Rate, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2015

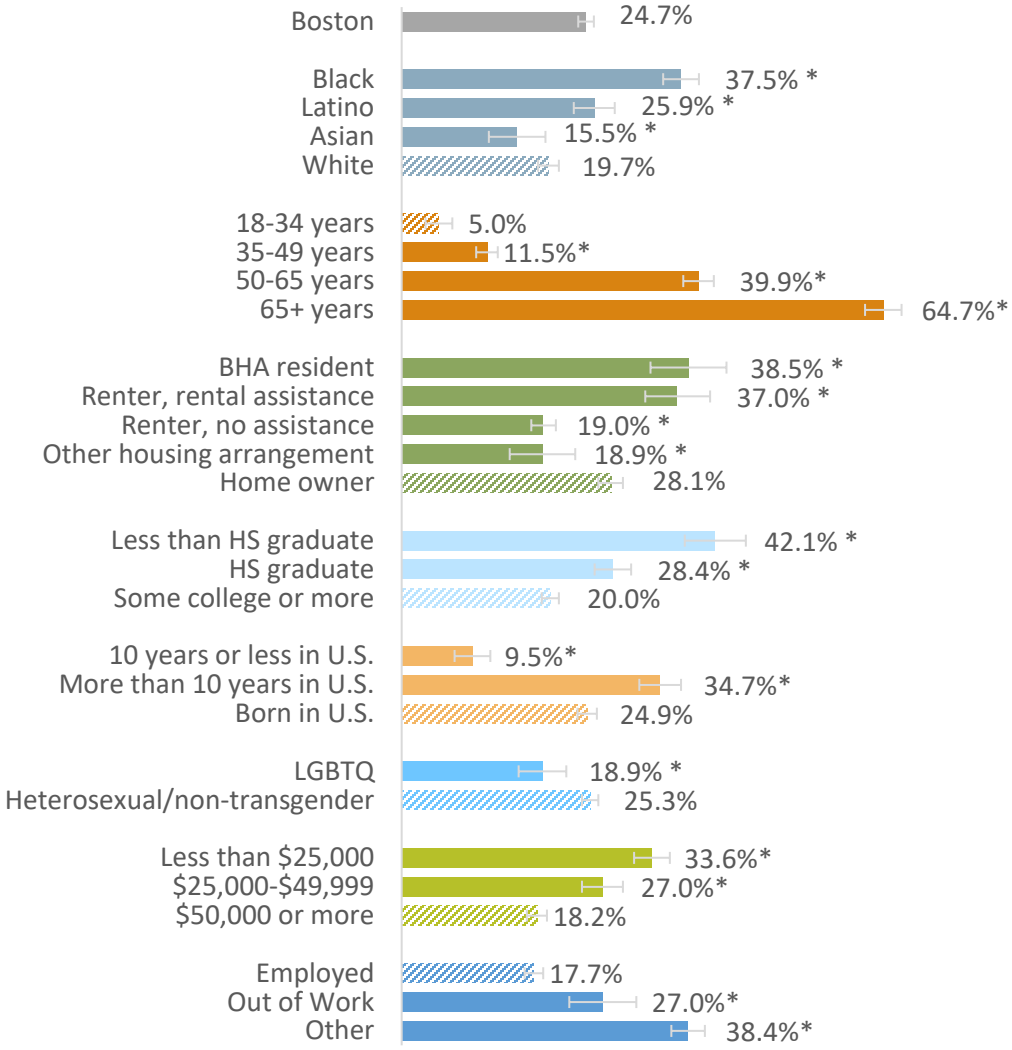


DATA SOURCE: Massachusetts Department of Public Health, Cancer Registry, 2015 DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05)

Heart Disease and Stroke

In 2013–2017, one quarter (25%) of Boston adults reported being diagnosed with hypertension. A significantly higher proportion of adults who identified as Black (38%), Latino (26%), aged 35–49 (12%), aged 50–65 (40%), 65 and older (65%), residents living in Boston Housing Authority units (39%), renters on rental assistance (37%) and immigrants living in the U.S. for more than ten years (35%) reported being diagnosed with hypertension or high blood pressure, compared to their counterparts. Additionally, there was a consistent socioeconomic gradient in the prevalence of hypertension: a significantly higher percent of adults with less than a high school education (42%), a high school education (28%), incomes <$25,000 (34%), incomes $25,000–$49,999 (27%), out of work (27%) and other employment statuses (38%) reported a hypertension diagnosis compared with their counterparts of higher socioeconomic status. A significantly lower percent of adults who identified as Asian (16%), renters without assistance (19%), residents with other housing arrangements (19%), immigrants living in the U.S. for less than ten years (10%) and LGBT (19%) reported a hypertension diagnosis when compared to the comparison group (Figure 45).

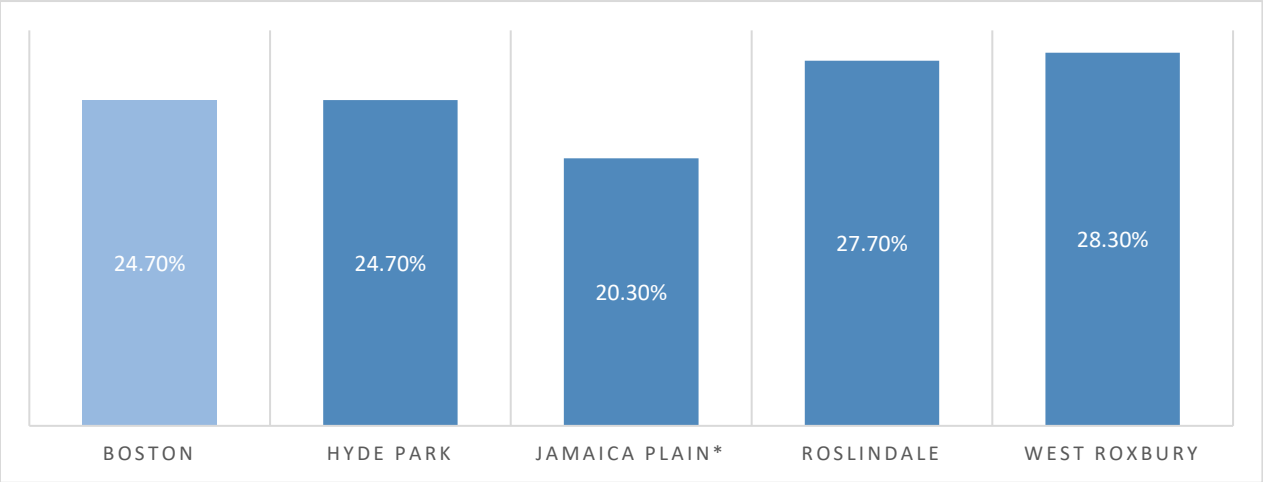
Figure 45. Percent Adults Reporting Hypertension, by Boston and Selected Indicators, 2013, 2015 and 2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

As shown in Figure 46, Hyde Park shows rates equal to Boston, and Roslindale and West Roxbury show rates higher than Boston in adult hypertension.

Figure 46. Percent Adults Reporting Hypertension, by Boston and Priority Neighborhood, 2013, 2015 and 2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

As shown in Table 19, from young adulthood to 50–64 years of age, the heart disease mortality rate was highest for Black adults. More specifically, among adults 18–34 years of age and 35–49 years of age, the heart disease mortality rate for Black adults was statistically higher than the mortality rate for White adults. For adults 65 years of age and older, the heart disease mortality rate for Asian, Black and Latino adults was significantly lower than that for White residents.

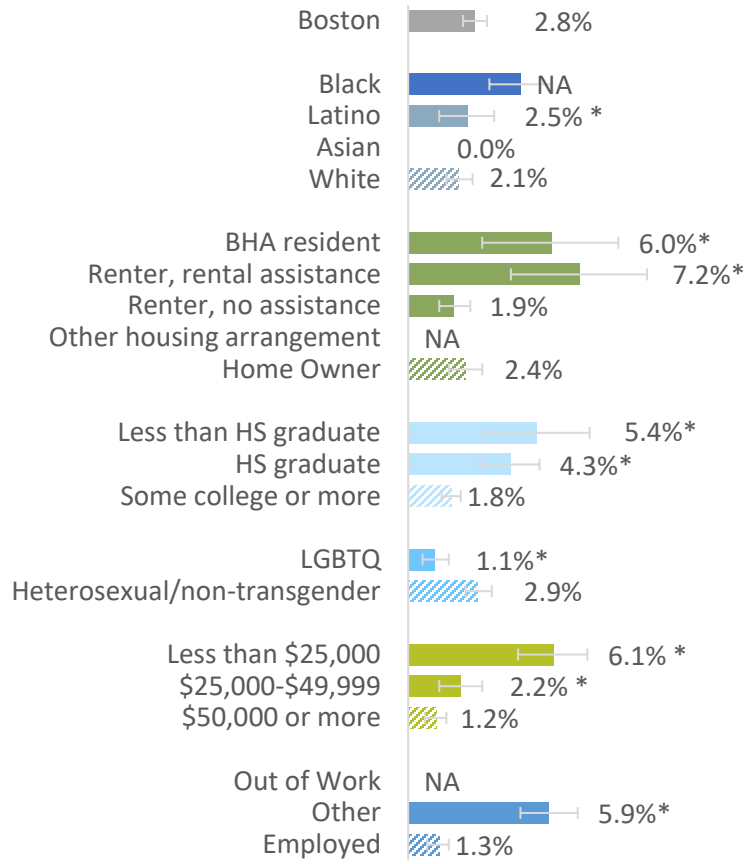
Table 19. Heart Disease Mortality Rate in Boston, by Race/Ethnicity by Age, Age-Specific Rate per 100,000 Residents, 2016–2017 Combined

	Asian	Black	Latino	White
18-34 years	NA	10.0*	2.5	1.4
35-49 years	6.9*	47.5*	20.9	29.9
50-64 years	32.3*	144.9	79.8*	135.2
65+ years	398.9*	771.5*	480.9*	1,155.0

DATA SOURCE: Boston Public Health Commission, Boston resident deaths, 2016–2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Asterisk (*) denotes where estimate was significantly different compared to White (reference group in each age category) ($p <0.05$)

The prevalence of stroke among Black adults (5%) was more than twice the prevalence among White adults (2%), a difference that was statistically significant. A significantly higher proportion of adults with incomes <$25,000 (6%) or $25,000–$49,999 (2%), residents of Boston Housing Authority units (6%), renters with rental assistance (7%) and residents with less than a high school education (5%) reported a diagnosis of stroke relative to residents with higher socioeconomic status (Figure 47).

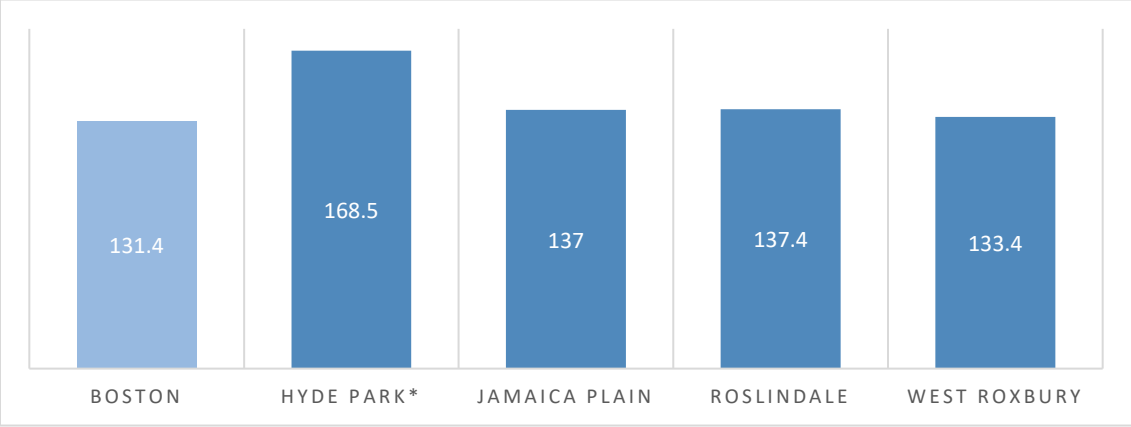
Figure 47. Percent Adults Reporting Having Ever Had a Stroke, by Boston and Selected Indicators, 2017



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

Locally, the heart disease mortality rate was higher in all four of BWFH's priority neighborhoods compared to that of Boston and significantly higher in Hyde Park (Figure 48).

Figure 48. Heart Disease Mortality Rate in Boston, by Neighborhood, Age-Specific Rate per 100,000 Residents, 2016–2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston resident deaths, 2016–2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Asterisk (*) denotes where estimate was significantly different compared to White (reference group in each age category) ($p < 0.05$); NA denotes where data are not presented due to insufficient sample size; Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category ($p < 0.05$); Error bars show 95% confidence interval

The rate of hospitalizations due to stroke was 55% and 41% higher than the Boston average (22 hospitalizations per 10,000 residents) in Hyde Park (34 hospitalizations per 10,000 residents). The stroke-related hospitalization rate was significantly higher than the Boston average in the neighborhood of Hyde Park.

Mental Health

Depression and Anxiety

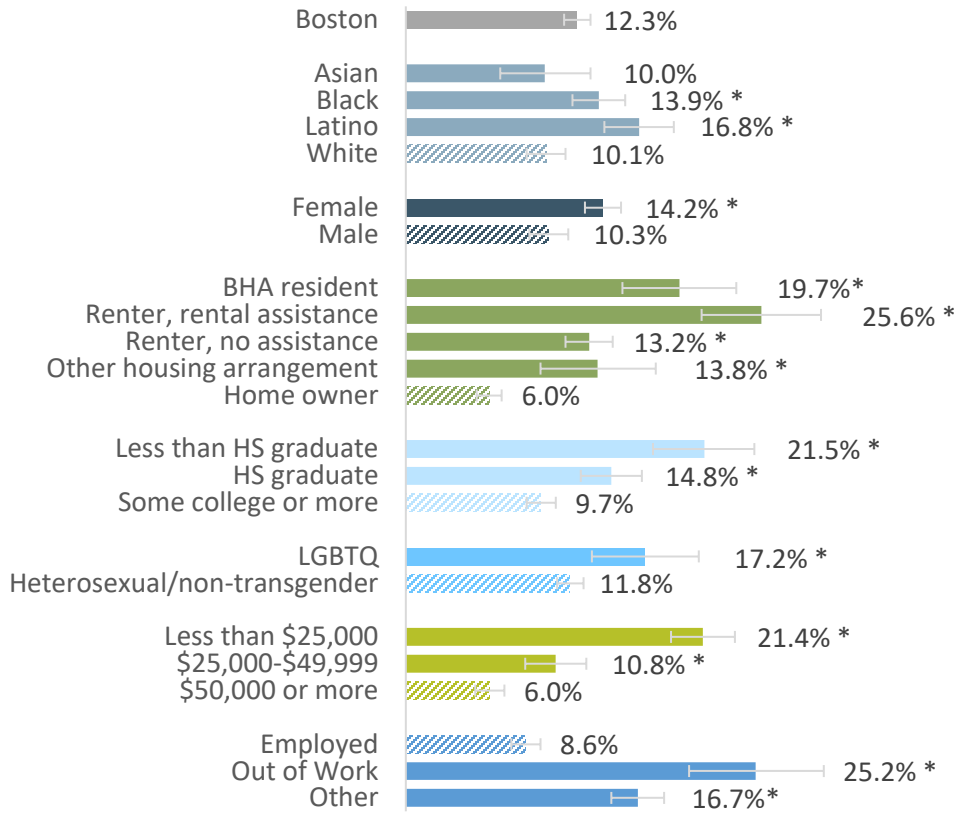
Mental health issues were described as a priority concern across almost all focus group and interviews, and often discussed in connection with trauma. Stress, anxiety and depression were the most frequently cited challenges among Boston residents, especially those who belong to underrepresented groups. Specific vulnerable groups that were mentioned include LGBTQ, low-income residents, seniors, children, immigrants and communities of color. In conversations, these mental health issues were often discussed in relation to social determinant factors like poverty, employment and safety. Additional factors affecting mental health, according to key informants, include unstable housing situations, parental incarceration, especially for Black and Latino men, and domestic violence.

> WE SEE SO MANY PARENTS THAT ARE NOT ABLE TO TAKE CARE OF AND ADVOCATE FOR THEIR CHILDREN IN WAYS THEY WOULD LIKE BECAUSE OF THEIR OWN MENTAL HEALTH NEEDS.
>
> *BWFH Key Informant, Jamaica Plain*

Surveillance and survey data indicate that anxiety and depression are somewhat common across Boston residents. According to the Behavioral Risk Factor Surveillance System (BRFSS), more than one in five Boston residents (12.3%) indicated feeling persistent sadness in the past 30 days (feeling sad, blue or depressed for more than 15 days within the past 30 days) (

Figure 49). When examining responses by sub-groups, responses were significantly higher in Black, Latino residents, females, non-home owners, residents with less than some college education, those making less than $50,000 a year, LGBTQ residents and those not employed compared to the referent in their sub-group (shaded).

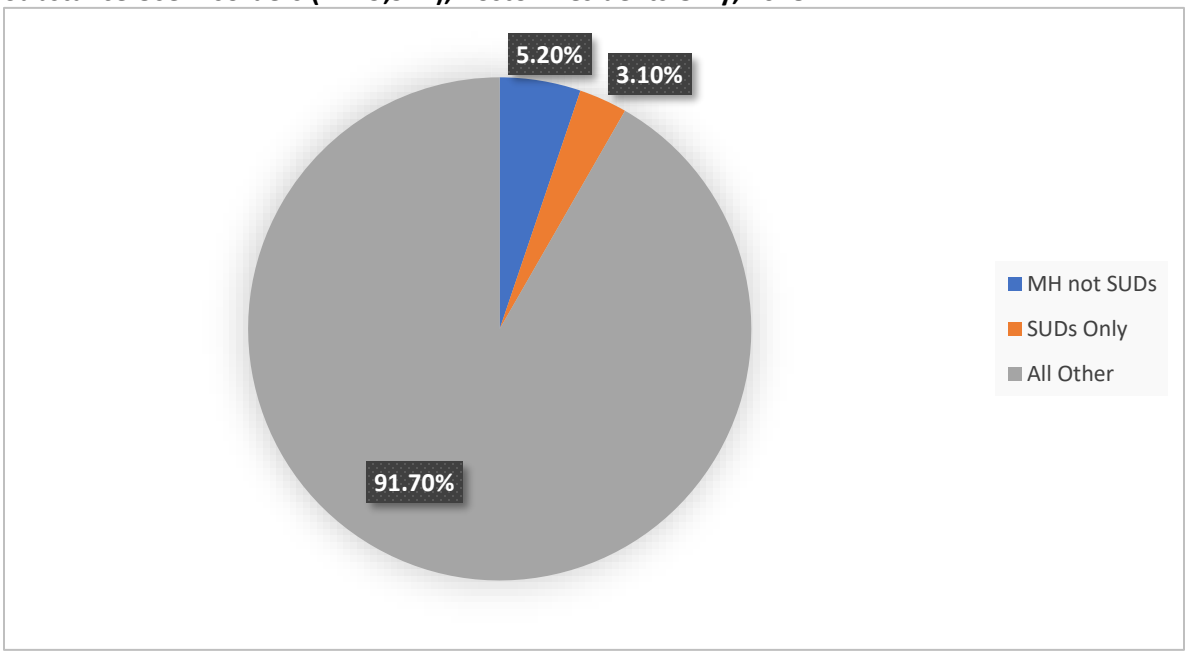
Figure 49. Percent Adults Reporting Persistent Sadness, by Boston and Selected Indicators, 2013, 2015 and 2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined

In 2018, BWFH data shows that 8.3% (1,661 patients) of total (19,917 patients) ED visits by Boston residents at BWFH were for mental health and substance use disorders (Figure 50).

Figure 50. Percent Brigham and Women's Faulkner Hospital Emergency Department Encounters for Mental Health and Substance Use Disorders (N=19,917), Boston Residents Only, 2018

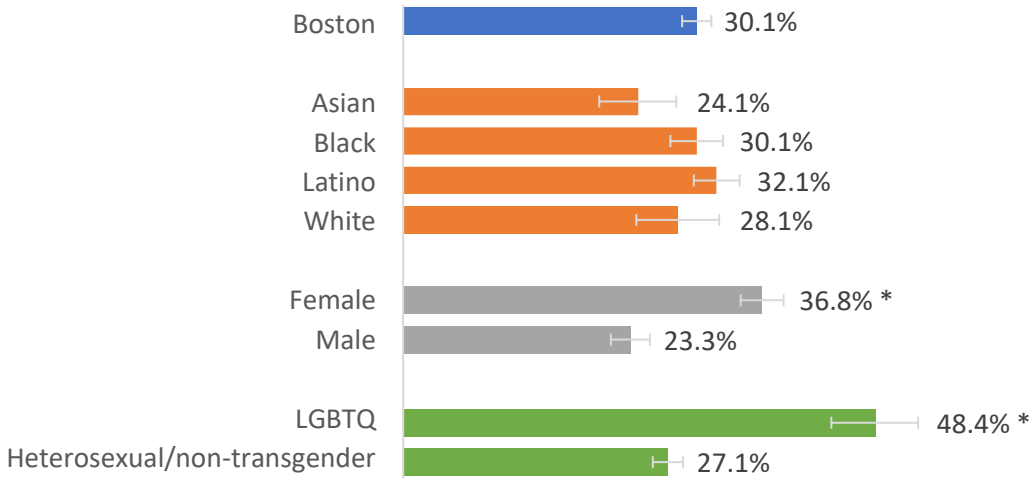


Source: Brigham and Women's Hospital and Brigham and Women's Faulkner Hospital

Mental health concerns were not just specific to adults. Focus group and interview participants also expressed increasing concern about mental health issues experienced by children and teens. Key informants spoke of how poor social and economic factors exacerbate mental health issues for children. For example, poor children who are at risk of living under chronic stress or experiencing vicarious trauma through their parents' experiences. Though not as frequently discussed as stress, anxiety was also identified as a common concern for parents and young people who participated in focus groups. Online bullying and social media were mentioned as components of this anxiety, as well as pressure to perform in school.

The concern about youth mental health issues is validated by survey data. Responses from the Youth Risk Behavior Survey indicate approximately one third of Boston public high school students reported feeling persistent sadness (measured by feeling sad or hopeless every day for two weeks or more in the past 12 months). When looking at data by specific groups, female students (36.8%) were significantly more likely than male students (23.3%) and students who identify as LGBTQ (48.4%) were significantly more likely than students identifying as heterosexual/non-transgender (27.1%) to report feeling persistent sadness. (Figure 51)

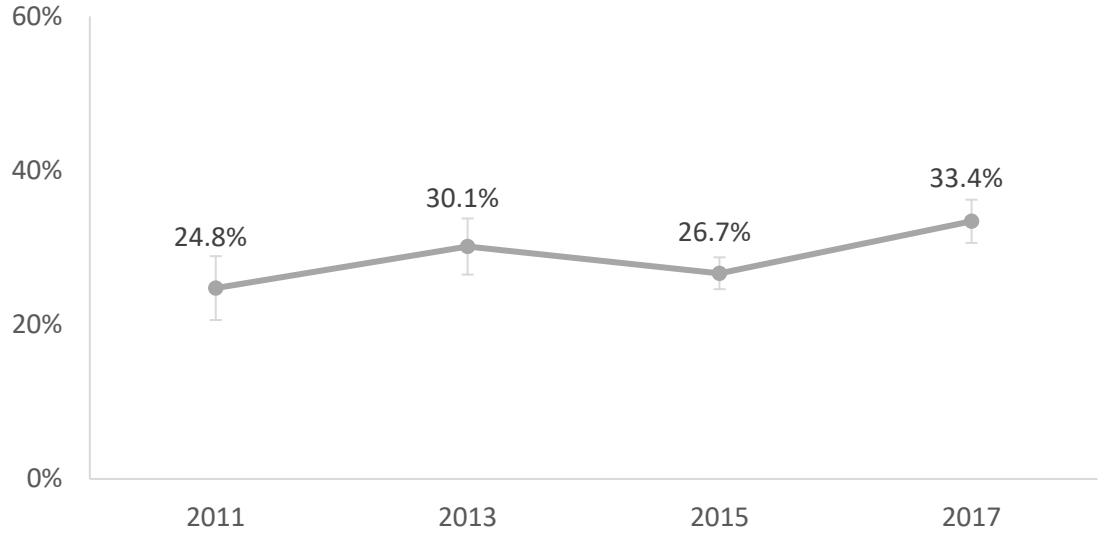
Figure 51. Percent Boston Public High School Students Reporting Persistent Sadness, by Boston and Selected Indicators, 2013, 2015 and 2017 Combined



DATA SOURCE: Centers for Disease Control and Prevention and Boston Public Schools, Youth Risk Behavior Survey, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Students were asked in the past 12 months if they felt sad or hopeless every day for two weeks or more; Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category ($p < 0.05$); Error bars show 95% confidence interval

The Youth Risk Behavior Survey data in the previous graph were aggregated across years to provide a large enough sample for sub-group analyses. When examining the Youth Risk Behavior Survey data by year, Figure 52 shows a statistically significant trend over time, from 24.8% of Boston Public high school students reporting persistent sadness in 2011 to 33.4% reporting in 2017.

Figure 52. Percent Boston Public High School Students Reporting Persistent Sadness, by Boston and Over Time, 2011–2017

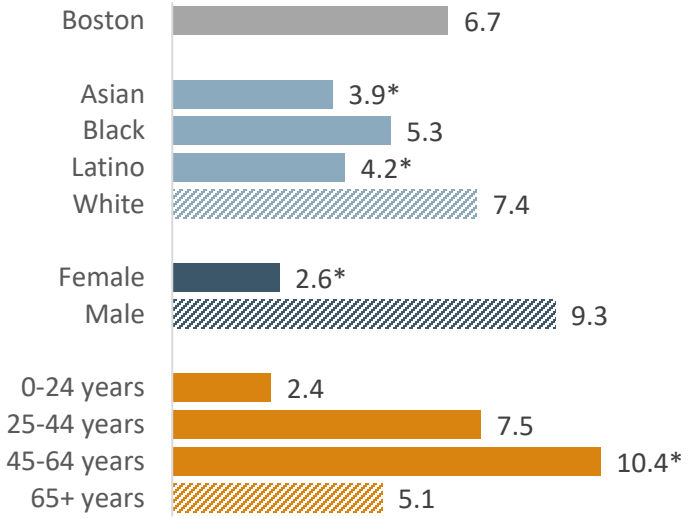


DATA SOURCE: Centers for Disease Control and Prevention and Boston Public Schools, Youth Risk Behavior Survey, 2011, 2013, 2015 and 2017
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Students were asked in the past 12 months if they felt sad or hopeless every day for two weeks or more; Error bars show 95% confidence interval; significant increase over time

Suicide and Suicidal Ideation

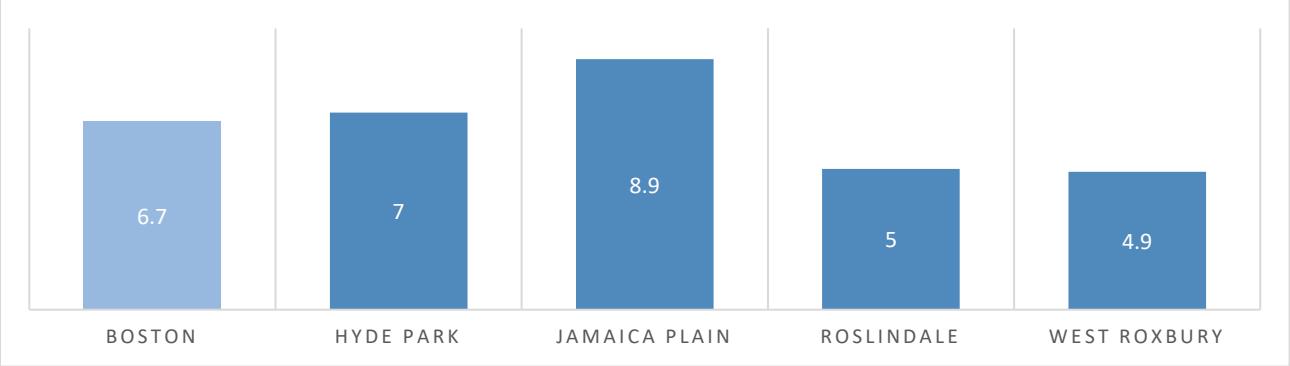
Aggregating data from 2012–2016, the age-adjusted suicide rate for Boston overall is 6.7 deaths per 100,000 residents (Figure 53). Suicide rates were significantly lower among Asian and Latino residents compared to White residents. Rates were highest among males compared to females and those in the 45–64 year age range compared to the referent of 65+ years old. Figure 54 indicates that by neighborhood, Jamaica Plain was the one neighborhood with a higher suicide rate than Boston overall.

Figure 53. Suicide Rate, by Boston and Selected Indicators, Age-Adjusted Rate per 100,000 Residents, 2012–2016 Combined



DATA SOURCE: Massachusetts Department of Public Health, Boston resident deaths, 2012–2016 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); For age stratifications, rates are age-specific rates per 100,000 residents

Figure 54. Suicide Rate, by Priority Neighborhood, Age-Adjusted Rate per 100,000 Residents, 2012–2016 Combined



DATA SOURCE: Massachusetts Department of Public Health, Boston resident deaths, 2012–2016 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

Substance Use

Substance use was considered a priority health issue in many focus group and interview discussions. Participants mentioned a variety of substances including opioids, marijuana and prescription drug use as being among the most concerning. Co-occurring mental health and substance use issues were frequently discussed among key informants. Additionally, key informants discussed the interrelationship between trauma, mental health and substance use.

While not mentioned as frequently as opioids, a few assessment participants did note that alcohol was a commonly abused substance, especially by those experiencing homelessness. Additionally, participants were especially concerned about the impact of substance use disorders on young people.

Tobacco and Marijuana Use

While Boston has seen a statistically significant decrease in smoking since 2010, nearly one in six adults (15%) reported being a current smoker in 2017. A growing concern among focus group and interview participants was e-cigarettes or vaping, which was described as an increasingly popular substance used by young people and adults. However, data from the Youth Risk Behavior Risk Survey indicates that the use of e-cigarettes among high school students has significantly decreased, from 14.5% reporting use in 2015 down to 5.1% reporting any e-cigarette use in the past 30 days.

Marijuana concerns were discussed in multiple focus groups, particularly as they related to young people and the recent legalization of the substance. Those working with young people or in community-based settings described seeing an increase in marijuana use among students and parents in recent years, which they attributed to more social acceptance. However, Youth Risk Behavior Risk Survey data over the last few years indicates that marijuana use has remained steady since 2011, with approximately one quarter of Boston high school students reporting current marijuana use.

Alcohol Use

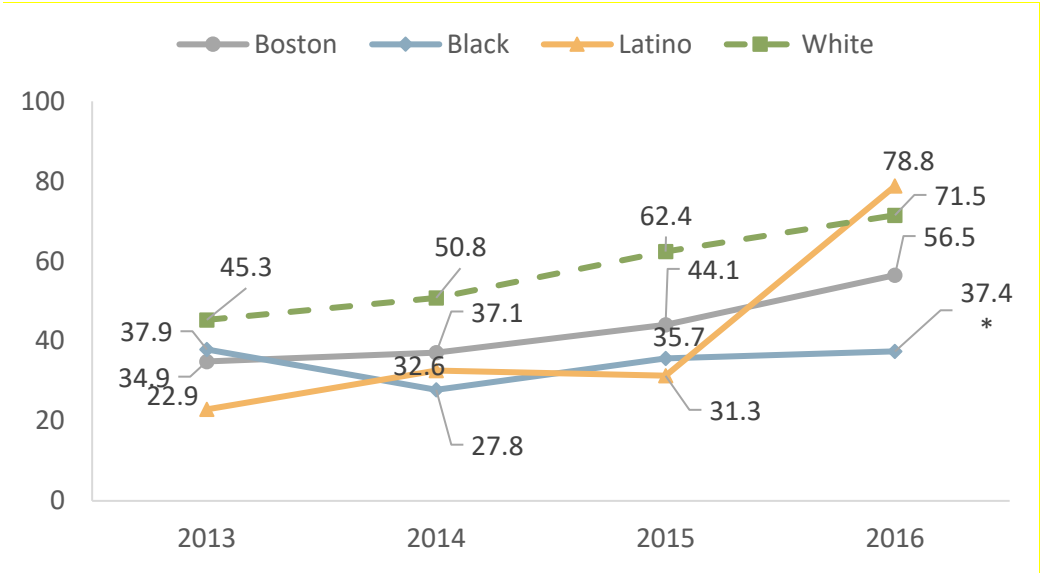
The percent of Boston adults reporting binge drinking (having five or more drinks on an occasion for men or four or more drinks on an occasion for women) has remained steady since 2010, with approximately one quarter of Boston adult BRFSS respondents reporting this behavior. There are several differences within groups, such as LGBTQ adults (30.5%) are significantly more likely than heterosexual/non-transgender adults (24.0%), males (29.8%) are significantly more likely than females (19.8%) and adults earning $50,000 or more (32.5%) are significantly more likely than those earning $25K-<$50K (21.4%) or those earning <$25K (18.5%) to report binge drinking.

Opioid and Other Drug Use

Many focus group participants and key informants who discussed substance use as a concern identified opioids as a persistent issue in Boston. The rate of opioid overdose deaths in Boston has significantly increased since 2013 and was highest among Latino residents, followed by White residents. While a few key informants indicated that major headway around substance use and the opioid epidemic has been made in recent years, more is needed to address the severity of the issue. Several key informants indicated that heroin and Fentanyl use was on the rise, and that these substances were cheap and easily available.

A similar trend to opioids—there is a significant increase for Boston overall and Latino residents specifically in the mortality rate from 2013–2016 in all substance use deaths combined, including alcohol, other drug mortality and unintentional and intentional overdose or poisoning (
Figure 55).

Figure 55. Substance Misuse Mortality Rate, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents 12 Years and Over, 2013–2016



DATA SOURCE: Massachusetts Department of Public Health, Boston resident deaths, 2013–2016

Treatment Service Utilization and Barriers

Of the 100 people (4.2%) completing the Boston CHNA survey who indicated that they needed substance use treatment or services at some point, 22% reported that they could not access the substance use services that they needed. Barriers to substance use treatment was discussed by the focus group participants in recovery and a few interviewees. These participants discussed the need for more affordable inpatient and outpatient treatment options, especially for non-English speakers. Long-term support services like sober houses were identified as limited and expensive.

Violence and Trauma

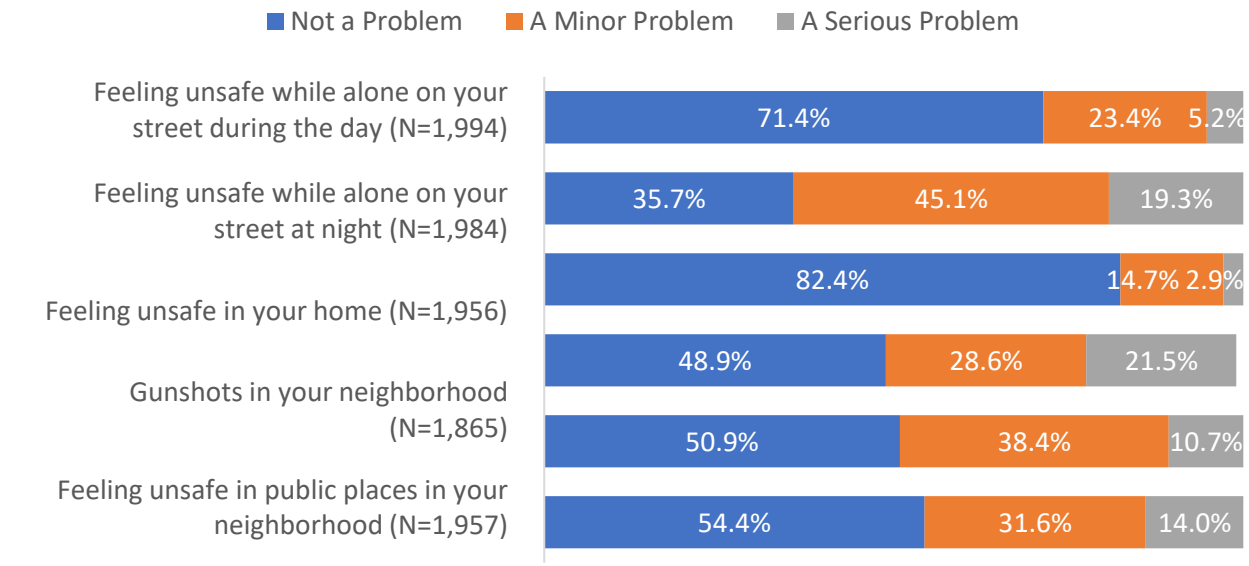
Community Violence

Across geographies—violence and trauma were frequent concerns reported by focus group and interview participants. Community violence was the most frequently discussed type of violence.

Across all language groups, many focus group participants reported concerns about personal safety in their communities. Key informants and focus group participants specifically mentioned that children and communities of color are disproportionately impacted by violence. Other vulnerable groups that were mentioned by key informant and focus group assessment participants include LGBTQ youth, especially those who identify as transgender or non-binary, seniors and immigrants. Further, community residents and interviewees alike stressed that community violence needs to be addressed from a lens of collective trauma. Violence-based trauma emerged as a key health issue affecting many population groups, particularly young children and communities of color.

One in five Boston CHNA survey respondents described gunshots in the neighborhood (22%) and feeling unsafe when along on the street at night (19%) as serious problems (Figure 56). Almost half of respondents reported as a minor or serious problem feeling unsafe in public spaces in their neighborhood (49%) or while riding a bike in their neighborhood (46%). In Table 20, the number of violent and property crimes are reported by Area E stations that serve our four priority neighborhoods.

Figure 56. Percent Boston CHNA Survey Respondents Perceptions of Safety Issues Past 12 Months, 2019



DATA SOURCE: Boston CHNA Community Survey, 2019

Table 20. Number of Violent and Property Crime Reported by the Boston Police Department, by Boston Police Department District, 2018

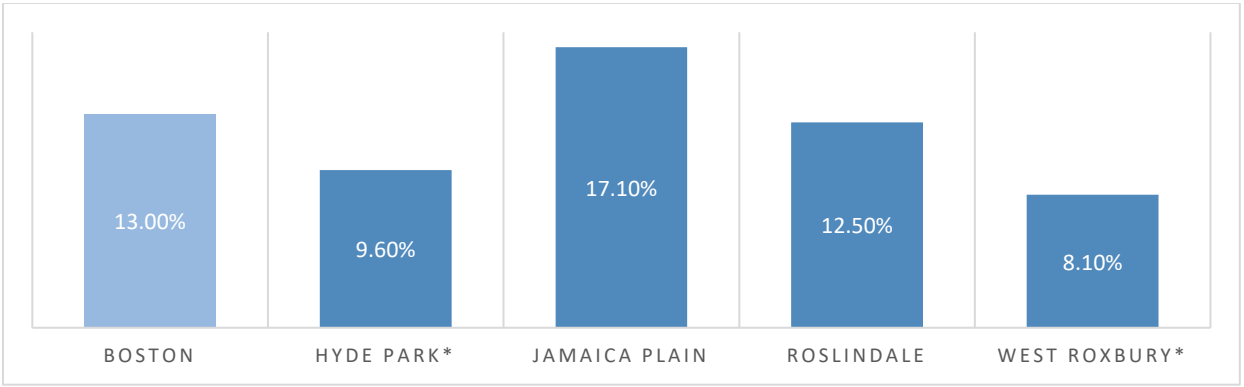
	Area	Violent Crime	Property Crime
E-5	West Roxbury	115	396
E-13	Jamaica Plain	215	750
E-18	Hyde Park	176	547

DATA SOURCE: Boston Police Department, Crime Statistics, Part One Crime Data by District 12-31-2018, 2018
NOTES: Violent crime includes homicide, rape and attempted rape, robbery and attempted robbery, domestic and non-domestic aggravated assault; Property crime includes commercial burglary, residential burglary, other burglary, larceny from motor vehicle, other larceny and auto theft

Interpersonal and Domestic Violence

In 2013–2017, 13% of Boston adults reported experiencing violence in their lifetime. In our priority neighborhoods, Jamaica Plain reported much higher at 17.1%, while both Hyde Park and West Roxbury were significantly lower than Boston (Figure 57).

Figure 57. Percent Adults Reporting Experiencing Violence in Lifetime, by Boston and Priority Neighborhood, 2013, 2015 and 2017 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2013, 2015 and 2017 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

Adverse Childhood Experiences (ACEs)

Among focus group and interview participants, children were identified as being the most vulnerable to violence exposure, especially for younger children.

Approximately one in ten Boston high school students (12%) reported being bullied on school property in the past year. Female students (13%) and LGBTQ students (18%) were significantly more likely to report an experience of bullying at school, while Asian students (8%) were significantly less likely to report an experience of being bullied at school in the past year.

In 2013–2017, 9% of Boston high school students reported being bullied electronically in the past year. Female (11%) and LGBTQ students (16%) were more likely than their counterparts to report experiences of electronic bullying. Female students of color were significantly less likely to report electronic bullying than White female students.

In 2017, nearly one in five Boston adults reported experiencing one adverse childhood experience (19%) over their life time. Nearly one in six Boston residents (16%) reported more than one adverse childhood experience.

Interpersonal and Domestic Violence

The prevalence of interpersonal violence—a pattern or behavior used to establish power and control over another person through fear and intimidation, often including the threat or use of violence—was discussed by a few key informants and by some focus group participants. The need for more service providers who were bi-lingual was described. There is very little quantitative data available on interpersonal or domestic violence. In 2018, the number of restraining orders served by the Boston Police Department ranged in neighborhoods from 2 to 386. In our priority districts (Area E) there were 348 total (Table 21). Additionally, in 2018, there were 823 encounters from survivors, patients, employees and community members through BWFH's domestic violence program, Passageways.

Table 21. Number of Restraining Orders Served by Boston Police Department, by Boston Police Department District, 2018

	Area	Number
A-1	Downtown	19
A-7	East Boston	66
A-15	Charlestown	2
B-2	Roxbury	386
B-3	Mattapan	368
C-6	South Boston	237
C-11	Dorchester	200
D-4	South End	113
D-14	Brighton	182
E-5	West Roxbury	146
E-13	Jamaica Plain	79
E-18	Hyde Park	123

DATA SOURCE: Courtesy of Boston Police Department, 2018

Institutional Racism

Institutional racism—or the systematic distribution of resources, power and opportunity in our society to the benefit of people who are White and the exclusion of people of color—was described as a priority by several key informants and focus group participants.

Trauma

The impacts of trauma greatly affect health outcomes for youth and adults. Different facets of trauma were described by assessment participants. For example, some key informants discussed the trauma of poverty that results in chronic stress and post-traumatic stress disorder. The topic of intergenerational trauma was also described as a concern by key informants with experience in early childhood education. These interviewees explained that trauma is cyclical, an example is generations of families living in unstable housing. Further, numerous key informants mentioned the trauma experienced by immigrant children and their families, and cited fear of deportation and family separation.

A common theme that emerged in focus groups and interviews was the need to integrate more trauma-informed care in health services and early childhood education. Focus group participants who identified as survivors of violence expressed the need for more accessible services and meaningful engagement of youth needs.

Widening the trauma-informed care lens by focusing on familial responses to trauma emerged as a theme from key informant interviews.

Maternal and Child Health

Parenting and Child Care

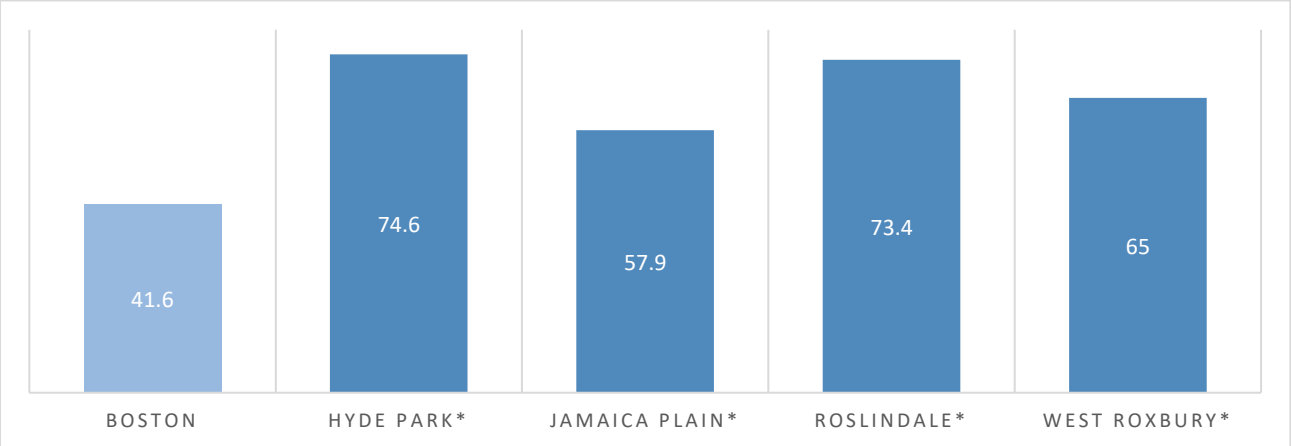
A common theme that emerged among focus groups with parents—many of whom identified as single mothers—was the need for more supports to learn positive parenting skills. Some attributed the demands of working long hours as interfering with a parent's ability to spend quality time with their children. Participants indicated that lack of time often results in behavioral issues in children.

For low-income working families, the cost of childcare was described as a substantial barrier to financial security and employment opportunities, especially for single parents. Among Boston CHNA survey respondents, nearly one quarter (23.1%) of parents of children under 18 years old indicated that they had trouble paying for child care.

Birth Rate and Birth Risk Factors

The overall birth rate in Boston has significantly declined for women 15–44 years old since 2011 from 45.1 births per 1,000 female residents to 41.6 births in 2017. However, current birth rates are significantly different by neighborhood. Hyde Park, Roslindale and West Roxbury were among our priority neighborhoods with significantly higher birth rates in 2017 compared to Boston overall (Figure 58).

Figure 58. Birth Rate, by Boston and Priority Neighborhood, Age-Specific Rate per 1,000 Female Residents Aged 15–44 Years, 2017



DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Live Births, 2017
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

Sexual Health

Youth Sexual Activity

According to the 2013–2017 Youth Risk Behavioral Survey results, 44% of Boston public high school students reported ever having sex and 60% of sexually active Boston public high school students used a condom during the last time they had sex. About half of Latino and Black students had ever had sex (52% and 48%, respectively), which was significantly higher than White students (33%). Latino and Black students were also twice as likely to report having sex before age 13. Nearly two thirds of students who identified as LGBTQ had ever had sex, which was significantly higher than students who identified as straight, transgender or cis (41%). LGBTQ students were also more likely to report having sex before age 13 compared to heterosexual or non-transgender students.

Environmental Health

Environmental Health Concerns and Experiences

Boston CHNA survey respondents noted a number of different environmental health concerns and whether they experienced any of these concerns at home, work or school. Among all the issues listed, outdoor noise pollution from vehicles (39.8%), outdoor air pollution from vehicles (38.9%) and dangerous traffic (35.6%) were the top three cited environmental health concerns around a respondent's home (Table 22). Additionally, 23–29% of respondents cited extreme outdoor heat or cold, mold/mildew or water leaks, bug and/or rodent infestation and more severe storms as top environmental health concerns at home.

At work, the top three concerns were similar but in a different order: dangerous traffic was the most cited environmental health concern with 31.4% reporting this. At a respondent's school (if applicable), dangerous traffic, outdoor air pollution from vehicles, inadequate heating or cooling and outdoor noise pollution from vehicles were the top concerns reported.

Table 22. Percent Boston CHNA Survey Respondents Reporting Environmental Health Concerns at Home, Work or School, 2019

	Home	Work	School
Tobacco smoke (N=1,627)	17.3%	15.0%	9.3%
Mold/mildew or water leaks (N=1,627)	24.4%	12.1%	8.8%
Inadequate heating and/or cooling (N=1,600)	21.3%	14.0%	14.4%
Bug and/or rodent infestation (N=1,611)	23.8%	13.9%	10.7%
Lead in paint, lead or other contaminants in drinking water (N=2,404)	7.9%	4.3%	7.2%
Poor indoor air quality (N=1,621)	19.2%	16.3%	9.0%
No or not working smoke detectors (N=1,563)	9.3%	3.1%	3.2%
Outdoor noise pollution from vehicles (N=1,627)	39.8%	21.6%	13.9%
Outdoor air pollution from vehicles (N=1,629)	38.9%	26.2%	15.0%
Dangerous traffic (N=1,639)	35.6%	31.4%	16.6%
Industry, toxic waste, pesticides, etc. (N=1,556)	8.9%	8.7%	5.5%
Airport or airplane noise or vibrations (N=1,590)	20.1%	6.0%	5.0%
More severe storms (N=1,576)	22.8%	13.8%	7.5%
Extreme outdoor heat or cold (N=1,586)	29.3%	19.6%	12.7%
Neighborhood flooding (N=1,559)	14.1%	7.6%	4.0%

DATA SOURCE: Boston CHNA Community Survey, 2019.
NOTE: respondents able to choose more than one

By priority neighborhood (Table 23), outdoor air pollution from vehicles was the number one environmental concern for Hyde Park, Jamaica Plain and Roslindale, with West Roxbury naming dangerous traffic.

Table 23. Percent Boston CHNA Survey Respondents Reporting Environmental Health Concerns at Home, by Priority Neighborhood, 201

	Hyde Park (N=51)	Jamaica Plain (N=109)	Roslindale (N=81)	West Roxbury (N=71)
1	Outdoor air pollution from vehicles	Outdoor air pollution from vehicles	Outdoor air pollution from vehicles	Dangerous traffic
2	Outdoor noise pollution from vehicles	Dangerous traffic	Outdoor noise pollution from vehicles	Outdoor noise pollution from vehicles
3	Dangerous traffic	Outdoor noise pollution from vehicles	Dangerous traffic	Outdoor air pollution from vehicles
4	Extreme outdoor heat or cold	Extreme outdoor heat or cold	Extreme outdoor heat or cold	Extreme outdoor heat or cold
5	Bug and/or rodent infestation	Mold/mildew or water leaks	Mold/mildew or water leaks	Neighborhood flooding

DATA SOURCE: Boston CHNA Community Survey, 2019

At school (Table 24), our local residents named bug/rodent infestation as the top concern in Hyde Park. In Jamaica Plain, dangerous traffic was the number one concern. Dangerous traffic was in the top five for all neighborhoods, Inadequate heating/cooling was the main concern in Roslindale. It was also in the top five for all the other neighborhoods. Outdoor noise from vehicles was the major concern in West Roxbury.

Table 24. Percent Boston CHNA Survey Respondents Reporting Environmental Health Concerns at School, by Priority Neighborhood of Respondent Residence, 2019

	Hyde Park (N=51)	Jamaica Plain (N=109)	Roslindale (N=81)	West Roxbury (N=70)
1	Bug and/or rodent infestation	Dangerous traffic	Inadequate heating and/or cooling	Outdoor noise pollution from vehicles
2	Outdoor air pollution from vehicles	Extreme outdoor heat or cold	Outdoor noise pollution from vehicles	Dangerous traffic
3	Outdoor noise pollution from vehicles	Lead in paint, lead or other contaminants in drinking water	Dangerous traffic	Extreme outdoor heat or cold
4	Inadequate heating and/or cooling	Poor indoor air quality	Extreme outdoor heat or cold	Inadequate heating and/or cooling
5	Dangerous traffic	Inadequate heating and/or cooling	Outdoor air pollution from vehicles	Outdoor air pollution from vehicles

DATA SOURCE: Boston CHNA Community Survey, 2019

Indoor Contaminants

Secondhand smoke can trigger more frequent and severe asthma attacks and respiratory infections, and some studies have associated secondhand smoke exposure to contributing to deaths from coronary heart disease, stroke and lung cancer. More than one in ten Boston adults reported exposure to secondhand smoke in the BBRFSS questionnaire. Respondents who identified as Asian, Black or Latino were all significantly more likely than White respondents to report exposure to secondhand smoke. By housing status, non-homeowners were more likely than homeowners to indicate

being exposed to secondhand smoke, with more than 20% of Boston Housing Authority residents and renters on rental assistance reporting exposure. Lower income and unemployed residents were significantly more likely than their higher income and employed counterparts to report secondhand smoke exposure.

Climate Change

The impact of climate change was an issue raised by multiple key informant interviewees who mentioned specific concerns around heat-related illness, warming oceans, infectious disease and displacement. Interviewees identified the need for a climate-informed emergency preparedness strategy for the city of Boston to address flooding and major heat-related events in the immediate future.

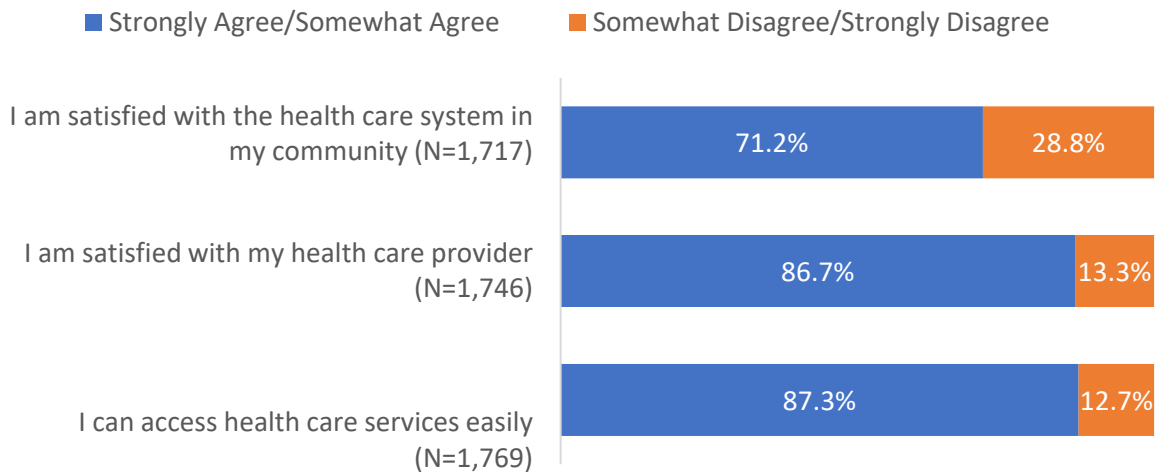
Key informant interviewees specifically identified the need for a centralized data repository to collect real-time data related to environmental health issues including climate change. This would include Emergency Department utilization during high heat days. It was also noted that more guidance is needed around evidence-based strategies to address climate change for those disproportionally impacted, sucah as children, seniors and low-income communities. There were suggestions to build from the work being led by local coalitions and city initiatives like Climate Ready Boston. Specific groups that were mentioned as potential partners include Health Care Without Harm, A Better City, Metropolitan Area Planning Council and the Boston Research Climate Group.

Healthcare Access and Utilization

Satisfaction and Use of Healthcare Services

As noted previously, Boston CHNA survey respondents identified access to healthcare as an important factor in defining a healthy community and as a strength in their community. Mirroring these sentiments, most Boston CHNA survey respondents indicated that they were satisfied with the healthcare in their community. As shown in Figure 59, 71.2% said they strongly or somewhat agreed with the statement, "I am satisfied with the healthcare system in my community," while 86.7% agreed that they are "satisfied with my healthcare provider" and 87.3% agreed that they could "access health care services easily."

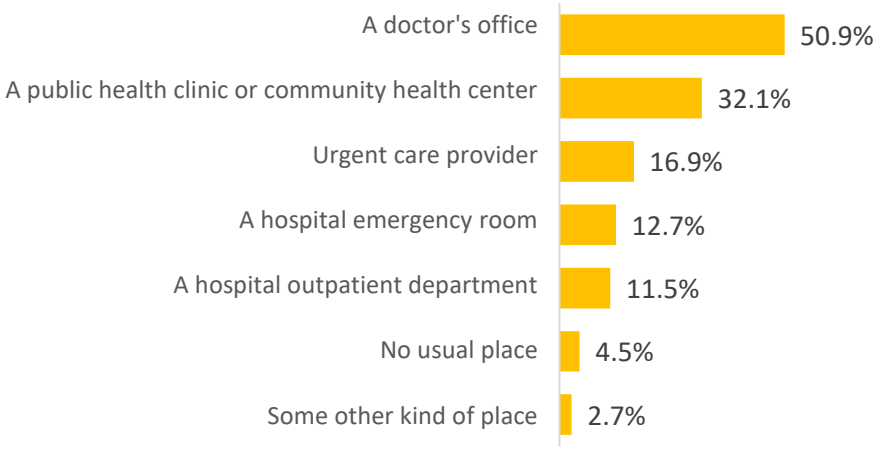
Figure 59. Percent Boston CHNA Survey Respondents Reporting Perceptions of Healthcare System and Access, 2019



DATA SOURCE: Boston CHNA Community Survey, 2019

Similarly, focus group and interview participants spoke positively about local health services in Boston, citing close proximity to leading healthcare institutions. In the Community Assets section of this report, data show that there are numerous hospitals and healthcare centers in the city. When asked about where they go if they are sick or need advice about health, of the 1,815 Boston CHNA survey respondents answering this question, 57.2% indicated that they went to a doctor's office, while 36.2% saw their public health clinic or community health center as their place of care (Figure 60). However, nearly one in seven (14.4%) indicated that they viewed the hospital Emergency Department as their place for seeking care or advice.

Figure 60. Percent Boston CHNA Survey Respondents Reporting Their Usual Place for Seeking Care (N=2,009), 2019



DATASOURCE: Boston CHNA Community Survey, 2019

Health Insurance

Very few Boston residents are uninsured. According to American Community Survey 2013–2017 estimates, 3.9% of the overall population (civilian, noninstitutionalized) in Boston were uninsured, while only 1.4% of the population under 19 years old were uninsured.[6] Among the Boston civilian population, 29.6% have Medicaid (MassHealth) coverage.[7]

A more common theme that emerged in focus group discussions was that many residents reported being **under-insured**—or having insurance coverage that does not adequately cover someone's full healthcare needs. Many focus group participants, especially those on MassHealth, perceived that there was a limited number of providers, particularly specialists, who accepted MassHealth. Focus group participants who were Dorchester residents, for example, described needing specialty treatments for chronic or debilitating conditions but being denied coverage after a limited time.

Barriers to Healthcare Access

The biggest barriers to healthcare access discussed in the focus groups were being under-insured, language and immigration status, navigation and care coordination challenges, transportation and lack of culturally sensitive approaches to care. Cost was not identified as a major barrier to care for the majority of participants. However, a few focus group participants discussed cost barriers in relation to affording medication for chronic diseases, and the challenge of competing costs on a fixed income.

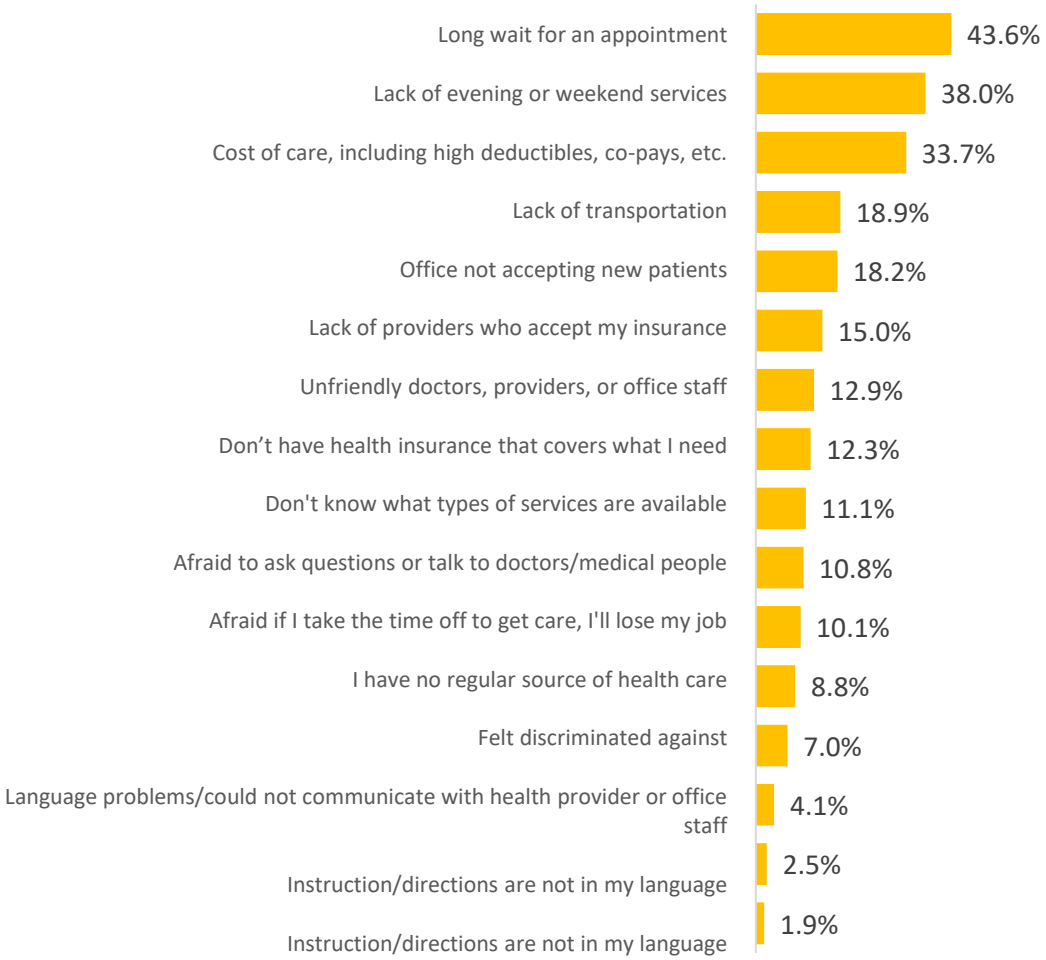
Unfriendly, disinterested or rushed healthcare providers and office staff were also issues that focus group participants mentioned. Some focus group participants described feeling "unseen" by their healthcare providers. Additionally, when discussing access to care, a prominent theme across focus groups and interviews was the challenge of navigating the complex health system. Focus group members spoke about the struggle to understand their healthcare benefits, reporting that they *"felt lost in the system."* Seniors were described as especially vulnerable to challenges navigating the health system. Several focus group participants emphasized that many simply do not know what resources are available to them or how to access them. Participants identified a need for more navigation services that could help patients access services and resources across sectors.

Transportation was also mentioned by survey participants and as a challenge to accessing healthcare. Some focus group participants noted that public transportation is limited for accessing services locally as well as for accessing specialty care. For immigrant communities, participants described immigration status (e.g., undocumented vs. documented status) as a significant barrier to accessing healthcare. Key informants spoke of fear in undocumented or mixed status

families which prevented residents from seeking care. Further, the need for increased linguistic capacity in the healthcare and social service landscape was also a common theme among qualitative conversations. The importance of culturally sensitive approaches to care were also discussed among multiple focus group and interviews. For example, some focus group participants spoke of cultural and gender norms of not seeking healthcare unless things are bad. Furthermore, LGBTQ youth described the need for more LGBTQ-centric care but also stressed the importance of providers taking into considerations the many intersecting identifies that a patient could hold. For example, being a queer-identifying teenager who is also a person of color. Some of these themes were identified in the Boston CHNA survey, while survey respondents were also likely to cite wait times and availability of hours as issues to accessing care.

When Boston CHNA survey respondents were asked about the factors that made it harder for them to get the healthcare services they needed in the past two years, issues related to convenience—long wait for an appointment (44.0%), lack of evening/weekend services (38.2%), cost of care (33.8%), lack of transportation (19.0%) and office not accepting new patients (18.3%) were cited as the top five most challenging issues (Figure 61).

Figure 61. Percent Boston CHNA Survey Respondents Reporting Factors That Made It Harder for Them to Get Health Care Services They Needed in Past Two Years (N=1,014), 2019



DATA SOURCE: Boston CHNA Community Survey, 2019

PRIORITY HEALTH NEEDS OF THE COMMUNITY

The first step in the planning process was to identify the priorities for the CHIP. Prioritization allows institutions and organizations to target and align resources, leverage efforts and focus on achievable strategies and goals for addressing priority needs. Through a systematic, engaged approach that is informed by data, priorities are identified for the Collaborative to focus its planning efforts. This section describes the process and outcomes of the Boston CHNA-CHIP Collaborative prioritization process.

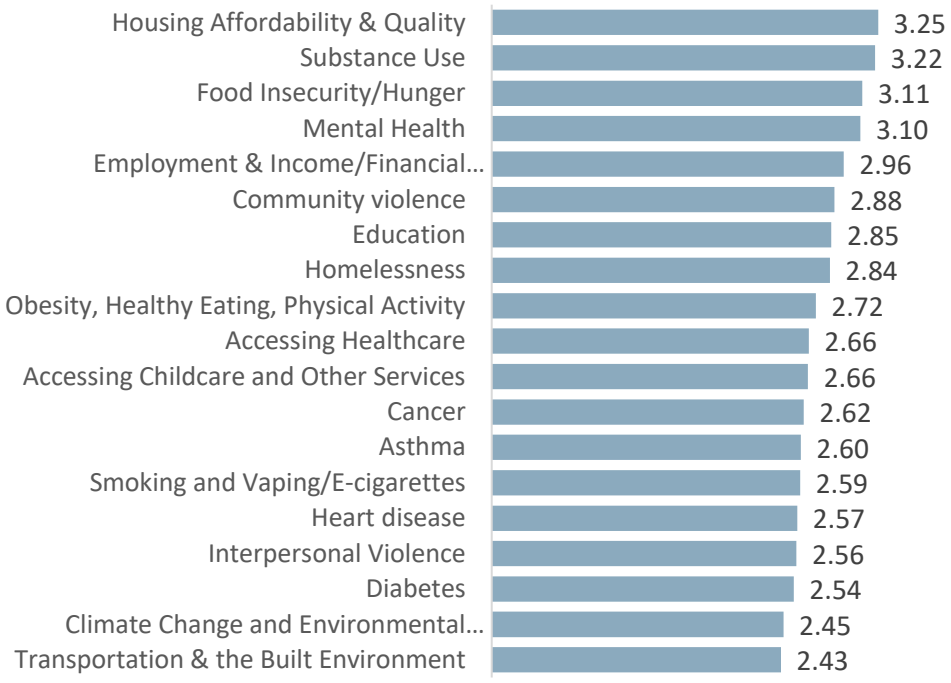
Process and Criteria for Prioritization

In April of 2019, the CHIP work group—comprised of representatives from hospitals, health centers, community organizations and the Boston Public Health Commission—developed prioritization criteria and an engagement strategy for identifying two to four priority needs for the subsequent Community Health Improvement Plan. Criteria were selected to assess the magnitude of community issues and their impact on the most disadvantaged population groups. The criteria and guiding questions selected are below.

- **Burden:** How much does this issue affect health in Boston?
- **Equity:** Will addressing this issue substantially benefit those most in need?
- **Impact:** Can working on this issue achieve both short-term and long-term change?
- **Feasibility:** Is it possible to address this issue given infrastructure, capacity and political will?
- **Collaboration:** Are there existing groups across sectors willing to work together on this issue?

The prioritization process was multi-stepped and aimed to be inclusive, participatory and data-driven. During May of 2019, several steps were taken to identify the final priorities for the planning process. First, a 16-page draft Executive Summary of the CHNA report was sent to over 150 organizations and individuals along with an online survey. The online survey included 19 key issues that emerged from the draft CHNA and participants were asked to rate each issue against each of the five criteria (burden, equity, impact, feasibility and collaboration) from 1 to 4 with 1=low, 2=medium, 3=high and 4=very high. Figure 62 indicates the average score across the five criteria for the issues rated.

Figure 62. Rating Tool Average Score of 1=Low, 2=Medium, 3=High, 4=Very High across Five Criteria (Burden, Equity, Impact, Feasibility and Collaboration), (N=38 organizations), 2019



Source: CHNA Survey of Priorities

Concurrently in early to mid-May, numerous small group discussions occurred throughout the city with community residents, organizational staff and other stakeholders. These discussions included a data presentation of the draft CHNA key findings, overview of the 19 key issues that emerged and the five criteria used for prioritization, as well as an interactive discussion with participants on what priorities rose to the top for them based on these criteria. A number of priorities commonly rose to the top in these qualitative discussions:

- *Housing* – specific concerns related to affordability, displacement, gentrification and homelessness
- *Employment and income* – specific concerns related to job opportunities and economic security; important to focus on upstream inequities
- *Mental health* – critical to note that many mental health issues co-occurring with substance use; concerns around availability of services and barriers to accessing services
- *Substance use* – critical to note that many substance use disorders are co-occurring with mental health issues; specific concerns around opioids, alcohol and youth smoking
- *Violence and trauma* – specific concerns related to community safety and the impact of trauma on mental health
- *Chronic conditions* – specific concerns related to obesity, healthy food access, cancer and diabetes
- *Food insecurity* – specific concerns around economic insecurity and the connections to obesity

The results from the online prioritization rating survey and small group discussions were used to refine the priority list from 19 topics to the following nine potential priorities:

- Housing – Affordability, Quality and Homelessness
- Food Insecurity/Hunger
- Employment and Income/Financial Insecurity
- Education
- Substance Use
- Mental Health
- Community Violence
- Obesity, Healthy Eating and Physical Activity
- Accessing Healthcare, Childcare and Other Services

The next step in the prioritization process was a large in-person meeting for further engagement and refinement in the prioritization process. On May 29, 2019, over 100 community residents and organizational staff across a multitude of sectors attended a three-hour evening meeting in Roxbury. This meeting included a brief data presentation on the key findings from the draft CHNA, a description of the prioritization process thus far and the refined set of nine priorities, small group discussions and a large group voting process. During the voting process, each participant received four dots, to vote for four issues among the nine (one dot per issue). The results of the dot voting can be found in Table 25.

Table 25. Initial Results of May 29 Prioritization Meeting Dot Voting Process

Topic	Total Votes
Housing – Affordability, Quality and Homelessness	66
Employment and Income/Financial Insecurity	63
Mental Health	48
Access to Healthcare, Childcare and Other Services	32
Education	31
Food Insecurity/Hunger	26
Substance Use	20
Community Violence	15
Obesity, Healthy Eating and Physical Activity	10
Other	1

The Boston CHNA-CHIP Collaborative Steering Committee met to discuss the identified priorities and to brainstorm a cross-cutting/overarching focus to frame future planning. From that discussion, the Steering Committee recommended renaming the Employment, Income and Education priority to be Financial Security and Mobility to encapsulate how employment, income, education and workforce training are all critical and inter-related factors that can contribute to financial security.

Additionally, there was a strong movement to have a cross-cutting and overarching focus for the plan to guide this collaborative work. Discussions centered on an overarching focus being racial equity to recognize that institutional racism and structural inequities are what drive the health disparities we see around race, ethnicity and language in the city.

Prioritized Needs for Collaborative Planning

After further definition and refinement of the priorities and cross-cutting/overarching plan focus by the Steering Committee and CHIP work group, the final prioritized needs for the planning process are:

- **Housing** (affordability, quality, homelessness, ownership, gentrification and displacement)
- **Financial Security and Mobility** (jobs, employment, income, education and workforce training)
- **Behavioral Health** (mental health and substance use)
- **Accessing Services** (healthcare, childcare and social services)

The cross-cutting and overarching focus of the plan will be around ***Achieving Racial and Ethnic Health Equity***.

Additionally, in order to best serve our priority neighborhoods, a Community Forum was held in June at BWFH. This event was an opportunity to give our priority neighborhoods a chance to voice their input on the finding and prioritization process. At the same time, feedback was solicited from our Community Engagement and Advisory Committee and many community partners. From this feedback, and based on our priority neighborhood data, BWFH will also add a fifth priority area:

- **Chronic Disease and Healthy Living** (obesity, diabetes, heart disease/hypertension, healthy eating, food insecurity and physical activity)

Next Steps

From June through September 2019, the Boston CHNA-CHIP Collaborative, in conjunction with key stakeholders and community residents, and the BWFH Community Engagement and Advisory Committee will develop an implementation strategy that outlines next steps to address the prioritized health needs from the CHNA. The CHIP development process will commence with a full-day planning session in late June of 2019 to develop the initial output for the goals, objectives, strategies and metrics within each priority area. Further refinement and development of the CHIP will occur during the summer of 2019, with final CHIP report and Year 1 Action Planning to be completed by September of 2019.

NEIGHBORHOOD PROFILES

The following section presents one-page summaries by neighborhood of key social, economic and health indicators included in this report.

Hyde Park 02136*	**Hyde Park**	**Boston Overall**	**Comparison to the Rest of Boston***
Demographics			
Population count estimate (2013–2017)	33,084	669,158	--
% population under 18 years (2013–2017)†	23.6%	16.3%	**H**
% population 65 years and over (2013–2017)†	13.1%	11.0%	**H**
% population foreign born (2013–2017)†	30.0%	28.3%	**S**
Employment, Education and Financial Insecurity			
% population 16 years and over unemployed (2013–2017)†	8.4%	7.3%	**S**
% population 25 years and over with less than a high school diploma (2013–2017)†	12.9%	13.9%	**S**
% individuals living below poverty level (2013–2017)†	12.4%	20.5%	**L**
% adults reporting food purchased did not last and did not have money to get more (2013, 2015, 2017)	18.3%	21.3%	**S**
Housing			
% renter-occupied housing units (2013–2017)†	46.8%	64.7%	**L**
% households where housing costs are 30% or more of household income for renters (2013–2017)†	50.3%	52.1%	**S**
% housing units experiencing overcrowding (2013–2017)†	3.7%	3.1%	**S**
Access to Services			
% adults reporting having a personal doctor or health care provider (2013, 2015, 2017)	89.1%	80.1%	**H**
% adults reporting could not afford to see a doctor (2013, 2015, 2017)	10.8%	10.0%	**S**
% adults reporting could not afford dental care (2017)	11.5%	17.4%	**L**
Substance Use and Mental Health			
% adults reporting binge drinking (2013, 2015, 2017)	22.5%	24.6%	**S**
% adults reporting cigarette smoking (2013, 2015, 2017)	15.8%	16.5%	**S**
% adults reporting persistent sadness (2013, 2015, 2017)	14.4%	12.3%	**S**
% adults reporting persistent anxiety (2013, 2015, 2017)	23.1%	21.3%	**S**
Suicide rate per 100,000 residents (2012–2016)	7.0	6.7	**S**
Violence and Trauma			
Nonfatal firearm related ED visit rate per 100,000 residents (2013–2017)	16.4	16.4	**S**
Homicide by firearms rate per 100,000 residents (2011–2016)	6.8	3.8	**S**
% adults reporting experiencing violence in lifetime (2013 ,2015, 2017)	9.6%	13.0%	**L**
% adults reporting having lived with adults who physically abused each other as a child (2013, 2015, 2017)	15.0%	16.9%	**S**
Chronic Conditions			
% adults reporting overweight or obesity (2013, 2015, 2017)	64.8%	56.8%	**H**
% adults reporting diabetes diagnosis (2013, 2015, 2017)	10.7%	8.5%	**S**
Overall cancer mortality rate per 100,000 residents (2015–2017)	205.7	160.0	**H**
Heart disease mortality rate per 100,000 residents (2016–2017)	168.5	131.4	**H**
% adults reporting hypertension (2013, 2015, 2017)	24.7%	24.7%	**S**
% adults reporting current asthma (2013, 2015, 2017)	11.4%	11.2%	**S**
Asthma ED visit (children under 18 years) rate per 10,000 residents (2016–2017)	199.6	191.5	**S**
Maternal and Child Health			
% mothers reporting smoking during pregnancy (2014–2017)	1.8%	2.0%	**S**
% low birthweight births (2017)	12.4%	8.7%	**S**
% children under 6 years screened with elevated blood levels (2015)	2.6%	2.3%	--
Sexual Health and Infectious Disease			
HIV/AIDS prevalence rate per 100,000 residents (2016)	821.2	855.8	**S**
Environmental Health			
% adults reporting secondhand smoke exposure in the home (2013, 2015, 2017)	10.0%	12.5%	**S**
Mortality			
Premature mortality rate per 100,000 residents (2014–2016)	233.3	200.1	**S**

*Jamaica Plain 02130**	Jamaica Plain	Boston Overall	Comparison to the Rest of Boston*
Demographics			
Population count estimate (2013–2017)	39,435	669,158	--
% population under 18 years (2013–2017)†	15.5%	16.3%	**S**
% population 65 years and over (2013–2017)†	12.3%	11.0%	**H**
% population foreign born (2013–2017)†	21.8%	28.3%	**L**
Employment, Education and Financial Insecurity			
% population 16 years and over unemployed (2013–2017)†	4.7%	7.3%	**L**
% population 25 years and over with less than a high school diploma (2013–2017)†	7.8%	13.9%	**L**
% individuals living below poverty level (2013–2017)†	16.0%	20.5%	**L**
% adults reporting food purchased did not last and did not have money to get more (2013, 2015, 2017)	12.8%	21.3%	**L**
Housing			
% renter-occupied housing units (2013–2017)†	53.6%	64.7%	**L**
% households where housing costs are 30% or more of household income for renters (2013–2017)†	57.6%	52.1%	**H**
% housing units experiencing overcrowding (2013–2017)†	1.7%	3.1%	**L**
Access to Services			
% adults reporting having a personal doctor or health care provider (2013, 2015, 2017)	84.3%	80.1%	**S**
% adults reporting could not afford to see a doctor (2013, 2015, 2017)	6.8%	10.0%	**L**
% adults reporting could not afford dental care (2017)	14.8%	17.4%	**S**
Substance Use and Mental Health			
% adults reporting binge drinking (2013, 2015, 2017)	24.9%	24.6%	**S**
% adults reporting cigarette smoking (2013, 2015, 2017)	12.7%	16.5%	**L**
% adults reporting persistent sadness (2013, 2015, 2017)	10.9%	12.3%	**S**
% adults reporting persistent anxiety (2013, 2015, 2017)	20.7%	21.3%	**S**
Suicide rate per 100,000 residents (2012–2016)	8.9	6.7	**S**
Violence and Trauma			
Nonfatal firearm related ED visit rate per 100,000 residents (2013–2017)	12.0	16.4	**L**
Homicide by firearms rate per 100,000 residents (2011–2016)	NA	3.8	--
% adults reporting experiencing violence in lifetime (2013 ,2015, 2017)	17.1%	13.0%	**S**
% adults reporting having lived with adults who physically abused each other as a child (2013, 2015, 2017)	14.7%	16.9%	**S**
Chronic Conditions			
% adults reporting overweight or obesity (2013, 2015, 2017)	50.4%	56.8%	**L**
% adults reporting diabetes diagnosis (2013, 2015, 2017)	5.2%	8.5%	**L**
Overall cancer mortality rate per 100,000 residents (2015–2017)	141.8	160.0	**S**
Heart disease mortality rate per 100,000 residents (2016–2017)	137.0	131.4	**S**
% adults reporting hypertension (2013, 2015, 2017)	20.3%	24.7%	**L**
% adults reporting current asthma (2013, 2015, 2017)	11.6%	11.2%	**S**
Asthma ED visit (children under 18 years) rate per 10,000 residents (2016–2017)	146.1	191.5	**L**
Maternal and Child Health			
% mothers reporting smoking during pregnancy (2014–2017)	0.8%	2.0%	**L**
% low birthweight births (2017)	8.3%	8.7%	**S**
% children under 6 years screened with elevated blood levels (2015)	2.6%	2.3%	--
Sexual Health and Infectious Disease			
HIV/AIDS prevalence rate per 100,000 residents (2016)	962.4	855.8	**H**
Environmental Health			
% adults reporting secondhand smoke exposure in the home (2013, 2015, 2017)	9.8%	12.5%	**S**
Mortality			
Premature mortality rate per 100,000 residents (2014–2016)	159.9	200.1	**L**

*Roslindale 02131**	Roslindale	Boston Overall	Comparison to the Rest of Boston*
Demographics			
Population count estimate (2013–2017)	32,819	669,158	--
% population under 18 years (2013–2017)†	21.1%	16.3%	**H**
% population 65 years and over (2013–2017)†	12.2%	11.0%	**H**
% population foreign born (2013–2017)†	26.9%	28.3%	**S**
Employment, Education and Financial Insecurity			
% population 16 years and over unemployed (2013–2017)†	5.1%	7.3%	**L**
% population 25 years and over with less than a high school diploma (2013–2017)†	9.5%	13.9%	**L**
% individuals living below poverty level (2013–2017)†	11.8%	20.5%	**L**
% adults reporting food purchased did not last and did not have money to get more (2013, 2015, 2017)	15.7%	21.3%	**L**
Housing			
% renter-occupied housing units (2013–2017)†	44.5%	64.7%	**L**
% households where housing costs are 30% or more of household income for renters (2013–2017)†	61.9%	52.1%	**H**
% housing units experiencing overcrowding (2013–2017)†	3.4%	3.1%	**S**
Access to Services			
% adults reporting having a personal doctor or health care provider (2013, 2015, 2017)	84.1%	80.1%	**S**
% adults reporting could not afford to see a doctor (2013, 2015, 2017)	8.8%	10.0%	**S**
% adults reporting could not afford dental care (2017)	14.6%	17.4%	**S**
Substance Use and Mental Health			
% adults reporting binge drinking (2013, 2015, 2017)	24.0%	24.6%	**S**
% adults reporting cigarette smoking (2013, 2015, 2017)	10.4%	16.5%	**L**
% adults reporting persistent sadness (2013, 2015, 2017)	12.4%	12.3%	**S**
% adults reporting persistent anxiety (2013, 2015, 2017)	20.4%	21.3%	**S**
Suicide rate per 100,000 residents (2012–2016)	5.0	6.7	**S**
Violence and Trauma			
Nonfatal firearm related ED visit rate per 100,000 residents (2013–2017)	12.4	16.4	**S**
Homicide by firearms rate per 100,000 residents (2011–2016)	5.5	3.8	--
% adults reporting experiencing violence in lifetime (2013 ,2015, 2017)	12.5%	13.0%	**S**
% adults reporting having lived with adults who physically abused each other as a child (2013, 2015, 2017)	14.5%	16.9%	**S**
Chronic Conditions			
% adults reporting overweight or obesity (2013, 2015, 2017)	62.8%	56.8%	**H**
% adults reporting diabetes diagnosis (2013, 2015, 2017)	9.3%	8.5%	**S**
Overall cancer mortality rate per 100,000 residents (2015–2017)	157.8	160.0	**S**
Heart disease mortality rate per 100,000 residents (2016–2017)	137.4	131.4	**S**
% adults reporting hypertension (2013, 2015, 2017)	27.7%	24.7%	**S**
% adults reporting current asthma (2013, 2015, 2017)	7.7%	11.2%	**L**
Asthma ED visit (children under 18 years) rate per 10,000 residents (2016–2017)	141.6	191.5	**L**
Maternal and Child Health			
% mothers reporting smoking during pregnancy (2014–2017)	1.5%	2.0%	**S**
% low birthweight births (2017)	8.7%	8.7%	**S**
% children under 6 years screened with elevated blood levels (2015)	2.5%	2.3%	--
Sexual Health and Infectious Disease			
HIV/AIDS prevalence rate per 100,000 residents (2016)	697.2	855.8	**L**
Environmental Health			
% adults reporting secondhand smoke exposure in the home (2013, 2015, 2017)	9.5%	12.5%	**S**
Mortality			
Premature mortality rate per 100,000 residents (2014–2016)	155.5	200.1	**L**

*West Roxbury 02132**	West Roxbury	Boston Overall	Comparison to the Rest of Boston*
Demographics			
Population count estimate (2013–2017)	28,505	669,158	--
% population under 18 years (2013–2017)†	20.4%	16.3%	**H**
% population 65 years and over (2013–2017)†	18.7%	11.0%	**H**
% population foreign born (2013–2017)†	18.1%	28.3%	**L**
Employment, Education and Financial Insecurity			
% population 16 years and over unemployed (2013–2017)†	4.9%	7.3%	**L**
% population 25 years and over with less than a high school diploma (2013–2017)†	7.5%	13.9%	**L**
% individuals living below poverty level (2013–2017)†	6.4%	20.5%	**L**
% adults reporting food purchased did not last and did not have money to get more (2013, 2015, 2017)	9.7%	21.3%	**L**
Housing			
% renter-occupied housing units (2013–2017)†	26.9%	64.7%	**L**
% households where housing costs are 30% or more of household income for renters (2013–2017)†	52.7%	52.1%	**S**
% housing units experiencing overcrowding (2013–2017)†	NA	3.1%	--
Access to Services			
% adults reporting having a personal doctor or health care provider (2013, 2015, 2017)	92.3%	80.1%	**H**
% adults reporting could not afford to see a doctor (2013, 2015, 2017)	4.7%	10.0%	**L**
% adults reporting could not afford dental care (2017)	NA	17.4%	--
Substance Use and Mental Health			
% adults reporting binge drinking (2013, 2015, 2017)	21.4%	24.6%	**S**
% adults reporting cigarette smoking (2013, 2015, 2017)	10.0%	16.5%	**L**
% adults reporting persistent sadness (2013, 2015, 2017)	8.1%	12.3%	**L**
% adults reporting persistent anxiety (2013, 2015, 2017)	17.8%	21.3%	**S**
Suicide rate per 100,000 residents (2012–2016)	4.9	6.7	**S**
Violence and Trauma			
Nonfatal firearm related ED visit rate per 100,000 residents (2013–2017)	NA	16.4	--
Homicide by firearms rate per 100,000 residents (2011–2016)	NA	3.8	--
% adults reporting experiencing violence in lifetime (2013 ,2015, 2017)	8.1%	13.0%	**L**
% adults reporting having lived with adults who physically abused each other as a child (2013, 2015, 2017)	9.7%	16.9%	**L**
Chronic Conditions			
% adults reporting overweight or obesity (2013, 2015, 2017)	63.6%	56.8%	**H**
% adults reporting diabetes diagnosis (2013, 2015, 2017)	7.5%	8.5%	**S**
Overall cancer mortality rate per 100,000 residents (2015–2017)	163.5	160.0	**S**
Heart disease mortality rate per 100,000 residents (2016–2017)	133.4	131.4	**S**
% adults reporting hypertension (2013, 2015, 2017)	28.3%	24.7%	**S**
% adults reporting current asthma (2013, 2015, 2017)	11.9%	11.2%	**S**
Asthma ED visit (children under 18 years) rate per 10,000 residents (2016–2017)	48.1	191.5	**L**
Maternal and Child Health			
% mothers reporting smoking during pregnancy (2014–2017)	0.6%	2.0%	**L**
% low birthweight births (2017)	3.8%	8.7%	**L**
% children under 6 years screened with elevated blood levels (2015)	0.9%	2.3%	--
Sexual Health and Infectious Disease			
HIV/AIDS prevalence rate per 100,000 residents (2016)	329.2	855.8	**L**
Environmental Health			
% adults reporting secondhand smoke exposure in the home (2013, 2015, 2017)	5.6%	12.5%	**L**
Mortality			
Premature mortality rate per 100,000 residents (2014–2016)	142.8	200.1	**L**

*NOTES FOR ALL NEIGHBORHOOD PROFILES: *Rest of Boston refers to the combined estimate/rate for all other 14 Boston neighborhoods excluding the indicated neighborhood; † Neighborhood comparison to Boston overall; NA denotes where data are suppressed due to insufficient sample size; **H** indicates the estimate/rate is significantly higher than the rest of Boston; **L** indicates the estimate/rate is significantly lower than the rest of Boston; **S** indicates the estimate/rate is statistically similar to the rest of Boston (i.e., no statistically significant difference); Statistical testing was not conducted for population count estimate and % children under 6 years screened with elevated blood levels

APPENDIX A. STEERING COMMITTEE MEMBERS

Organization	Name
Beth Israel Deaconess Medical Center	Nancy Kasen (co-chair)
Boston Children's Hospital	Ayesha Cammaerts
Boston Healthcare for the Homeless	Denise De Las Nueces
Boston Medical Center	Jennifer Fleming
Boston Public Health Commission	Margaret Reid
Brigham and Women's Faulkner Hospital	Tracy Mangini Sylven
Brigham and Women's Hospital	Wanda McClain
Community representative and Jamaica Plain Neighborhood Development Corporation	Ricky Guerra
Community Labor United	Sarah Jimenez
Dana-Farber Cancer Institute	Magnolia Contreras
Fenway Health	Carl Sciortino (co-chair)
Health Leads	Laurita Kaigler-Crawlle
Madison Park Development Corporation	Jeanne Pinado
Massachusetts Eye and Ear	Erin Duggan
Massachusetts General Hospital	Joan Quinlan
Massachusetts League of Community Health Centers	Mary Ellen McIntyre
Tufts Medical Center	Sherry Dong
Uphams Corner Health Center	Daniel Joo
Urban Edge	Robert Torres

APPENDIX B. SECONDARY DATA AND COMMUNITY ENGAGEMENT WORK GROUP MEMBERS

Organization	Name	Membership
American Diabetes Association	Albert Whitaker	Community Engagement- Member
American Heart Association	Cherelle Rozie	Community Engagement- Member
BACH	Jamiah Tappin	Community Engagement- Member
Beth Israel Deaconess Medical Center	Nancy Kasen	Secondary Data- Member
Blue Cross Blue Shield - Massachusetts	Charlotte Alger	Secondary Data- Member
Boston Children's Hospital	Urmi Bhaumik	Secondary Data- Member
Boston Children's Hospital	Ayesha Cammaerts	Secondary Data- Member
Boston Medical Center	Jennifer Fleming	Community Engagement- Member
Boston Public Health Commission	Dan Dooley	Secondary Data- Co-Chair
Boston Public Health Commission	Margaret Reid	Secondary Data- Member
Boston Public Health Commission	Triniese Polk	Community Engagement- Co-Chair
Bowdoin Street Health Center	Alberte Atine-Gibson	Secondary Data- Member
Boys and Girls Club of Boston	Grace Lichaa	Community Engagement- Member & Secondary Data- Member
Brigham and Women's Hospital	Michelle Keenan	Secondary Data- Member
Brigham and Women's Hospital-Faulkner	Tracy Mangini Sylven	Community Engagement- Member
City Life Vida Urbana	Mike Leyba	Community Engagement- Member
Dana-Farber Cancer Institute	Magnolia Contreras	Community Engagement- Co-Chair & Secondary Data- Member
East Boston Social Center	Gloria Devine	Community Engagement- Member
East Boston Social Center	Lisa Melara	Community Engagement- Member
Fenway Health	Matan Benyishay	Secondary Data- Member
Fenway Health	Sean Cahill	Secondary Data- Member
Harvard School of Public Health	Maynard Clark	Community Engagement- Member
Health Care without Harm	Jen Obadia	Community Engagement- Member
MA Department of Public Health	Halley Reeves	Secondary Data- Member
Madison Park Development Corp.	Jeanne Pinado	Community Engagement- Member
Madison Park Development Corp.	Kay Mathew	Community Engagement- Member
Massachusetts Eye and Ear	Erin Duggan	Secondary Data- Member
Massachusetts General Hospital	Danelle Marable	Community Engagement- Member

Organization	Name	Membership
Massachusetts General Hospital	Leslie Aldrich	Community Engagement- Member
Massachusetts General Hospital	Sarah Wang	Community Engagement- Member
Massachusetts General Hospital-Center for Community Health Improvement	Kelly Washburn	Secondary Data- Member
Massachusetts General Hospital-Center for Community Health Improvement	Sonia Iyengar	Community Engagement- Member & Secondary Data- Member
Massachusetts League of Community Health Center	Mary Ellen McIntyre	Secondary Data- Member
NAMI – PPAL (Parent/Professional Advocacy League)	Monica Pomare	Community Engagement- Member
Partners HealthCare	Tavinder Phull	Secondary Data- Co-Chair
Peer Health Exchange	Uchenna Ndulue	Secondary Data- Member
The Family Van	Millie Williams	Secondary Data- Member
The Family Van	Rainelle White	Community Engagement- Member
Tufts Medical Center	Sherry Dong	Community Engagement- Member
Tufts Medical Center	Stephen Muse	Secondary Data- Member
Upham's Corner Health Center	Dan Joo	Secondary Data- Member
Urban Edge	Robert Torres	Community Engagement- Member
Urban Edge	Sahar Lawrence	Secondary Data- Member
Women's Health Unit - BMC	Jennifer Pamphile	Community Engagement- Member

APPENDIX C. BWFH COMMUNITY ENGAGEMENT AND ADVISORY COMMITTEE MEMBERSHIP

Name/Organization
William Alves—Executive Director, Menino (Hyde Park) YMCA
Patti Cahill—Librarian, Manning Elementary School, local resident
Jacqueline Cucchiara—Hyde Park Food Bank
Ethan d'Ablemont Burnes—Principal, Manning Elementary School
Susan Dempsey—BWFH VP of Support Services and Clinical Services
Donna Gillia—Triage/staff nurse for Faulkner Community Physicians Hyde Park
Lynda Giovaniello—Clinical Liaison, Hebrew Senior Life
David Goldberg—Exec Director, Marketing/Communications/Community Relations, BWFH
Heather Guarnotta—local resident, end of life doula, Boston Public School parent

Name/Organization
Effie Ingram—Wellness Coordinator, Hebrew Senior Life
Margaret Jolliffee—Executive Director, Brookside Community Health Center
Leigh Kalbacker—Director, Client & Volunteer Services, Community Servings
Michelle Keenan—Director, Community Programs, Brigham and Women's Hospital
Marion Kelly—Executive Director, Parkway YMCA
Maryka Lier—Assistant Director, Wellness Policies & Promotions, Boston Public Schools
Cori Loescher—BWFH Chief Nursing Officer
Janet McGrail Spillane—Health Systems Specialist, Department of Public Health
Emily Morris-Litonjua—Executive Director, ESAC, Inc.
David McCready—President, Brigham and Women's Faulkner Hospital
Bernadette Murphy—Resident Service Coordinator, Washington Beech Apts., Roslindale
Susan O'Connell—Hospital Liaison, Deutsches Altenheim German Center
Jane O'Donnell—Practice Manager, Community Physicians West Roxbury/Hyde Park
Scott O'Mara—Boston Police Department, Area E Community Officer
Alysia Ordway—Employer Engagement Director, Boston Private Industry Council
John Pappas—member, Jamaica Hills Association, local resident
David Perry—BWFH Department of Psychiatry, social worker
Katie Plante—BWFH Community Health and Wellness Assistant
Edna Rivera Carrasco—Associate Director, Office of Health Equity, BPHC
Raymond Santos—Community Relations & Development Director, ETHOS
Cathy Slade—YMCA Board Member, home health caregiver
Tracy Sylven—BWFH, Director, Community Health and Wellness
Josh Trautwein—Owner/CEO of The Fresh Truck
Anna Waldron—Jamaica Plain Neighborhood Development Corporation
Meghan Walsh—Development Officer, Italian Home for Children
Ron Warner, MD—Primary Care Physician, Hyde Park Community Physicians

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CONTACT US

We welcome comments and questions regarding this report. Please contact us at Brigham and Women's Faulkner Hospital Community Health and Wellness Department:

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